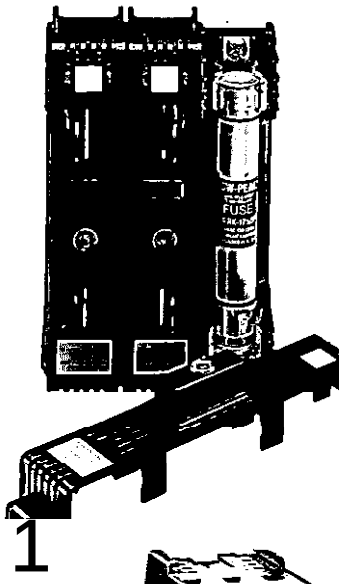
Bussmann®

Circuit Protection Solutions

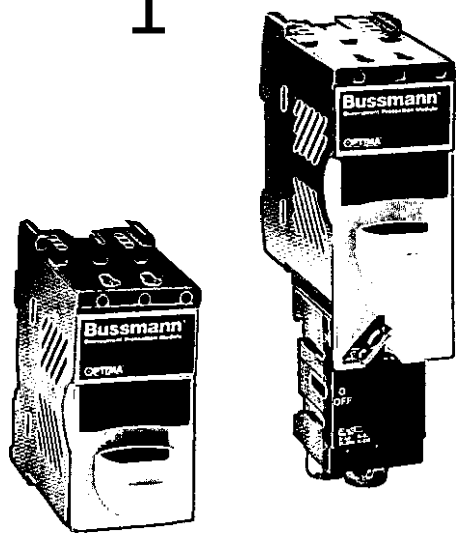
COOPER Bussmann

Bussmann®

Worldwide Circuit Protection Solutions



North America's leading supplier of fuses and fusible protection systems, Bussmann continues its 80-year history of blazing new trails of innovative technologies. Maker of the industry's first truly global product line, each item is hacked by an efficient worldwide network of distribution, customer service and technical support. Bussmann products include the most extensive circuit protection solutions approved for use in a variety of major standards: UL, CSA, IEC. . Not. to mention both European (DIN, British Standard) and North American styled fuses for a wide range of applications: industrial mot& protection, power conversion: medium voltage, power distribution, telecommimications network equipment, electronics, and automotive. Manufacturing operations in the U.S., Denmark, and the United Kingdom have earned ISO 9000 certification. Bussmann customers arc assured of onlv the utmost quality across every product: line. Knowledgeable. Responsive. Customer focused. Bussmann continues to set the standard for circuit protection solutions around the world.



This catalog is intended to present product data and provide technical information that will help the end user with design application. Bussmann reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Bussmann also reserves the right to change or update, without notice, any technical information contained in this catalog. Once a product has been selected, it should be tested by the user in all possible applications.

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Section Guide

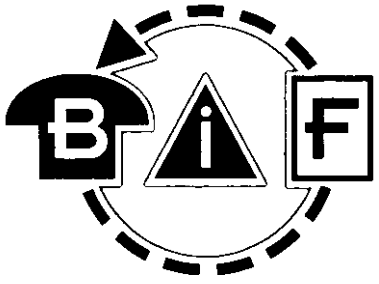

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Table of Contents

Buss Fuse Selection Chart (600 Volts or Less)

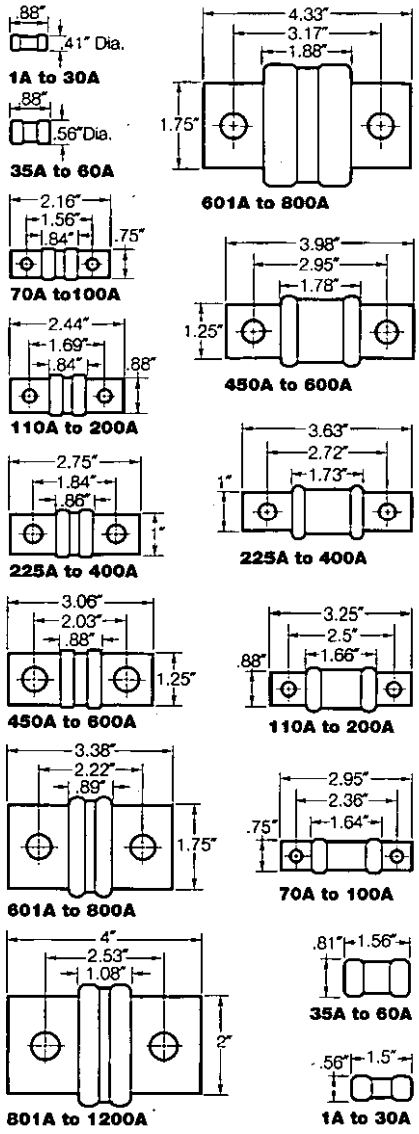
Circuit	Load	Ampere Rating	Fuse Type	Symbol	Voltage Rating (a-c)	Class	Interrupting Rating (KA)	Remarks	Page
	Conventional Dimensions—Class RK1, RK5 (0-600A), L (601-6000A)								
200,000A Interrupting Rating (rms symmetrical) Current Limiting — Main, Feeder and Branch	All type loads (optimum overcurrent protection).	0-600A	LOW-PEAK® (dual-element, time-delay)	**LPN-RK_SP** **LPS-RK_SP**	250V 600V	RK1††	300	All-purpose fuses. Unequaled for combined short-circuit and overload protection. (Specification grade product)	7-9
		601 to 6000A	LOW-PEAK® (time-delay)	**KRP-C_SP**	600V	L	300		4-5
	Motors, welder, transformers, capacitor banks (circuits with heavy inrush currents).	0 to 600A	FUSETRON® (dual-element, time-delay)	**FRN-R** **FRS-R**	250V 600V	RK5††	200	Moderate degree of current limitation. Time-delay passes surge currents.	10 11
		0 to 600A	DURA-LAG™ (dual-element, time-delay)	**DLN-R** **DLS-R**	250V 600V	RK5	200		12
		601 to 4000A	LIMITRON® (time-delay)	**KLU**	600V	L	200	All-purpose fuse. Time-delay passes surge-currents.	6
	Non-motor loads (circuits with no heavy inrush currents). LIMITRON fuses particularly suited for circuit breaker protection.	0 to 600A	LIMITRON® (fast-acting)	**KTN-R** **KTS-R**	250V 600V	RK1††	200	Same short-circuit protection as LOW-PEAK fuses but must be sized larger for circuits with surge-currents; i.e., up to 300%.	13
		601 to 6000A		**KTU**	600V	L	200	A fast acting, high performance fuse.	6
	Reduced Dimensions For Installation In Restricted Space—Class J(0-600A), T(0-1200A), CC(0-30A), Q(0-60A)								
	All type loads (optimum overcurrent protection).	0 to 600A	LOW-PEAK® (dual-element time-delay)	**LPJ_SP**	600V	J	300	All-purpose fuses. Unequaled for combined short-circuit and overload protection. (Specification grade product)	15
	Non-motor loads (circuits with no heavy inrush currents).		LIMITRON® (quick acting)	**JKS**	600V	J	200	Very similar to KTS-R LIMITRON, but smaller.	16
		0 to 1200A	T-TRON™	**JJN** **JJS**	300V 600V	T	200	The space saver (⅓ the size of KTN-R/KTS-R).	17
Branch	Motor loads (circuits with heavy in-rush currents.)	0 to 30A	LOW-PEAK® (time-delay)	**LP-CC**	600V	CC	200	Rejection feature	19
	Non-motor loads (circuits with no heavy in-rush currents.)	0 to 30A	LIMITRON® (fast-acting)	**KTK-R**	600V	CC	200	Very compact (13/32" × 1½"); rejection feature.	20
	Control transformer circuits and lighting ballasts; etc.	0 to 30A	TRON® (time-delay)	**FNQ-R**	600V	CC	200	Excellent for control transformer protection.	20
	General purpose: i.e., lighting panel boards.	0 to 60A	SC	**SC**	480V	G	100	Current limiting; 13/32" dia. × varying lengths per amp rating.	18
10,000–50,000 AIC — General Purpose (non-current limiting fuses)	Miscellaneous	0 to 600A	ONE-TIME	**NON** **NOS**	250V 600V	H or K5†	10	Forerunners of the modern	14
	Plug fuses can be used for branch circuits and small component protection.	0 to 30A	FUSTAT® (dual-element, time-delay)	**S**	125V	S	10	Base threads of Type S differ with amp ratings. T and W have Edison base.	24
			FUSETRON® (dual-element, time-delay)	**T**	125V	**	10	T & S fuses recommended for motor circuits. W not recommended for circuits with motor loads.	24
			Buss Type W	**W**	125V	**	10		

** UL Listed as Edison Base Plug Fuse.
† Some ampere ratings are available as UL Class K5 with a 50,000A interrupting rating.
†† RK1 and RK5 fuses fit standard switches, fuseblocks and holders; however, the rejection feature of class R switches and fuseblocks designed specifically for rejection type fuses (RK1 and RK5) prevent the insertion of the non-rejection fuses (K1, K5, and H).

CLASS **T**

T-Tron™ Fuses

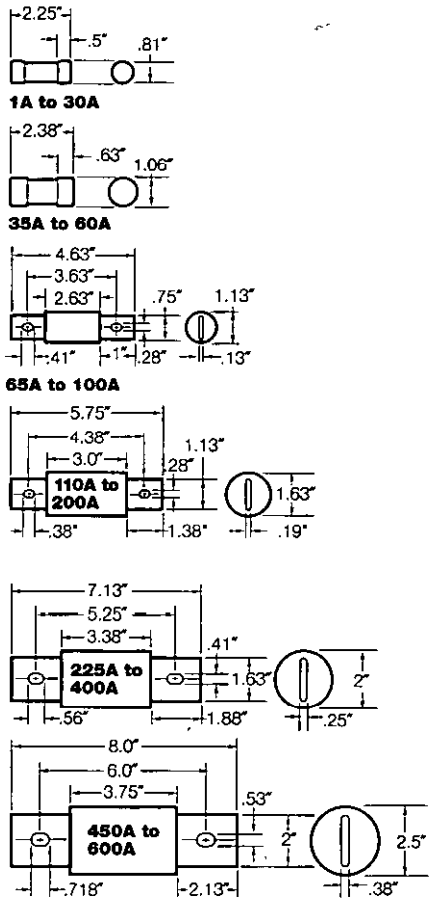
JJN **(300V)** JJS **(600V)**



CLASS **J**

Low-Peak® & Limitron® Fuses

LPJ & JKS **(600V)**



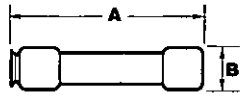
CLASS **RK5 & RK1**

Fusetron®, Low-Peak® & Limitron® Fuses (250V & 600V)

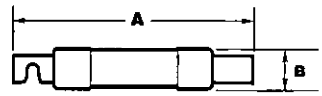
FRN-R & FRS-R; LPN-RK & LPS-RK; KTN-R & KTS-R

Basic dimensions are same as Class H (formerly NEC) ONE-TIME (NON & NOS) and SUPERLAG Renewable RES & REN fuses.

NOTE: These fuses can be used to replace existing Class H, RK1 and RK5 fuses relating to dimensional compatibility.



	250V		600V	
Ampere	**A**	**B**	**A**	**B**
1/10-30	2"	.56"	5"	.81"
35-60	3"	.81"	5.5"	1.06"



Fusetron & Limitron

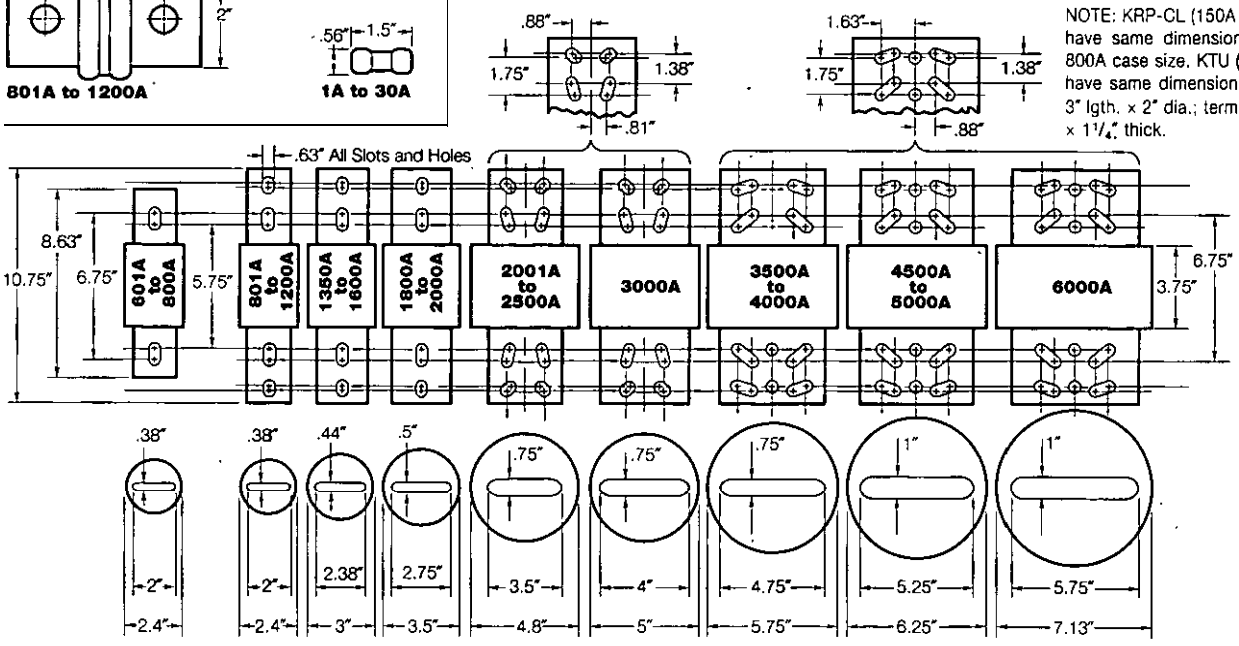
	250V		600V	
Ampere	**A**	**B**	**A**	**B**
70-100	5.88"	1.06"	7.88"	1.34"
110-200	7.13"	1.56"	9.63"	1.84"
225-400	8.63"	2.06"	11.63"	2.59"
450-600	10.38"	2.59"	13.38"	3.13"

Low-Peak

	250V		600V	
Ampere	**A**	**B**	**A**	**B**
70-100	5.88"	1.16"	7.88"	1.16"
110-200	7.13"	1.66"	9.63"	1.66"
225-400	8.63"	2.38"	11.63"	2.38"
450-600	10.38"	2.88"	13.38"	2.88"

CLASS **L** Low-Peak® & Limitron® Fuses

KRP-C, KTU, & KLU (601 - 4000A) **(600V)**

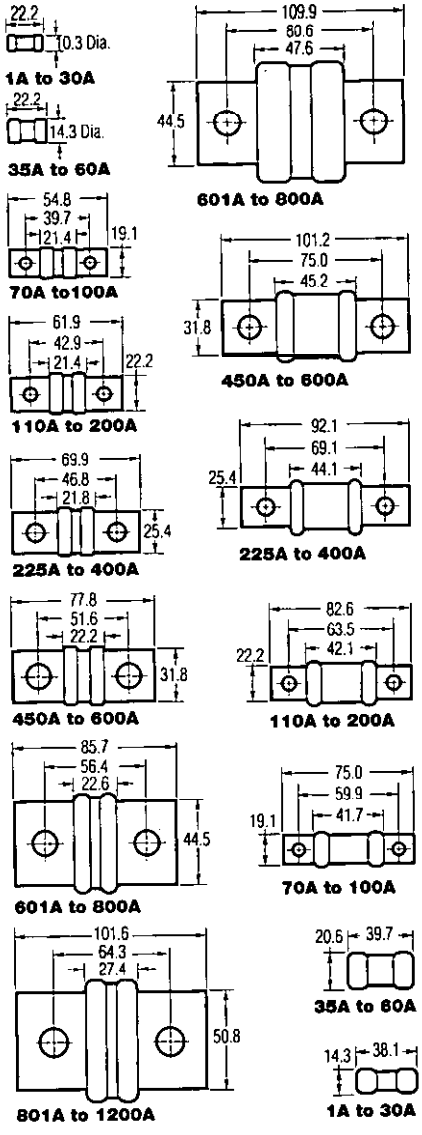


NOTE: KRP-CL (150A to 600A) fuses have same dimensions as 601A to 800A case size. KTU (200A to 600A) have same dimensions, except tube 3" lgth. x 2" dia.; terminal 15/8" width x 1 1/4" thick.

CLASS **T**

T-Tron™ Fuses

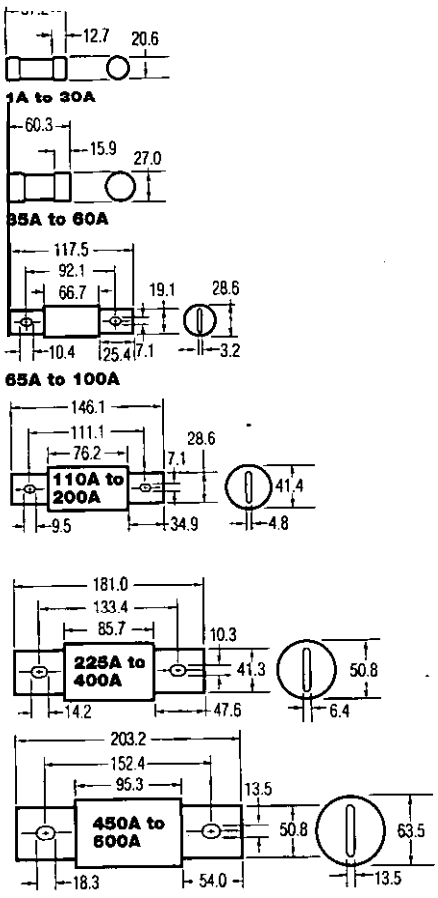
JJN **(300V)** JJS **(600V)**



CLASS J

Low-Peak® & Limitron® Fuses

LPJ & JKS **(600V)**



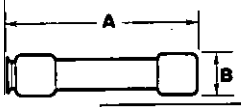
CLASS **RK5 & RK1**

Fusetron®, Low-Peak® **& Limitron®** Fuses **(250V & 600V)**

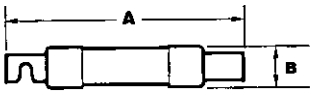
FAN-F & FRS-R; LPN-RK & LPS-RK; KTN-R & KTS-R

Basic dimensions are same as Class H (formerly NEC) ONE-TIME (NON & NOS) and SUPERLAG Renewable RES & REN fuses.

NOTE: These fuses can be used to replace existing Class H, RK1 and RK5 fuses relating to dimensional compatibility.



	250V		600V	
Ampere	**A**	**B**	**A**	**B**
1/10-30	50.8	14.3	127.0	20.6
35-60	76.2	20.6	139.7	27.0



Fusetron & Limitron

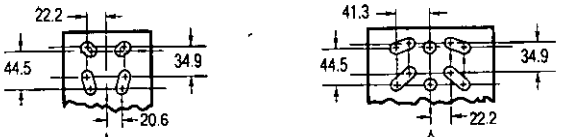
	250V		600V	
Ampere	**A**	**B**	**A**	**B**
70-100	149.2	26.9	200.0	34.0
110-200	181.0	39.6	244.5	46.7
225-400	219.1	52.3	295.3	65.8
450-600	263.5	65.8	339.7	79.5

Low-Peak

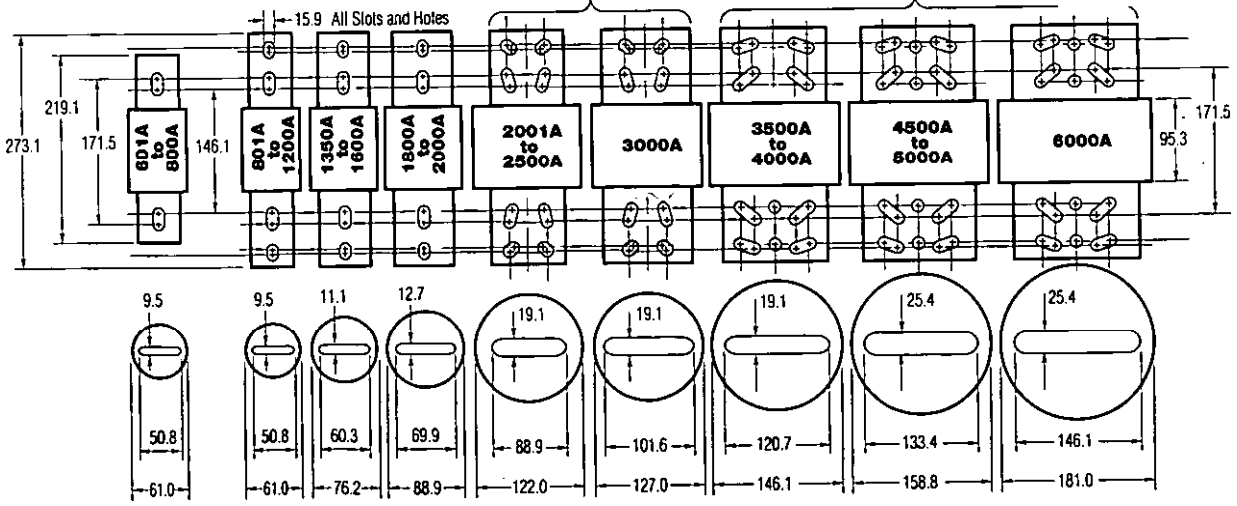
	250V		600V	
Ampere	**A**	**B**	**A**	**B**
70-100	149.2	29.5	200.0	29.5
110-200	181.0	42.2	244.5	42.2
225-400	219.1	60.5	295.3	60.5
450-600	263.5	73.2	339.7	73.2

CLASS L Low-Peak® & Limitron® Fuses

KRP-C, KTU, & KLU (601 - 4000A) **(600V)**



NOTE: KRP-CL (150A to 600A) fuses have same dimensions as 601A to 800A case size. KTU (200A to 600A) have same dimensions, except tube 76.2mm lgth. x 50.8mm dia.; terminal 41.3mm width x 31.8mm thick.



Low-Peak@ Time-Delay, Class L Fuses.

0-RING SEALS
Formation of arc gas within fuse body suppresses arcing; lowers arcing I^2t energy. O-ring seals maximize pressure build-up during current limiting action. Also volume of sand is critical. Slight loss can adversely impact on current limiting action. O-ring seals insure filler retention. They compensate to a degree for switchgear misalignment, and expansion and contraction of mounting surfaces with change in load to no-load conditions.

SAND FILLER
High grade silica-sand filler. Accelerates response of fuse to short-circuits by having quenching effect upon the fuse arc. Substantially contributes to current limiting action.

99.9% PURE SILVER FUSELINKS
Embody "silver-sand" design. 99.9% pure silver links; silica-sand filler. The high conductivity of silver gives low watt loss and low operating temperature at normal current levels; minimizes total clearing I^2t fault energy let-thru... state-of-art fuse design. High degree of current limitation holds down fault currents and levels of destructive energy. (Although other link materials can provide current limitation, they do not equal that of silver.)

KRP-C_SP

Time-Delay – 4 seconds (minimum) at 500% rated current
Ampere Ratings: 601-6000 Amps†
Voltage Rating: 600 Volts AC (or less), 300 Volts DC for 601-2000 amps.
Interrupting Rating: AC: 300,000A RMS Sym.
DC: 100,000A
Agency **Approvals:**
UL Listed-Special Purpose (meets all performance requirements of UL Standard 248-10 for Class L fuses), Guide JFHR, File E56412
CSA Certified (200,000 AIR), Class 1422-02, File 53787, Class L per CSA C22.2. No. 248.10
Dimensions: See pages 2-3 for Class L dimensional data.

- All-purpose silver linked fuse for both overload and short-circuit protection for high capacity systems (mains and large feeders).
- Time-delay (minimum of four seconds at five times amp rating) for close sizing.
- Current limiting action of the fuse generally affords considerable reduction in bus bracing.
- Interrupting rating of 300,000 amperes complies with NEC Sections 110-9 and 230-65 for today's large capacity systems.
- O-ring seas maximize pressure build-up during current limiting action and ensure filler retention.
- High grade silica-sand filler; accelerates response of fuse to short-circuits by having quenching effect upon the fuse arc.
- 99.9% pure silver fuselinks. The high conductivity of silver gives low watt loss and low operating temperature at normal current levels; minimizes total clearing I^2t fault energy let-thru.
- Selective coordination (blackout prevention)
- Glass melamine tube.
- Silver plated end bells.
- ☼ℳ≙◆ℓℓℳ□• ■□♦ necessary.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

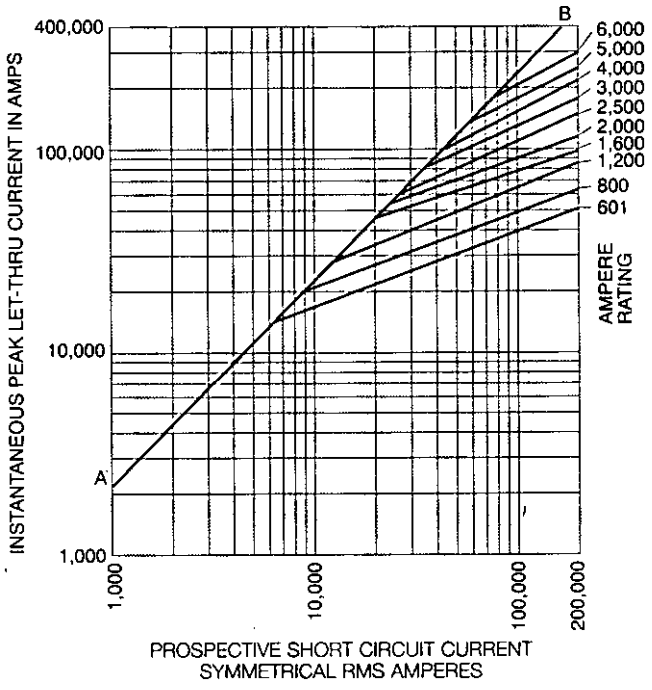
Ordering Information

Catalog Number	Ctn. Qty.	Weight** Lbs.	Weight** Kg.	Catalog Number	Ctn. Qty.	Weight** Lbs.	Weight** Kg.
KRP-C-601SP	1	3.75	1.7	KRP-C-1800SP	1	8.5	3.85
KRP-C-650SP				KRP-C-1900SP			
KRP-C-700SP				KRP-C-2000SP			
KRP-C-750SP				KRP-C-2001SP	1	17.25	7.824
KRP-C-800SP				KRP-C-2400SP			
KRP-C-801SP	1	4.5	2.041	KRP-C-2500SP	1	18.25	8.278
KRP-C-900SP				KRP-C-3000SP			
KRP-C-1000SP				KRP-C-3500SP	1	23.50	10.659
KRP-C-1100SP				KRP-C-3800SP			
KRP-C-1200SP				KRP-C-4000SP			
KRP-C-1350SP	1	6.50	2.948	KRP-C-4500SP	1	29	13.154
KRP-C-1400SP				KRP-C-5000SP			
KRP-C-1500SP				KRP-C-6000SP	1	36	16.329
KRP-C-1600SP							

*Special purpose rating of 300,000 AIR.
**Weight per carton.
†Use KRP-CL for current ratings below 601 Amps.

BIF document: 1008 and 1009

Current Limitation Curves-KRP-C

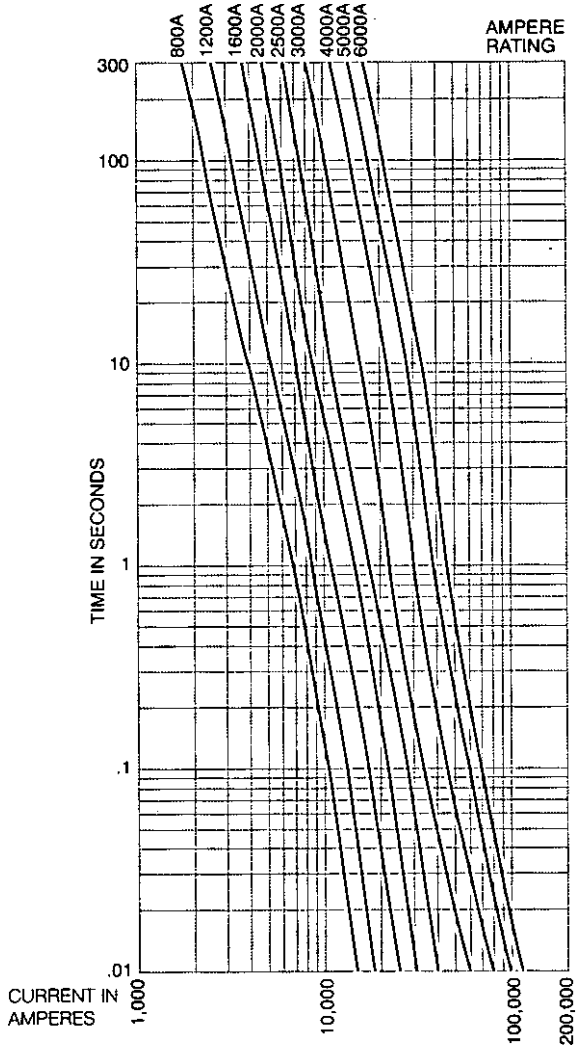


Recommended Fuseblocks for Class L: (601–1200 Amps)

Catalog Number	Poles
51215	1
51235	3

Use KRP-CL for current ratings below 601 Amps.

Time-Current Characteristic Curves-Average Melt KRP-C



KRP-CL

Current Limiting, Time-Delay

Construction: Glass Melamine Tube

Ampere Ratings: 150-600 Amps.

Voltage Rating: 600 Volts AC (or *less)*

These fuses have the same performance characteristics as KRP-C fuses. They are used in applications where there is a need for Class L dimension fuses with 150-600 ampere ratings. KRP-CL fuses have the same dimensions as 800 ampere Class L fuses.

Dimensions: See pages 2-3 for Class L dimensional data.

Ordering Information

Catalog Number (Symbol & Amps)		
KRP-CL-150	KRP-CL-300	KRP-CL-500
KRP-CL-200	KRP-CL-350	KRP-CL-600
KRP-CL-225	KRP-CL-400	
KRP-CL-250	KRP-CL-450	

Weight of each is 3.75 lbs.

Limitron® Class L Fuses

KTU

Fast Acting, Bolt Mount
Ampere **Ratings:** 601-6000 Amps.
Voltage Rating: 600 Volts AC (or less)
Interrupting Rating: 200,000 RMS Sym.
Agency Approvals: Std. 248-10, Class L
UL Listed, Guide JDDZ, File E4273
CSA Certified, Class 1422-02, File 53787
Dimensions: See pages 2-3 for Class L dimensional data,

Ordering Information

Catalog Number	Ctn. Qty.	Weight** Lbs.	Weight** Kg.	Catalog Number	Ctn. Qty.	Weight** Lbs.	Weight** Kg.
KTU-601	1	3.75	1.70	KTU-1800	1	8.5	3.855
KTU-650				KTU-2000			
KTU-700				KTU-2400	1	17	7.711
KTU-750				KTU-2500			
KTU-800				KTU-3000	1	17.25	7.824
KTU-801	1	4.25	1.927	KTU-3001	1	24	10.886
KTU-900				KTU-4000			
KTU-1100				KTU-4500	1	31	14.061
KTU-1200				KTU-5000			
KTU-1350	1	6	2.721	KTU-6000	1	34	15.422
KTU-1400							
KTU-1500							
KTU-1600							

**Weight per carton.

- For protection of circuit breakers with lower interrupting ratings and non-inductive loads such as lighting and heating circuits.
- 99.9% pure silver-links.
- Reducers not necessary.

Recommended **Fuseblocks for** Class L: **(601–1200 Amps)**

Catalog Number	Poles
51215	1
51235	3

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BIF document: 1010

KLU

Time-Delay – 5 seconds (minimum) at 500% rated current
Bolt Mount
Ampere Ratings: 601-4000 Amps.
Voltage Rating: 600 Volts AC (or less)
Interrupting Rating: 200,000A ***RMS Sym.***
Agency Approvals: Std. 248-I 0, Class L
UL Listed, Guide JDDZ, File E4273
CSA Certified. CSA Class 1422-02, File 53787
Dimensions: See pages 2-3 for Class L dimensional data.

Ordering Information

Catalog Number	Ctn. Qty.	Weight** Lbs.	Weight** Kg.	Catalog Number	Ctn. Qty.	Weight** Lbs.	Weight** Kg.
KLU-601	1	3.75	1.70	KLU-1800	1	8.50	3.86
KLU-650				KLU-2000			
KLU-700				KLU-2500			
KLU-800				KLU-3000			
KLU-1000	1	4.25	1.93	KLU-4000			
KLU-1200							
KLU-1500	1	6.00	2.72				
KLU-1600							

**Weight per carton.

- KLU Limitron® general purpose copper link fuses.
- Current limiting—provides component short-circuit protection.
- Fuse reducers not necessary.
- See KRP-CL for current ratings below 601 Amps.

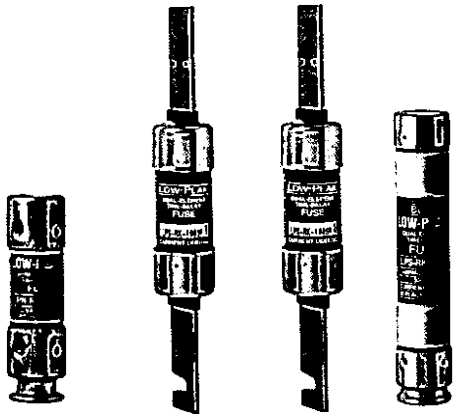
Recommended Fuseblocks: **(601–1200 Amps)**

Catalog Number	Poles
51215	1
51235	3

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 1013

Low-Peak@ Dual-Element, Time-Delay, Class **RK1** Fuses



LPN-RK_SP (250V)
LPS-RK_SP (600V)

Dual-Element, Time-Delay – 10 seconds (minimum) at 500% rated current (8 seconds for 0-30A sizes)
Ampere Ratings: 1/10-600 Amps.
Voltage Rating: LPN-RK: 250 Volts AC (or less). 125 Volts DC (1/10-60 A); 250 VDC (70-600 A)
LPS-RK: 600 Volts AC (or less), 300 Volts DC
Current Limiting **RK1** Fuse
Interrupting **Rating:** 300,000A RMS Sym. (50,000A @ 300V DC)
Agency Approvals:
UL Listed – Special Purpose", Guide JFHR, File E56412
CSA Certified (200,000 AIR), Class RK1 per CSA C22.2, No. 248.12. Class 1422-02, File 53787
Dimensions: See pages 2-3 for Class RK1 dimensional data.

- Current limitation for maximum short-circuit protection. High speed of response is highly sensitive to fault currents, but insensitive to starting current and transient surges.
- Provides long time-delay for temporary motor start-up.
- Time-delay permits 125% FLA sizing for back-up, motor running protection.

Catalog Numbers (250V AC/125V DC)

LPN-RK-1/10SP	LPN-RK-3½SP	LPN-RK-60SP
LPN-RK-15/100SP	LPN-RK-4SP	LPN-RK-70SP
LPN-RK-2/10SP	LPN-RK-4½SP	LPN-RK-80SP
LPN-RK-3/10SP	LPN-RK-5SP	LPN-RK-90SP
LPN-RK-4/10SP	LPN-RK-5 9/10SP	LPN-RK-100SP
LPN-RK-½SP	LPN-RK-6SP	LPN-RK-110SP
LPN-RK-6/10SP	LPN-RK-6¼SP	LPN-RK-125SP
LPN-RK-8/10SP	LPN-RK-8SP	LPN-RK-150SP
LPN-RK-1SP	LPN-RK-9SP	LPN-RK-175SP
LPN-RK-1⅛SP	LPN-RK-10SP	LPN-RK-200SP
LPN-RK-1¼SP	LPN-RK-12SP	LPN-RK-225SP
LPN-RK-1 4/10SP	LPN-RK-15SP	LPN-RK-250SP
LPN-RK-1 6/10SP	LPN-RK-17½SP	LPN-RK-300SP
LPN-RK-1 8/10SP	LPN-RK-20SP	LPN-RK-350SP
LPN-RK-2SP	LPN-RK-25SP	LPN-RK-400SP
LPN-RK-2¼SP	LPN-RK-30SP	LPN-RK-450SP
LPN-RK-2½SP	LPN-RK-35SP	LPN-RK-500SP
LPN-RK-2 8/10SP	LPN-RK-40SP	LPN-RK-600SP
LPN-RK-3SP	LPN-RK-45SP	
LPN-RK-3 2/10SP	LPN-RK-50SP	

**Meets all performance requirements of UL Standard 248-12 for Class RK1 fuses.
0-60 Amp fuses available with Albaloy plate option.
70-600 Amp fuses available with Tin plate option.

Catalog Numbers (600V AC/300V DC)

LPS-RK-1/10SP	LPS-RK-2½SP	LPS-RK-12SP	LPS-RK-110SP
LPS-RK-2/10SP	LPS-RK-2 8/10SP	LPS-RK-15SP	LPS-RK-125SP
LPS-RK-3/10SP	LPS-RK-3SP	LPS-RK-17½SP	LPS-RK-150SP
LPS-RK-4/10SP	LPS-RK-3 2/10SP	LPS-RK-20SP	LPS-RK-175SP
LPS-RK-½SP	LPS-RK-3½SP	LPS-RK-25SP	LPS-RK-200SP
LPS-RK-6/10SP	LPS-RK-4SP	LPS-RK-30SP	LPS-RK-225SP
LPS-RK-8/10SP	LPS-RK-4½SP	LPS-RK-35SP	LPS-RK-250SP
LPS-RK-1SP	LPS-RK-5SP	LPS-RK-40SP	LPS-RK-300SP
LPS-RK-1⅛SP	LPS-RK-5 9/10SP	LPS-RK-45SP	LPS-RK-350SP
LPS-RK-1¼SP	LPS-RK-6SP	LPS-RK-50SP	LPS-RK-400SP
LPS-RK-1 4/10SP	LPS-RK-6¼SP	LPS-RK-60SP	LPS-RK-450SP
LPS-RK-1½SP	LPS-RK-7SP	LPS-RK-70SP	LPS-RK-500SP
LPS-RK-1 8/10SP	LPS-RK-8SP	LPS-RK-80SP	LPS-RK-600SP
LPS-RK-1 8/10SP	LPS-RK-9SP	LPS-RK-90SP	
LPS-RK-2¼SP	LPS-RK-10SP	LPS-RK-100SP	

**Meets all performance requirements of UL Standard 248-12 for Class RK1 fuses.

Carton Quantity and Weight

LPN-RK (250 Volts AC)				LPS-RK (600 Volts AC)		
Ampere Ratings	Carton Qty.	Weight* Lbs.	Weight* Kg	Carton Qty.	Weight* Lbs.	Weight* Kg
0-30	10	0.5	0.227	10	1.6	0.725
35-60	10	1.2	0.544	10	2.6	1.178
70-100	5	1.5	0.680	5	4.0	1.814
110-200	1	0.69	0.313	1	2.0	0.906
225-400	1	1.75	0.793	1	4.6	2.086
450-600	1	3.25	1.474	1	5.6	2.540

*Weight per carton.

CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

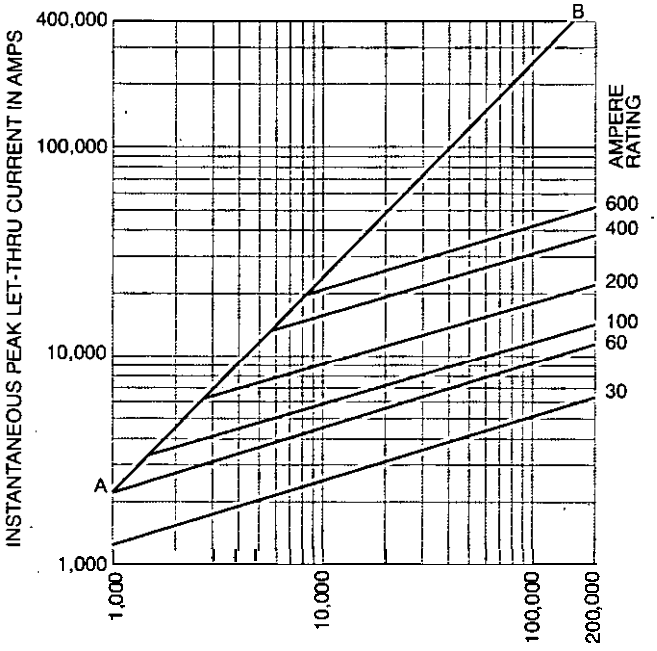
Low-Peak@' Dual-Element, Time-Delay, Class **RK1** Fuses

Recommended **Fuseblocks for** Class **RK1 fuses**

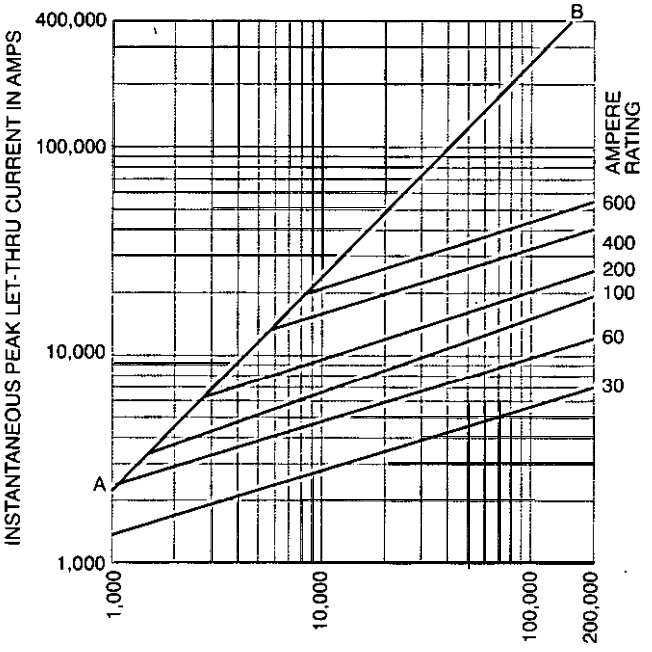
Amps	Poles	Catalog Number (250V)	Catalog Number (600V)	Terminal Type/Suffix NO., Screw w/ —	Screw w/ Pres. Plate	Box Lug w/ —	Box Lug w/ Clip CU only	¼" Quick-Connect
1/10	1	R25030-1	R60030-1	SR	PR	CR	COR	QR**
to	2	R25030-2	R60030-2	SR	PR	CR	COR	QR**
30	3	R25030-3	R60030-3	SR	PR	CR	COR	QR**
1	1	R25060-1	R60060-1	SR*	PR	CR	COR	—
to	2	R25060-2	R60060-2	SR*	PR	CR	COR	—
60	3	R25060-3	R60060-3	SR*	PR	CR	COR	—
61	1	R25100-1	R60100-1	—	—	CR	COR	—
to	2	R25100-2	R60100-2	—	—	CR	COR	—
100	3	R25100-3	R60100-3	—	—	CR	COR	—
to 200	1	R25200-1	R60200-1	—	—	CR	COR	—
		R25200-3	R60200-3	—	—	CR	—	—
to 400	1	R25400-1	R60400-1	—	—	CR'	COR*	—
		R25400-3	R60400-3	—	—	CR	—	—
to 600	1	R25600-1	R60600-1	—	—	CR	—	—
		R25600-3	R60600-3	—	—	CR	—	—

*UL Recognized, No CSA Certification.
**Quick connect not available on 600V blocks.

Current Limitation **Curves—LPN-RK (250V)**



Current Limitation **Curves—LPS-RK (600V)**

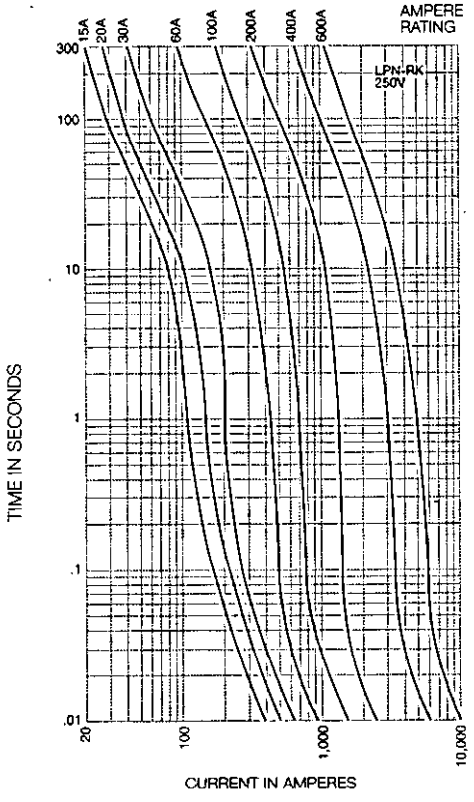


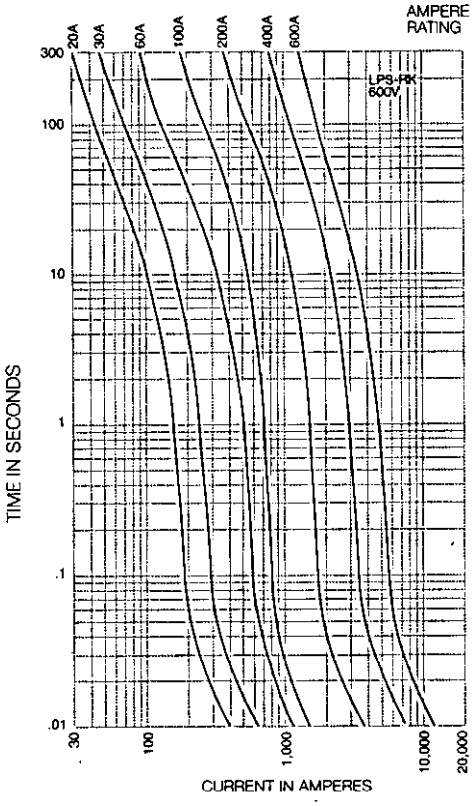
BIF document: (LPN-RK) 1003 (0-60) & 1004 (70-600), 1110 (Fuseblock)

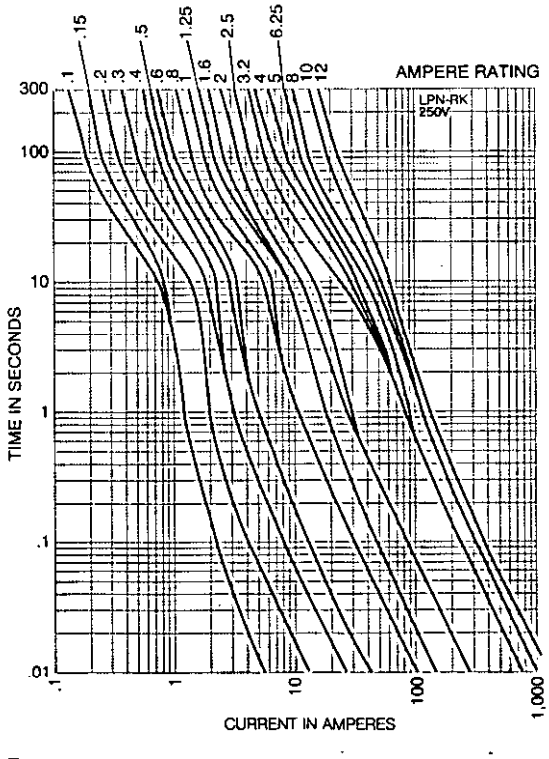
BIF document: (LPS-RK) 1001 (0-60) & 1002 (70-600), 1111 (600V Fuseblock)

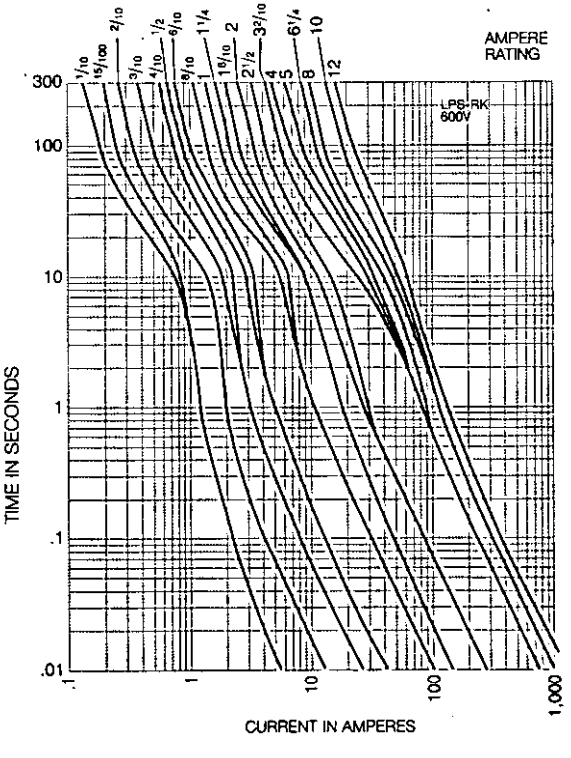
Low-Peak@ Dual-Element, Time-Delay, Class RK1 Fuses

Time-Current Characteristic Curves-Average Melt





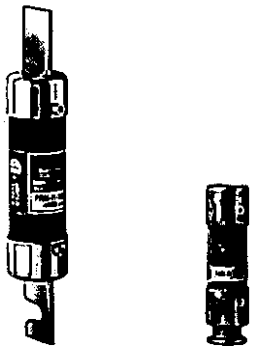




BIF document: (LPN-RK) 1003 (0-60) & 1004 (70-600)

BIF document: (LPS-RK) 1001 (0-60) & 1002 (70-600)

Fusetron® Dual-Element, Time-Delay, Class RK5 Fuses



FRN-R (250V)

Dual-Element, **Time-Delay** – 10 seconds (minimum) at 500% rated current

Ampere Ratings: 1/10-600 Amps.

Voltage Rating: 250 Volts AC (or less), 125 Volts DC

Current Limiting RK5 Fuse

Interrupting Rating: 200,000A RMS Sym. (20,000A @ 125V DC)

Agency Approvals: Std. 246-12, Class RK5

UL Listed, Guide JDDZ, File E4273

CSA Certified, Class 1422-01, File 53767

Dimensions: See pages 2-3 for Class RK5 dimensional data.

Catalog Numbers (250V AC/125V DC)

FRN-R-1/10	FRN-R-2	FRN-R-10	FRN-R-100
FRN-R-1/8	FRN-R-2 1/4	FRN-R-12	FRN-R-110
FRN-R-15/100	FRN-R-2 1/2	FRN-R-15	FRN-R-125
FRN-R-2/10	FRN-R-2 8/10	FRN-R-17 1/2	FRN-R-150
FRN-R-1/4	FRN-R-3	FRN-R-20	FRN-R-175
FRN-R-3/10	FRN-R-3 2/10	FRN-R-25	FRN-R-200
FRN-R-4/10	FRN-R-3 1/2	FRN-R-30	FRN-R-225
FRN-R-1/2	FRN-R-4	FRN-R-35	FRN-R-250
FRN-R-5/10	FRN-R-4 1/2	FRN-R-40	FRN-R-300
FRN-R-6/10	FRN-R-5	FRN-R-45	FRN-R-350
FRN-R-1	FRN-R-5 6/10	FRN-R-50	FRN-R-400
FRN-R-1 1/8	FRN-R-6	FRN-R-60	FRN-R-450
FRN-R-1 1/4	FRN-R-6 1/4	FRN-R-70	FRN-R-500
FRN-R-1 4/10	FRN-R-7	FRN-R-75	FRN-R-600
FRN-R-1 1/2	FRN-R-7 1/2	FRN-R-80	
FRN-R-1 6/10	FRN-R-8	FRN-R-85	
FRN-R-1 8/10	FRN-R-9	FRN-R-90	

Carton Quantity and Weight

Ampere Ratings	Carton Qty.	Weight* Lbs.	Weight* Kg.
0-15	10	0.40	0.181
17.5-30	10	.50	0.227
35-60	10	1.00	0.453
70-100	5	1.5	0.680
101-200	1	0.77	0.349
201-400	1	1.52	0.689
401-600	1	2.94	1.334

*Weight per carton.

- Provides motor overload, ground fault and short-circuit protection.
- Helps protect motors against burnout from overloads.
- Helps protect motors against burnout from single phasing on three phase systems.
- Simplifies and improves blackout prevention (selective coordination).

Fuse Reducers For Class R Fuses

Equipment Fuse Clips	Desired Fuse (Case) Size	Catalog Number (Pairs) 250V
60A	30A	No. 263-R
100A	30A	No. 213-R
	60A	No. 216-R
200A	60A	No. 226-R
	100A	No. 2621-R
400A	100A	No. 2641-R
	200A	No. 242-R
600A	100A	No. 2661-R
	200A	No. 2662-R
	400A	No. 2664-R*

*Single reducer only (pair not required).

Fuseblocks for Class R 250V Fuses

(Clip Retaining Spring Standard, Suffix "R")

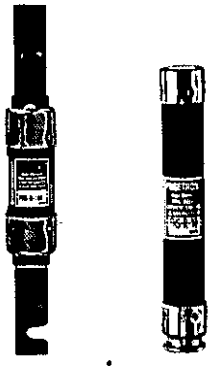
Amps	Poles	Basic Catalog Number	Terminal Type (Suffix No.) Screw w/ —	Screw w/ Pres. Plate	Box Lug w/ —	Box Lug w/ Clip CU only	1/4" Quick-Connect
1/10	1	R25030-1	SR	PR	CR	COR	QR
to	2	R25030-2	SR	PR	CR	COR	QR
30	3	R25030-3	SR	PR	CR	COR	QR
31	1	R25060-1	SR	—	CR	COR	—
to	2	R25060-2	SR	—	CR	COR	—
60	3	R25060-3	SR	—	CR	COR	—
70	1	R25100-1	—	—	CR	COR	—
to	2	R25100-2	—	—	CR	COR	—
100	3	R25100-3	—	—	CR	COR	—
to 200	1	R25200-1	—	—	CR	—	—
	3	R25200-3	—	—	CR	—	—
to 400	1	R25400-1	—	—	CR	—	—
	3	R25400-3	—	—	CR	—	—
to 600	1	R25600-1	—	—	CR	—	—
	3	R25600-3	—	—	CR	—	—

Time-Current and Current Limitation Curves located on page 203.

CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 1019 (0-60), 1020 (70-600) & 1110 (Fuseblock)

Fusetron® Dual-Element, Time-Delay, Class RK5 Fuses



FRS-R (600V)

Dual-Element, Time-Delay – 10 seconds (minimum) at 500% rated current

Ampere Ratings: 1/10-600 Amps.

Voltage Rating: 600 Volts AC (or less), 300 Volts DC

Current Limiting RK5 Fuse

Interrupting Rating: 200,000A RMS Sym. (20,000A @ 300V DC)

Agency Approvals: Std. 248-12, Class RK5
UL Listed, Guide JDDZ, File E4273
CSA Certified, Class 1422-02, File 53787

Dimensions: See pages 2-3 for Class RK5 dimensional data.

Catalog Numbers (600V AC/ 300V DC)

FRS-R-1/10	FRS-R-2	FRS-R-10	FRS-R-100
FRS-R-1/8	FRS-R-2 1/4	FRS-R-12	FRS-R-110
FRS-R-15/100	FRS-R-2 1/2	FRS-R-15	FRS-R-125
FRS-R-2/10	FRS-R-2 8/10	FRS-R-17 1/2	FRS-R-150
FRS-R-1/4	FRS-R-3	FRS-R-20	FRS-R-175
FRS-R-3/10	FRS-R-3 2/10	FRS-R-25	FRS-R-200
FRS-R-4/10	FRS-R-3 1/2	FRS-R-30	FRS-R-225
FRS-R-1/2	FRS-R-4	FRS-R-35	FRS-R-250
FRS-R-6/10	FRS-R-4 1/2	FRS-R-40	FRS-R-275
FRS-R-8/10	FRS-R-5	FRS-R-45	FRS-R-300
FRS-R-1	FRS-R-5 5/10	FRS-R-50	FRS-R-325
FRS-R-1 1/4	FRS-R-6	FRS-R-60	FRS-R-350
FRS-R-1 1/4	FRS-R-6 1/4	FRS-R-70	FRS-R-400
FRS-R-1 4/10	FRS-R-7	FRS-R-75	FRS-R-450
FRS-R-1 1/2	FRS-R-7 1/2	FRS-R-80	FRS-R-500
FRS-R-1 8/10	FRS-R-8	FRS-R-85	FRS-R-600
FRS-R-1 9/10	FRS-R-9	FRS-R-90	

Carton Quantity and Weight

Ampere Ratings	Carton Qty.	Weight* Lbs.	Kg.
0-15	10	0.40	0.181
17.5-30	10	0.50	0.227
35-60	10	3.10	1.406
65-100	1	0.54	0.245
101-200	1	1.22	0.544
201-400	1	3.00	1.359
401-600	1	5.00	2.268

*Weight per carton.

Fuse Reducers For Class R Fuses

Equipment Fuse Clips	Desired Fuse (Case) Size	Catalog Number (Pairs) 600V
60A	30A	No. 663-R
100A	30A	No. 216-R
	60A	No. 616-R
200A	60A	No. 626-R
	100A	No. 2621-R
400A	100A	No. 2641-R
	200A	No. 642-R
600A	100A	No. 2661-R
	200A	No. 2662-R
	400A	No. 2664-R*

*Single reducer only (pair not required).

Fuseblocks for Class R 600V Fuses

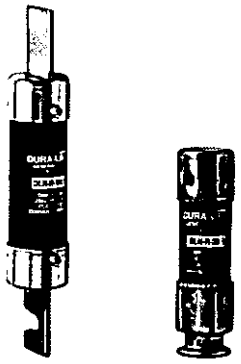
(Clip Retaining Spring Standard, Suffix "R")

Amps	Poles	Basic Catalog Number	Terminal Type (Suffix No.) Screw w/ —	Screw w/ Pres. Plate	Box Lug w/ —	Box Lug w/ Clip CU only
1/10	1	R60030-1	SR	PR	CR	COR
to	2	R60030-2	SR	PR	CR	COR
30	3	R60030-3	SR	PR	CR	COR
31	1	R60060-1	SR	—	CR	COR
to	2	R60060-2	SR	—	CR	COR
60	3	R60060-3	SR	—	CR	COR
65	1	R60100-1	—	—	CR	COR
to	2	R60100-2	—	—	CR	COR
100	3	R60100-3	—	—	CR	COR
to 200	1	R60200-1	—	—	CR	—
		R60200-3	—	—	CR	—
to 400	1	R60400-1			CR	—
		R60400-3	—	—	CR	—
to 600	1	R60600-1	—	—	CR	—
		R60600-3	—	—	CR	—

Time-Current and Current Limitation Curves located on page 204.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Dura-Lag™ Dual-Element, Time-Delay, Class RK5 Fuses



DLN-R (250V)

Dual-Element, Time-Delay - 10 seconds (minimum) at 500% rated current
Ampere Ratings: l-600 Amps.
Voltage Rating: 250 Volts AC (or less), 125V DC
Current Llmiting **RK5** Fuses
Interrupting Rating: 200,000A RMS Sym.
(20,000A @125V DC)
Agency Approvals: Std. 248-12, Class RK5
UL Listed, Guide JDDZ, File E4273
CSA C22.2, No. 106-HRCI-R, File 53767
Dimensions: See pages 2-3 for Class RK5 dimensional data.

Catalog Numbers (250V AC/125V DC)

DLN-R-1	DLN-R-15	DLN-R-100
DLN-R-2	DLN-R-20	DLN-R-125
DLN-R-2½	DLN-R-25	DLN-R-150
DLN-R-3	DLN-R-30	DLN-R-175
DLN-R-3⁹/₁₀	DLN-R-35	DLN-R-200
DLN-R-4	DLN-R-40	DLN-R-225
DLN-R-5	DLN-R-45	DLN-R-250
DLN-R-6	DLN-R-50	DLN-R-300
DLN-R-6¼	DLN-R-60	DLN-R-400
DLN-R-8	DLN-R-70	DLN-R-600
DLN-R-10	DLN-R-80	

Carton Quantity and Weight

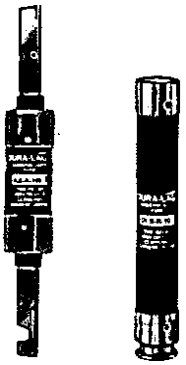
Ampere Ratings	Carton Qty.	Weight* Lbs.	Weight* Kg.
¹/₁₀-30	10	0.56	0.252
35-60	10	1.38	0.621
70-100	5	1.56	0.702
110-200	1	0.90	0.405
225-400	1	1.80	0.810
450-600	1	3.30	1.485

*Weight per carton.

Recommended Fuseblocks for Class R 250V Fuses—See pages 66-67.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 1021 (0-600)



DLS-R (600V)

Dual-Element, Time-Delay - 10 seconds (minimum) at 500% rated current
Ampere Ratings: l-600 Amps.
Voltage **Rating:** 600 Volts AC (or less), 300V DC
Current Limiting RK5 Fuses
Interrupting Rating: 200,000A RMS Sym.,
(20,000A @ 300V DC)
Agency Approvals: Std. 248-12, Class RK5
UL Listed, Guide JDDZ, File E4273
CSA C22.2, No. 106-HRCI-R
Dimensions: See pages 2-3 for Class RK5 dimensional data.

Catalog Numbers (600V AC/300V DC)

DLS-R-1	DLS-R-12	DLS-R-100
DLS-R-1⁹/₁₀	DLS-R-15	DLS-R-110
DLS-R-2	DLS-R-17½	DLS-R-125
DLS-R-2½	DLS-R-20	DLS-R-150
DLS-R-3	DLS-R-25	DLS-R-175
DLS-R-3½	DLS-R-30	DLS-R-200
DLS-R-4	DLS-R-35	DLS-R-225
DLS-R-5	DLS-R-40	DLS-R-250
DLS-R-6	DLS-R-45	DLS-R-300
DLS-R-6¼	DLS-R-50	DLS-R-350
DLS-R-7	DLS-R-60	DLS-R-400
DLS-R-8	DLS-R-70	DLS-R-500
DLS-R-9	DLS-R-80	DLS-R-600
DLS-R-10	DLS-R-90	

Carton Quantity and Weight

Ampere Ratings	Carton Qty.	Weight* Lbs.	Weight* Kg.
¹/₁₀-30	10	1.62	0.729
35-60	10	3.00	1.35
70-100	5	3.00	1.35
110-200	1	1.41	0.635
225-400	1	3.13	1.409
450-600	1	5.28	2.376

*Weight per carton.

Recommended Fuseblocks for Class R 600V Fuses-%? pages 68-69.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 1022 (0-600)

Limitron® Fast Acting, Class **RK1** Fuses

KTN-R **(250V)**

Fast Acting
Ampere Ratings: I-600 Amps.
Voltage **Rating:** 250 Volts AC (or less).
Current Limiting **RK1** Fuse (curves on page 205)
Interrupting Rating: 200,000A RMS Sym.
Agency Approvals: Std. 248-12, Class RK1
UL Listed, Guide JDDZ, File E54273
CSA Certified, Class 1422-02, File 53787.
Dimensions: See pages 2-3 for Class RK1 dimensional data.

Catalog Numbers (250V AC)

KTN-R-1	KTN-R-30	KTN-R-125
KTN-R-2	KTN-R-35	KTN-R-150
KTN-R-3	KTN-R-40	KTN-R-175
KTN-R-4	KTN-R-45	KTN-R-200
KTN-R-5	KTN-R-50	KTN-R-225
KTN-R-6	KTN-R-60	KTN-R-250
KTN-R-8	KTN-R-70	KTN-R-300
KTN-R-10	KTN-R-75	KTN-R-350
KTN-R-12	KTN-R-80	KTN-R-400
KTN-R-15	KTN-R-90	KTN-R-450
KTN-R-20	KTN-R-100	KTN-R-500
KTN-R-25	KTN-R-110	KTN-R-600

Carton Quantity and Weight

Ampere Ratings	Carton Qty.	Weight* Lbs.	Kg.
1-30	10	.45	0.204
40-60	10	1.82	0.824
70-100	5	1.85	0.838
110-200	1	1.05	0.476
225-400	1	2.38	1.078
450-600	1	3.50	1.587

*Weight per carton.

Recommended Fuseblocks for Class R 250V Fuses—
See pages 66-67.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

KTS-R (600V)

Fast **Acting**
Ampere **Ratings:** I-600 Amps.
Voltage Rating: 600 Volts AC (or less).
Current Limiting **RK1** Fuse (curves on page 206)
Interrupting Rating: 200,000A RMS Sym.
Agency Approvals: Std. 248-12, Class RK1
UL Listed, Guide JDDZ, File E54273
CSA Certified. Class 1422-02, File 53787
Dimensions: See pages 2-3 for Class RK1 dimensional data,

Catalog Numbers (600V AC)

KTS-R-1	KTS-R-30	KTS-R-125
KTS-R-2	KTS-R-35	KTS-R-150
KTS-R-3	KTS-R-40	KTS-R-175
KTS-R-4	KTS-R-45	KTS-R-200
KTS-R-5	KTS-R-50	KTS-R-225
KTS-R-6	KTS-R-60	KTS-R-250
KTS-R-8	KTS-R-70	KTS-R-300
KTS-R-10	KTS-R-75	KTS-R-350
KTS-R-12	KTS-R-80	KTS-R-400
KTS-R-15	KTS-R-90	KTS-R-450
KTS-R-20	KTS-R-100	KTS-R-500
KTS-R-25	KTS-R-110	KTS-R-600

Carton Quantity and Weight

Ampere Ratings	Carton Qty.	Weight* Lbs.	Kg.
1-30	10	1.45	0.657
40-60	10	2.63	1.262
70-100	1	0.5	0.226
110-200	1	1.4	0.634
225-400	1	2.75	1.246
450-600	1	4.25	1.925

*Weight per carton.

Recommended Fuseblocks for Class R 600V fuses—
See pages 68-69.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

One-Time General Purpose Fuses

NON and NOS

General Purpose Application
Non-Current Limiting
Ampere Ratings: 1/8-600 Amps.
Voltage Rating: NON: 250 Volts AC, 125 Volts DC (0-100A); NOS: 600 Volts AC
Interrupting Rating: 50,000A RMS ***Sym.*** (1-60A), 10,000A RMS Sym. (65-600A)
10,000A @ 125V DC (NON 0-100A)
Agency Approvals:
UL Listed – 250V: Class K5 (0-60A), Std. 248-9
Class H (65-600A), Std. 248-6
600V: Class K5 (0-60A), Std. 248-9
Class H (70-600A,) Std. 248-6
Guide JDDZ, File E4273
CSA Certified – 250V: (O-12, 65-600)
600V: (o-600)
Class 1421-01, File 53787
Dimensions: See pages 2-3 for dimensional data under Class RK5/RK1

Catalog Numbers (250V AC)

NON-1/8	NON-5	NON-40	NON-175
NON-1/2	NON-6	NON-45	NON-200
NON-3/4	NON-6 1/4	NON-50	NON-225
NON-9/10	NON-7	NON-60	NON-250
NON-1	NON-8	NON-65	NON-300
NON-1 1/4	NON-9	NON-70	NON-350
NON-1 1/2	NON-10	NON-75	NON-400
NON-1 9/10	NON-12	NON-80	NON-450
NON-2	NON-15	NON-90	NON-500
NON-2 1/2	NON-20	NON-100	NON-600
NON-3	NON-25	NON-110	—
NON-3 9/10	NON-30	NON-125	—
NON-4	NON-35	NON-150	—

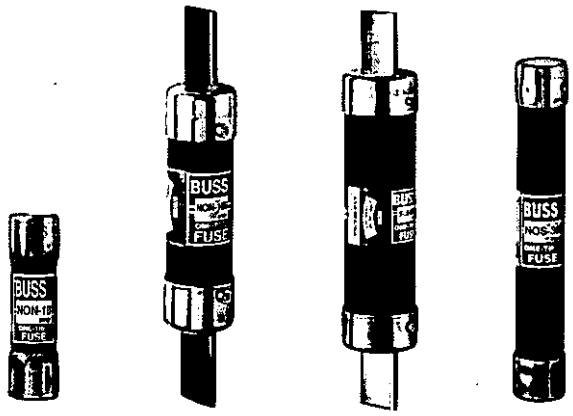
Carton Quantity and Weight

Ampere Ratings	Carton Qty.	Weight* Lbs.	Kg.
NON 1/8-30	10	0.38	0.172
NON 35-60	10	1.00	0.453
NON 65-100	5	0.79	0.358
NON 110-200	1	0.79	0.358
NON 225-400	1	1.65	0.748
NON 450-600	1	2.76	1.25

*Weight per carton.

Catalog Symbol & Current Ratings

Symbol	Rating	Class	Volt	IR
NON	0-60	K5	250AC	50,000
	70-600	H	250AC	10,000
	0-100	H	125DC	10,000
NOS	0-60	K5	600	50,000
	70-600	H	600	10,000



Recommended Fuse Reducers

250 Volt

Clip Size	Fuse Size	Cat. No. (Pair)	Weight Carton* (lbs)
60A	30A	No. 263	0.38
100A	30A	No. 213	1.73
100A	60A	No. 216	1.73
200A	60A	No. 226	3.00
200A	100A	No. 2621	1.63
400A	100	No. 2641	4.90
400A	200A	No. 2642	3.50
600A	100A	No. 2661	8.70
600A	200A	No. 2662	6.85
600A	400A	No. 2664	4.45

600 Volt

Clip Size	Fuse Size	Cat. No. (Pair)	Weight Carton* (lbs)
60A	30A	No. 663	1.00
100A	30A	No. 216	1.73
100A	60A	No. 616	1.85
200A	60A	No. 626	3.33
200A	100A	No. 2621	1.63
400A	100	No. 2641	4.90
400A	200A	No. 2642	3.50
600A	100A	No. 2661	8.70
600A	200A	No. 2662	6.85
600A	400A	No. 2664	4.45

*Carton quantity—10 pair.

Catalog Numbers (600V AC)

NOS-1	NOS-12	NOS-70	NOS-200
NOS-2	NOS-15	NOS-75	NOS-225
NOS-3	NOS-20	NOS-80	NOS-250
NOS-4	NOS-25	NOS-90	NOS-300
NOS-5	NOS-30	NOS-100	NOS-350
NOS-6	NOS-35	NOS-110	NOS-400
NOS-7	NOS-40	NOS-125	NOS-450
NOS-8	NOS-45	NOS-150	NOS-500
NOS-9	NOS-50	NOS-175	NOS-600
NOS-10	NOS-60	—	—

Carton Quantity and Weight

Ampere Ratings	Carton Qty.	Weight* Lbs.	Kg.
NOS 1-30	10	1.45	0.657
NOS 35-60	10	2.6	1.179
NOS 70-100	5	2.80	1.270
NOS 110-200	1	1.24	0.562
NOS 225-400	1	3.03	1.374
NOS 450-600	1	4.63	2.100

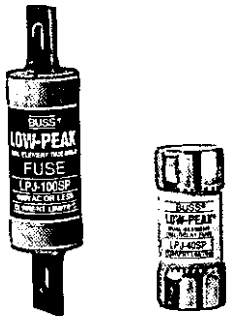
*Weight per carton.

CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 1030

Low-Peak@ Dual-Element, Time-Delay, Class J Fuses

LPJ_SP



Dual-Element,
Time-Delay –
10 seconds (minimum)
500% rated current
Ampere Ratings:
l-600 Amps.
Voltage Rating:
600 Volts AC (or less),
300V DC (1 10-200A)
Current Limiting
Interrupting Rating:
AC – 300,000A RMS Sym.
DC – 20,000A
Agency Approvals:
UL Listed Special Purpose**, Guide JFHR. File E56412
CSA Certified (200,000 AIR) Class J per CSA-22.2 No. 248.8. Class 1422-02, File 53787
Dimensions: See pages 2-3 for Class J dimensional data.

Catalog Numbers

LPJ-1SP	LPJ-4½SP	LPJ-25SP	LPJ-125SP
LPJ-1¼SP	LPJ-5SP	LPJ-30SP	LPJ-150SP
LPJ-1⅘SP	LPJ-5⅘SP	LPJ-35SP	LPJ-175SP
LPJ-1⅘SP	LPJ-6SP	LPJ-40SP	LPJ-200SP
LPJ-2SP	LPJ-7SP	LPJ-45SP	LPJ-225SP
LPJ-2¼SP	LPJ-8SP	LPJ-50SP	LPJ-250SP
LPJ-2½SP	LPJ-9SP	LPJ-60SP	LPJ-300SP
LPJ-2⅘SP	LPJ-10SP	LPJ-70SP	LPJ-350SP
LPJ-3SP	LPJ-12SP	LPJ-80SP	LPJ-400SP
LPJ-3⅘SP	LPJ-15SP	LPJ-90SP	LPJ-450SP
LPJ-3½SP	LPJ-17½SP	LPJ-100SP	LPJ-500SP
LPJ-4SP	LPJ-20SP	LPJ-110SP	LPJ-600SP

**Meets all performance requirements of UL Standard 248-8 for Class J fuses. Available with silver plated terminals. Add SP/ in front of part number.

Carton Quantity and Weight

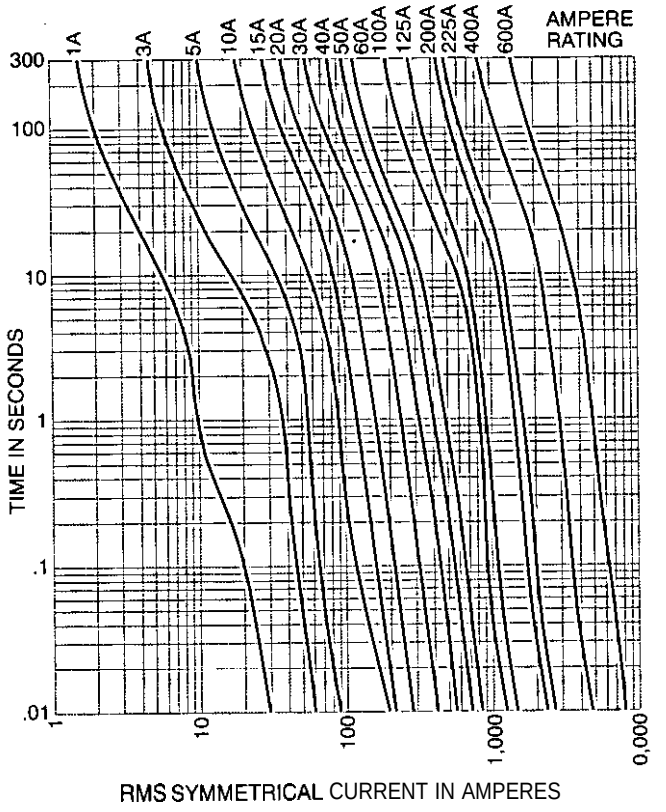
Ampere Ratings	Carton Qty.	Weight* Lbs.	Weight* Kg.
0-30	10	1.09	0.49
35-60	10	1.78	0.81
70-100	5	1.69	0.77
110-200	5	4.21	1.91
225-400	1	1.67	0.76
450-600	1	2.80	0.27

*Weight per carton.

See pages 70-71 for Class J recommended fuseblocks.

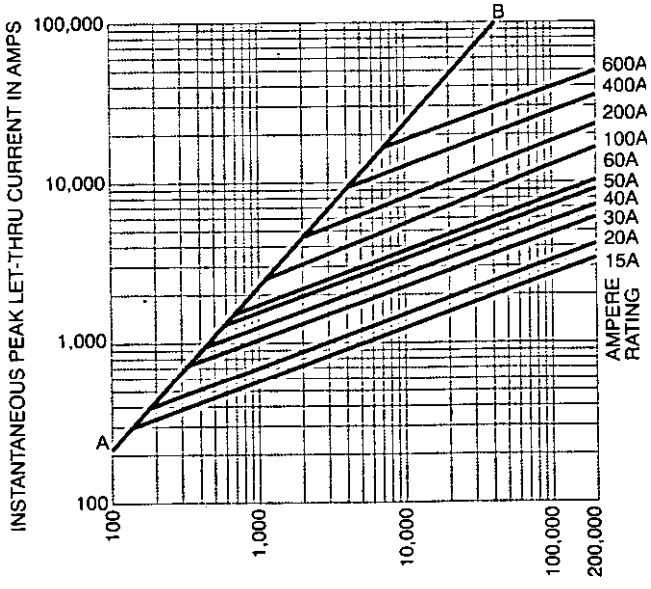
CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Time-Current Classification Curves-Average Melt

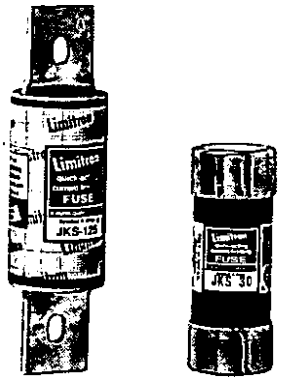


Current Limitation Curves

LPJ Current Limitation Curves



Limitron® Quick Acting, Class J Fuses



JKS

Quick Acting
Ampere Ratings: I-600 Amps.
Voltage Rating: 600 Volts AC (or less)
Current Limiting
Interrupting Rating: 200,000A RMS Sym.
Agency Approvals: Std. 248-S. Class J
UL Listed, Guide JDDZ, File E4273
CSA Certified, Class 1422-02, File 53787
Dimensions: See pages 2-3 for Class J dimensional data.

Catalog Numbers

JKS-1	JKS-15	JKS-70	JKS-225
JKS-2	JKS-20	JKS-80	JKS-250
JKS-3	JKS-25	JKS-90	JKS-300
JKS-4	JKS-30	JKS-100	JKS-350
JKS-5	JKS-35	JKS-110	JKS-400
JKS-6	JKS-40	JKS-125	JKS-450
JKS-8	JKS-45	JKS-150	JKS-500
JKS-10	JKS-50	JKS-175	JKS-600
JKS-12	JKS-60	JKS-200	

carton Quantity and Weight

Ampere Ratings	Carton Qty.	Weight* Lbs.	Kg.
1-30	10	0.95	0.43
35-60	10	1.175	0.53
70-100	5	0.28	0.13
110-200	1	0.86	0.39
225-400	1	1.78	0.81
450-600	1	3.07	1.39

*Weight per carton.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Recommended Fuseblocks for Class J Fuses

Pyramid J Fuseblock;
30A, 600V; 3-Pole; Panel or 35mm DIN-Rail Mount

Mounting	Catalog Numbers		
	Screws with Pressure Plate	Box Aluminum	Box Copper Only
Panel	JP60030-3PR (#10-14 Cu Wire)	JP60030-3CR (#2-8 Al or #2-14 Cu)	JP60030-3COR (#2-14 Cu)
With DIN-Rail Adapter*	JP60030-3PRA (#10-14 Cu Wire)	JP60030-CRA (#2-8 Al or #2-14 Cu)	JP60030-CORA (#2-14 Cu)

*Adapter Only: Cat. No. JPA-3 (for use with 35mm symmetrical DIN-Rail).

BIF document: 1108

Standard Class J Fuseblocks

Amps	Poles	Catalog Numbers Screw	Pressure Plate	Box Lug	Box Lug w/ Retaining Clip	Max. Wire Size
1-30	1	J60030-1S	J60030-1P	J60030-1C	J60030-1CR	S, P, #10 Cu C #2 Cu Al
	2	J60030-2S	J60030-2P	J60030-2C	J60030-2CR	
	3	J60030-3S	J60030-3P	J60030-3C	J60030-3CR	
35-60	1	—	—	J60060-1C	J60060-1CR	#2 Cu Al
	2	—	—	J60060-2C	J60060-2CR	
	3	—	—	J60060-3C	J60060-3CR	
70-100	3	—	—	—	J60100-3CR	1/0 Cu Al
110-200	1	—	—	—	J60200-1CR	250 MCM Cu Al
	3	—	—	—	J60200-3CR	
225-400	1	—	—	—	J60400-1CR	500 MCM Cu Al
	3	—	—	—	J60400-3CR	
450-600	1	—	—	—	J60600-1CR	(2) 500 MCM Cu Al
	3	—	—	—	J60600-3CR	

BIF document: 1114

Fuse Reducers for J Dimension Fuses

Clip Size	Fuse Size	Cat. No. (Pair)	Weight Carton* (lbs)	Clip Size	Fuse Size	Cat. No. (Pair)	Weight Carton* (lbs)
60A	30A	J63	0.38	400A	100A	J41	4.90
100A	30A	J13	1.73	400A	200A	J42	2.75
100A	60A	J16	1.85	600A	400A	J64	3.55
200A	60A	J26	2.55	600A	200A	J62	3.55
200A	100A	J21	1.36	—	—	—	—

*Carton quantity—10 pair.

BIF document: 1026 (1-60A), 1027 (70-600A)

T-Tron® Very Fast Acting, Class T Fuses

JJN

Very Fast Acting
Ampere Ratings: I-I 200 Amps.
Voltage **Rating:** *300* Volts AC (or less), (15-600A 160V DC)
Current Limiting (curves on page 208)
Interrupting Rating: 200,000A RMS Sym. (20,000A DC @ 160V DC)
Agency Approvals: Std. 248-15, Class T
UL Listed, Guide JDDZ, File E4273
CSA Certified, Class 1422-02, File 53787
Dimensions: See pages 2-3 for Class T dimensional data

Catalog Numbers

JJN-1	JJN-35	JJN-110	JJN-400
JJN-2	JJN-40	JJN-125	JJN-450
JJN-3	JJN-45	JJN-150	JJN-500
JJN-6	JJN-50	JJN-175	JJN-600
JJN-10	JJN-60	JJN-200	JJN-700
JJN-15	JJN-70	JJN-225	JJN-800
JJN-20	JJN-80	JJN-250	JJN-1000
JJN-25	JJN-90	JJN-300	JJN-1200
JJN-30	JJN-100	JJN-350	

Carton Quantity and Weight

Ampere Ratings	Carton Qty.	Weight* Lbs.	Kg.
1-30	10	0.12	0.054
35-60	10	0.23	0.104
70-100	5	0.36	0.163
110-200	1	0.14	0.063
225-400	1	0.25	0.113
450-600	1	0.44	0.200
700-800	1	0.80	0.363
1000-1200	1	1.45	0.658

*Weight per carton.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000 VAC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 1025

JJS

Very Fast **Acting**
Ampere Ratings: I-800 Amps.
Voltage Rating: 600 Volts AC (or less)
Current Limiting (curves on page 208)
Interrupting Rating: 200,000A RMS Sym.
Agency Approvals: Std. 248-I 5, Class T
UL Listed, Guide JDDZ, File E4273
CSA Certified, Class 1422-02, File 53787
Dimensions: See pages 2-3 for Class T dimensional data.

Catalog Numbers

JJS-1	JJS-30	JJS-90	JJS-250
JJS-2	JJS-35	JJS-100	JJS-300
JJS-3	us-40	JJS-110	JJS-350
JJS-6	JJS-45	us-125	JJS-400
JJS-10	JJS-50	JJS-150	JJS-450
JJS-15	JJS-60	us-175	JJS-500
JJS-20	JJS-70	JJS-200	JJS-600
us-25	JJS-80	us-225	JJS-800

Carton **Quantity** and Weight

Ampere Ratings	Carton Qty.	Weight* Lbs.	Kg.
1-30	10	0.33	0.149
35-60	10	0.82	0.371
70-100	5	0.51	0.231
110-200	1	0.192	0.087
225-400	1	0.46	0.208
450-600	1	0.85	0.385
800	1	1.65	0.748

*Weight per carton.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 1029

Standard Class **T Fuseblocks (300V)** Catalog Data

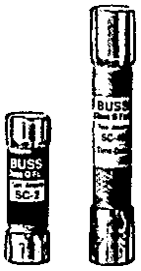
Amps	Poles	Catalog Numbers Screw	Box Lug
½	2	T30030-2SR	T30030-2CR
to	3	T30030-3SR	T30030-3CR
30	4	T30030-4SR	T30030-4CR
31	2	T30060-2SR	T30060-2CR
to	3	T30060-3SR	T30060-3CR
60	4	T30060-4SR	T30060-4CR
61	1	—	T30100-1CR
to	2	—	T30100-2CR
100	3	—	T30100-3CR
101 to	1	—	T30200-1C
200	3	—	T30200-3C
201 to 400	1	—	T30400-1C
401 to 600	1	—	T30600-1C

Standard Class **T Fuseblocks (600V)** Catalog Data

Amps	Poles	Catalog Numbers Screw	Box Lug
½	1	T60030-1SR	T60030-1CR
to	2	T60030-2SR	T60030-2CR
30	3	T60030-3SR	T60030-3CR
31	1	T60060-1SR	T60060-1CR
to	2	T60060-2SR	T60060-2CR
60	3	T60060-3SR	T60060-3CR
61	1	—	T60100-1C
to	2	—	T60100-2C
100	3	—	T60100-3C
101 to	1	—	T60200-1C
200	3	—	1B0089
201 to 400	1	—	T60400-1C
401 to 600	1	—	T60600-1C

BIF document: 1115 (300V Fuseblock) and 1116 (600V Fuseblock)

Time-Delay Class G Fuses



SC

Fast Acting **(0-6A),** Class G
Time-Delay **(7-60A),** Class G
Construction: Melamine Tube
Ampere Ratings: ½-60A
Voltage Rating: 0-20A: 600V AC/l 70V DC or less
Interrupting Rating: 100,000A RMS Sym., 10,000A DC
Agency Appmvals: Std. 246.5, Class G, UL Listed, Guide JDDZ, File E4273
CSA Certified, Class 1422-01, File 53787

Catalog Symbol A Current Ratings

SC-½	SC-6	SC-25
SC-1	SC-7	SC-30
SC-1½	SC-8	SC-35
SC-2	SC-9	SC-40
SC-2½	SC-10	SC-45
SC-3	SC-12	SC-50
SC-4	SC-15	SC-60
SC-5	SC-20	—

Carton Quantity and Weight

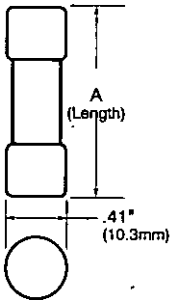
Ampere Ratings	Carton Qty.	Weight* Lbs.	Kg.
½-15	4	0.06	0.03
20	4	0.06	0.03
25-30	2	0.04	0.02
36-60	2	0.08	0.03

*Weight per carton.

Panel-mount Fuseholders for SC Fuses

Catalog Number	Description	
	Fuse Size	Terminal Type
HPF-EE	1-15A	Solder (w/o leads)
HPF-FEE	1-15A	Leads; 10" #18 copper insul. wire
HPF-JJ	20A	Solder (w/o leads)
HPF-FF	25-30A	Solder (w/o leads)
HPS-EE	1-15A	Solder (w/o leads)

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.



Physical Size:

Fuse (Amps)	(Length)
SC-½ to -15	1.319
SC-20	1.419
SC-25 to -30	1.639
SC-35 to -60	2.259

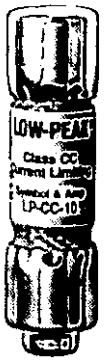
- Compact branch-circuit units with high interrupting rating and current limitation.
  With a 600 volt rating, they can be used in 120/208, 120/240 and 277/480 volt circuits.
  Length variations relative to case size make the 'rejection" type fuses.
  In general, SC fuses are about ½ the size of the 600 V NEC fuse type.
  SC fuses with ampere ratings above 6 amps have a degree of overload time-delay which permits them to pass temporary overloads. At 200% load, they have a minimum opening time of 12 seconds.

Standard SC Fuseblocks Catalog Data

Amps	Poles	Terminal Type: Screw With Quick Connect	Pressure Plate w/Quick Connect	Box Lug	Box Lug w/Retaining Clip
½	1	BG3011SQ	BG3011PQ	BG3011B	—
to	2	BG3012SQ	BG3012PQ	BG3012B	—
15	3	BG3013SQ	BG3013PQ	BG3013B	—
	1	BG3021SQ	BG3021PQ	BG3021B	—
20	2	BG3022SQ	BG3022PQ	BG3022B	—
	3	BG3023SQ	BG3023PQ	BG3023B	—
25	1	BG3031S	BG3031P	BG3031B	—
to	2	BG3032S	BG3032P	BG3032B	—
30	3	BG3033S	BG3033P	BG3033B	—
35	1	—	—	—	G30060-1CR
to	2	—	—	—	G30060-2CR
60	3	—	—	G30060-3C	G30060-3CR

BIF document: 1024 (0-60) and 1106 (Fuseblock)

Low-Peak@ Time-Delay, Class CC Fuses



LP-CC Low-Peak® Fuse

Time-Delay Current Limiting,
Class cc **- Rejection** Type
Physical **Size:**
13/32" x 1 1/2"
(10.3mm x 38.1mm)
Ampere Ratings: 1/2 30 Amps.
Voltage Rating: 600 Volts AC (or less), 300V DC (1/2-2 8/10A & 20-30A), 150V DC (3-15A)
Interrupting Rating: 200,000A RMS Sym; 20,000A DC
Construction: Melamine Tube
Agency Approvals: Std. 248-4, Class CC
UL Listed, Guide JDDZ, File E4273
CSA Certified; Class 1422-02, File 53787

Catalog Symbol

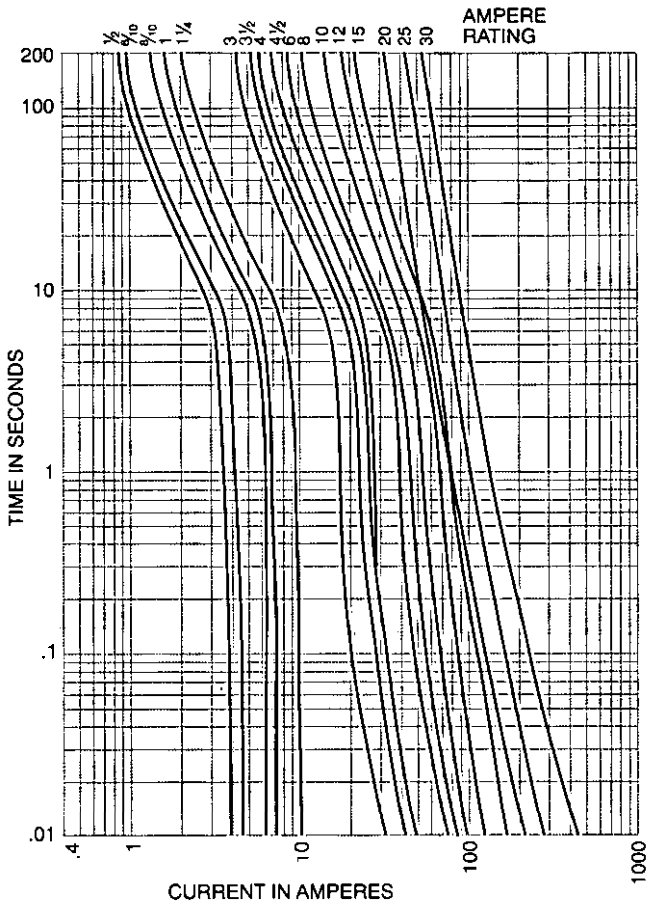
600 Volts AC		
LP-CC-1/2	LP-CC-2 1/2	LP-CC-7 1/2
LP-CC-6/10	LP-CC-2 8/10	LP-CC-8
LP-CC-9/10	LP-CC-3	LP-CC-9
LP-CC-1	LP-CC-3 2/10	LP-CC-10
LP-CC-1 1/8	LP-CC-3 1/2	LP-CC-12
LP-CC-1 1/4	LP-CC-4	LP-CC-15
LP-CC-1 1/10	LP-CC-4 1/2	LP-CC-20
LP-CC-1 1/2	LP-CC-5	LP-CC-25
LP-CC-1 6/10	LP-CC-5 6/10	LP-CC-30
LP-CC-1 8/10	LP-CC-6	
LP-CC-2	LP-CC-6 1/4	
LP-CC-2 1/4	LP-CC-7	

Recommended Fuseblocks for Class CC Fuses

NO. of Poles	Screw Terminal	Pressure Plate	screw Box Terminal	Pressure Quick-Connect	Quick-Connect
1	BC6031S	BC6031P	BC6031B	BC6031SQ	BC6031PQ
2	BC6032S	BC6032P	BC6032B	BC6032SQ	BC6032PQ
3	BC6033S	BC6033P	BC6033B	BC6033SQ	BC6033PQ

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Time Current Characteristics—Average Melt



Current-Limiting Effects

Prospective Short-Circuit Current	*Let-Thru Current (Apparent RMS Symmetrical) 1 1/4A	2 8/10A	15A	20A	25A	30A
1000	100	135	240	305	380	435
3000	140	210	350	440	575	580
5000	165	255	420	570	690	710
10,000	210	340	540	700	870	1,000
20,000	260	435	680	870	1,090	1,305
30,000	290	525	800	1,030	1,300	1,520
40,000	315	610	870	1,150	1,390	1,700
50,000	340	650	915	1,215	1,520	1,820
60,000	350	735	1,050	1,300	1,650	1,980
80,000	390	785	1,130	1,500	1,760	2,180
100,000	420	830	1,210	1,600	2,000	2,400
200,000	525	1,100	1,600	2,000	2,520	3,050

*RMS Symmetrical Amperes Short-Circuit
NOTE: To calculate I_p (I_{peak}) multiply I_{RMS} value × 2.3.

Class CC **Rejection-Type** Fuses

FNQ-R

Time-Delay, Rejection Type
Branch Circuit Fuse
Class cc
Physical Size:
13/32" x 1½" (10.3mm x 38.1mm)
Construction: Melamine Tube
Ampere Ratings: ¼-30 Amps.
Voltage Rating: 600V AC or less
Interrupting Rating: 200,000A RMS Sym
Agency Approvals: Std. 248-4, Class CC
UL Listed. Guide JDDZ, File E4273
CSA Certified, Class 1422-01, File 53787

Catalog Symbol & Current Ratings

600 Volts AC		
FNQ-R-¼	FNQ-R-1½	FNQ-R-6
FNQ-R-3/10	FNQ-R-1 8/10	FNQ-R-6¼
FNQ-R-4/10	FNQ-R-1 8/10	FNQ-R-7
FNQ-R-½	FNQ-R-2	FNQ-R-7½
FNQ-R-6/10	FNQ-R-2¼	FNQ-R-8
FNQ-R-¾	FNQ-R-2½	FNQ-R-9
FNQ-R-8/10	FQN-R-2 8/10	FNQ-R-10
FNQ-R-1	FNQ-R-3	FNQ-R-12
FNQ-R-1⅛	FNQ-R-3 3/10	FNQ-R-15
FNQ-R-1¼	FNQ-R-3½	FNQ-R-20
FNQ-R-1 3/10	FNQ-R-4	FNQ-R-25
FNQ-R-1 4/10	FNQ-R-5	FNQ-R-30

Time-Current and Current Limitation Curves on page 209

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 1014

KTK-R **Limitron®** Fuse

Fast Acting; Branch Circuit Fuse
Class CC - Rejection Feature
Physical Size:
13/32" x 1½" (10.3mm x 38.1mm)
Construction: Melamine Tube
Ampere Ratings: 1/10-30 Amps.
Voltage Rating: 600 Volts AC (or less).
Interrupting Rating: 200,000A RMS Sym.
Agency Approvals: Std. 248-4, Class CC
UL Listed, Guide JDDZ, File E4273
CSA Certified, File 53787, Class 1422-02

Catalog Symbol & Current Ratings

600 Volts AC		
KTK-R-1/10	KTK-R-1	KTK-R-7
KTK-R-⅛	KTK-R-1½	KTK-R-8
KTK-R-2/10	KTK-R-2	KTK-R-9
KTK-R-¼	KTK-R-2½	KTK-R-10
KTK-R-3/10	KTK-R-3	KTK-R-12
KTK-R-4/10	KTK-R-3½	KTK-R-15
KTK-R-½	KTK-R-4	KTK-R-20
KTK-R-6/10	KTK-R-5	KTK-R-25
KTK-R-¾	KTK-R-6	KTK-R-30

Time-Current and Current Limitation Curves on page 210,

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 1015

Recommended Fuseblocks for Class CC Fuses

No. of Poles	Screw Terminal	Pressure Plate	Screw Box Terminal	Pressure Quick-Connect	Quick-Connect
1	BC6031S	BC6031P	BC6031B	BC6031SQ	BC6031PQ
2	BC6032S	BC6032P	BC6032B	BC6032SQ	BC6032PQ
3	BC6033S	BC6033P	BC6033B	BC6033SQ	BC6033PQ

BIF document: 1105

13/32" x 1 3/8" Supplementary Fuses

BBS

Fast **Acting**
Physical Size:
13/32" x 1 3/8" (10.3mm x 35mm)
Construction: Fibre Cartridge
Interrupting Rating: 10,000A RMS Sym.
Ampere Ratings: 1/10-30A
Voltage Rating: 600V AC (1/10-5A), 250V AC (6-10A), 48V AC (12-30A)
Agency Approvals: Std. 248-14
UL Listed, 0-5A/600V, Guide JDYX, File E19180
CSA Certified. 0-5A/600V, Class 1422-01, File 53787

Catalog Symbol & Current Ratings

600 Volts AC	250 Volts AC	48 Volts AC
BBS-1/10	BBS-6	BBS-12
BBS-2/10	BBS-7	BBS-15
BBS-1/4	BBS-8	BBS-20
BBS-4/10	BBS-10	BBS-25
BBS-1/2	—	BBS-30
BBS-6/10	—	—
BBS-3/4	—	—
BBS-8/10	—	—
BBS-1 1/2	—	—
BBS-1 6/10	—	—
BBS-1 8/10	—	—
BBS-3	—	—
BBS-4	—	—
BBS-5	—	

Recommended Fuseblocks

Amps	Poles	Terminal Type: Screw with Quick Connect	Pressure Plate w/ Quick Connect	Box Lug
1/10	1	BM6031SQ	BM6031PQ	BM6031B
to	2	BM6032SQ	BM6032PQ	BM6032B
30	3	BM6033SQ	BM6033PQ	BM6033B

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 2010 (0-30A) and 1104 (Fuseblock)

KTQ

Fast Acting
Physical Size:
13/32" x 1 3/8" (10.3mm x 34.9mm)
Construction: Fibre Cartridge
Ampere Ratings: 1-6A
Voltage **Rating:** 600V AC
Interrupting Rating: 10,000A RMS Sym.
Agency Approvals: Std. 248-14
UL Recognized, 4-6A, Guide JDYX2, File E19180

Catalog Symbol **& Current Ratings**

600 Volts AC
KTQ-1
KTQ-1 6/10
KTQ-3
KTQ-4
KTQ-5
KTQ-6

Recommended Fuseblocks

Amps	Poles	Terminal Type: Screw with Quick Connect	Pressure Plate w/ Quick Connect	Box Lug
1/10	1	BM6031SQ	BM6031PQ	BM6031B
to	2	BM6032SQ	BM6032PQ	BM6032B
30	3	BM6033SQ	BM6033PQ	BM6033B

BIF document: 1104

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 2045 and 1104 (Fuseblock)

13/32" x 1 1/2" Supplementary Fuses

BAF

Fast Acting
Physical Size:
13/32" x 1 1/2"
(10.3mm x 38.1mm)
Construction: Fibre Tube;
Albaloy Plated Brass Endcaps
Voltage Rating: 250V AC (2/10-15A), 125V AC (20-30A)
Interrupting Rating: 10,000A at 125V AC
Agency Approvals: Std. 248-14
UL 0-15/250V, Guide JDYX, File EI9180
CSA Certified, 0-15/250V, Class 1422-01, File 53787

Catalog Symbol & Current Ratings

250 Volts IR*		250 Volts IR*		250 Volts IR*		125 Volts	
BAF-2/10		BAF-1½		BAF-6¼		BAF-20	
BAF-¼		BAF-1 8/10	IR	BAF-7	IR	BAF-25	IR 10000A
BAF-½	IR	BAF-2	100A	BAF-8	200A	BAF-30	
BAF-6/10	35A	BAF-2½		BAF-9		—	
BAF-8/10		BAF-3		BAF-10	IR	—	
BAF-1		BAF-4	IR	BAF-12	750A	—	
—		BAF-5	200A	BAF-15		—	
—		BAF-6		—		—	

*All have interrupting rating of 10,000A at 125V.

Recommended Fuseblocks

		Terminal Type		
Amps	Poles	Screw with Quick Connect	Pressure Plate w/ Quick Connect	Box Lug
1/10	1	BM6031SQ	BM6031PQ	BM6031B
to	2	BM6032SQ	BM6032PQ	BM6032B
30	3	BM6033SQ	BM6033PQ	BM6033B

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: ***2011*** (O-30) and ***1104 (Fuseblock)***

BAN

Fast Acting
Physical Size:
13/32" x 1 1/2"
(10.3mm x 38.1mm)
Construction: Fibre Tube
Voltage Rating: 250V AC
Interrupting Ratings:
35A (O-I A), 100A (1 1/2-3A), 200A (4-8A), 750A (10-15A), 10,000A (20-30A)

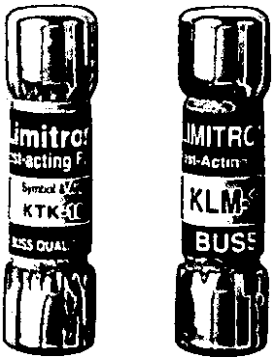
Catalog **Symbol &** Current **Ratings**

250 Volts	250 Volts	250 Volts	250 Volts
BAN-1	BAN-5	BAN-12	BAN-30
BAN-2	BAN-6	BAN-15	—
BAN-3	BAN-8	BAN-20	—
BAN-4	BAN-10	BAN-25	—

Recommended Fuseblocks

		Terminal Type		
Amps	Poles	Screw with Quick Connect	Pressure Plate w/ Quick Connect	Box Lug
1/10	1	BM6031SQ	BM6031PQ	BM6031B
to	2	BM6032SQ	BM6032PQ	BM6032B
30	3	BM6033SQ	BM6033PQ	BM6033B

BIF document: 2046 (0-30) and 1104 (Fuseblock)



KTK and **KLM**

Fast Acting
Physical Size:
13/32" x 1 1/2" (10.3mm x 38.1mm)
Construction: Melamine Tube; Albaloy Plated Brass Endcaps
Voltage Rating:
KTK 600V AC or less
KLM 500V AC/DC or less
(0-10A @ 500V DC, 12-30A @ 600V DC)
Interrupting Rating:
100,000A KTK; 10,000A KLM, RMS SYM. (UL)
Agency Approvals: Std. 248-14
KTK-UL Listed, Guide JDYX, File EI9180
KLM-UL Recognized, Guide JFHR2. File E56412
CSA Certified, File 53787, Class 1422-01, HRC-Mist

Catalog Symbol & Current Ratings

600 Volts AC - UL Listed and C.S.A.			
KTK-1/10	KTK-¾	KTK-4	KTK-12
KTK-⅛	KTK-1	KTK-5	KTK-15
KTK-3/10	KTK-1¼	KTK-6	KTK-20
KTK-¼	KTK-1½	KTK-7	KTK-25
KTK-3/10	KTK-2	KTK-7½	KTK-30
KTK-4/10	KTK-2½	KTK-8	—
KTK-½	KTK-3	KTK-9	—
KTK-6/10	KTK-3½	KTK-10	—
500 Volts AC/DC - UL Recognized and C.S.A.			
KLM-1/10	KLM-½	KLM-3	KLM-10
KLM-⅛	KLM-¾	KLM-4	KLM-15
KLM-3/10	KLM-1	KLM-5	KLM-20
KLM-¼	KLM-1½	KLM-6	KLM-25
KLM-3/10	KLM-2	KLM-8	KLM-30

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: KTK-1011 KLM-2020

13/32" x 1½" Supplementary Fuses

FNM **Fusetron®** Fuse

Time-Delay
Physical Size: 13/32" x 1½" (5 AG)
(10.3mm x 38.1mm)
Construction: Fibre Tube
Ampere Ratings: 1/10 - 30 Amps.
Voltage Rating: 250 Volts AC (or less).
Interrupting Rating: See Table Below.
Agency **Approvals:** Std. 248-14
UL Listed,.0-10/250V; 12-15/125V;
File E19180. Guide JDYX
CSA Certified, 1-10/250V; Class 1422-01, 12-15/125V;
File 53787

Catalog Symbol & Current Ratings

250 Volts AC	IR	250 Volts AC	IR
FNM-1/10	35A @ 250V AC 10,000A @ 125V AC	FNM-1 1/8	100A @ 250V AC 10,000A @ 125V AC
FNM-1/8		FNM-1 1/4	
FNM-15/100		FNM-1 1/10	
FNM-2/10		FNM-1 1/2	
FNM-1/4		FNM-1 6/10	
FNM-3/10		FNM-1 8/10	
FNM-4/10		FNM-2	
FNM-1/2		FNM-2 1/4	
FNM-6/10		FNM-2 1/2	
FNM-3/4		FNM-2 8/10	
FNM-8/10		FNM-3	
FNM-1		FNM-3 3/10	
—		FNM-3 1/2	

250 Volts AC	IR	125 Volts AC	IR
FNM-4	200A @ 250V AC 10,000A @ 125V AC	FNM-12	10,000A @ 125V AC
FNM-4 1/2		FNM-15	
FNM-5		—	
FNM-5 5/10		—	
FNM-6		32 Volts AC	
FNM-6 1/4		FNM-20	
FNM-7		FNM-25	
FNM-8		FNM-30	
FNM-9		—	
FNM-10		—	

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

FNQ

Time-Delay
Physical Size:
13/32" x 1½"
(10.3mm x 38.1mm)
Construction: Fibre Tube
Ampere Ratings: 1/10 30 Amps.
Voltage Rating: 500V AC or less
Interrupting Rating: 10,000A RMS Sym.
Agency Approvals: Std. 248-14
UL listed, Guide JDYX. File El9180
CSA Certified, Class 1422-01, File 53787

Catalog Symbol **&** Current **Ratings**

500 Volts AC			
FNQ-1/10	FNQ-8/10	FNQ-3 3/10	FNQ-8
FNQ-1/8	FNQ-1	FNQ-3½	FNQ-9
FNQ-15/100	FNQ-1 1/8	FNQ-4	FNQ-10
FNA-3/16	FNQ-1¼	FNQ-4½	FNQ-12
FNQ-2/10	FNQ-1½	FNQ-5	FNQ-14
FNQ-¼	FNQ-1 6/10	FNQ-5 5/10	FNQ-15
FNQ-3/10	FNQ-2	MO-6	FNQ-20
FNQ-4/10	FNQ-2¼	FNQ-6¼	FNQ-25
FNQ-½	FNQ-2½	FNQ-7	FNQ-30
FNQ-6/10	FNQ-3	—	—

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Plug Fuses

W Series

Fast Acting

Ampere Ratings: ½ - 30 Amps

Voltage **Rating:** 125V AC

Element is a simple fusible, metal link, For general purpose circuit protection. Quickly opens when short-circuit or overloadoccurs. Use for lighting and other non-motor circuits. Edison base.

Agency **Approvals:** Std. 248-I 1 UL Listed, Guide JEFV, File EI21 12

Type W

W-½	w-4	w-10
W-I	W-5	w-12
W-1⅘10	W-6	W-15
w-2	W-6½	w-20
W-2½	W-7	w-25
w-3	W-6	W-30

CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 1036

SL and TL Series

Time-Delay, Loaded Link

Ampere Ratings: 15 30 Amps

Voltage **Rating:** 125V AC

Heat absorbing metal bead on element link for time-delay. Passes motor overload starting currents without needlessly opening.

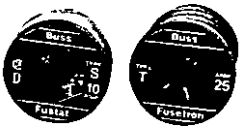
Edison base (TL), Rejection base (SL).

Agency Approvals: Std. 248-I 1 UL Listed. Guide JEFV, File EI21 12

Type SL	Type TL
SL-15	TL-15
SL-20	TL-20
SL-25	TL-25
SL-30	TL-30

CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 1033 (SL) 8 1035 (TL)



S and T Series

Time-Delay, Dual-Element

Ampere **Ratings:**

Type S: ¼ - 30 Amps

Type T: ⅗10 30 Amps

Voltage **Rating: 125V AC**

For al-purpose application. Like two fuses in one. A simple link element for short-circuits and dangerous overloads plus a series-connected element which lets the harmless overload starting currents of motors pass without opening. Uses less energy; operates cooler; provides superiorprotection.

Edison base (T), Rejection base (S).

Agency **Approvals:** Std. 248-I 1

Type S: UL Listed (0-6¼) Guide JFHR. File E56412 (7-30A) Guide JEFV, File E12112;

CSA Certified, Class 142301, File 53787

Type S

S-¼	S-1⅘10	S-3½	s-9
S-⅗10	S-1⅘10	s-4	s-10
S-⅘10	S-1⅘10	S-4½	s-12
S-½	s-2	s-5	S-14
S-⅘10	S-2¼	S-5⅘10	s-15
S-⅘10	S-2½	S-6	s-20
S-1	S-2⅘10	S-6¼	s-25
S-1⅛	s-3	S-7	s-30
s-1¼	S-3⅗10	S-6	

Type T

T-⅗10	T-1⅘10	T-4	T-I O
T-⅘10	T-1⅘10	T-411,	T-12
T-½	T-2	T-5	T-14
T-⅘10	T-2¼	T-5⅘10	T-15
T-⅘10	T-2½	T-6	T-20
T-I	T-2⅘10	T-6¼	T-25
T-1⅛	T-3	T-7	T-30
T-1¼	T-3⅗10	T-8	
T-1⅘10	T-3½	T-9	

CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 1032 (S) & 1034 (T)

Plug Fuses

Fustat Fuse Adaptors

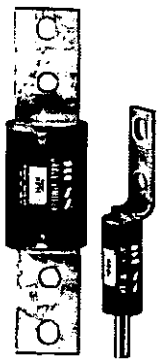
Fustat Adaptors (various ampere ratings) screw into the "Edison" Thread fuse sockets of standard household fuse boxes. Adaptors serve the purpose of preventing the wrong size fuse from being used.

Catalog Number	Symbol and Amperes	Carton Qty.	Carton Wt.
SA- (Branch Circuits)	15, 20, 30	4	0.03 (lbs)
SA- (Single Motor Circuits)	1, 1¼, 1⁹⁄₁₀, 2, 2½, 3²⁄₁₀, 4, 5, 6¼, 8, 10		
EDA	Edison base dummy		
ENA	Edison base neutral		

Dual-Element Fustat® Fuses and Adaptors for Small Motor Protection.
(Both Motor Running and Short-Circuit Protection)

Fuses Cat No.	Adapter Cat. No.	Other Accepted Ampere Ratings
S³⁄₁₀, S½, S⁸⁄₁₀ S⁴⁄₁₀, S⁹⁄₁₀, S1	SA1	1 amp and Smaller
S1⅛, S1¼	SA1¼	All smaller
S1⁴⁄₁₀, S1⁹⁄₁₀	SA1⁹⁄₁₀	All smaller
S1⁹⁄₁₀, S2	SA2	—
S2¼, S2½	SA2½	1⁹⁄₁₀, 2
S2⁹⁄₁₀, S3, S3³⁄₁₀	SA3³⁄₁₀	1⁹⁄₁₀, 2, 2¼, 2½
S3½, S4	SA4	—
S4½, S5	SA5	3½, 4
S5⁶⁄₁₀, S6¼	SA6¼	3½, 4, 4½, 5
S7, S8	SA8	—
S9, S10	SA10	7, 8
S12, S14	SA15	7, 8, 9, 10
Branch Circuit Protection		
S15	SA15	—
S20	SA20	—
S25	SA30	—
S30	SA30	20, 25, 30

Cable Limiters & Welder Limiters



K Series

Cable Limiters

Interrupting Rating: 200,030 Amps., 600 Volts AC RMS Symmetrical

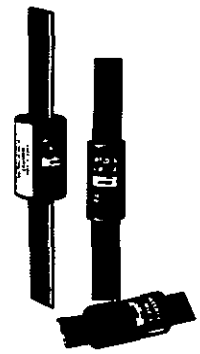
Copper Cable Limiter — 600 **Volts**

Catalog Symbol	Cable Size	Catalog Symbol	Cable Size
Tubular Terminals			
KCY	#4	KCF	4/0
KCZ	#3	KCH	250 MCM
KCA	#2	KCJ	350 MCM
KCB	#1	†KCM	500 MCM
KCC	1/0	KCR	750 MCM
KCD	2/0	KCS	1000 MCM
KCE	3/0		
Tubular Terminal and Offset Bolt-Type Terminal			
KQV	#12	KDD	2/0
KQT	#10	KDE	3/0
KFZ	#8	KDF	4/0
KIG	#6	KDH	250 MCM
KDY	#4	KDJ	350 MCM
KDA	#2	†KDM	500 MCM
KDB	#1	KDR	750 MCM
KDC	1/0		
Compression Connector Rod Terminal and Tubular Terminal			
KEX	4/0	KQO	350 MCM
KFH-A	250 MCM	KDT	500 MCM
***Center Bolt-Type Terminal and Off-Set Bolt-Type Terminal**			
KPF	4/0	KDP	500 MCM
KFT	250 MCM	KFM	750 MCM
KEW	350 MCM		

†Also available with molded rubber boots. Add "-B" to end of part number.

*Copper or aluminum cable; sizes of all other limiters pertain to copper only.

BIF document: 1042



66000 & 64000 Series

Welder Limiters for Class **H** and J **Fuseholders**

Voltage Rating: 600 Volts AC or less

Interrupting Rating: 200,000 Amps RMS Symmetrical

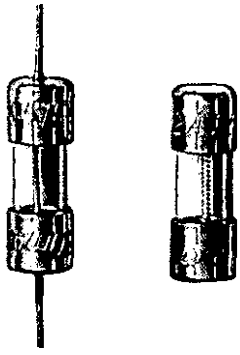
Catalog symbol & current **Ratings**

Type Fuseholder	Catalog Number	Amp Rating (Nominal)	Carton Quantity	Weight Each Lbs.	Kg.
Class H	68150	150	1	1.40	0.63
	68200	200			
	68300	300	1	2.75	1.25
	68400	400			
	68600	600	1	4.25	1.92
Class J	64200	200	1	1.00	0.45
	64300	300	1	1.75	0.79
	64400	400	1	1.75	0.79
	64600	600	1	3.50	1.59

- Current-limiting devices designed specially for use on welder circuits only.
- Time-current characteristics are designed to hold on the intermittent overloading encountered in welder operation, while providing short-circuit protection to the circuit and equipment.
- Welder limiters have excess current capacity in the operating range as needed for this type of service.
- Because of the special characteristics of the welder limiters, they are not intended for application on general-use circuits.

BIF document: 1045

5mm x 15mm Fuses



C515 (Axial Leads)
C519

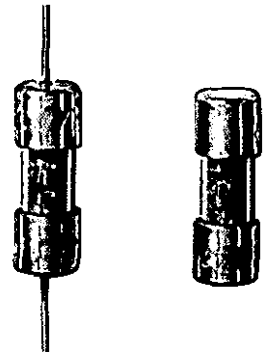
Time-Delay
Physical Size:
0.197" x 0.591" (5mm x 15mm)
Construction: Glass **Tube**
Agency Approvals:
UL Listing File E75865, **Guide** JDYX
125mA-250mA **and** 375mA-3A
CSA Certification File LR65063,
Class 1422-01, 125mA-250mA **and**
375mA-3A
UL Recognized. File E75665,
Guide JDYX2, 350mA **and** 3.5A-7A

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Electrical Characteristics

Current Rating	Rated Voltage AC	Interrupting Rating
125mA	250V	35A/250V 10kA/125V p.f. = 0.7 - 0.8
250mA		
350mA		35A/250V 10kA/125V 25A/600V p.f. = 0.7 - 0.8
375mA		35A/250V 10kA/125V p.f. = 0.7 - 0.8
500mA		
600mA		
750mA		
1A		
1.25A		100A/250V 10kA/125V p.f. = 0.7 - 0.8
1.5A		
1.6A		
2A		
2.25A		
2.5A		
3A		
3.5A	125V	400A/125V p.f. = 1.0
4A		
5A		
7A		

BIF document: 2006 (C515) & 2007 (C519)



C518 (Axial Leads)
C520

Fast-Acting
Physical Size:
3.197" x 0.591" (5mm x 15mm)
Construction: Glass Tube
agency **Approvals:**
UL **Listing File E75865, Guide** JDYX
CSA Certification File LR65063,
Class 1422-01

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Electrical Characteristics

Current Rating	Rated Voltage AC	Interrupting Rating
100mA	250V	35A/250V 10kA/125V p.f. = 0.7 - 0.8
125mA		
250mA		
375mA		
500mA		
750mA		
1A		100A/250V 10kA/125V p.f. = 0.7 - 0.8
1.5A		
2A		
2.5A		
3A		
3.5A		
4A		200A/250V 10kA/125V5A p.f. = 0.7 - 0.8
5A		

BIF document: 2026 (C518) & 2027 (C520)

C517 (Axial Leads)

Fast-Acting, Light Ballast
Protection
Physical Size:
0.197" x 0.591" (5mm x 15mm)
Construction: **Ceramic**
Agency Approvals:
UL Listing File E75865, **Guide** JDYX
CSA Certification File LR65063,
Class 1422-01
UL Recognized, File E75665,
Guide JDYX2

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

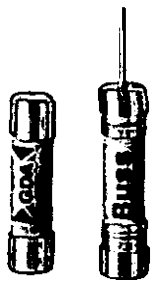
Electrical Characteristics

Current Rating	Max. Rated Voltage AC	Interrupting Rating
3A	350V	100A/350V AC p.f. = 1.0
		100A/250V AC p.f. = 0.7 - 0.8
		10kA/125V AC p.f. = 0.7 - 0.8

BIF document: 2025

5mm × 20mm — IEC Standards

GDA
GDA-V (Axial Leads)



Fast-Acting,
High **Breaking Capacity**
Physical Size:
0.197" x 0.768"
(5mm x 20mm)

Construction:
Ceramic Tube
End caps: Nickel or silver plated bras!

Voltage **Rating: 250V AC** or less
Interrupting **Rating:** 1500A @ **250V AC**

Agency ***Approvals:***
UL Recognized. Guide JDYX2,
File E75865, 50mA and 315mA-6.3A
SEMKO Approval 50mA, 200mA and 315mA-6.3A
IEC 127-SI

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Electrical Characteristics

Current Rating	I^2t	Max Voltage Drop (mV)
50mA	0.0017	9000
63mA	0.0005	3300
80mA	0.0011	2600
100mA	0.0018	2300
125mA	0.0037	1900
160mA	0.008	1600
200mA	0.020	1350
250mA	0.027	1300
315mA	0.010	1400
400mA	0.018	1200
500mA	0.038	1050
630mA	0.064	1200
800mA	0.097	490
1A	0.480	230
1.25A	0.9	200
1.6A	1.9	180
2A	2.0	205
2.5A	3.9	190
3.15A	8.1	160
4A	14	160
5A	25	155
6.3A	48	150

BIF document: 2014

GDB
GDB-V (Axial Leads)

Fast-Acting,
Low Breaking Capacity
Physical Size:
0.197" x 0.768"
(5mm x 20mm)

Construction:
Glass Tube
End caps: Nickel or silver plated brass

Voltage **Rating: 250V AC or less**
Interrupting **Rating:** 35A @ 250V **AC or 10 x rated current.**

Agency Approvals:
Designed to IEC (Pub 127) Sheet II
British Standard Approval
SEMKO Approval
VDE **Approval, IMQ**
UL Recognized. Guide JDYX2.
File E75865, 32mA-6.3A

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Electrical Characteristics

Current Rating	I^2t*	Max Voltage Drop (mV)
32mA	0.000047	10000
40mA	0.00011	8000
50mA	0.00020	3200
63mA	0.00057	2500
80mA	0.0012	2200
100mA	0.003	2100
125mA	0.005	2000
160mA	0.008	1950
200mA	0.016	1600
250mA	0.028	1400
315mA	0.058	1150
400mA	0.018	950
500mA	0.018	220
630mA	0.035	220
800mA	0.067	180
1A	0.60	200
1.25A	0.84	200
1.6A	1.6	190
2A	4.2	160
2.5A	6.1	145
3.15A	13	130
4A	22	120
5A	42	115
6.3A	69	110
8A*	—	—
10A*	—	—
12A*	—	—
16A*	—	—

*IEC Standard 127 Sheet II does not include ratings above 6.3 amps.

BIF document: 2015

GDC
GDC-V (Axial Leads)

Time Delay,
Low Breaking **Capacity**
Physical Size:
0.197" x 0.788"
(5mm x 20mm)

Construction:
Glass Tube
End caps: Nickel or silver plated brass

Voltage **Rating: 250V AC or** less
Interrupting Rating: 35A @ 250V **AC or 10 x rated** current.

Agency Approvals:
Designed to IEC (Pub 127) Sheet III
British Standard Approval
SEMKO Approval
ME Approval, **IMQ**
UL Recognized, Guide JDYX2,
File E75865, 32mA-6.3A

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

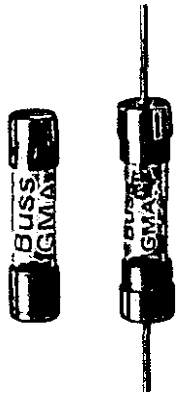
Electrical Characteristics

Current Rating	I^2t	Max Voltage Drop (mV)
32mA	0.0014	1050
40mA	0.0034	920
50mA	0.006	800
63mA	0.012	760
80mA	0.015	580
100mA	0.022	490
125mA	0.034	390
160mA	0.052	320
200mA	0.078	340
250mA	0.17	270
315mA	0.41	250
400mA	0.61	210
500mA	0.75	168
630mA	1.3	158
800mA	3.1	132
1A	3.6	85
1.25A	7	80
1.6A	10	80
2A	17	80
2.5A	34	80
3.15A	56	75
4A	91	75
5A	133	75
6.3A	270	65

BIF document: 2016

5mm x 20mm – N. American Standards

GMA
GMA-V
(Axial Leads)



Fast Acting
Physical Size:
0.197" x 0.788
(5mm x 20mm)
Construction:
Glass Tube
End Caps: nickel or silver plated brass
Agency
Approvals:
Std. 248-14
UL Listed Guide JDYX, File E75865, 0-6A
UL Recognized, Guide JDYX2,
File E75865. 7-15A
CSA Certified, Class 1422-01,
File E65063. 0-6A

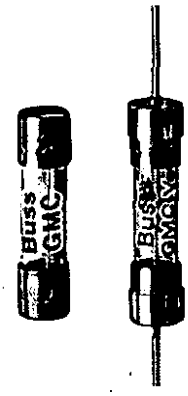
CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Electrical Characteristics

Current Rating	Rated Voltage (V AC)	Breaking Capacity
63mA 100mA 125mA 200mA 250mA 300mA 315mA 500mA 600mA 750mA 800mA 1A	250	35A/250V 10kA/125V p.f. = 0.7 – 0.8
1.2A 1.25A 1.5A 1.6A 2A 2.5A	250	100A/250V 10kA/125V p.f. = 0.7 – 0.8
3.15A 3.5A 4A 5A 6A	125	10kA/125V p.f. = 0.7 – 0.8
7A 8A 10A	125	200A/125V p.f. = 1.0
15A	125	150A/125V p.f. = 1.0

BIF document: 2017

GMC
GMC-V
(Axial Leads)



Medium **Time-Delay**
Physical Size:
0.197" x 0.788"
(5mm x 20mm)
Construction:
Glass Tube
End Caps; nickel or silver plated brass
Agency Approvals:
Std. 248-14
UL Listed Guide JDYX, File E75865, 0-6.3A
UL Recognized. Guide JDYX2,
File E75865. 7-10A
CSA Certified, Class 1422-01,
File 65063, 0-6.3A

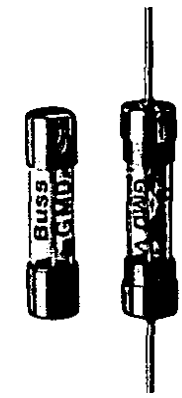
CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Electrical Characteristics

Current Rating	Rated Voltage (V AC)	Breaking Capacity
50mA 63mA 80mA 100mA 125mA 150mA 160mA 200mA 250mA 300mA 315mA 400mA 500mA 600mA 630mA 750mA 800mA 1A	250	35A/250V 10kA/125V p.f. = 0.7 – 0.8
1.25A 1.5A 1.6A 2A 2.5A 3A 3.15A	250	100A/250V 10kA/125V p.f. = 0.7 – 0.8
3.5A 4A 5A 6A	125	10kA/125V p.f. = 0.7 – 0.8
6.3A 7A 8A 10A	125	200A/125V p.f. = 1.0

BIF document: 2018

GMD
GMD-V
(Axial Leads)



Time-Delay
Physical Size:
0.197" x 0.788"
(5mm x 20mm)
Construction:
Glass Tube
End Caps; nickel or silver plated brass
Agency Approvals:
Std. 248-14
UL Listed Guide JDYX, File E75865, 0-3A
UL Recognized, Guide JDYX2,
File E75865. 4A
CSA Certified, Class 1422-01,
File 65063, 0-3A

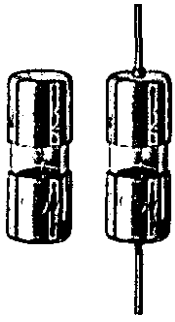
CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Electrical Characteristics

Current Rating	Rated Voltage (V AC)	Breaking Capacity
125mA 150mA 160mA 187mA 200mA 250mA 300mA 315mA 375mA 400mA 500mA 600mA 630mA 750mA 800mA 1A 1.2A 1.25A 1.5A 1.6A 2A 2.5A 3A	250	100A/250V 10kA/125V p.f. = 0.7 – 0.8
4A	250	200A/250V 10kA/125V, p.f. = 1

BIF document 2019

¼" Diameter × ⅝" to l" Lengths



AGA

AGA-V* (Axial Leads)

Fast Acting

Physical Size:

¼" x ⅝" (1AG)

(6.4mm x 15.9mm)

Construction: Glass Tube

Voltage **Rating:** See table below.

Agency Approvals: **Std.** 248-14

UL File E19160,

UL Listed. Guide JDYX **O-I** ½A

UL Recognized. Guide JDYX22-12A,

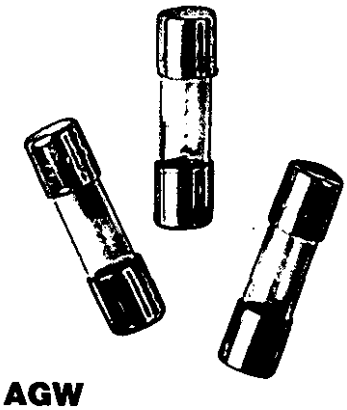
CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Catalog Symbol & Current Ratings

125V AC		
AGA-1/16	AGA-½	AGA-2
AGA-1/10	AGA-6/10	AGA-2½
AGA-⅛	AGA-¾	AGA-3
AGA-¼	AGA-1	AGA-5
AGA-⅜	AGA-1½	—
32V AC		
AGA-6	AGA-10	AGA-25
AGA-7	AGA-15	AGA-30
AGA-7½	AGA-20	—

*AGA-V is UL Listed 0-5A, UL Recognized 6-12A

BIF document: 2039



AGW

Fast Acting

Physical Size:

¼" x ⅞" (7AG)

(6.4mm x 22.2mm)

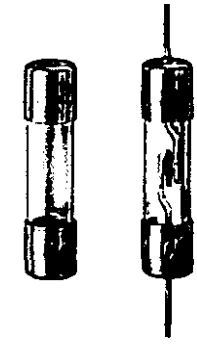
Construction: Glass Tube

Voltage **Rating:** 32V

Catalog Symbol & Current Ratings

32V AC		
AGW-1	AGW-4	AGW-15
AGW-1½	AGW-5	AGW-20
AGW-2	AGW-6	AGW-25
AGW-2½	AGW-7½	AGW-30
AGW-3	AGW-10	—

BIF document: 2040



AGX

AGX-V (Axial Leads)*

Fast Acting

Physical Size:

¼" x 1" (8AG)

(6.4mm x 25.4mm)

Construction: Glass Tube

Voltage Rating: See table below.

Agency **Approvals:** Std. 248-14

UL File **EI9160**

UL **listed, Guide** JDYX, 0-5A

UL Recognized, **Guide** JDYX2, 6-20A

CSA **File 47233; Class** 1422-01, **0-5A**

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

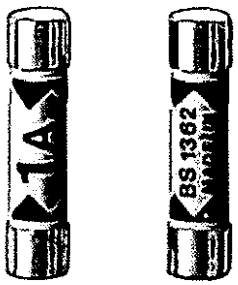
Catalog Symbol & Current Ratings

250V AC		
AGX-1/500	AGX-3/16	AGX-¾
AGX-1/200	AGX-2/10	AGX-1
AGX-1/100	AGX-¼	AGX-1¼
AGX-1/32	AGX-3/10	AGX-1½
AGX-1/16	AGX-⅜	AGX-2
AGX-1/10	AGX-4/10	—
AGX-⅛	AGX-½	—
125V AC		
AGX-2½	AGX-4	AGX-6
AGX-3	AGX-5	AGX-7
32 Volts		
AGX-8	AGX-15	AGX-25
AGX-10	AGX-20	AGX-30

AGX-V is UL Recognized from 6-20A @ 32V AC

BIF document: 2041

¼" Diameter x 1" Length's



TDC180

British Household Plug Fuse
Fast/Medium
Physical Size:
¼" x 1"
(6.4mm x 25.4mm)
Construction: **Ceramic Tube**
End Caps: Silver-plated copper
Agency Approvals:
BS1362, IEC 269-3A

Catalog Symbol & Current Ratings

240V AC		
TDC180-1	TDC180-5	TDC180-13
TDC180-2	TDC180-7	—
TDC180-3	TDC180-10	—

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

TDC600

Fast Acting
Physical Size:
¼" x 1"
(6.3mm x 25.4mm)
Construction: **Ceramic Tube**
Voltage Rating: 600V **AC**
Agency Approvals:
UL Recognized, Std. 248-14, BS1362

Catalog Symbol & Current Ratings

TDC600-2A	TDC600-10A

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

FWH

Semiconductor Fuse
Physical Size:
¼" x 1¼"
(6.3mm x 32mm)
Construction: Ceramic Tube
Voltage Rating: 500V **AC**
Agency Approvals: Std. 248-14
UL Recognized 25-7, **500V AC;**
File E91958, Guide JFHR2
UL Recognized 10-30, **500V AC,**
File E56412, Guide JFHR2

Catalog Symbol & Current Ratings

FWH-.250A6F	FWH-010A6F
FWH-.500A6F	FWH-12.5A6F
FWH-001A6F	FWH-015A6F
FWH-002A6F	FWH-016A6F
FWH-3.15A6F	FWH-020A6F
FWH-005A6F	FWH-025A6F
FWH-6.30A6F	FWH-030A6F
FWH-007A6F	

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 2042

BIF document: 2081

BIF documents: 720038 (Fuse)
Time-Current 35785256, 50955

¼" x 1¼" Fast Acting **Fuses**

TDC10

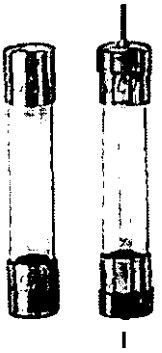
Fast Acting
Physical Size:
¼" x 1¼" **(3AG)**
(6.3mm x **32mm)**
Construction: Glass Tube
voltage Rating: see Below
Agency Approvals:
Conforms to British Standard BS-2950A, **I.R.** 10Im@Vm.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Catalog Symbol & Current Ratings

1000 Volts AC	250 Volts AC
TDC10-50mA	TDC10-1.5A
TDC10-60mA	TDC10-2A
TDC10-100mA	TDC10-3A
TDC10-150mA	TDC10-5A
TDC10-250mA	150 Volts AC
750 Volts AC	TDC10-7A
TDC10-500mA	100 Volts AC
500 Volts AC	TDC10-10A
TDC10-750mA	32 Volts AC
350 Volts AC	TDC10-12A
TDC10-1A	TDC10-15A
—	TDC10-20A
—	TDC10-25A

AGC
AGC-V (Axial Leads)



Fast Acting
Physical Size:
¼" x 1¼" **(3AG)**
(6.3mm x **32mm)**
Construction: Glass Tube
Albaloy **Plated Brass End** Caps
Voltage Rating: See **Below**
Interrupting Rating: see Below
Agency **Approvals: Std.** 248-14
UL Listed, Guide JDYX, File E19180, 0-10A
UL Recognized, **Guide** JDYX2, File E19180, 15-30A
CSA Certification, **Class** 1422-01, **File 53787**

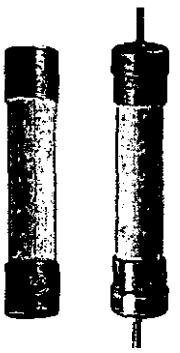
CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Electrical Characteristics

Current Rating	Rated Voltage		Interrupting Rating[1]	
	AC (Max.)	DC (Max.)[2]	AC	DC[2]
1/20	250V	250V	35A	35A
1/16	250V	250V	35A	35A
1/10	250V	250V	35A	35A
1/8	250V	250V	35A	35A
3/16	250V	250V	35A	35A
2/10	250V	250V	35A	35A
1/4	250V	250V	35A	35A
3/10	250V	250V	35A	35A
3/8	250V	250V	35A	35A
45/100	250V	250V	35A	35A
1/2	250V	250V	35A	35A
3/4	250V	250V	35A	35A
1	250V	250V	35A	35A
1 1/4	250V	250V	100A	100A
1 1/2	250V	250V	100A	100A
2	250V	250V	100A	100A
2 1/4	250V	250V	100A	100A
2 1/2	250V	250V	100A	100A
3	250V	250V	100A	100A
4	250V	250V	200A	200A
5	250V	250V	200A	200A
6	250V	250V	200A	200A
7	250V	250V	200A	200A
8	250V	250V	200A	200A
9	250V	250V	200A	200A
10	250V	250V	200A	200A
15	32V	32V	1000A	1000A
20	32V	32V	1000A	1000A
25	32V	32V	1000A	1000A
30	32V	32V	1000A	1000A

[1]Interrupting ratings were measured at 70% – 80% power factor on AC, and at a time constant described in UL 198L.
[2]DC ratings are self certified.

ABC
ABC-V (Axial Leads)



Fast Acting
Physical Size:
¼" x 1¼" (3AB)
(6.3mm x **32mm)**
Construction:
Ceramic Tube
Voltage Rating:
See Below
Interrupting **Rating:** see Below
Agency Approvals: Std. 248-14
UL Listed, **Guide** JDYX **File** E19180, **0-15A**
UC Recognized, Guide JDYX2, **File** E19180, 20-25A
CSA Certification, Class 1422-01, **File** 53787, 0-15A, **Class** 1422-30, **File 53787,** 20-25A

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Electrical Characteristics

Current Rating	Rated Voltage		Interrupting Rating[1]	
	AC (Max.)	DC (Max.)[2]	AC	DC[2]
¼	250V	250V	35A	35A
½	250V	250V	35A	35A
¾	250V	250V	35A	35A
1	250V	250V	35A	35A
1½	250V	250V	100A	100A
2	250V	250V	100A	100A
2½	250V	250V	100A	100A
3	250V	250V	100A	100A
4	250V	250V	200A	200A
5	250V	250V	200A	200A
6	250V	250V	200A	200A
7	250V	250V	200A	200A
8	250V	250V	200A	200A
10	250V	250V	200A	200A
15	250V	250V	750A	200A
20	250V	250V	400A	200A
25	125V	125V	1000A	1000A
30	125V	125V	1000A	1000A

[1]Interrupting ratings were measured at 70% – 80% power factor on AC, and at a time constant described in UL 198L.
[2]DC ratings are self certified.

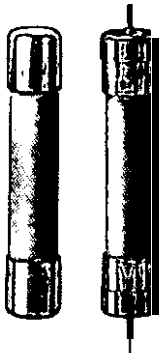
BIF document: 2043

BIF document: 2001

BIF document: 2000

¼" × 1¼" Fuses

GBB GBB-V (Axial Leads)



Very Fast Acting
Physical Size:
¼" × 1¼" (3AB)
(6.3mm x 32mm)
Construction:
Ceramic Cartridge
Voltage Rating:
250V AC/125V DC
Agency Approvals: Std. 248-14
UL Recognized, I-30. 125V DC/250V AC, File E56412, Guide JFHR2
CSA Certified. 1 - 10, 125V DC/250V AC, File 53787, Class 1422-01

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Catalog Symbol and Current Ratings

GBB-1	GBB-6	GBB-15
GBB-1¼	GBB-7	GBB-20
GBB-2	GBB-8	GBB-25
GBB-3	GBB-9	GBB-30
GBB-4	GBB-10	—
GBB-5	GBB-12	—

BIF document: 2013

TDC11

Time Lag
Physical Size:
¼" × 1¼" (3AG)
(6.3mm × 32mm)
Construction:
Glass Tube
Voltage Rating:
See Below
Interrupting
Rating: 10 times rated current @ Vm.

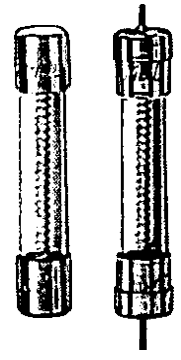
CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Catalog Symbol and Current Ratings

1000 Volts AC	250 Volts AC
TDC11-50mA	TDC11-1.5A
TDC11-60mA	TDC11-2A
TDC11-100mA	TDC11-3A
TDC11-150mA	TDC11-5A
TDC11-250mA	150 Volts AC
750 Volts AC	TDC11-7A
TDC11-500mA	100 Volts AC
500 Volts AC	TDC11-10A
TDC11-750mA	—
350 Volts AC	—
TDC11-1A	—

BIF document: 2043

MDL MDL-V (Axial Leads)



Time-Delay
Physical Size:
¼" × 1¼" (3AG)
(6.3mm x 32mm)
Construction:
Glass Tube
Albaloy Plated
Bras End Cap?.
Voltage Rating: See Below
Interrupting **Rating:** See Below
Agency Approvals: Std. 248-14
UL listed, Guide JDYX, File El 9180; 1/16-8A
CSA Certification Class 1422-01, File 53787, 1/16-8A
UL Recognized, Guide JDYX2, File E19180, 8.1-30A

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

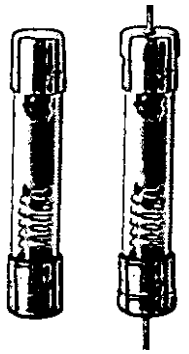
Electrical Characteristics

Current Rating	Rated Voltage		Interrupting Rating[1]	
	AC (Max.)	DC (Max.)[2]	AC	DC[2]
1/16	250V	250V	35A	35A
1/10	250V	250V	35A	35A
1/8	250V	250V	35A	35A
2/10	250V	250V	35A	35A
3/16	250V	250V	35A	
¼	250V	250V	35A	35A
3/10	250V	250V	35A	35A
⅜	250V	250V	35A	35A
½	250V	250V	35A	35A
¾	250V	250V	35A	35A
1	250V	250V	35A	35A
1¼	250V	250V	100A	100A
1½	250V	250V	100A	100A
2	250V	250V	100A	100A
2¼	250V	250V	100A	100A
2½	250V	250V	100A	100A
3	250V	250V	100A	100A
4	250V	250V	200A	10,000A
5	250V	250V	200A	10,000A
6	250V	250V	200A	10,000A
7	250V	250V	200A	10,000A
8	250V	250V	200A	200A
9	32V	250V	1000A	10,000A
10	32V	250V	1000A	10,000A
15	32V		1000A	
20	32V		1000A	
25	32V		1000A	
30	32V		1000A	

[1]Interrupting ratings were measured at 70% – 80% power factor on AC, and at a time constant described in UL 198L.
[2]DC ratings are self certified.

BIF document: 2004

1/4" x 1 1/4" and 13/32" x 1 1/2" Fuses



MDQ
MDQ-V (Axial Leads)

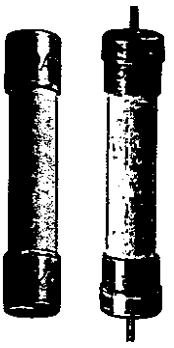
Dual Element Time-Delay
Physical Size:
1/4" x 1 1/4" (3AG)
(6.3mm x 32mm)
Construction: Glass Tube
Agency Approvals: Std. 248-14
UL Listed, File E19180; Guide JDYX, Xe-7A
CSA Certification, File 47233, Class 1422-01, 1/16-7A
UL Recognized, Guide JDYX2, File E19180, 7.1.30A

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Catalog Symbol & Current Ratings

250 Volts AC			
MDQ-1/100	MDQ-3/8	MDQ-1 9/10	MDQ-7
MDQ-1/32	MDQ-4/10	MDQ-2	
MDQ-1/16	MDQ-1/2	MDQ-2 1/4	
MDQ-1/10	MDQ-6/10	MDQ-2 1/2	
MDQ-1/8	MDQ-3/4	MDQ-2 9/10	
MDQ-15/100	MDQ-8/10	MDQ-3	
MDQ-175/1000	MDQ-1	MDQ-3 2/10	
MDQ-3/16	MDQ-1 2/10	MDQ-4	
MDQ-2/10	MDQ-1 1/4	MDQ-5	
MDQ-1/4	MDQ-1 1/2	MDQ-6	
MDQ-3/10	MDQ-1 9/10	MDQ-6 1/4	
32 Volts AC			
MDQ-7 1/2	MDQ-9	MDQ-12	
MDQ-8	MDQ-10	MDQ-15	

BIF document: 2044



MDA
MDA-V (Axial Leads)

Time-Delay
Physical Size:
1/4" x 1 1/4" (3AB)
(6.3mm x 32mm)
Construction: Ceramic Tube; Albaloy Plated Brass End Caps
Agency **Approvals:** Std. 248-14
UL Listed, Guide JDYX, File E19180, O-I 5A
CSA Certification, Class 1422-01, File 53787, 0-15A

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Electrical Characteristics

Current Rating	Rated Voltage		Interrupting Rating[1]	
	AC (Max.)	DC (Max.)[2]	AC	DC[2]
3/10	250V	250V	35A	35A
1/4	250V	250V	35A	35A
1/2	250V	250V	35A	35A
3/4	250V	250V	35A	35A
1	250V	250V	35A	35A
1 1/2	250V		100A	
2	250V		100A	100A
2 1/2	250V		100A	
3	250V	250V	100A	100A
4	250V		200A	
5	250V		200A	
6	250V		200A	
7	250V		200A	
8	250V		200A	
10	250V	250V	200A	200A
15	250V	250V	1500A	
20	250V		1500A	
25	250V		1000A	
30	250V		1000A	

[1]Interrupting ratings were measured at 70% – 80% power factor on AC, and at a time constant described in UL 198L.
[2]DC ratings are self certified.

BIF document: 2002

AGU
Fast **Acting**
Physical Size:
13/32" x 1 1/2" (5 AG)
(10.3mm x 38.1mm)
Construction: Glass Tube
No Agency Listings

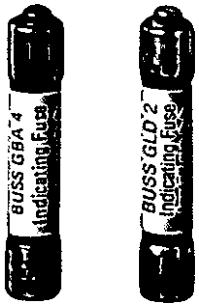
CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Catalog Symbol & Current Ratings

250 Volts AC	32 Volts AC		
AGU-1	AGU-4	AGU-20	AGU-50
AGU-2	AGU-5	AGU-25	AGU-60
AGU-3	AGU-8	AGU-30	—
—	AGU-10	AGU-35	—
—	AGU-15	AGU-40	—

BIF document: 2008

Pin Indication **Type**



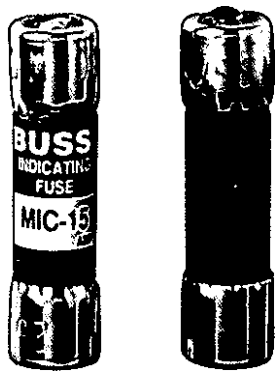
GBA and **GLD**

Fast Acting
Physical Size:
¼" × 1 ¼" (3AG)
(6.6mm × 31.8mm)
Agency Approvals: Std. 248-14
UL Listed, 0-5A/125V AC,
10,000 AIC, Guide JDYX,
File EI9180
UL Recognized.
6A/125V AC, 1 000AIC
8-15A/150V AC/DC, 300 AIC
Guide JDYX2, File E19180
CSA Certified:
0-5A/1 25V AC, 10,000 AIC
Class 1422-01, File 53787
General **Information:** Type GBA has a "red" pin for high visibility Type GLD has an Albaloy-plated pin for positive, electrical signal circuit activation.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Catalog Symbol & Current Ratings

125V AC		
GLD-½	GLD-2	GLD-6
GLD-¾	GLD-3	GLD-10
GLD-1	GLD-4	GLD-12
GLD-1½	GLD-5	GLD-15
125V AC		
GBA-½	GBA-2	GBA-8
GBA-¾	GBA-3	GBA-10
GBA-1	GBA-4	GBA-15
GBA-1¼	GBA-5	



MIC and **MIN**

Fast Acting
Physical Size:
13/32" × 1 ½" (5AG)
(10.3mm × 38.1mm)
Agency Approvals: Std. 248-14
MIC—0-15A UL Listed, Guide JDYX, File E19180
MIN—1-5A CSA Certified.
Class 1422-01, File 53787
General **Information:** Type MIN has a "red" pin for high visibility. Type MIC has a silver-plated pin for positive, electrical signal activation.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Catalog Symbol & Current Ratings

250V AC		32 Volts
MIC-1	MIC-5	MIC-20
MIC-2	MIC-10	MIC-25
MIC-3	MIC-15	MIC-30
250V AC		32 Volts
MIN-1	MIN-5	MIN-20
MIN-2	MIN-10	MIN-25
MIN-3	MIN-15	MIN-30

F N A

Time-Delay
Physical Size:
13/32" × 1 ½"
(10.3mm × 38.1mm)
Agency Approvals: Std. 248-14
UL Listed 0-8/10 A/250V, 1-15A/125V
Guide JDYX, File 19180
CSA Certified, 0-8/10 A/250V,
1-10A/125V, Class 1422-01,
File 53787
General **Information:** Fuses above 10A have dual-tube construction.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Catalog Symbol & Current Ratings

250V AC IR*	125V AC IR	125V AC IR	125V AC
FNA-1/10	FNA-1	FNA-3	FNA-9
FNA-⅛	FNA-1¼	FNA-3 2/10	FNA-10 IR
FNA-1 5/100	FNA-1¼	FNA-3½	FNA-12 10,000A
FNA-2/10	FNA-1 1/10	FNA-4	FNA-15
FNA-¼ IR	FNA-1½ IR	FNA-4½ IR	32 Volts
FNA-3/10 35A	FNA-1 5/10 10,000A	FNA-5 10,000A	FNA-20
FNA-4/10	FNA-1 8/10	FNA-5 8/10	FNA-25
FNA-½	FNA-2	FNA-6	FNA-30
FNA-5/10	FNA-2¼	FNA-6¼	—
FNA-¾	FNA-2½	FNA-7	—
FNA-9/10	FNA-2 9/10	FNA-8	—

*All have interrupting rating of 10,000A at 125V.

BIF document: 2012

BIF document: 2047

BIF document: 2029

Pin Indication **Type/Actuators/Limiters**

MIS

Non-Time-Delay
Physical Size:
13/32" x 2"
(10.3mm x 50.8mm)
Voltage Rating: 600V AC
Interrupting Rating: 200,000 AIC

Catalog Symbol & Current Ratings

600V AC		
MIS-1	MIS-4	MIS-10
MIS-2	MIS-5	MIS-12
MIS-3	MIS-8	

Test Specifications

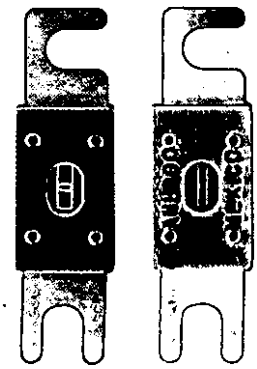
Fuse	Load	Opening Time
All	110%	4 hrs. (min.)
1-5A	150%	6 min. (max.)
6-12A	150%	12 min. (max.)

KAZ

Actuator [Not a Fuse)
Physical Size:
13/32" x 2"
(10.3mm x 50.8mm)
Voltage Rating: 600V AC
Interrupting Rating: 200,000A
Agency Approvals:
UL listed. Guide JDVS.
File E58836
Recommended Use: Mounts in Buss signal blocks 2778, 2837 and 2838.
General Information: Connects in parallel with fuses having a rating of 50 amperes or larger and opens at 10A or more.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 2021



ANN Limiter

Very Fast Acting
Physical Size:
7/8" x 3%"
(22.2mm x 81.0mm)
Voltage Rating: 125V AC IR = 2500A
80V DC IR = 2700 A
Agency Approvals: 35-400A @ 125V AC, IR=2500A and 80V CC IR=2700A: UL Recognized Guide JFHR2, File E56412; CSA Certified Class 1422-30, File 53787
CE for 35-400A @ 125V AC, IR=2500A
Fuseholder: 4164

Catalog Symbol & Current Ratings

125V AC, IR 2500A @ 125V			
ANN-10	ANN-90	ANN-225	ANN-400
ANN-35	ANN-100	ANN-250	ANN-500
ANN-40	ANN-125	ANN-275	ANN-600
ANN-50	ANN-150	ANN-300	ANN-700
ANN-60	ANN-175	ANN-325	ANN-800
ANN-80	ANN-200	ANN-350	

BIF document: 2023 & 2133

ANL

Non-Time Delay
Voltage Rating: 32V AC
Agency Approvals:
UL Recognized, CSA Certified,
35-750A @ 80V DC, IR = 2700A
Guide JFHR2, File E56412
Class 1422-30, File 53787
Fuseholder: 4164

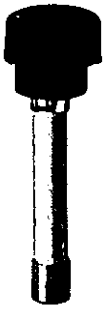
Catalog Symbol A **Current** Ratings

32 Volts			
IR 6000A			IR 2700A
ANL-35	ANL-125	ANL-250	ANL-500
ANL-40	ANL-130	ANL-275	ANL-600
ANL-50	ANL-150	ANL-300	ANL-675
ANL-60	ANL-175	ANL-325	ANL-750
ANL-80	ANL-200	ANL-350	—
ANL-100	ANL-225	ANL-400	—

BIF document: 2024 & 2133

In-Line Fuse and Fuseholders

GLR



Fast Acting, Non-rejecting
Voltage Rating: 300V AC or less
Interrupting Rating: 10,000A
Agency Approvals: Std. 248-14
UL Listed, 0-15A/300V AC
(Guide JDYX, File EI 9180)
CSA Certified. 0-10A/300V
(Class 1422-01, File 53787)

Electrical Ratings **for Type GLR Fuses** and **Non-Rejection** Style **Carriers**

Fuse	Carrier[1, 2]	Fuse	Carrier[1, 2]
GLR-3/16	HLR	GLR-5	HLR
GLR-½	HLR	GLR-6	HLR
GLR-1	HLR	GLR-7	HLR
GLR-1½	HLR	GLR-8	HLR
GLR-1 9/10	HLR	GLR-9	HLR
GLR-2	HLR	GLR-10	HLR
GLR-3	HLR	GLR-12	HLR
GLR-4	HLR	GLR-15	HLR-2A

1) Carrier is UL Recognized, Guide IZLT2, File E14853 and CSA Certified, Class 6225-01, File 47235 12A, 300V AC.
2) Units can be panel-mounted either in a knockout hole as shown above with a separate steel clip (BK/A-104) or in a keyhole punch using separate mounting clip #6374 for panels of thickness 0.043"to 0.062" or #4909 for thickness 0.030" to 0.042"
*For two leads order HLR-2A, 15A, 300V

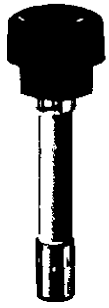
CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 2032

HLR

Fuseholder Time **Delay,** Non-rejecting
Voltage **Rating:** 300V AC or less
Interrupting **Rating:** 10,000A
Agency Approvals: Std. 248-14
0-10A, UL Listed (Guide JDYX, File E19180)
CSA Certified, (Class 1422-01, File 53787)

GMF and GRF



Electrical Ratings for Type GMF and GRF Fuses and Non-Rejection Style Carriers

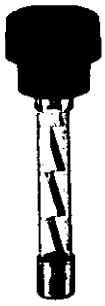
Fuse	Carrier[1, 2]	Fuse	Carrier[1, 2]
GMF-3/10	HLR	GMF-3	HLR
GMF-½	HLR	GMF-3 3/10	HLR
GMF-9/10	HLR	GMF-4	HLR
GMF-9/10	HLR	GMF-5*	HLR
GMF-1	HLR	GMF-6¼	HLR
GMF-1¼	HLR	GMF-10	HLR
GMF-1 9/10	HLR	GRF-7	HLR
GMF-2	HLR	GRF-8	HLR
GMF-2½	HLR	GRF-10	HLR
GMF-2 9/10	HLR		

1) Carrier is UL Recognized, Guide IZLT2, File E14853 and CSA Certified, Class 6225-01, File 47235 12A, 300V AC.
2) Units can be panel-mounted either in a knockout hole as shown above with a separate steel clip (BK/A-104) or in a keyhole punch using separate mounting clip #6374 for panels of thickness 0.043"to 0.062" or #4909 for thickness 0.030" to 0.042"
*For two leads order HLR-2A, 15A, 300V

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 2031

GLQ



Fast-Acting, Size Rejecting
Voltage Rating: 300V AC or less
Interrupting Rating: 10,000A
Agency Approvals: Std. 248-14
UL Listed (Guide JDYX, File E19180)
CSA Certified, (Class 1422-01, File 53787)

Electrical Ratings for Type GLQ Fuses and Rejection Style Carriers

Fuse	Carrier[3, 4]	Fuse	Carrier[3, 4]
GLQ-1	HLQ-1 9/10	GLQ-3	HLQ-3 3/10
GLQ-1½	HLQ-1 9/10	GLQ-4	HLQ-5
GLQ-1 9/10	HLQ-1 9/10	GLQ-5	HLQ-5
GLQ-2	HLQ-3 3/10	GLQ-9	HLQ-10
GLQ-2½	HLQ-3 3/10	GLQ-10	HLQ-10

3) Carrier is UL Recognized, Guide IZLT2, File E14853 and CSA Certified, Class 6225-01, File 47235 10A, 300V AC.
4) Units can be panel-mounted either in a knockout hole as shown above with a separate steel clip (BK/A-104) or in a keyhole punch using separate mounting clip #6374 for panels of thickness 0.043"to 0.062" or #4909 for thickness 0.030" to 0.042"

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 2033

HLQ[3] Fuseholder

GMQ

Time-Delay, Size Rejecting
Voltage Rating: 300V AC or less
Interrupting Rating: 10,000A
Agency Approvals: Std. 248-14
UL Listed (Guide JDYX, File E19180).
CSA Certified, (Class 1422-01, File 53787)

Electrical Ratings for Type GMQ Fuses and Rejection Style Carriers

Fuse	Carrier[3, 4]	Fuse	Carrier[3, 4]
GMQ-½	HLQ-½	GMQ-2½	HLQ-3 3/10
GMQ-9/10	HLQ-1 9/10	GMQ-3	HLQ-3 3/10
GMQ-8/10	HLQ-1 9/10	GMQ-3 3/10	HLQ-3 3/10
GMQ-1	HLQ-1 9/10	GMQ-4	HLQ-5
GMQ-1¼	HLQ-1 9/10	GMQ-6	HLQ-8
GMQ-1 9/10	HLQ-1 9/10	GMQ-6¼	
GMQ-2	HLQ-3 3/10		

3) Carrier is UL Recognized, Guide IZLT2, File E14853 and CSA Certified, Class 6225-01, File 47235 10A, 300V AC.
4) Units can be panel-mounted either in a knockout hole as shown above with a separate steel clip (BK/A-104) or in a keyhole punch using separate mounting clip #6374 for panels of thickness 0.043"to 0.062" or #4909 for thickness 0.030" to 0.042"

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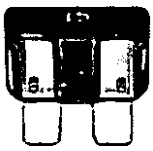
BIF document: 2030

Blade-Type Fuses



ATC® Blade-Type Fuse

Fast Acting
Voltage Rating: 32v
Interrupting Rating: 1,000A
Agency **Approvals:**
UL Recognized, (3-40A)
(Guide JFHR2, File E56412)

Catalog Symbol & Current Ratings

ATC-1	Black
ATC-2	Gray
ATC-3	Violet
ATC-4	Pink
ATC-5	Tan
ATC-7½	Brown
ATC-10	Red
ATC-15	Blue
ATC-20	Yellow
ATC-25	Clear
ATC-30	Green
ATC-40	Amber

BIF document: 2009

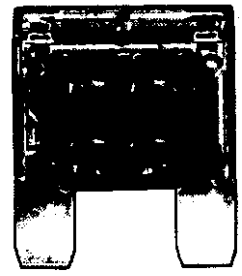
ATM Mini®–Fuse

Fast 'Acting
Voltage Rating: 32V
Interrupting Rating: 1,000A

Catalog Symbol & Current Ratings

ATM-2	Gray
ATM-3	Violet
ATM-4	Pink
ATM-5	Tan
ATM-7½	Brown
ATM-10	Red
ATM-15	Lt. Blue
ATM-20	Yellow
ATM-25	Clear
ATM-30	Green

BIF document: 2048



MAX Maxi®–Fuse

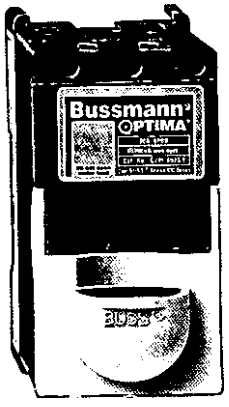
Fast **Acting**
Voltage Rating: 32v
Interrupting Rating: 1,000A

Catalog Symbol & Current Ratings

MAX-20	Yellow
MAX-30	Green
MAX-40	Orange
MAX-50	Red
MAX-60	Blue

BIF document: 2049

Optima'" Overcurrent Protection Module



OPM-1038_ _

Non-Switch Series

for **13/32" x 1½" (10mm x 38mm)** Fuses

Materials: Grey Thermoplastic

UL Flammability: UL 94V0

Temperature Rating **(RTI):** 130" C

Agency Approvals:

UL (see table)

CSA Certified, C22.2 No. 39. Class 6225-01, File 47235

IEC (see table)

Shipping Weight: Approximately 213g/.47 lb.

Carton Quantity: 1

Recommended Fuse Types

Class CC	Midget (Non-Rejection)	European
LP-CC	KTK	C10M
KTK-R	FNM	C10G
FNQ-R	FNQ	

Physical Characteristics

- Small size matches 45mm IEC starter width.
- Accepts #8-18 AWG stranded, #10-18 AWG solid wire
- 3-pole.

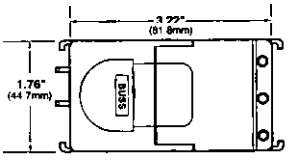
Product Features

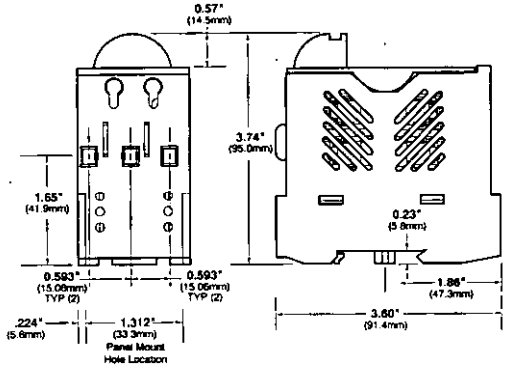
- "Open" fuse indication lights.
- Cam action handle for easy removal.
- Finger safe terminals. (Qualified as IP20 per IEC 529)
- Removable module for convenient fuse loading.
- 35mm DIN-rail or screw panel mounting (#8 screw, 1¼" long).
- Dead-front construction.
- Padlockable for lock-out, tag-out requirements.

Additional Features

- Option for remote "open fuse" status indication feature available (less downtime!). See BIF document for additional wiring details.
- Offered with Class CC rejection clips or European 10 x 38mm clips to meet global needs.
- Wire ready: Saves time as terminals are ready to accept wires.

Dimensional Data





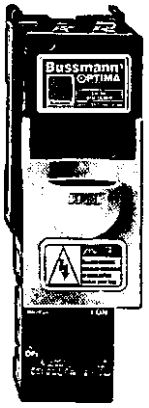
CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Non-Switch Series

Catalog Number	Electrical Rating	SC Rating	Clips	Remote open Fuse Indication	U.L. Information Std.	File	Guide	IEC	CE
OPM-1038	30A, 600V U.L./CSA** (Max. 3 watts per fuse) 32A, 660V IEC		Non-rejection	No	Recognized U.L. 512	E14853	IZLT2	IEC 269-2-I	Yes
OPM-1038R	30A. 600V U.L./CSA**	200kA	Rejection	NO	Listed U.L. 512	EI4853	IZLT		Yes
OPM-1038C	30A, 600V U.L./CSA** (Max. 3 watts per fuse) 32A, 660V IEC	*	Non-rejection	Yes	Recognized U.L. 512	E14853	IZLT2	IEC 269-2-1	N o
OPM-1038RC	30A. 600V U.L./CSA**	200kA	Rejection	Yes	Listed U.L. 512	EI4853	IZLT		NO

*Rating varies depending on fuse used in module.

Optima'" Overcurrent Protection Module



OPM-**1038__SW__**

Load Bleak Disconnect Switch
for **13/32" x 1½" (10mm x 38mm)** Fuses
Materials: Grey Thermoplastic
UL Flammability: UL 94V0
Temperature Rating **(RTI):** 130" C
Agency Approvals:
UL (see table)
CSA Certified. C22.2 No. 39, Class 6225-01, File 47235
IEC (see table)
Shipping Weight: Approximately 335g/.74 lb.
Carton Quantity: 1

Horsepower Rating of Switch

3PH	V	240	480	600
	HP	5	10	15

Recommended Fuse Types

Class CC	Midget (Non-Rejection)	European
LP-CC	KTK	C10M
KTK-R	FNM	C10G
FNQ-R	FNQ	

CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

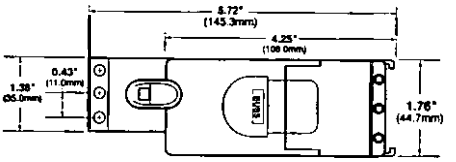
Physical Characteristics

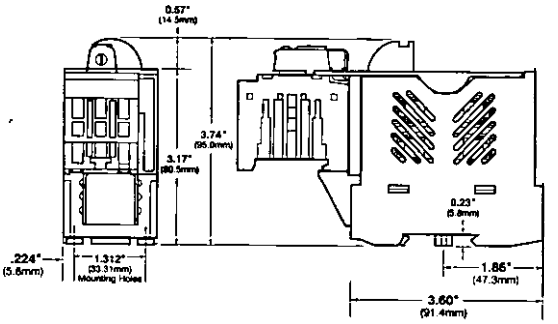
- Small size matches 45mm IEC starter width.
- Accepts #8-18 AWG stranded, #10-18 AWG solid wire.
- 3 pole.
- Handle and shaft required for through the door operation. See BIF document for details.

Product Features

- "Open" Fuse indication lights.
- Finger safe terminals.(Qualified as IP20 per IEC 529)
- Cam action handle for easy module removal.
- 35mm DIN-rail or screw panel mounting (#8 screw, 1¼" long).
- Dead front construction. No exposed contacts for added safety.
- Padlockable for lock-out. tag-out requirements.
- Option for remote "open fuse" status indication feature available (reduces downtime!). See BIF document for additional wiring details.
- Offered with Class CC rejection clips or European 10 x 38mm clips to meet global needs.
- Wire ready: Saves time as terminals are ready to accept wires.

Dimensional Data





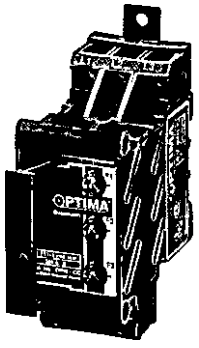
Switch Series

Catalog Number	Electrical Rating	SC Rating	Clips	Remote Open Fuse Indication	U.L. Information			IEC	CE
					Std.	File	Guide		
OPM-1038SW	30A, 600VAC U.L./CSA 32A, 660V IEC	*	Non-rejection	No	Recognized U.L. 508	E161278	NLRV2	IEC 947-3	Yes
OPM-1038RSW	30A, 600VAC U.L./CSA	100kA	Rejection	No	Listed U.L. 508	E161278	NLRV		Yes
OPM-1038SWC	30A, 600VAC U.L./CSA 32A, 660V IEC	*	Non-rejection	Yes	Recognized U.L. 508	E161278	NLRV2	IEC 947-3	No
OPM-1038RSWC	30A, 600VAC U.L./CSA	100kA	Rejection	Yes	Listed U.L. 508	E161278	NLRV		No

*Rating varies depending on fuse used in module.

BIF document: 1103

Optima'" Overcurrent Protection Module



OPM-CC

Voltage Rating: 30 Amps. or less
600 Volts AC.
Interrupting Rating: 200,000A RMS
Agency Approvals:
UL Listed, UL512, Guide IZLT, File E14853
CSA Certified, C22.2 No. 39, Class 6225-01, File 47235
Housing and Module Material UL Recognized, High Performance Thermoplastic UL 94V0

Physical Characteristics
. Holds Buss® LP-CC or other Buss Class CC fuses.
. Small size matches 45mm IEC starter width.
- Rated for #18 – #10 gauge wire, both stranded and solid, and a variety of dual wire combinations.
- 3 pole.
- Phil/slot screws.
- Pressure plate terminations.

Current Limitation
- The Class CC fuse affords a high degree of current limitation.
- Provides Type 2 protection for motor starters *(when used with properly sized LOW-PEAK® Class CC fuses from Bussmann)*.

Safety Features
- Rejection of non-Class CC fuses
. Open fuse indication lights.
- Safety handle.
- Finger safe terminals.
- Removable module fdr convenient fuse loading (OPM-PM).
- 35mm Din-rail or screw mount.
- Dead-front construction. No exposed contacts with module installed
- Padlockable.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

(Shown with optional handle sold separately Part No. OPH-125.)

OPM-SW

Load Break Disconnect Switch
Voltage Rating: 30 Amps. maximum; 600 Volts AC or less
Short-Circuit Rating: Suitable for use on a circuit capable of delivering not more than 100,000 A RMS Sym. 600V max. when protected by 60A Class J or 30A Class CC fuses on the line side of the device.

Horsepower Rating of Switch:

	V	208	240	480	600
3PH	HP	5	7.5	15	20

Agency Approvals:
UL Listed, UL508, Guide NLRV, File El61278
CSA Certified, C22.2 No. 39, Class 6225-01, File 47235

Physical Characteristics
- Holds Buss@ LP-CC or other Buss Class CC fuses.
- Small size matches 45mm IEC starter width.
- Accepts #14 – #10 gauge wire, both stranded and solid.
- 3 pole.
- Phil/slot screws.
- Pressure plate terminations.

. Handle and shaft are required for proper operation.

Current Limitation
- Class CC levels.
- Provides Type 2 protection for motor starters (when *used with properly sized LOW-PEA@ Class CC fuses from Bussmann*).

Safety Features
- Load break. Interlock prevents fuse removal unless switch is in the off position.
- Rejection of non-Class CC fuses.
- Open fuse indication lights.
- Safety handle.
- Finger safe terminals.
- Pull-out module for convenient fuse loading and removal (OPM-PS).
- 35mm Din-rail or screw mount.

. Dead-front construction. No exposed contacts for added safety.
- Padlockable.

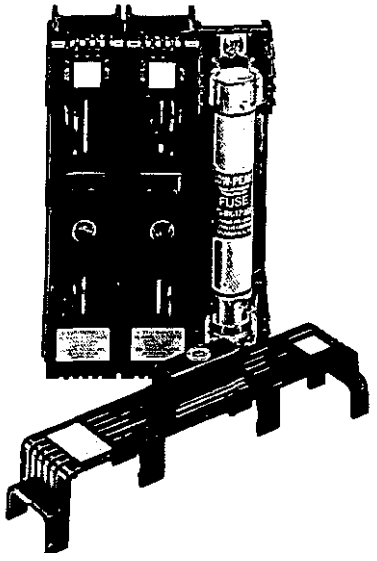
Handle and Shafts must be ordered separately. Switch may be locked in on or off position with handle (OPH-125) installed.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 1100

BIF document: 1101

SAMI Fuse Covers



SAMI Series-

For Class J, **RK1, RK5,** H, **K5,** CC, **G (0-30A)** and Midget type fuses.

Voltage Rating:

Non-Indicating O-600 Volt AC/DC

Indicating - 90 to 600 Volt AC

-115 to 600 Volt DC

Ampere Rating: O-100 Amps

Agency **Approvals:** UL Listed; SAMI-1I through SAMI-6I SAMI-8I and SAMI-9I, SAMI-1N through SAMI-6N, SAMI-8N and SAMI-9N

UL Recognized; SAMI-7I and SAMI-7N

CSA Certified, File LR47235-93C

- Innovative design, covers exposed terminals and contacts of Bussmann fuseblocks.
- Fits most competitive fuseblocks.
- Buss Yellow light on indicating SAMI shows when the fuse is open-helps trouble shoot the system and reduces downtime.
- All versions are reusable-no need to pay for indication every time a fuse opens.
- Indication contacts have teeth to break oxidation layer on the existing fuse endcap to provide a clear signal path.
- Less than .6mA leakage current at 600 volt.
- Visual marking of line and load side.
- SAMI cover ends can easily be cut away if necessary, to fit cover over existing wiring or to fit most safety switches.
- Dead front construction provides added protection against accidental contact by maintenance personnel.
- Labels are provided with the SAMI fuse cover for writing in circuit or fuse information.
- One cover is required for each pole.

BIF document: 1204 (Trimming Guides: 12041, 12042, 12043, 12044, 12045, 12046, 12048, 12049)

Dimensional Data **(Inches)**

Catalog Number**	Description	A	B	C
SAMI-1_	600V, J (0-30A) and 600V, T (35-60A)* 250V, RK, K5, H (35-60A)-	5.02	1.03	1.94
SAMI-2_	600V, RK, K5, H (0-30A)	7.03	1.30	2.07
SAMI-3_	600V, J (65-100A)	7.03	1.30	2.33
SAMI-4_	250V, RK, K5, H (65-100A)	8.20	1.30	2.18
SAMI-5_	600V, RK, K5, H (35-60A)	8.20	1.30	2.18
SAMI-6_	600V, J (35-60A)	4.98	1.17	2.14
SAMI-7_	600V, Midget, Class CC, G (0-30A)	3.82	0.75	1.72
SAMI-8†_	600V, RK, K5, H (65-100A)	10.38	1.50	2.33
SAMI-9_	250V, RK, K5, H (0-30A) and 600V, T (0-30A)	3.82	0.75	1.72

*Available in non-indicating only.
†SAMI-8A adapter available for small fusetron body design. SAMI-8I and SAMI-8N come standard with adapter (SAMI-8A).

****Catalog Numbers**

For Indicating Cover, add suffix **I**.

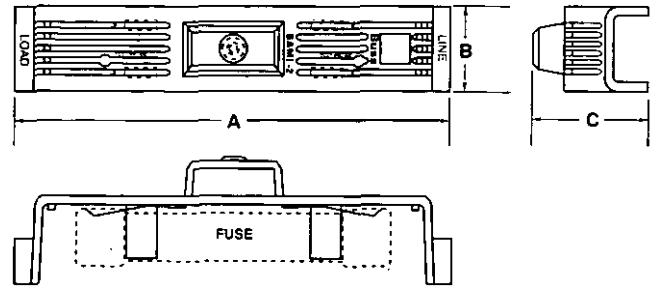
For Non-indicating cover, add suffix **N**.

Example: SAMI-7I = Indicating
SAMI-7N = Non-indicating

Indicating feature requires a minimum of 90VAC or 115V DC to illuminate lamp.

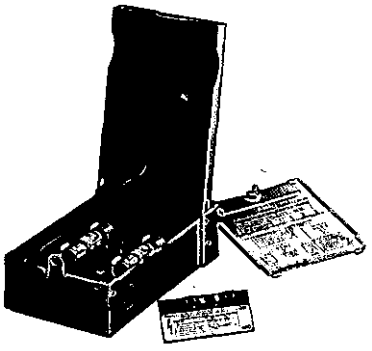
WARNING: To avoid electrical shock, turn power off before installing, removing or servicing.

Dimensional **Data**

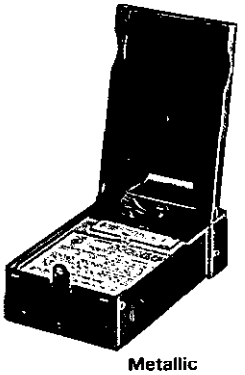


CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Fused and Non-Fused HVAC Disconnects



Metallic
Fused Disconnect



Metallic
Non-Fused Disconnect

Non-Metallic -
Disconnect

SERIES **B22_**

Rainproof Air Conditioner Pullout Units
Fused and Non-Fused Features:

- NEMA 3R Rainproof.
- Compact design but offers ample working space.
- Internal shield can be removed without tools.
- Specifications are embossed on internal shield.
- Knockouts on back, bottom, and both sides.
- Touchproof construction.
- Padlockable

Agency Approvals:
UL Listed to UL 1429
CUL Certified

Metallic: Single Phase 2W, 240 Volts AC
UL Guide WGEW
Wire Range: #14 #2 awg, Al-Cu wire

Main Rating	Catalog Number	Maximum HP[1] 120V	240V	Apprx. Dimensions H x W x D (in.)
30A	B221-30F* (Fused)	2	3	7⅝ x 6¼ x 3⅝
60A	B222-60F* (Fused)	3	10	7⅝ x 6¼ x 3⅝
60A	B222-60NF (Non-fused)	3	10	8⅝ x 4⅞ x 3⅝
—	96-3258-4 Replacement Pullout Head			

* Suitable for use as service equipment with optional field installed lug kit Number DPFG.
[1] Rated with Bussmann LPN-RK, FRN-R, DLN-R and HAC-R Dual Element Time Delay Fuses.

Shipping Weight: 2.7 lbs. per unit.
Case pack quantity: 10, **Case pack weight:** 30 lbs.

Non-Metallic: Single Phase 2W, 240 Volts AC
UL Guide WGEW
Material: Norell
Flammability Rating: 94V0
Wire Range: #14 #2 awg, Al-Cu wire

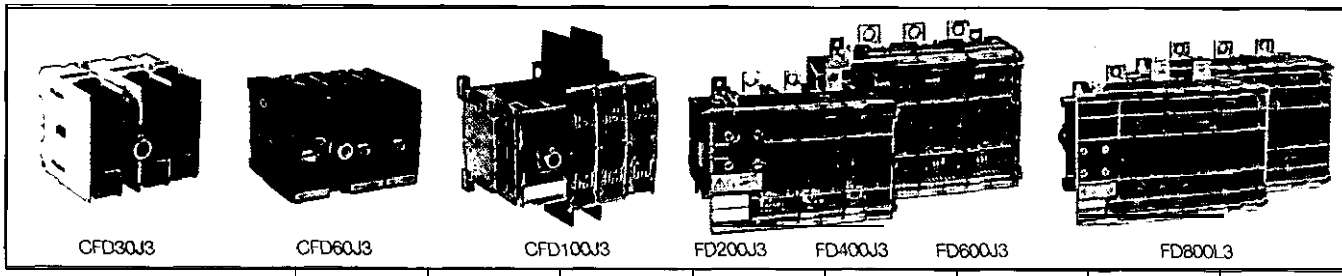
Main Rating	Catalog Number	Maximum HP[1] 120V	240V	Apprx. Dimensions H x W x D (in.)
30A	B221-30FNM (Fused)	2	3	8⅝ x 5 x 3½
60A	B222-60FNM (Fused)	3	10	8⅝ x 5 x 3½
60A	B222-60NFNM (Non-Fused)	3	10	8⅝ x 5 x 3½

[1] Rated with Bussmann LPN-RK, FRN-R, DLN-R and HAC-R Dual Element Time Delay Fuses.

Shipping Weight: 1.5 lbs. per unit.
Case pack quantity: 1.

CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

for Fusible Disconnect Switches **CFD30CC3 – FD800L3**



CFD30J3 CFD60J3 CFD100J3 FD200J3 FD400J3 FD600J3 FD800L3

Catalog number	3 pole	CFD30CC3	CFD30J3	CFD60J3	CFD100J3	FD200J3	FD400J3	FD600J3	FD800L3
General purpose amp rating	A	30	30	60	100	200	400	600	800
Approvals①	2 pole	N/A	N/A	N/A	UL98 & IEC	UL98 & IEC	UL98 & IEC	UL98 & IEC	UL98 & IEC
	3 pole	UL98 & IEC	UL98 & IEC	UL98 & IEC	UL98 & IEC	UL98 & IEC	UL98 & IEC	UL98 & IEC	UL98 & IEC
	4 pole	UL98 & IEC	UL98 & IEC	UL98 & IEC	UL98 & IEC	UL98 & IEC	UL98 & IEC	UL98 & IEC	UL98 & IEC
Technical ratings (UL,CSA)									
Max operating voltage	V	600	600	600	600	600	600	600	600
Max horsepower rating Three phase									
200 – 208V	HP	5/7.5	5/7.5	15	25	50	100/125	150	200
240V	HP	7.5	7.5	15	30	60	125	200	250
480V	HP	15	15	30	60	125	250	400	500
600V	HP	20	20	50	75	150	350	500	600
Single phase									
120V	HP	2	2	—	—	—	—	—	—
240V	HP	3	3	—	—	—	—	—	—
UL fuse class		CC	J	J	J	J,T	J,T	J,T	L
Technical ratings (IEC)									
Rated insulation and operational voltage. AC20 and DC20②		1000	1000	750	750	1000	1000	1000	1000
Rated thermal current, I_{th}									
AC 20/DC 20 open	A	32	32	63	125	250	400	630	800
AC 20/DC 20 enclosed	A	32	32	63	125	250	400	600	720
AC 21A ≤500V	A	32	32	63	125	250	400	630	800
≤690V	A	32	32	63	125	250	400	630	800
Rated operational power AC23									
400/415V	kW	14/15	14/15	30	80/90	132/140	210/230	315/340	350/380
690V	kW	25	25	60	132	230	330	540	600
Physical characteristics									
Weight 3 pole switch	lb	1.54	1.54	2.86	3.30	15.21	17.2	37.48	37.48
4 pole	lb	1.98	1.98	3.52	3.96	17.4	19.4	46.3	46.3
Dimension 3 pole H	in	3.82	3.82	3.94	5.66	7.87	7.87	11.42	11.42
W	in	4.17	4.17	5.63	7.06	10.31	11.22	14.69	14.69
D	in	4.21	4.21	5.04	5.09	7.83	8.11	9.21	9.21
Accessories									
Double break contacts		S	S	S	S	S	S	S	S
Fuse cover		S	S	S	•	S	S	S	S
Terminal lug kit		Integral	Integral	Integral	BDTL24	BDTL25	BDTL26	BDTL27	BDTL27
Terminal shroud		Not required	Not required	Not required	•	•	•	•	•
Auxiliary contact		•	•	•	•	•	•	•	•
Handle UL/NEMA type									
Type 1, 3R, 12		•	•	•	•	•	•	•	•
Type 1, 3R, 4, 4X, 12		•	•	•	•	•	•	•	•
Conversion kit									
6 pole		•	•	•	•	•	•	•	•
Transfer		•	•	•	•	•	•	•	•
Bypass		—	—	—	—	•	•	•	•
Mechanical interlock		•	•	—	—	•	•	•	•
Electrical interlock		—	—	—	—	•	•	•	•

S = Standard

• = Available

— = Not available

① UL listed switches are also CSA approved.

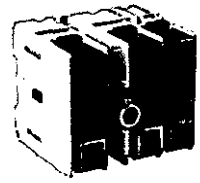
② 1000V IEC 408

UL listed, CSA approved, IEC rated, CE marked

For *additional information and detail, see the Bussmann Disconnect Switch Catalog, Item Number 3006*

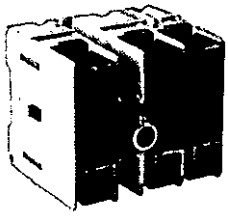
Base & DIN Rail Mounted UL Fuse Class J, CC

For a complete assembly, please select one of each:
1 switch
1 handle
1 shaft


CFD30J3 +


CDS180S +

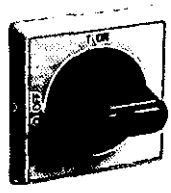

CDH3S


CFD30J3

30 Amp Switches, 600V

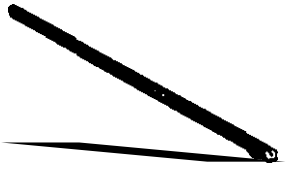
UL General Purpose Amp Rating	IEC Fuse Type 600V	Maximum Horsepower Rating Three Phase 200V	208V	240V	480V	600V	Terminal Lugs Wire Size	Wire Type	Catalog Number
3 pole									
30	J	5	7.5	7.5	15	20	#18 – 8	Cu	CFD30J3
30①	c c	5	7.5	7.5	15	20	#18 – 8	CL.	CFD30CC3
4 pole									
30	J	5	7.5	7.5	15	20	#18 – 8	Cu	CFD30J4
300	c c	5	7.5	7.5	15	20	#18 – 8	Cu	CFD30CC4


CDH3S, 5S


CDH4S, 6S

Selector Handles — For use with shafts 0.20 x .20" (□ 5 x 5 mm)

NEMA Type	IEC Type	Color	Defeatable	Padlockable	Weight (lbs)	Catalog Number
All marked both on & Off/On						
1,3R,12	IP65	Black	—	Yes	0.16	CDH3S
1,3R,12	IP65	Red/Yellow	—	Yes	0 . 1 6	CDH4S
1.3R.12	IP65	Black	Yes	Yes	0.16	CDH5S
1,3R,12	IP65	Red/Yellow	Yes	Yes	0.16	CDH6S


CDS__S

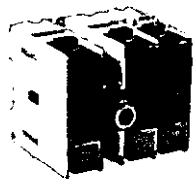
Shafts — For use with CDH selector handles 0.20 x .20" (□ 5 x 5 mm)

Shaft Length (inches/mm)	Mounting Depth① (in inches)	Weight (lbs.)	Catalog Number
3.3/85	5.5 – 5.7	0.04	CDS85S
4.1/105	5.5 – 6.5	0.04	CDS105S
4.7/120	5.5 – 7.1	0.05	CDS120S
5.11130	5.5 – 7.5	0.05	CDS130S
7.11180	6.3 – 9.4	0.08	CDS180S
9.8/250	9.1 – 12.2	0.10	CDS250S
13.0030	12.2 – 15.4	0.14	CDS330S

① Rejection style fuses only.

For 30A Fusible Disconnect Switches

For a complete assembly, please select one of each:
- **1 switch**
- **1 handle**
- **1 shaft**


CFD30J3 +


CDS67P +

BDH106

Pistol Handles

For use with shafts □ .20 x .20" (□ 5 x 5 mm)

BDH104, 106

BDH105, 107

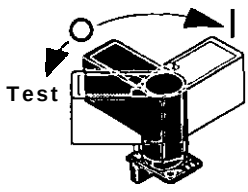
NEMA Type	IEC Type	Color	Marking	Length (inches/mm)	Defeatable	Padlockable	Weight (lbs.)	Catalog Number
1,3R,12	IP65	**Black**	O/I&Off/On	1.8/45	Yes	Yes	**0.28**	BDH104
1,3R,12	IP65	**Red/Yellow**	O/I&Off/On	1.8/45	Yes	Yes	**0.28**	BDH105
1,3R,12	IP65	**Black**	O/I&Off/On	**2.6165**	Yes	Yes	**0.29**	BDH106
1.3R.72	IP65	Red/Yellow	O/I&Off/On	2.6/65	Yes	Yes	**0.29**	BDH107
1,3R,4,4X,12	IP65	**Black**	O/I&Off/On	2.6/65	Yes	Yes	**0.29**	CDHXB65
1,3R,4,4X,12	IP65	Red/Yellow	O/I&Off/On	2.6/65	Yes	Yes	**0.29**	CDHXY65
1,3R,12	IP65	**Black**	Off/On/Test	2.6/65	Yes	Yes	**0.29**	BDH106T
1,3R,12	IP65	Red/Yellow	Off/On/Test	2.6/65	Yes	Yes	**0.29**	BDH107T

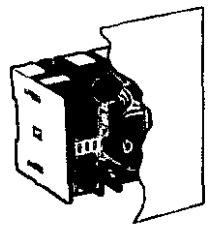

CDS__ __P

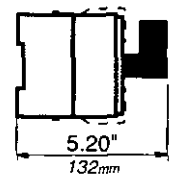
Shafts

For use with pistol handles 0.20 x .20" (□ 5 x 5 mm)

Shaft length (inches/mm)	Mounting Depth (in inches)	Weight (lbs.)	Catalog Number
5.9/150	**4.9 – 8.9**	**0.07**	CDS48P
6.7/170	**5.9 – 9.7**	**0.08**	CDS67P
10.4/265	**9.5 – 13.4**	**0.12**	CDS49P
15.8/400	**15.0 – 18.7**	**0.18**	CDS50P
19.7/500	**20.5 – 22.6**	**0.23**	CDS99P




BDH79 Mounted



5.20"/132mm
BDH79 Mounted Depth

Direct Mount Handle

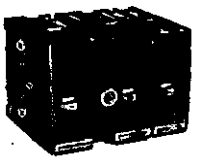
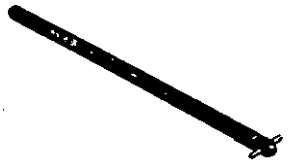
Mounts directly to switch, no shaft necessary

NEMA Type	Color	Marking	Length (Inches/mm)	Padlockable	Weight (lbs.)	Catalog Number
1	**Black**	O/I/Test	**50**	Yes	**0.10**	**BDH79**

For additional information and detail see the ***Bussmann Disconnect*** *Switch* **Catalog** *item number* ***3006***

For Fusible Disconnect Switches UL Fuse Class J

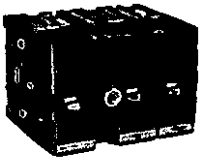
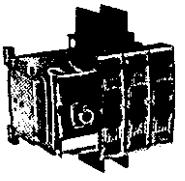
For a complete assembly. please select one of each:
- 1 switch
- 1 handle
- 1 shaft
- 1 terminal lug kit


CFD60J3 +

BDS210 +


BDH58

60 – 100 Amp Switches, 600V

UL General Purpose Amp Rating	UL Fuse Type 600V	Maximum Horsepower Rating Three Phase 200V	208"	240V	480V	600V	Catalog Number
3 pole							**3 pole**
60	J	15	15	***15***	***30***	***50***	CFD60J3
100	J	***25***	***25***	***30***	60	***75***	CFD100J3
4 pole							**4 pole**
60	J	***15***	***15***	***15***	***30***	***50***	CFD60J4
100	J	***25***	***25***	***30***	***60***	***75***	CFD100J4

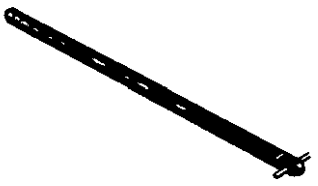

CFD60J3

CFD100J3

Pistol Handles — □ .24 x .24" (□ 6 x 6 mm)


BDH58, 60, 120

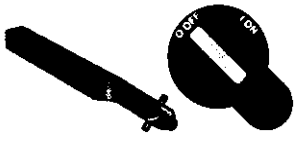
BDH59, *61,121*

NEMA/UL Type	IEC Type	Color	Length (inches/mm)	Marking	Defeatable	Padlockable	Weight (lbs.)	Catalog Number
1,3R,12	IP65	Black	2.6/65	O/I a Off/On	Yes	Yes	***0.29***	BDH58
1,3R,12	IP65	Red/Yel	2.6/65	O/I a Off/On	Yes	Yes	0.29	BDH59
1,3R,12	IP65	Black	3.1/80	O/I a Off/On	Yes	Yes	0.30	BDH60
1,3R,12	IP65	Red/Yel	3.1/80	O/I a Off/On	Yes	Yes	0.30	BDH61
1,3R,4,4X,12	IP65	Black	3.1/80	O/I a Off/On	Yes	Yes	0.30	CDHXB86
1,3R,4,4X,12	IP65	Red/Yel	3.1/80	O/I a Off/On	Yes	Yes	0.30	CDHXY86


BDS_

Shafts — □ .24 x .24" (□ 6 x 6 mm)

Shaft Length (inches/mm)	Mounting Depth (in inches)	Weight (lbs.)	Catalog Number
5.91150	5.5 – 6.5	0.09	BDS150
8.3/210	8.0 – 11.0	0.13	BDS210
11.4/290	11.0 – 14.0	0.18	BDS290
14.2/360	13.8 – 16.8	0.23	BDS360
16.91430	16.5 – 19.7	0.27	BDS430



BDST_

Twisted Shafts

Rotates handle 46' 0.24 **x .24"** (□ 6 **x** 6 mm)

Shaft Length (inches/mm)	Mounting Depth (in inches)	Weight (lbs.)	Catalog Number
5.11130	4.8 – 7.8	0.08	BDST4
8.31210	8.0 – 11.0	0.13	BDST25
11.4/290	11.0 – 14.0	0.18	BDST29
14.2/360	13.8 – 16.8	0.23	BDST30

Direct **Mount Handle**

Mounts directly to switch, no shaft necessary

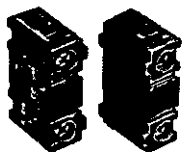
NEMA Type	Color	Marking	Length (Inches/mm)	Padlockable	Weight (lbs.)	Catalog Number
1	Black	O/I/Test	50	Yes	0.10	CDH4

For 60A - 100A Fusible Disconnect Switches


BDTL24

Terminal Lug Kit

For Use On:	Wire Size	Kit Weight (lbs.)	Wire Type	Terminal Lugs Per Kit	Catalog Number
CFD60J_	#14 – 4	—	Cu	—	Integral
CFD100J_	#14 – 2/0	0.43	Cu/Al	6	BDTL24


CDAUX10 CDAUX01K

Auxiliary Contacts

Description	For Use On:	Weight (lbs.)	AC Thermal Amp Rating	AC Rated Voltage	Catalog Number
1 *N.O.*	CFD60 – CFD100	0.07	10	600	CDAUX10
1 N.C.		0.07	10	600	CDAUX01K


CFC60J

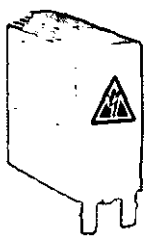
Replacement Fuse Clip

Description	For Use On:		Catalog Number
Removable fuse carrier	CFD60		CFC60J


CFCVR100

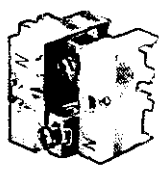
Replacement Fuse Covers

Description	For Use On:		Catalog Number
Transparent fuse cover	CFD100		CFCVR100


CFTS100

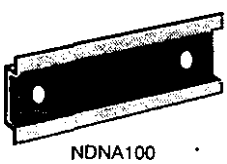
Terminal Shroud

Description	For Use On:	Weight (lbs.)		Catalog Number
Includes one terminal shroud for line or load side	CFD100, 1-POLE	0.04		CFTS100


CFZ1

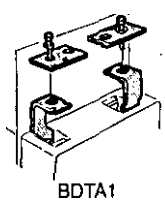
Terminal Poles

Description	For Use On:	Weight (lbs.)	AC Thermal Amp Rating	AC Rated Voltage	Catalog Number
Detachable neutral mounts on side of switch or DIN rail	CFD60	0.13	63	600	CFZ1
	CFD100	0.31	125	600	CFZ2


NDNA100

DIN Rail

Description	For Use On:	Weight (lbs.)	Length (inches/mm)	Catalog Number
35mm Aluminum DIN Rail	CFD60	.38	39.4/1000	NDNA100
35mm Aluminum DIN Rail	CFD60	.75	78.8/1000	NDNA200


BDTA1

"T" Type Fuse Adapter Kit

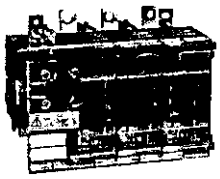
Description	For Use On:		Catalog Number
100A. 600"	CFD100		BDTA1

*For additional information and detail see the **Bussmann** Disconnect Switch Catalog item number **3006***

*For complete specification data, call **Bussmann** Information Fax ~ 636.527.1450*

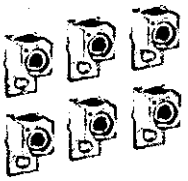
Fusible Disconnect Switches UL Fuse Class J, T, L

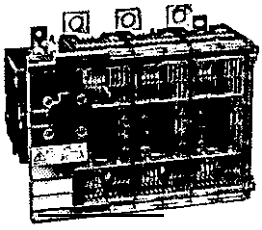
For a complete assembly, please select one bf each:
1 switch
1 handle
1 shaft
1 terminal lug kit

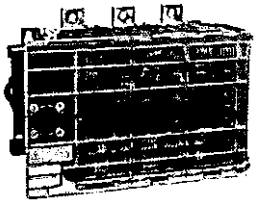

FD200J3 +


BDS280 +


BDH114 +


BDTL25


FD400J3


FD600J3
FD800L3

200 — 800 Amp Switches, 800V

UL General Purpose Amp Rating	UL Fuse Type 600V	Maximum Horsepower Rating Three Phase 200V	208V	240V	480V	E m -	Catalog Number
2 pole							**2 pole**
200	J①	—	—	—	—	-	FD200J2
400	J①	—	—	—	—	—	FD400J2
600	J①	—	—	—	—	—	FD600J2
800	L	—	—	—			FD800L2
3 **pole**							3 **pole**
200	J①	50	50	60	125	150	FD200J3
400	J①	100	125	125	250	350	FD400J3
600	J①	150	150	200	400	500	FD600J3
600	L	200	200	250	500	600	FD800L3
4 pole							**4 pole**
200	J①	50	50	60	125	150	FD200J4
400	J①	100	125	125	250	350	FD400J4
600	J①	150.	150	200	400	500	FD600J4
800	L	200	200	250	500	600	FD800L4


BDH112

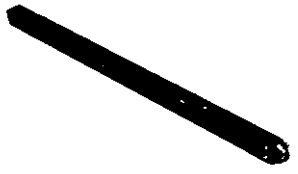

BDH113

Pistol Handles — ❑ .47 x .47" (□12 x 12 mm)

NEMA Type	IEC Type	Color	Length (inches/mm)	Marking	Defeatable	Padlockable	Weight (lbs.)	Catalog Number
1,3R,12	IP65	Black	4.9/125	O/I & Off/On	Yes	Yes	0.39	BDH112
1,3R,12	IP65	Red/Yellow	4.9/125	O/I & Off/On	Yes	Yes	0.39	BDH113
1,3R,12	IP65	Black	5.7/145	O/I & Off/On	Yes	Yes	0.39	BDH114
1,3R,12	IP65	Red/Yellow	5.7/145	O/I & Off/On	Yes	Yes	0.39	BDH115
1,3R,12	IP65	Black	6.9/175	O/I & Off/On	Yes	Yes	0.41	BDH116
1,3R,12	IP65	Red/Yellow	6.9/175	O/I & Off/On	Yes	Yes	0.41	BDH117
1,3R,4,4X,12	IP65	Black	5.7/145	O/I & Off/On	Yes	Yes	0.39	CDHXB12
1,3R,4,4X,12	IP65	Red/Yellow	5.7/145	O/I & Off/On	Yes	Yes	0.39	CDHXY12
1,3R,4,4X,12	IP65	Black	6.9/175	O/I & Off/On	Yes	Yes	0.41	CDHXB22
1,3R,4,4X,12	IP65	Red/Yellow	6.9/175	O/I & Off/On	Yes	Yes	0.41	CDHXY22
1,3R,4,4X,12	IP65	Metal	8.7/220	Off/On	—	Yes	1.50	BDH8

① J type fuse clips are standard. If 600V Type "T" clips are desired, please order a "T" type fuse adapter kit.

For 200A - 800A Fusible Disconnect Switches



BDS_

Shafts — □ .47 x .47" (□ 12 x 12 mm)

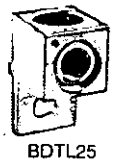
Shaft Length (inches/mm)	Mounting Depth① (in inches)	Weight (lbs.)	Catalog Number
For use on FD200J_ - FD400J_			
8.7/220	**7.9 - 12.2**	**0.61**	BDS220
9.8/250	**9.1 13.4**	**0.70**	BDS250
11.0/280	10.2 - 14.5	0.77	BDS280
12.8/325	12.0 - 16.3	0.90	BDS325
15.6/395	14.6 - 19.1	1.10	BDS395
18.3/465	17.5 21.9	1.32	BDS465
21.1/535	20.3 - 24.6	1.54	BDS535
For use on **FD600J_ - FD800J_**			
9.8/250	10.0 - 12.8	0.70	BDS250
11.0/280	11.2 - 14.0	0.77	BDS280
12.8/325	13.0 15.8	0.90	BDS325
15.6/395	15.6 - 16.6	1.10	BDS395
18.3/465	16.5 - 21.3	1.32	BDS465
21.11535	21.1 - 24.1	1.54	BDS535

BDS_45

Twisted Shafts

Rotates handle 45" 0.47 x .47" (□ 12 x 12 mm)

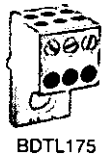
Shaft Length (inches/mm)	Mounting Depth (in inches)	Weight (lbs.)	Catalog Number
For **use** on **FD200J_ - FD400J_**			
11.0/280	10.2 - 14.5	0.77	BDS28045
12.8/325	12.0 16.3	0.90	BDS32545
18.3/465	17.5 - 21.9	1.32	BDS46545
For use on FD600J_ - FD800J_			
11.0/280	11.2 - 14.0	0.77	BDS28045
12.8/325	13.0 - 15.8	0.90	BDS32545
18.31465	18.5 - 21.3	1.32	BDS46545



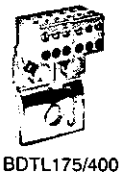
BDTL25

BDTL26

BDTL27



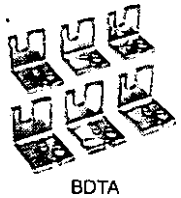
BDTL175



BDTL175/400

Terminal Lug Kit

For Use On:	Wire Size	Kit Weight (lbs.)	Wire Type	Terminal Lugs Per Kit	Catalog Number
FD200J_	#6 - 300 kcmil	0.93	Cu/Al	6	BDTL25
FD200J	(6) #14 - 6 kcmil	0.93	Cu/Al	6	BDTL175
FD400J_	#2 - 600 kcmil	3.50	Cu/Al	6	BDTL26
FD600J - FD800L	(12) #14 - 16-600 kcmil	1.10	Cu/Al	3	BDTL175/400
FD600J_ 8 FD800L_	(2) #2 - 600 kcmil	4.62	Cu/Al	6	BDTL27



BDTA

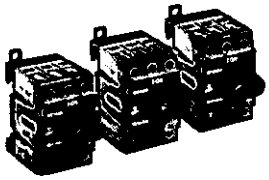
"T" Type Fuse Adapter Kit

For Use On:		AC Thermal Amp Rating	AC Rated Voltage	Poles	Catalog Number
FD200J_		200	600	3	BDTA2
FD400J_		400	600	3	BDTA4
FD600J_		600	600	3	BDTA6

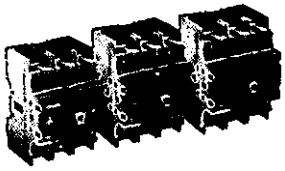
① Mounting depth is the distance from the outside of the door to the disconnect switch mounting plate. Shaft can be cut to desired length.

For additional information and detail see the Bussmann Disconnect Switch Catalog item number 3006

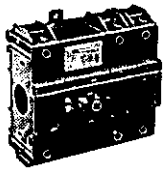
For Non-Fusible Disconnect Switches CDNF16 - CDNF160



CDNF16 CDNF25 CDNF32



CDNF30 CDNF60 CDNF100



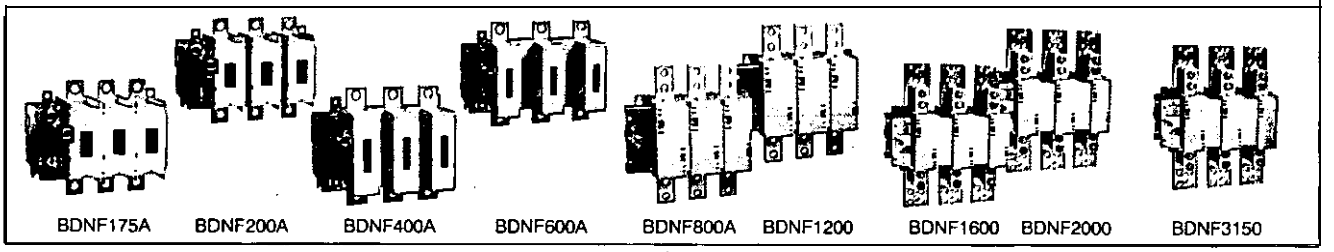
CDNF160

Catalog Number	3 pole	CDNF16	CDNF25	CDNF32	CDNF45	CDNF63	CDNF30	CDNF60	CDNF100	CDNF160
General Purpose Amp Rating	**A**	**16**	**25**	**40**	**60**	**80**	**30**	**60**	**100**	**125**
Approvals①	2 pole	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	UL98
	3 pole	UL508	UL508	UL508	UL508	UL508	UL98	UL98	UL98	UL98
	4 pole	UL508	UL508	UL508	UL508	UL508	UL98	UL98	UL98	UL98
Technical Ratings UL,CSA										
Max operating voltage	V	600	600	600	600	600	600	600	600	600
Max horsepower rating Three phase										
200 – 208V	HP	3	7.5	10	15	20	10	20	25	—
240V	HP	5	7.5	10	15	20	10	20	25	30
480V	HP	10	15	20	30	40	20	40	50	60
600V	HP	10	20	25	20	40	30	40	40	75
Single phase										
120V	HP	1/2	3/4	1	2	2	2	3	5	7.5
240V	HP	1.5	2	3	5	5	5	7.5	15	20
Technical Ratings IEC										
Rated insulation and operational voltage.										
AC20 and DC20	V	750	750	750	750	750	750	750	750	750
Rated thermal current, Ith										
AC 20/DC 20 open	A	25	32	40	63	80	40	63	115	200
AC 20/DC 20 enclosed	A	25	32	40	63	80	40	63	115	160
AC 21A 500V	A	16	25	32	63	80	40	63	100	160
690V	A	16	25	32	63	80	40	63	100	160
Rated operational power AC23										
400/415V	kW	7.5	9	11	22	37	15	18.5	37	75
690V	kW	7.5	9	11	15	18.5	15	15	37	75
Physical Characteristics										
Weight 3 pole	lb	0.24	0.24	0.24	0.59	0.59	0.79	0.79	0.79	2.42
Dimension 3 pole	H in	2.68	2.68	2.68	3.60	3.60	3.94	3.94	3.94	5.00
	W in	1.38	1.38	1.38	2.07	2.07	2.76	2.76	2.76	4.96
	D in	2.20	2.20	2.20	2.85	2.85	2.95	2.95	2.95	2.93
Accessories										
Terminal lug kit		Integral	Integral	Integral	Integral	Integral	Integral	Integral		Integral
Terminal shroud		•	•	•	•	•	•	•	•	•
Auxiliary contact		•	•		•	•	•	•	•	•
Handle UL/NEMA type										
Type 1, 3R, 12		•	•	•	•	•	•	•		•
Type 1, 3R, 4, 4X, 12		•	•		•	•	•	•	•	•
Handle type										
Selector		•	•	•	•	•	—	—	—	—
Pistol		•	•		•	•	•	•	•	•
Conversion kits										
6 pole		•	•	•	•	•	•	•	•	•
Transfer		•	•	•	•	•	•	•	•	•
Bypass		•	•	•	•	•	•	•	•	•
Mechanical interlock		•	•	•	•	•	•	•	—	•
Electrical interlock		—	—		—	—	—	—	-	—

UL listed, CSA approved, IEC rated, CE marked

• = Available
— = Not available
① UL listed switches are also CSA approved.

For Non-Fusible Disconnect Switches **BDNF200A** - BDNF3150



Catalog Number	3 pole	BDNF175A	BDNF200A	BDNF400	BDNF600A	BDNF800A	BDNF1200	BDNF1600	BDNF2000	BDNF3150
General Purpose Amp Rating	**A**	**175**	**200**	**400**	**600**	**800**	**1200**	**1600**	**2000**	**3150**
Approvals①	2 pole	UL508 & IEC	UL98 & IEC	UL98 & IEC	UL98 & IEC	UL98 & IEC	UL98 & IEC	UL98 & IEC	UL98 & IEC	IEC
	3 pole	UL508 & IEC	UL98 & IEC	UL98 & IEC	UL98 & IEC	UL98 & IEC	UL98 & IEC	UL98 & IEC	UL98 & IEC	IEC
	4 pole	IEC	IEC	UL98 & IEC	UL98 & IEC	IEC	IEC	IEC	IEC	IEC
Technical Ratings UL, CSA										
Max operating voltage	V	600	600	600	600	600	600	600	600	600
Max horsepower rating										
Three phase										
200 – 208V	HP	30	60	100	150	200	—	—	—	—
240V	HP	40	75	125	200	250	—	—	—	—
480V	HP	75	150	250	400	500	—	—	—	—
600V	HP	100	200	350	500	600	—	—	—	—
Single phase										
120V	HP	—	—	—	—	—	—	—	—	—
240V	HP	—	—	—	—	—	—	—	—	—
Technical Ratings IEC										
Rated insulation and operational voltage.										
AC20 and DC20	V	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated thermal current, Ith										
AC 20/DC 20 open	A	200	315	630	800	1250	1600	2500	2500	3150
AC 20/DC 20 enclosed	A	200	270	630	720	1250	1600	2300	2300	2600
AC 21A 500V	A	200	250	630	800	1250	1600	2500	2500	3150
690V	A	200	250	630	800	1250	1600	2500	2500	3150
Rated operational power AC23										
400/415V	kW	90	132	315	355	400	400	400	400	400
690V	kW	170	200	355	355	—	—	—	—	—
Physical Characteristics										
Weight 3 pole	lb	6.61	6.61	13.66	13.66	35.9	38.55	127.7	127.7	127.7
Dimension 3 pole H	in	8.35	8.35	11.81	11.77	19.09	19.09	25.04	25.04	25.04
W	in	7.83	8.62	10.24	11.93	14.29	14.29	18.43	18.43	18.43
D	in	4.55	4.55	5.12	5.12	4.92	4.92	10.67	10.67	10.67
Accessories										
Terminal lug kit		BDTL25	BDTL25	BDTL26	BDTL27	BDTL30	BDTL28	BDTL28	BDTL28/2	BDTL28/2
Terminal shroud		•	•	•	•	•	•	—	—	—
Auxiliary contact		•	•	•	•	•	•	•	•	•
Handle UL/NEMA type										
Type 1, 3R, 12		•	•	•	•	•	•		•	
Type 1, 3R, 4, 4X, 12		•	•	•	•	•	•		•	
Handle type										
Selector		—	—	—	—	—	—	—	—	
Pistol		•	•	•	•	•	•		•	
Conversion kits										
6 pole		•	•	•	•	•	•	—	—	—
Transfer		•	•	•	•	•	•	—	—	—
Bypass		•	•	•	•	•	•	—	—	—
Mechanical interlock		•	•	•	•	•	•	•	•	•
Electrical interlock		•	•	•	•	•	•	•	•	

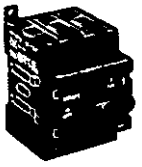
UL listed, CSA approved, IEC rated, CE marked

S = Standard feature
• = Available
— = Not available
① UL listed switches are also CSA approved.

For additional information and detail see the Bussmann Disconnect Switch Catalog item number 3006

For Non-Fusible Disconnect Switches **Base &** DIN **Rail** Mounted

For a complete assembly, please select one of each:
1 switch
1 handle
1 shaft

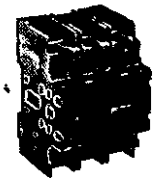

CDNF63 +


CDS85S +


CDH3S

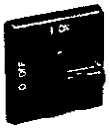
1


CDNF16
CDNF25
CDNF32


CDNF30
CDNF60
CDNF100

16 — 100 Amp Switches, **600V,** 3 **Pole**①

UL General Purpose Amp Rating	IEC AC21 Amp Rating	Maximum Horsepower Rating						Terminal Lugs		Catalog Number
		Single Phase			Three Phase			Wire Size	Wire Type	
		120V	240V	200V	240V	480V	600V			
16	16	1/2	1.5	3	5	10	10	#18 – 8	Cu	CDNF16
25	25	3/4	2	7.5	7.5	15	20	#18 – 8	Cu	CDNF25
40	40	1	3	10	10	20	25	#18 – 8	Cu	CDNF32
60	63	2	5	15	15	30	20	#14 – 4	Cu	CDNF45
80	80	2	5	20	20	40	40	#14 – 1	Cu	CDNF63
30	40	2	5	10	10	20	30	#14 – 4	Cu	CDNF30
60	63	3	7.5	20	20	40	40	#14 – 4	Cu	CDNF60
100	115	5	15	25	25	50	40	#8 – 1/0	Cu	CDNF100


CDH1S

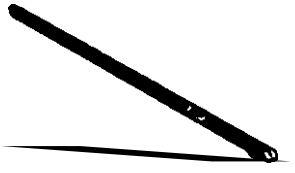

CDH15S


CDH6S

Selector Handles — For **use** with shafts 0.20 **x .20"** (□ 5 **x** 5 mm)

NEMA Type	IEC Type	Color	Defeatable	Padlockable	Weight (lbs)	Catalog Number
All marked both O/I & Off/On						
1	IP54	Black	—	—	0.09	CDH1S②
1	IP54	Red/Yellow	—	—	0.09	CDH2S②
1	IP54	Black	—	Yes	0 . 1	2CDH15S②
1	IP54	Red/Yellow	—	Yes	0 . 1	2CDH16S②
1,3R,12	IP65	Black	—	Yes	0.16	CDH3S
1,3R,12	IP65	Red/Yellow	—	Yes	0.16	CDH4S
1,3R,12	IP65	Black	Yes	Yes	0.16	CDHSS
1,3R,12	IP65	Red/Yellow	Yes	Yes	0.16	CDH6S

Shafts — For use with CDH selector handles 0.20 **x .20"** (□ 5 **x** 5 mm)


CDS_S

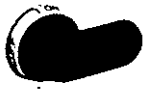
Shaft Length (inches /mm)	Mounting depth③ in inches					Weight (lbs.)	Catalog Number
	CDNF16 CDNF25 CDNF32		CDNF45 CDNF63		CDNF30 CDNF60 CDNF100		
	CDH1S CDH2S CDH15S CDH16S	CDHSS CDH4S CDHSS CDH6S	CDH1S CDH2S CDH15S CDH16S	CDH3S CDH4.s CDHSS CDH6S	CDH3S CDH4S CDHSS CDH6S		
3.3/85	4.2 – 5.0	3.6 – 4.3	4.9 – 5.6	4.4 – 5.0	3.9 – 4.9	0.04'	CDS85S
4.11105	5.0 – 5.8	4.4 – 5.1	5.7 – 6.4	5.1 – 5.8	4.7 – 5.7	0.04	CDS105S
4.71120	5.6 – 6.4	5.0 – 5.8	6.3 – 7.0	5.7 – 6.4	5.3 – 6.3	0.05	CDS120S
5.11130	6.0 – 6.7	5.4 – 6.1	6.7 – 7.4	6.1 – 6.8	5.6 – 6.7	0.05	CDS130S
7.1/180	7.1 – a.7	7.4 – 8.1	8.6 – 9.4	8.1 8.7	7.6 – 6.6	0.06	CDS180S
9.8/250	10.7 – 11.5	10.1 – 10.8	11.4 – '12.1	10.9 – 11.5	10.4 – 11.4	0.10	CDS250S
13/330	13.8 – 14.6	13.3 – 14.0	14.6 – 15.3	14.0 – 14.7	13.5 – 14.5	0.14	CDS330S

① A snap on fourth pole may be added
② Not suitable for use with CDNF30, 60, 100.
③ Mounting depth is the distance from the outside of door to the disconnect switch mounting plate. Shaft can be cut to desired length.

For 16A-1 OOA Non-Fusible Disconnect Switches

Base & DIN Rail Mounted

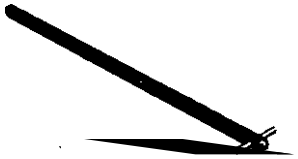
BDH104, 106



BDH107

Pistol Handles — For use with shafts 0.20 x .20" (□ 5 x 5 mm)

NEMA Type	IEC Type	Color	Marking	Length (inches/mm)	Defeatable	Padlockable	Weight (lbs.)	Catalog Number
1,3R,12	IP65	Black	O/I & Off/On	1.8/45	Yes	Yes	0.28	BDH104
1,3R,12	IP65	Red/Yel	O/I & Off/On	1.8/45	Yes	Yes	0.28	BDH105
1,3R,12	IP65	Black	O/I & Off/On	2.6/65	Yes	Yes	0.29	BDH106
1,3R,12	IP65	Red/Yel	O/I & Off/On	2.6/65	Yes	Yes	0.29	BDH107
1,3R,12,4,4X	IP66	Black	O/I & Off/On	2.6/65	Yes	Yes	0.29	CDHXB65
1,3R,12,4,4X	IP66	Red/Yel	O/I & Off/On	2.6/65	Yes	Yes	0.29	CDHXY65



CDS_P

Shafts — For use with pistol handles 0.20 x .20" (0 5 x 5 mm)

Shaft Length (inches/mm)	Mounting depth① in inches: CDNF16 CDNF25 CDNF32	CDNF45 CDNF63	CDNF30 CDNF60 CDNF100	Weight (lbs.)	Catalog Number
5.9/150	6.2 – 6.7	6.9 – 7.4	6.4 – 7.4	0.07	CDS48P
6.71170	7.0 – 7.5	7.7 – 6.1	7.2 – 8.1	0.06	CDS67P
10.4/265	10.7 – 11.3	11.4 – 11.9	10.9 – 11.9	0.12	CDS49P
15.8/400	16.0 – 16.6	16.6 – 17.2	16.2 – 17.2	0.16	CDS50P
19.7/500	20.0 – 20.5	20.7 – 21.1	20.1 -21.1	0.23	CDS99P

CDS_T

Twisted Shafts

Rotates handle 45" 0.20 x .20" (□ 5 x 5 mm)

Shaft Length (inches/mm)	Mounting depth① in inches: CDNF16 CDNF25 CDNF32	CDNF45 CDNF63	CDNF30 CDNF60 CDNF100	Weight (lbs.)	Catalog Number
5.9/150	6.2 – 6.7	6.9 – 7.4	6.4 – 7.4	0.07	CDS48T
6.7/170	7.0 – 7.5	7.7 – 6.1	7.2 – 6.1	0.06	CDS67T
10.4/265	10.7 – 11.3	11.4 – 11.9	10.9 – 11.9	0.12	CDS49T
15.8/400	16.0 – 16.6	16.8 – 17.2	16.2 – 17.2	0.16	CDS50T

CDBY68419/1

CDMC1

OPMRH

CDBY68306

Replacement Knob

Mounts directly to switch; no shaft necessary

NEMA Type	Color	For Use on:	Length (inches)	Padlockable	Catalog Number
1	Red	CDNF16, 25, 32	1.0	—	OPMRH
1	Red	CDNF30, 45, 60, 63,100	1.4	—	CDBY68306③
1	Red	CDNF30, 45, 60, 63,100	1.6	Yes②	CDBY68419/1③
Metal collar		CDNF16 – CDNF100	—	—	CDMC1
Set screw		CDNF16, 25.30, 32. 45, 60, 63, 100	—	—	CDSWM5X8

① Mounting depth is the distance from the outside of door to the disconnect switch mounting plate. Shaft can be cut to desired length.
② .1875" (3/16") diameter shackle required.
③ Set screw CDSWM5X8 needed with replacement knobs CDBY__.

For additional information and detail see the Bussmann Disconnect Switch Catalog item number 3006

Non-Fusible Disconnect Switches Door Mounted

For a complete assembly, please select one of each:
1 switch
1 handle

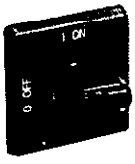

CDNF45D


CDH9S


CDNF16D
CDNF25D
CDNF32D

16 — 100 Amp Switches, **600V,** 3 **Pole**①②③

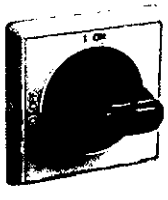
UL General Purpose Amp Rating	IEC AC21 Amp Rating	Maximum Horsepower Rating						Terminal Lugs		Catalog Number
		Single Phase			Three Phase			Wire Size	Wire Type	
		120V	240V	200V	240V	480V	600V			
16	16	1/2	1.5	3	5.	10	10	#18 – 8	Cu	CDNF16D
25	25	3/4	2	7.5	7.5	15	20	#18 – 8	Cu	CDNF25D
40	40	1	3	10	10	20	25	#18 – 8	Cu	CDNF32D
60④	63	2	5	15	15	30	20	#14 – 4	Cu	CDNF45D
80④	80	2	5	20	20	40	40	#14 – 1	Cu	CDNF63D
30④	40	2	5	10	10	20	30	#14 – 4	Cu	CDNF30D
60④	63	3	7.5	20	20	40	40	#14 – 4	Cu	CDNF60D
100④	115	5	15	25	25	50	40	#6 – 1/0	Cu	CDNF100D


CDH8S
CDH12S

Selector Handles


CDH17S
CDH19S


CDH9S
CDH13S


CDH10S
CDH14S

NEMA/UL Type	IEC Type	Color	Defeatable	Padlockable	Weight (lbs)	Catalog Number
All marked both O/I & Off/On						
Snap-on mounting — for use on CDNF16, 25, 32D						
1	IP54	Black	—	—	0.10	CDH7S
1	IP54	Red/Yellow	—	—	0.10	CDH8S
1	IP54	Black	—	Yes	0.13	CDH19S
1	IP54	Red/Yellow	—	Yes	0.13	CDH20S
1,3R,12	IP65	Black	—	Yes	0.17	CDH9S
1,3R,12	IP65	Red/Yellow	—	Yes	0.17	CDH10S
Screw mounting — for use on CDNF16, 32, 45 & 63D						
1	IP54	Black	—	—	0.11	CDH11S
1	IP54	Red/Yellow	—	—	0.11	CDH12S
1	IP54	Black	—	Yes	0.14	CDH17S
1	IP54	Red/Yellow	—	Yes	0.14	CDH18S
1,3R,12	IP65	Black	—	Yes	0.18	CDH13S
1,3R,12	IP65	Red/Yellow	—	Yes	0.18	CDH14S

Door mounted switches do not provide door interlock

Pistol Grip Handle Adapter

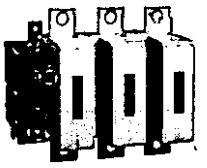
Description	For Use On:	Weight (lbs)		Catalog Number
Adapter piece for pistol grip handle	CDNF30, CDNF60, CDNF100	0.18		CDHZX6

① A snap on fourth pole may be added
② Door mounted switches do not require shafts.
③ CDNF16, 25, 32, 45 & 63 door mounted switches will not accept pistol handles.
④ CDNF45 & 63 door mounted switches can only use screw mounted handles.

For **additional** *information and* detail *see thd* ***Bussmann*** *Disconnect Switch Catalog item number* ***3006***

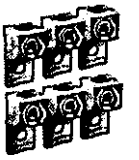
Non-Fusible Disconnect Switches

For a complete assembly, please select one of each:
- 1 switch
- 1 handle
- 1 shaft
- 1 terminal lug kit

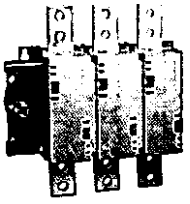

BDNF400


BDS280


BDH116


BDTL26


BDNF600A


BDNF800A


BDH112-117


BDS280

BDS_45

400 – 800 Amp switches, 800V

UL general purpose amp rating	IEC AC21 amp rating	Maximum horsepower rating 200V	208V	240V	480V	600V	Catalog number
2 pole							
400	630	—	—	—	—	—	BDNF4002
600	800	—	—	—	—	—	BDNF600A2
800	1250	—	—	—	—	—	BDNF800A2
3 pole							
400	630	100	100	125	250	350	BDNF400
600	800	150	150	200	400	500	BDNF600A
800	1250	200	200	250	500	600	BDNF800A
4 pole							
400	630	100	100	125	250	350	BDNF4004
600	800	150	150	200	400	500	BDNF600A4
—	1250	200	200	250	500	600	BDNF800A4

Pistol handles -for use with shafts □ .47 x .47" (□ 12 x 12 mm)

NEMA type	IEC type	Color	Length in/mm	Marking	Defeatable	Padlockable	Weight (lbs)	Catalog number
1,3R,12	IP65	Blk	4.9/125	O/I & Off/On	Yes	Yes	0.39	BDH112
1,3R,12	IP65	R/Y	4.9/125	O/I & Off/On	Yes	Yes	0.39	BDH113
1,3R,12	IP65	Blk	5.7/145	O/I & Off/On	Yes	Yes	0.39	BDH114
1,3R,12	IP65	R/Y	5.7/145	O/I & Off/On	Yes	Yes	0.39	BDH115
1,3R,12	IP65	Blk	6.9/175	O/I & Off/On	Yes	Yes	0.41	BDH116
1,3R,12	IP65	R/Y	6.9/175	O/I & Off/On	Yes	Yes	0.41	BDH117
1,3R,4,4X,12	IP66	Blk	5.7/145	O/I & Off/On	Yes	Yes	0.39	CDHXB12
1,3R,4,4X,12	IP66	R/Y	5.7/145	O/I & Off/On	Yes	Yes	0.39	CDHXY12
1,3R,4,4X,12	IP66	Blk	6.9/175	O/I & Off/On	Yes	Yes	0.41	CDHXB22
1,3R,4,4X,12	IP65	Metal	8.7/220	Off/On	—	Yes	1.50	BDH8

Shafts -for use with pistol handles □ .47 x .47" (□ 12 x 12 mm)

Shaft length inches/mm	Mounting depth① in inches	Weight (lbs)	Catalog number
11.0/280	10.2 – 14.5	0.77	BDS280
12.8/325	12.0 – 16.3	0.90	BDS325
15.6/395	14.8 – 19.1	1.10	BDS395
18.3/465	17.5 – 21.9	1.32	BDS465
21.1/535	20.3 – 24.6	1.54	BDS535

Twisted shafts — Rotates handle 45° □ .47 x .47" (□ 12 x 12 mm)

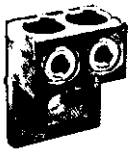
Shaft length inches/mm	Mounting depth① in inches	Weight (lbs)	Catalog number
11.0/280	10.2 – 14.5	0.77	BDS28045
12.8/325	12.0 – 16.3	0.90	BDS32545
18.3/465	17.5 – 21.9	1.32	BDS46545

① Mounting depth is the distance from the outside of the door to the disconnect switch mounting plate. Shaft can be cut to desired length.

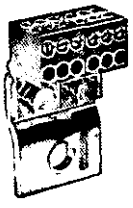
For additional information and detail, see the Bussmann Disconnect Switch Catalog, Item Number 3006

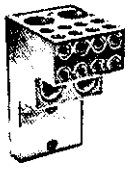
for 400A – 800A Non-Fusible Disconnect Switches

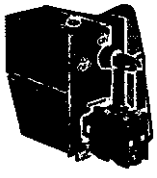

BDTL26

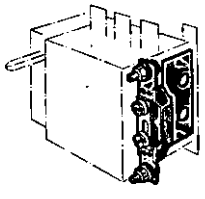

BDTL27

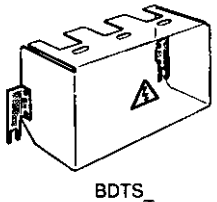

BDTL30

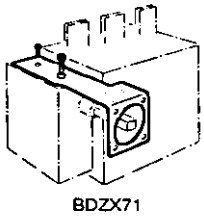

BDTL175/400


BDTL32


BDAUX1-6


BDZX85


BDTS_


BDZX71

Terminal lug kits

For use on:	Wire size	Kit weight (lbs.)	*Wire* type	Terminal lugs per kit	Kit catalog number
BDNF400	#2 – 600 kcmil	3.50	Cu/Al	6	BDTL26
BDNF400	(2) #2 – 500 kcmil	4.62	Cu/Al	6	BDTL262
~~BDNF600A~~	~~(2) #2 – 600 kcmil~~	4.62	Cu/Al	6	BDTL27
BDNF800A	(2) #2 – 600 kcmil	6.90	Cu/Al	6	BDTL30
BDNF800A1	(8) 2/0 + (2)#2 600 kcmil	6.90	Cu/Al	3	BDTL32
BDNF400 – BDNF600A①	(12) #14 – 6	1.10	Cu/Al	6	BDTL175/400

Auxiliary contacts ②

Description	For use on:	Weight (lbs)	AC thermal amp rating	AC rated voltage	Catalog number
1 N.O. + 1 N.C.	BDNF400 – BDNF800A	0.20	10	600	BDAUX1
2 N.O. + 2 N.C.		0.26	10	600	BDAUX2
4 N.O. + 4 N.C		0.40	10	600	BDAUX3
2 N.O.		0.18	10	600	BDAUX4
4 N.O.		0.25	10	600	BDAUX5
8 N.O.		0.40	10	600	BDAUX6

Terminal poles

Description	For use on:	Weight (lbs)	AC thermal amp rating	AC rated voltage	Catalog number
Detachable neutral mounts on side of switch or DIN rail	BDNF400 – BDNF600A	1.04	400	600	BDZX85

Terminal shrouds

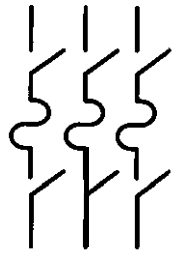
Description	For use on:	Weight (lbs)		Catalog number
Includes one shroud for line or load side	BDNF400	0.62		BDTS4
	BDNF600A	0.66		BDTS6A
	BDNF800A	0.88		BDTS8A

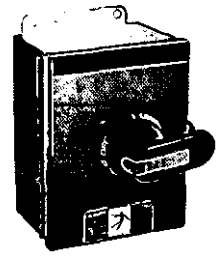
Handle support bracket

Description	For use on:	Weight (lbs)		Catalog number
Allows handle to be directly mounted to switch behind the door	BDNF400 – BDNF600A	0.51		BDZX73
	BDNF800A	0.88		BDZX71

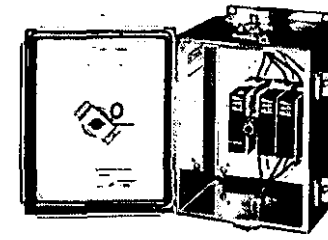
① A load side distribution lug eliminates the need to purchase, install and wire a separate distribution block.
② UL File E57057

30A – 800A





EFJ30X-3P02



3 Pole@, **600V,** 30A – 3150A

UL General purpose amp rating	Fuse Type	NEMA / UL Enclosure type 1 Catalog number	3R Catalog number	4 Catalog number	4X Stainless Catalog number
30	J	EFJ301-3PB6	EFJ303-3PB6	EFJ304-3PB6	EFJ30X-3PB6
30	CC	EFC301-3PB6	EFC303-3PB6	EFC304-3PB6	EFC30X-3PB6
60	J②	EFJ601-3PB6	EFJ603-3PB6	EFJ604-3PB8	EFJ60X-3PB8
100	J②	EFJ1001-3PB8	EFJ1003-3PB8	EFJ1004-3PB8	EFJ100X-3PB8
200	J②	EFJ2001-3PB4	EFJ2003-3PB4	EFJ2004-3PB4	EFJ200X-3PB4
400	J②	EFJ4001-3PB4	EFJ4003-3PB4	EFJ4004-3PB4	EFJ400X-3PB4
600	J②	EFJ6001-3PB4	EFJ6003-3PB4	EFJ6004-3PB4	EFJ600X-3PB4
	J②	EFL8001-3PB4	EFL8003-3PB4	EFL8004-3PB4	EFL800X-3PB4

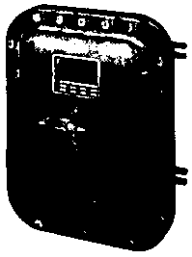
Switch ratings

UL general purpose amp rating	Maximum horsepower rating: Single phase 120V	200V	240V	Three phase 200V	208V	240V	480V	600V	Wire size for terminal lugs	For wire type	Approval①
30	2	3	5	5	7.5	7.5	15	20	#18 – 8	Cu	CSA, UL
60	3	7.5	10	15	15	15	30	50	#14 – 4	Cu	CSA, UL
100	5	10	15	25	25	30	60	75	#14 – 2/0	Cu/Al	CSA, UL
200	—	—	—	50	50	60	125	150	#6 – 300 kcmil	Cu/Al	CSA, UL
400	—	—	—	100	125	125	250	350	#2 – 600 kcmil	Cu/Al	CSA, UL
600	—	—	—	150	150	200	400	500	(2) #2 – 600 kcmil	Cu/Al	CSA, UL
800	—	—	—	200	200	250	500	600	(2) #2 – 600 kcmil	Cu/Al	CSA, UL

① Fusible switches are UL listed to the UL98 standard.
② 600V T type fuse clips may be substituted at no charge. Please change the second character of the catalog number from "J" to "T."

For additional information and detail, see the Bussmann Disconnect Switch Catalog, Item Number 3006

30A – 800A



EFJ607-3P

3 Pole@, **600V,** 30A – **3150A**

UL General purpose amp rating		Fuse Type	NEMA / UL Enclosure type: 4X Plastic Catalog number	12 Catalog number	7 & 9 Catalog number
	30	J	EFJ30P-3PB6	EFJ302-3PB6	EFJ307-3PB
	30	CC	EFC30P-3PB6	EFC302-3PB6	EFC307-3PB
	60	J②	EFJ60P-3PB8	EFJ602-3PB6	EFJ607-3PB
	100	J②	EFJ100P-3PB8	EFJ1002-3PB8	EFJ1007-3PB
	200	J②	EFJ200P-3PB4	EFJ2002-3PB4	EFJ2007-3PB
	400	J②	EFJ400P-3PB4	EFJ4002-3PB4	EFJ4007-3PB
	600	J②	EFJ600P-3PB4	EFJ6002-3PB4	EFJ6007-3PB
	800	J②	EFL800P-3PB4	EFL8002-3PB4	EFL8007-3PB

Handle ratings

Amperage range	Style type	NEMA	Color	Marking	Defeatable	Padlockable	Catalog number suffix	Catalog number
	Selector	1,3R,12	Black	0/I & Off/On	Yes	Yes	BJ	CDH5S
	Selector	1,3R,12	Red/Yel	0/I & Off/On	Yes	Yes	YJ	CDH6S
30	Pistol	1,3R,12	Black	0/I & Off/On	Yes	Yes	B6	BDH106
	Pistol	1,3R,12	Red/Yel	0/I & Off/On	Yes	Yes	Y6	BDH107
	Pistol	1,3R,4,4X,12	Black	0/I & Off/On	Yes	Yes	B6	CDHXB65
	Pistol	1,3R,4,4X,12	Red/Yel	0/I & Off/On	Yes	Yes	Y6	CDHXY65
	Pistol	1,3R,12	Black	0/I & Off/On	Yes	Yes	B6	BDH58
	Pistol	1,3R,12	Red/Yel	0/I & Off/On	Yes	Yes	Y6	BDH59
60 – 100	Pistol	1,3R,12	Black	0/I & Off/On	Yes	Yes	B8	BDH60
	Pistol	1,3R,12	Red/Yel	0/I & Off/On	Yes	Yes	Y8	BDH61
	Pistol	1,3R,4,4X,12	Black	0/I & Off/On	Yes	Yes	B8	CDHXB86
	Pistol	1,3R,4,4X,12	Red/Yel	0/I & Off/On	Yes	Yes	Y8	CDHXY86
	Pistol	1,3R,12	Black	0/I & Off/On	Yes	Yes	B4	BDH114
	Pistol	1,3R,12	Red/Yel	0/I & Off/On	Yes	Yes	Y4	BDH115
	Pistol	1,3R,12	Black	0/I & Off/On	Yes	Yes	B7	BDH116
	Pistol	1,3R,12	Red/Yel	0/I & Off/On	Yes	Yes	Y7	BDH117
200 – 800	Pistol	1,3R 4,4X,12	Black	0/I & Off/On	Yes	Yes	B4	CDHXB12
	Pistol	1,3R,4,4X,12	Red/Yel	0/I & Off/On	Yes	Yes	Y4	CDHXY12
	Pistol	1,3R,4,4X,12	Black	0/I & Off/On	Yes	Yes	B7	CDHXB22
	Pistol	1,3R,4,4X,12	Red/Yel	0/I & Off/On	Yes	Yes	Y7	CDHXY22
	Pistol	1,3R,4,4X,12	Metal	0/I & Off/On	No	Yes	8	BDH8

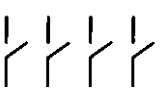
① Fusible switches are UL listed to the UL98 standard.
② 600V T type fuse clips may be substituted at no charge. Please change the second character of the catalog number from "J" to "T."

for Enclosed Fusible Disconnect Switches **30A – 800A**

UL general purpose amp rating	Type of Switch	NEMA Enclosure type 1 Catalog number	3R Catalog number	4 Catalog number	4X Stainless Catalog number
30 (J fuses)	4 Pole①	EFJ301-4PB6	EFJ303-4PB6	EFJ304-4PB6	EFJ30X-4PB6
	6 Pole	EFJ301-6PB6	EFJ303-6PB6	EFJ304-6PB6	EFJ30X-6PB
	Transfer	EFJ301-3TB8	EFJ303-3TB8	EFJ304-3TB8	EFJ30X-3TB8
	Bypass	EFJ301-3BB6	EFJ303-3BB6	EFJ304-3BB6	EFJ30X-3BB6
	Mech. interlock	EFJ301-3MB6	EFJ303-3MB6	EFJ304-3MB6	EFJ30X-3MB6
30 (CC fuses)	4 Pole①	EFC301-4PB6	EFC303-4PB6	EFC304-4PB6	EFC30X-4PB6
	6 Pole	EFC301-6PB6	EFC303-6PB6	EFC304-6PB6	EFC30X-6PB6
	Transfer	EFC301-3TB8	EFC303-3TB8	EFC304-3TB8	EFC30X-3TB8
	Bypass	EFC301-3BB6	EFC303-3BB6	EFC304-3BB6	EFC30X-3BB6
	Mech. interlock	EFC301-3MB6	EFC303-3MB6	EFC304-3MB6	EFC30X-3MB6
60	4 Pole①	EFJ601-4PB6	EFJ603-4PB6	EFJ604-4PB6	EFJ60X-4PB6
	6 Pole	EFJ601-6PB4	EFJ603-6PB4	EFJ604-6PB4	EFJ60X-6PB4
	Transfer	EFJ601-3TB8	EFJ603-3TB8	EFJ604-3TB8	EFJ60X-3TB8
	Mech. interlock	EFJ601-3MB6	EFJ603-3MB6	EFJ604-3MB6	EFJ60X-3MB6
100	2 Pole①	EFJ1001-2PB8	EFJ1003-2PB8	EFJ1004-2PB8	EFJ100X-2PB8
	4 Pole①	EFJ1001-4PB8	EFJ1003-4PB8	EFJ1004-4PB8	EFJ100X-4PB8
	6 Pole	EFJ1001-6PB4	EFJ1003-6PB4	EFJ1004-6PB4	EFJ100X-6PB4
	Transfer	EFJ1001-3TB8	EFJ1003-3TB8	EFJ1004-3TB8	EFJ100X-3TB8
	Mech. interlock	EFJ1001-3MB8	EFJ1003-3MB8	EFJ1004-3MB8	EFJ100X-3MB8
200	2 Pole①	EFJ2001-2PB8	EFJ2003-2PB8	EFJ2004-2PB8	EFJ200X-2PB8
	4 Pole①	EFJ2001-4PB4	EFJ2003-4PB4	EFJ2004-4PB4	EFJ200X-4PB4
	6 Pole	EFJ2001-6P8	EFJ2003-6P8	EFJ2004-6P8	EFJ200X-6P8
	Transfer	EFJ2001-3TB4	EFJ2003-3TB4	EFJ2004-3TB4	EFJ200X-3TB4
	Bypass	EFJ2001-3B6	EFJ2003-3B6	EFJ2004-3B6	EFJ200X-3B6
	Mech. interlock	EFJ2001-3MB4	EFJ2003-3MB4	EFJ2004-3MB4	EFJ200X-3MB4
400	2 Pole①	EFJ4001-2PB4	EFJ4003-2PB4	EFJ4004-2PB4	EFJ400X-2PB4
	4 Pole①	EFJ4001-4PB4	EFJ4003-4PB4	EFJ4004-4PB4	EFJ400X-4PB4
	6 Pole	EFJ4001-6P8	EFJ4003-6P8	EFJ4004-6P8	EFJ400X-6P8
	Transfer	EFJ4001-3TB4	EFJ4003-3TB4	EFJ4004-3TB4	EFJ400X-3TB4
	Bypass	EFJ4001-3B6	EFJ4003-3B6	EFJ4004-3B6	EFJ400X-3B6
	Mech. interlock	EFJ4001-3MB4	EFJ4003-3MB4	EFJ4004-3MB4	EFJ400X-3MB4
600	2 Pole①	EFJ6001-2PB4	EFJ6003-2PB4	EFJ6004-2PB4	EFJ600X-2PB4
	4 Pole①	EFJ6001-4PB4	EFJ6003-4PB4	EFJ6004-4PB4	EFJ600X-4PB4
	6 Pole	EFJ6001-6P8	EFJ6003-6P8	EFJ6004-6P8	EFJ600X-6P8
	Transfer	EFJ6001-3TB4	EFJ6003-3TB4	EFJ6004-3TB4	EFJ600X-3TB4
	Bypass	EFJ6001-3B6	EFJ6003-3B6	EFJ6004-3B6	EFJ600X-3B6
	Mech. interlock	EFJ6001-3MB4	EFJ6003-3MB4	EFJ6004-3MB4	EFJ600X-3MB4
800	2 Pole①	EFL8001-2PB4	EFL8003-2PB4	EFL8004-2PB4	EFL800X-2PB4
	4 Pole①	EFL8001-4PB4	EFL8003-4PB4	EFL8004-4PB4	EFL800X-4PB4
	6 Pole	EFL8001-6P8	EFL8003-6P8	EFL8004-6P8	EFL800X-6P8
	Transfer	EFL8001-3TB4	EFL8003-3TB4	EFL8004-3TB4	EFL800X-3TB4
	Bypass	EFL8001-3B6	EFL8003-3B6	EFL8004-3B6	EFL800X-3B6
	Mech. interlock	EFL8001-3MB4	EFL8003-3MB4	EFL8004-3MB4	EFL800X-3MB4

2 Pole

4 Pole



6 Pole

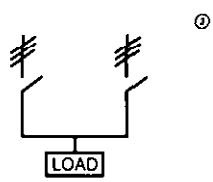
① IEC rated only.
② = Three poles

*For additional information and detail, see the **Bussmann** Disconnect Switch Catalog, **Item** Number **3006***

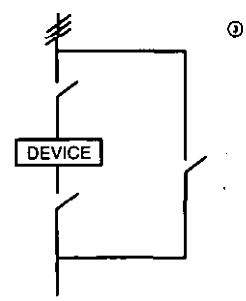
for Enclosed Fusible Disconnect Switches 30A – 800A

UL General purpose amp rating	Type of Switch	NEMA Enclosure type 4X Plastic Catalog number	12 Catalog number	7 & 9 Catalog number
30 (J fuses)	4 Pole1	EFJ30P-4PB6	EFJ302-4PB6	②
	6 Pole	EFJ30P-6PB6	EFJ302-6PB6	
	Transfer	EFJ30P-3TB8	EFJ302-3TB8	
	Bypass	EFJ30P-3BB6	EFJ302-3BB6	
	Mech. interlock	EFJ30P-3MB6	EFJ302-3MB6	
30 (CC fuses)	4 Pole①	EFC30P-4PB6	EFC302-4PB6	②
	6 Pole	EFC30P-6PB6	EFC302-6PB6	
	Transfer	EFC30P-3TB8	EFC302-3TB8	
	Bypass	EFC30P-3BB6	EFC302-3BB6	
	Mech. interlock	EFC30P-3MB6	EFC302-3MB6	
60	4 Pole①	EFJ60P-4PB6	EFJ602-4PB6	②
	6 Pole	EFJ60P-6PB4	EFJ602-6PB4	
	Transfer	EFJ60P-3TB8	EFJ602-3TB8	
	Mech. interlock	EFJ60P-3MB6	EFJ602-3MB6	
100	2 Pole①	EFJ100P-2PB8	EFJ1002-2PB8	②
	4 Pole①	EFJ100P-4PB8	EFJ1002-4PB8	
	6 Pole	EFJ100P-6PB4	EFJ1002-6PB4	
	Transfer	EFJ100P-3TB8	EFJ1002-3TB8	
	Mech. interlock	EFJ100P-3MB8	EFJ1002-3MB8	
200	2 Pole①	EFJ200P-2PB8	EFJ2002-2PB8	②
	4 Pole①	EFJ200P-4PB4	EFJ2002-4PB4	
	6 Pole	EFJ200P-6P8	EFJ2002-6P8	
	Transfer	EFJ200P-3TB4	EFJ2002-3TB4	
	Bypass	EFJ200P-3B6	EFJ2002-3B6	
	Mech. interlock	EFJ200P-3MB4	EFJ2002-3MB4	
400	2 Pole①	EFJ400P-2PB4	EFJ4002-2PB4	②
	4 Pole①	EFJ400P-4PB4	EFJ4002-4PB4	
	6 Pole	EFJ400P-6P8	EFJ4002-6P8	
	Transfer	EFJ400P-3TB4	EFJ4002-3TB4	
	Bypass	EFJ400P-3B6	EFJ4002-3B6	
	Mech. interlock	EFJ400P-3MB4	EFJ4002-3MB4	
600	2 Pole①	EFJ600P-2PB4	EFJ6002-2PB4	②
	4 Pole①	EFJ600P-4PB4	EFJ6002-4PB4	
	6 Pole	EFJ600P-6P8	EFJ6002-6P8	
	Transfer	EFJ600P-3TB4	EFJ6002-3TB4	
	Bypass	EFJ600P-3B6	EFJ6002-3B6	
	Mech. interlock	EFJ600P-3MB4	EFJ6002-3MB4	
800	2 Pole①	EFL800P-2PB4	EFL8002-2PB4	②
	4 Pole①	EFL800P-4PB4	EFL8002-4PB4	
	6 Pole	EFL800P-6P8	EFL8002-6P8	
	Transfer	EFL800P-3TB4	EFL8002-3TB4	
	Bypass	EFL800P-3B6	EFL8002-3B6	
	Mech. interlock	EFL800P-3MB4	EFL8002-3MB4	

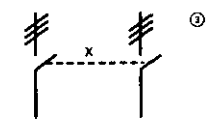
Transfer



Bypass



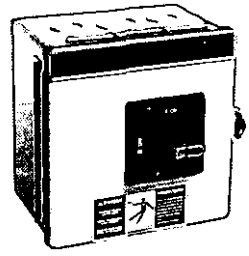
Mechanical Interlock



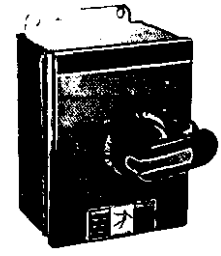
① IEC rated only.
② Consult factory for pricing and availability.
③ ⫽ = Three poles

For additional information and detail, see the Bussmann Disconnect Switch Catalog, Item Number 3006

16A – 3150A



ENF321-3PBJ



ENF63X-3PB6

3 Pole, 600V, 16A – 100A — Selector handle

UL general purpose amp rating	NEMA Enclosure type 1 Catalog number	3R Catalog number	41 Selector handles are only NEMA rated 1, 3R, 12 Catalog number	4X Stainless① Selector handles are only NEMA rated 1, 3R, 12 Catalog number
16	ENF161-3PBJ	ENF163-3PBJ	ENF164-3PBJ	ENF16X-3PBJ
25	ENF251-3PBJ	ENF253-3PBJ	ENF254-3PBJ	ENF25X-3PBJ
40	ENF321-3PBJ	ENF323-3PBJ	ENF324-3PBJ	ENF32X-3PBJ
60	ENF451-3PBJ	ENF453-3PBJ	ENF454-3PBJ	ENF45X-3PBJ
80	ENF631-3PBJ	ENF633-3PBJ	ENF634-3PBJ	ENF63X-3PBJ

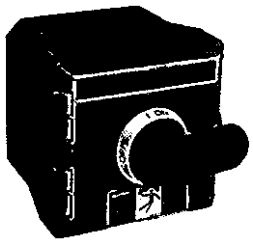
3 Pole, **600V, 16A –** 3150A **—** Pistol handle

	UL general purpose amp rating	NEMA Enclosure type 1 Catalog number	3R Catalog number	4 Catalog number	4X Stainless Catalog number
UL 508	16	ENF161-3PB6	ENF163-3PB6	ENF164-3PB6	ENF16X-3PB6
	25	ENF251-3PB6	ENF253-3PB6	ENF254-3PB6	ENF25X-3PB6
	40	ENF321-3PB6	ENF323-3PB6	ENF324-3PB6	ENF32X-3PB6
	60	ENF451-3PB6	ENF453-3PB6	ENF454-3PB6	ENF45X-3PB6
	80	ENF631-3PB6	ENF633-3PB6	ENF634-3PB6	ENF63X-3PB6
UL 98	30	ENF301-3PB6	ENF303-3PB6	ENF304-3PB6	ENF30X-3PB6
	60	ENF601-3PB6	ENF603-3PB6	ENF604-3PB6	ENF60X-3PB6
	100	ENF1001-3PB6	ENF1003-3PB6	ENF1004-3PB6	ENF100X-3PB6
	125	ENF1251-3PB6	ENF1253-3PB6	ENF1254-3PB6	ENF125X-3PB6
	200	ENF2001-3PB8	ENF2003-3PB8	ENF2004-3PB8	ENF200X-3PB8
	400	ENF4001-3PB4	ENF4003-3PB4	ENF4004-3PB4	ENF400X-3PB4
	600	ENF6001-3PB4	ENF6003-3PB4	ENF6004-3PB4	ENF600X-3PB4
	800	ENF8001-3PB4	ENF8003-3PB4	ENF8004-3PB4	ENF800X-3PB4
	1200	ENF12001-3PB4	ENF12003-3PB4	ENF12004-3PB4	ENF1200X-3PB4
	1600	ENF16001-3P8	ENF16003-3P8	ENF16004-3P8	ENF1600X-3P8
	2000	ENF20001-3P8	ENF20003-3P8	ENF20004-3P8	ENF2000X-3P8
	3150②	ENF31501-3P8	ENF31503-3P8	ENF31504-3P8	ENF3150X-3P8

① Enclosures are rated as listed, selector handles are only NEMA rated 1, 3R, 12. The overall NEMA rating of an enclosed switch with a selector handle is 1, 3R, 12.
② IEC rated only.

For additional information and detail, see the ***Bussmann*** *Disconnect Switch Catalog,* ***Item*** *Number3006*

16A – 3150A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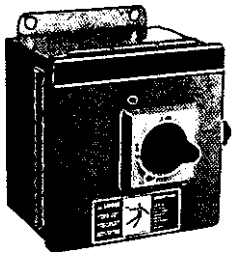
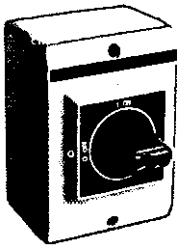

ENF252-3PYJ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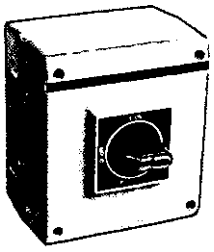

ENF45E-3PBJ

3 Pole, **600V, 16A – 100A —** Selector handle

	NEMA Enclosure type			IEC Enclosure type
	4X Plastic① Selector handles are only NEMA rated 1, 3R, 12	**12**	**7 & 9**	**IP65 Plastic**
UL general purpose amp rating	Catalog number	Catalog number	Catalog number	Catalog number
16	ENF16P-3PBJ	ENF162-3PBJ	—	ENF16E-3PBJ
25	ENF25P-3PBJ	ENF252-3PBJ	—	ENF25E-3PBJ
40	ENF32P-3PBJ	ENF322-3PBJ	—	ENF32E-3PBJ
60	ENF45P-3PBJ	ENF452-3PBJ	—	ENF45E-3PBJ
80	ENF63P-3PBJ	ENF632-3PBJ	—	ENF63E-3PBJ

3 Pole, **600V,** 16A – 3150A **—** Pistol handle

		NEMA Enclosure type			IEC Enclosure type
		4X Plastic	**12**	**7 & 9**	**IP65 Plastic**
	UL general purpose amp rating	Catalog number	Catalog number	Catalog number	Catalog number
UL 508	16	ENF16P-3PB6	ENF162-3PB6	ENF167-3P	ENF16E-3PB4
UL 508	25	ENF25P-3PB6	ENF252-3PB6	ENF257-3P	ENF25E-3PB4
UL 508	40	ENF32P-3PB6	ENF322-3PB6	ENF327-3P	ENF32E-3PB4
UL 508	60	ENF45P-3PB6	ENF452-3PB6	ENF457-3P	ENF45E-3PB4
UL 508	80	ENF63P-3PB6	ENF632-3PB6	ENF637-3P	ENF63E-3PB4
UL 98	30	ENF30P-3PB6	ENF302-3PB6	ENF307-3P	ENF30E-3PB6
UL 98	60	ENF60P-3PB6	ENF602-3PB6	ENF607-3P	ENF60E-3PB6
UL 98	100	ENF100P-3PB6	ENF1002-3PB6	ENF1007-3P	ENF100E-3PB6
UL 98	125	ENF125P-3PB6	ENF1252-3PB6	ENF1257-3P	ENF125E-3PB6
UL 98	200	ENF200P-3PB8	ENF2002-3PB8	ENF2007-3P	—
UL 98	400	ENF400P-3PB4	ENF4002-3PB4	ENF4007-3P	—
UL 98	600	ENF600P-3PB4	ENF6002-3PB4	ENF6007-3P	—
UL 98	800	ENF800P-3PB4	ENF8002-3PB4	ENF8007-3P	—
UL 98	1200	ENF1200P-3PB4	ENF12002-3PB4	ENF12007-3P	—
UL 98	1600	ENF1600P-3P8	ENF16002-3P8	ENF16007-3P	—
UL 98	2000	ENF2000P-3P8	ENF20002-3P8	ENF20007-3	—
UL 98	3150②	ENF3150P-3P8	ENF31502-3P8	ENF31507-3P	—

NOTE: All enclosed switches are provided with a black handle; however, most handles can be substituted with a red and yellow handle if desired. Please substitute the handle suffix code (2nd and 3rd from last characters) with the red/yellow handle catalog number suffix from page 3.12. There is no additional price adder for changing to a red/yellow handle of equal ratings and style.

EXAMPLE: A red/yellow selector handle for an NF161-3PBJA can be substituted for the black selector handle by using the "YJ" suffix instead of the "BJ" suffix, new catalog #NF161-3PYJA.

① Enclosures are rated as listed, selector handles are only NEMA rated 1, 3R, 12. The overall NEMA rating of an enclosed switch with a selector handle is 1, 3R, 12

② IEC rated only.

16A – 400A Other Configurations

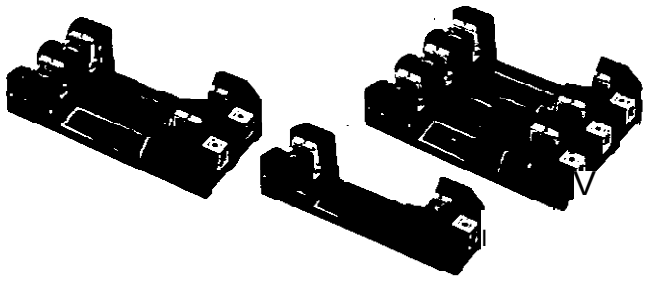
UL General purpose amp rating	Type of switch	NEMA Enclosure type 1 Catalog number	3R Catalog number	4 Catalog number	4X Stainless Catalog number
16	4 Pole	ENF161-4PB6	ENF163-4PB6	ENF164-4PB6	ENF16X-4PB6
	6 Pole	ENF161-6PB6	ENF163-6PB6	ENF164-6PB6	ENF16X-6PB6
	Transfer	ENF161-3TB8	ENF163-3TB8	ENF164-3TB8	ENF16X-3TB8
	Bypass	ENF161-3BB8	ENF163-3BB8	ENF164-3BB8	ENF16X-3BB8
	Mech. interlock	ENF161-3MB6	ENF163-3MB6	ENF164-3MB6	ENF16X-3MB6
25	4 Pole	ENF251-4PB6	ENF253-4PB6	ENF254-4PB6	ENF25X-4PB6
	6 Pole	ENF251-6PB6	ENF253-6PB6	ENF254-6PB6	ENF25X-6PB6
	Transfer	ENF251-3TB8	ENF253-3TB8	ENF254-3TB8	ENF25X-3TB8
	Bypass	ENF251-3BB8	ENF253-3BB8	ENF254-3BB8	ENF25X-3BB8
	Mech. interlock	ENF251-3MB6	ENF253-3MB6	ENF254-3MB6	ENF25X-3MB6
	4 Pole	ENF321-4PB6	ENF323-4PB6	ENF324-4PB6	ENF32X-4PB6
	6 Pole	ENF321-6PB6	ENF323-6PB6	ENF324-6PB6	ENF32X-6PB6
	Transfer	ENF321-3TB8	ENF323-3TB8	ENF324-3TB8	ENF32X-3TB8
	Bypass	ENF321-3BB8	ENF323-3BB8	ENF324-3BB8	ENF32X-3BB8
	Mech. interlock	ENF321-3MB6	ENF323-3MB6	ENF324-3MB6	ENF32X-3MB6
60	4 Pole	ENF451-4PB6	ENF453-4PB6	ENF454-4PB6	ENF45X-4PB6
	6 Pole	ENF451-6PB6	ENF453-6PB6	ENF454-6PB6	ENF45X-6PB6
	Transfer	ENF451-3TB8	ENF453-3TB8	ENF454-3TB8	ENF45X-3TB8
	Bypass	ENF451-3BB8	ENF453-3BB8	ENF454-3BB8	ENF45X-3BB8
	Mech. interlock	ENF451-3MB6	ENF453-3MB6	ENF454-3MB6	ENF45X-3MB6
80	4 Pole	ENF631-4PB6	ENF633-4PB6	ENF634-4PB6	ENF63X-4PB6
	6 Pole	ENF631-6PB6	ENF633-6PB6	ENF634-6PB6	ENF63X-6PB6
	Transfer	ENF631-3TB8	ENF633-3TB8	ENF634-3TB8	ENF63X-3TB8
	Bypass	ENF631-3BB8	ENF633-3BB8	ENF634-3BB8	ENF63X-3BB8
	Mech. interlock	ENF631-3MB6	ENF633-3MB6	ENF634-3MB6	ENF63X-3MB6
30	4 Pole	ENF301-4PB6	ENF303-4PB6	ENF304-4PB6	ENF30X-4PB6
	6 Pole	ENF301-6PB6	ENF303-6PB6	ENF304-6PB6	ENF30X-6PB6
	Transfer	ENF301-3TB8	ENF303-3TB8	ENF304-3TB8	ENF30X-3TB8
	Bypass	ENF301-3BB8	ENF303-3BB8	ENF304-3BB8	ENF30X-3BB8
	Mech. interlock	ENF301-3MB6	ENF303-3MB6	ENF304-3MB6	ENF30X-3MB6
60	4 Pole	ENF601-4PB6	ENF603-4PB6	ENF604-4PB6	ENF60X-4PB6
	6 Pole	ENF601-6PB6	ENF603-6PB6	ENF604-6PB6	ENF60X-6PB6
	Transfer	ENF601-3TB8	ENF603-3TB8	ENF604-3TB8	ENF60X-3TB8
	Bypass	ENF601-3BB8	ENF603-3BB8	ENF604-3BB8	ENF60X-3BB8
	Mech. interlock	ENF601-3MB6	ENF603-3MB6	ENF604-3MB6	ENF60X-3MB6
100	4 Pole	ENF1001-4PB6	ENF1003-4PB6	ENF1004-4PB6	ENF100X-4PB6
	6 Pole	ENF1001-6PB6	ENF1003-6PB6	ENF1004-6PB6	ENF100X-6PB6
	Transfer	ENF1001-3TB8	ENF1003-3TB8	ENF1004-3TB8	ENF100X-3TB8
	Bypass	ENF1001-3BB8	ENF1003-3BB8	ENF1004-3BB8	ENF100X-3BB8
	Mech. interlock	ENF1001-3MB6	ENF1003-3MB6	ENF1004-3MB6	ENF100X-3MB6
125	2 Pole	ENF1251-2PB6	ENF1253-2PB6	ENF1254-2PB6	ENF125X-2PB6
	4 Pole	ENF1251-4PB6	ENF1253-4PB6	ENF1254-4PB6	ENF125X-4PB6
	6 Pole	ENF1251-6PB2	ENF1253-6PB2	ENF1254-6PB4	ENF125X-6PB4
	Transfer	ENF1251-3TB8	ENF1253-3TB8	ENF1254-3TB8	ENF125X-3TB8
	Bypass	—	—	—	—
	Mech. interlock	ENF1251-3MB6	ENF1253-3MB6	ENF1254-3MB8	ENF125X-3MB8
200	2 Pole	ENF2001-2PB8	ENF2003-2PB8	ENF2004-2PB8	ENF200X-2PB8
	4 Pole	ENF2001-4PB8	ENF2003-4PB8	ENF2004-4PB8	ENF200X-4PB8
	6 Pole	ENF2001-6PB4	ENF2003-6PB4	ENF2004-6PB4	ENF200X-6PB4
	Transfer	ENF2001-3TB4	ENF2003-3TB4	ENF2004-3TB4	ENF200X-3TB4
	Bypass	ENF2001-3BB4	ENF2003-3BB4	ENF2004-3BB4	ENF200X-3BB4
	Mech. interlock	ENF2001-3MB8	ENF2003-3MB8	ENF2004-3MB8	ENF200X-3MB8
400	2 Pole	ENF4001-2PB4	ENF4003-2PB4	ENF4004-2PB4	ENF400X-2PB4
	4 Pole	ENF4001-4PB4	ENF4003-4PB4	ENF4004-4PB4	ENF400X-4PB4
	6 Pole	ENF4001-6P8	ENF4003-6P8	ENF4004-6P8	ENF400X-6P8
	Transfer	ENF4001-3TB4	ENF4003-3TB4	ENF4004-3TB4	ENF400X-3TB4
	Bypass	ENF4001-3B6	ENF4003-3B6	ENF4004-3B6	ENF400X-3B6
	Mech. interlock	ENF4001-3MB4	ENF4003-3MB4	ENF4004-3MB4	ENF400X-3MB4

For additional information and detail, see the ***Bussmann Disconnect Switch Catalog, Item Number 3006***

16A – 400A Other Configurations

UL General purpose amp rating	Type of switch	NEMA Enclosure type 4X Plastic Catalog number	NEMA Enclosure type 12 Catalog number	NEMA Enclosure type 7 & 9 Catalog number	IEC Enclosure type IP65 Catalog number
16	4 pole	ENF16P-4PB6	ENF162-4PB6	ENF167-4P	ENF16E-4PBJ
	6 pole	ENF16P-6PB6	ENF162-6PB6	ENF167-6P	ENF16E-6PBJ
	Transfer	ENF16P-3TB8	ENF162-3TB8	ENF167-3T	—
	Bypass	ENF16P-3BB8	ENF162-3BB8	ENF167-3B	—
	Mech. interlock	ENF16P-3MB6	ENF162-3MB6	—	—
25	4 pole	ENF25P-4PB6	ENF252-4PB6	ENF257-4P	ENF25E-4PBJ
	6 pole	ENF25P-6PB6	ENF252-6PB6	ENF257-6P	ENF25E-6PBJ
	Transfer	ENF25P-3TB8	ENF252-3TB8	ENF257-3T	—
	Bypass	ENF25P-3BB8	ENF252-3BB8	ENF257-3B	—
	Mech. interlock	ENF25P-3MB6	ENF252-3MB6	—	—
40	4 Pole	ENF32P-4PB6	ENF322-4PB6	ENF327-4P	ENF32E-4PBJ
	6 Pole	ENF32P-6PB6	ENF322-6PB6	ENF327-6P	ENF32E-6PBJ
	Transfer	ENF32P-3TB8	ENF322-3TB8	ENF327-3T	—
	Bypass	ENF32P-3BB8	ENF323-3BB8	ENF327-3B	—
	Mech. interlock	ENF32P-3MB6	ENF322-3MB6	—	—
60	4 Pole	ENF45P-4PB6	ENF452-4PB6	ENF457-4P	ENF45E-4PBJ
	6 Pole	ENF45P-6PB6	ENF452-6PB6	ENF457-6P	ENF45E-6PBJ
	Transfer	ENF45P-3TB8	ENF452-3TB8	ENF457-3T	—
	Bypass	ENF45P-3BB8	ENF452-3BB8	ENF457-3B	—
	Mech. interlock	ENF45P-3MB6	ENF452-3MB6	—	—
80	4 Pole	ENF63P-4PB6	ENF632-4PB6	ENF637-4P	ENF63E-4PBJ
	6 Pole	ENF63P-6PB6	ENF632-6PB6	ENF637-6P	ENF637-6PBJ
	Transfer	ENF63P-3TB8	ENF632-3TB8	ENF637-3T	—
	Bypass	ENF63P-3BB8	ENF632-3BB8	ENF637-3B	—
	Mech. interlock	ENF63P-3MB6	ENF632-3MB6	—	—
30	4 Pole	ENF30P-4PB6	ENF302-4PB6	ENF307-4P	ENF30E-4PB4
	6 Pole	ENF30P-6PB6	ENF302-6PB6	ENF307-6P	ENF30E-6PB6
	Transfer	ENF30P-3TB8	ENF302-3TB8	ENF307-3T	—
	Bypass	ENF30P-3BB8	ENF302-3BB8	ENF307-3B	—
	Mech. interlock	ENF30P-3MB6	ENF302-3MB6	—	—
60	4 Pole	ENF60P-4PB6	ENF602-4PB6	ENF607-4P	ENF60E-4PB4
	6 Pole	ENF60P-6PB6	ENF602-6PB6	ENF607-6P	ENF60E-6PB6
		ENF60P-3TB8	ENF602-3TB8	ENF607-3T	—
	Bypass	ENF60P-3BB8	ENF602-3BB8	ENF607-3B	—
	Mech. interlock	ENF60P-3MB6	ENF602-3MB6	—	—
100	4 Pole	ENF100P-4PB6	ENF1002-4PB6	ENF1007-4P	ENF100E-4PB4
	6 Pole	ENF100P-6PB6	ENF1002-6PB6	ENF1007-6P	ENF100E-6PB6
	Transfer	ENF100P-3TB8	ENF1002-3TB8	ENF1007-3T	—
	Bypass	ENF100P-3BB8	ENF1002-3BB8	ENF1007-3B	—
	Mech. interlock	ENF100P-3MB6	ENF1002-3MB6	—	—
125	2 Pole	ENF125P-2PB6	ENF1252-2PB6	ENF1257-2P	—
	4 Pole	ENF125P-4PB6	ENF1252-4PB6	ENF1257-4P	—
	6 Pole	ENF125P-6PB2	ENF1252-6PB2	ENF1257-6P	—
	Transfer	ENF125P-3TB8	ENF1252-3TB8	ENF1257-3T	—
	Bypass	—	—	—	—
	Mech. interlock	ENF125P-3MB6	ENF1252-3MB6	—	—
200	2 Pole	ENF200P-2PB8	ENF2002-2PB8	ENF2007-2P	—
	4 Pole	ENF200P-4PB8	ENF2002-4PB8	ENF2007-4P	—
	6 Pole	ENF200P-6PB4	ENF2002-6PB4	ENF2007-6P	—
	Transfer	ENF200P-3TB4	ENF2002-3TB4	ENF2007-3T	—
	Bypass	ENF200P-3BB4	ENF2002-3BB4	ENF2007-3B	—
	Mech. interlock	ENF200P-3MB8	ENF2002-3MB8	—	—
400	2 Pole	ENF400P-2PB4	ENF4002-2PB4	ENF4007-2P	—
	4 Pole	ENF400P-4PB4	ENF4002-4PB4	ENF4007-4P	—
	6 Pole	ENF400P-6P8	ENF4002-6P8	ENF4007-6P	—
	Transfer	ENF400P-3TB4	ENF4002-3TB4	ENF4007-3T	—
	Bypass	ENF400P-3B6	ENF4002-3B6	ENF4007-3B	—
	Mech. interlock	ENF400P-3MB4	ENF4002-3MB4	—	

Class H(K) and **R** Fuseblocks – 250V



H250 Series For use with Class H Fuses (Bussmann NON).
R250 Series For use with Class R Fuses (Bussmann LPN-RK and FRN-Fi, DLN-R and KTN-R).
Construction: Thermoplastic, UL Flammability: 94V0
Ampere Ratings: 1/10-600 Amps.
Withstand **Ratings:** HZ50 Series 10,000A RMS Sym.; R250 Series 200,000A RMS Sym.
Voltage Rating: H250, 250 Volts AC: R250, 250 Volts AC
Agency Approvals: UL Listed UL512, Guide IZLT, File E14853; CSA Certified, Class 6225-01, File 47235

Class H Fuseblocks (250V) Catalog Data **(for** NON **Fuses)**

Amps	Poles	Basic Catalog Number	Terminal Type (Suffix No.) Screw: —	Screw: Clip with Reinforced Spring	Screw: Pressure Plate	Screw: Pressure Plate & Clip with Reinforced Spring	Box Lug w/: —	Box Lug w/: Clip with Reinforced Spring	Box Lug w/: Clip w/ Reinforced Spring (Copper Only)	Box Lug w/: (Copper Only)	0.25" Quick Connect	Fig. No.	A	B	C	D	E	F	G	H	J Dia. × C' Bore	K	Max. Wire Size
1/10	1	H25030-1	S	SR	P	PR	C	CR	COR	CO	Q	1	(See Figures)										S.P. #10 Cu C #6 Cu
to	2	H25030-2	S	SR	P	PR	C	CR	COR	CO	Q	2											
30	3	H25030-3	S	SR	P	PR	C	CR	COR	CO	Q	3											
35	1	H25060-1	S*	SR*	P*	PR*	C	CR	COR	CO	—	4	4.25	1.73	1.5 2.81 4.125	1.5	0.5	0.5	1.25	1.94	0.22 × 0.41	0.27	S. #10 #2 Cu-Al
to	2	H25060-2	S*	SR*	P*	PR*	C	CR	COR	CO	—	5											
60	3	H25060-3	S*	SR*	P*	PR*	C	CR	COR	CO	—	6											
61	1	H25100-1	—	SR*	—	—	—	CR	—	—	—	7	(See Figures)										#1/0 Cu-Al
to	2	H25100-2	—	SR*	—	—	—	CR	—	—	—	8											
100	3	H25100-3	—	SR*	—	—	—	CR	—	—	—	9											
101	1	H25200-1	—	—	—	—	—	CR	—	—	—	10	7.125	3.09	3.0	2.06	0.5	2.0	3.0	0.75	—	0.31	250MCM Cu-Al
to 200	3	H25200-3	—	—	—	—	—	CR	—	—	—	11	(See Figure)										
201	1	H25400-1	—	—	—	—	—	CR*	—	—	—	10	9.06	4.0	3.0	3.02	0.63	1.75	3.0	1.0	—	0.31	500MCM - 4/0 Cu-Al
to 400	3	H25400-3	—	—	—	—	—	CR†	—	—	—	12	9.06	4.0	4.0	2.50	0.82	9.25	10.88	1.0			
401	1	H25600-1	—	—	—	—	—	CR	—	—	—	10	11.0	4.97	3.0	4.0	1.125	1.75	4.0	1.00	—	0.31	2-500MCM Cu-Al
to 600	3	H25600-3	—	—	—	—	—	CR	—	—	—	12	11.0	4.97	5.0	3.0	1.87	11.0	14.74	1.00			

*UL Recognized, CSA Certified.
† No agency listings.

Class **R** Fuseblocks **(250V)** Catalog Data (for LPN-RK, **FRN-R,** DLN-R and KTN-R **Fuses)**

Amps	Poles	Basic Catalog Number	Terminal Type (Suffix No.) Screw w/: —	Screw w/: Pres. Plate	Box Lug w/: —	Box Lug w/: Clip Cu Only	0.25" Quick-Connect	Fig. No.	A	B	C	D	E	F	G	H	J Dia. × C' Bore	K	Max. Wire Size
1/10	1	R25030-1	SR	PR	CR	COR	QR*	1	(See Figures)										S.P. #10 Cu C #2 Cu-Al
to	2	R25030-2	SR	PR	CR	COR	QR*	2											
30	3	R25030-3	SR	PR	CR	COR	QR*	3											
35	1	R25060-1	SR*	PR	CR	COR	—	4	4.25	1.73	1.5 2.81 4.125	1.5	0.50	0.5	1.25	1.31	0.22 × 0.41	0.27	S.P. #10 Cu C #2 Cu-Al
to	2	R25060-2	SR*	PR	CR	COR	—	5											
60	3	R25060-3	SR*	PR	CR	COR	—	6											
61	1	R25100-1	—	—	CR	COR	—	7	(See Figures)										#1/0 Cu-Al
to	2	R25100-2	—	—	CR	COR	—	8											
100	3	R25100-3	—	—	CR	COR	—	9											
101	1	R25200-1	—	—	CR	COR	—	10	7.125	3.15	3.0	2.06	0.5	2.0	3.0	0.75	—	0.31	250MCM Cu-Al
to 200	3	R25200-3	—	—	CR	COR	—	11	(See Figure)										
201	1	R25400-1	—	—	CR*	COR*	—	10	9.06	4.0	3.0	3.02	0.91	1.75	3.0	1.0	—	0.56	500MCM - 4/0 Cu-Al
to 400	3	R25400-3	—	—	CR†	COR†	—	12	9.06	4.0	4.0	2.5	0.82	9.25	10.88	1.0			
401	1	R25600-1	—	—	CR	—	—	10	11.0	4.97	3.0	4.0	1.125	1.75	4.0	1.0	—	0.56	2-500MCM Cu-Al
to 600	3	R25600-3	—	—	CR	—	—	12	11.0	4.97	5.0	3.0	1.87	11.0	14.74	1.0			

*UL Recognized, CSA Certified.
† No agency listings.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: H250 Series,1112; R250 Series, 1110

Class H(K) and R Fuseblocks – 250V

Dimensional Data

250V, 1/10A to 30A

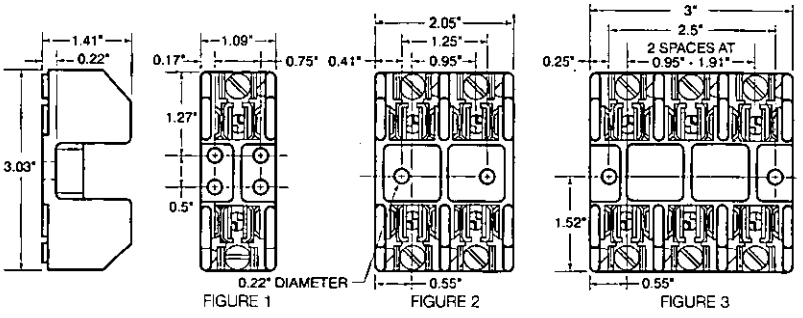


FIGURE 1 FIGURE 2 FIGURE 3

250V, 31A to BOA

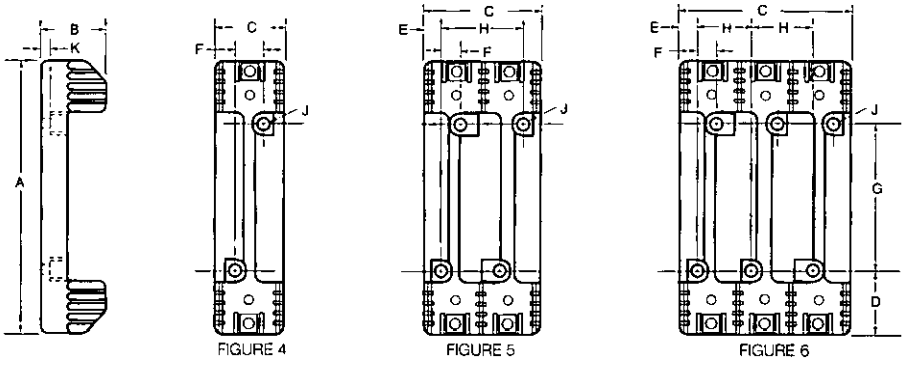


FIGURE 4 FIGURE 5 FIGURE 6

250V, 61A to 100A

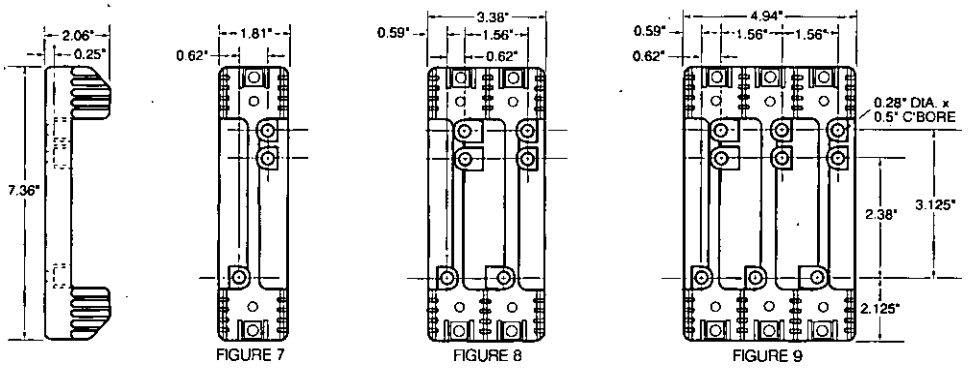


FIGURE 7 FIGURE 8 FIGURE 9

250V, 101A to 600A

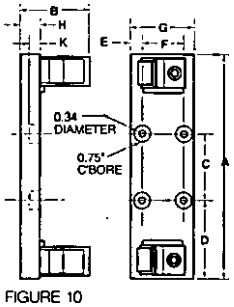


FIGURE 10

250V, 101A to 200A

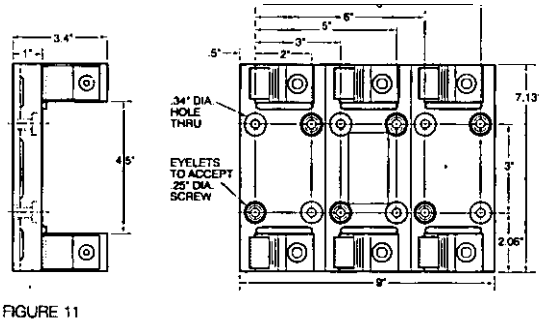


FIGURE 11

250V, 201A to 600A

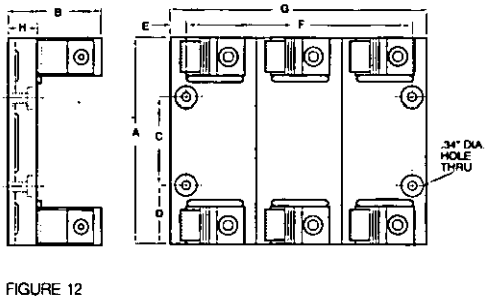
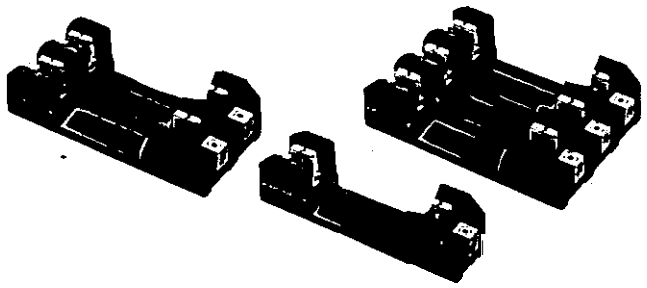


FIGURE 12

Class H(K) and **R** Fuseblocks – 600V



H600 Series For use with Class H Fuses (Bussmann NOS and RES).

R600 Series For use with Class R Fuses (Bussmann LPS-RK and FRS-R, DLS-R and KTS-R).

Construction: Thermoplastic, UL Flammability: 94VO

Ampere Ratings: 1/10-600 Amps.

Withstand **Ratings:** H600Series 10,000A RMS Sym.; R600 Series - 200,000A RMS Sym.

Voltage Rating: H600, 600 Volts AC; R600, 600 Volts AC

Agency **Approvals:** UL Listed UL512, Guide IZLT, File E14853; CSA Certified, Class 6225-01, File 47235

Class **H Fuseblocks (600V) Catalog** Data **(for** NOS **Fuses)**

Amps	Poles	Basic Catalog Number	Terminal Type (Suffix No.) Screw: —	Screw: Clip with Reinforced Spring	Screw: Pressure Plate	Screw: Pressure Plate & Clip with Reinforced Spring	Box Lug w/: —	Box Lug w/: Clip with Reinforced Spring	Box Lug w/: Clip w/ Reinforced Spring (Copper Only)	Box Lug w/: (Copper Only)	0.25" Quick Connect	Fig. No.	Dimensions (Inches) – See Next Page For Figures: A	B	C	D	E	F	G	H	J Dia. × C' Bore	K	Max. Wire Size
1/10	1	H60030-1	S	SR	P	PR	C	CR	COR	CO	—	1			1.55								
to	2	H60030-2	S	SR	P	PR	C	CR	COR	CO	—	2	6.25	1.73	2.89	1.56	0.25	0.63	3.125	1.56	0.28 x 0.5	0.27	S.P. #10 Cu C #6 Cu
30	3	H60030-3	S	SR	P	PR	C	CR	COR	CO	—	3			4.25								
31	1	H60060-1	S	SR	P	PR	C	CR	COR	CO	—	4											
to	2	H60060-2	S	SR	P	PR	C	CR	COR	CO	—	5	(See Figures)										#2 Cu-Al
60	3	H60060-3	S	SR	P	PR	C	CR	COR	CO	—	6											
61	1	H60100-1	—	SR	—	—	—	CR	COR	—	—	7			2.22								
to	2	H60100-2	—	SR	—	—	—	CR	COR	—	—	2	9.5	2.38	4.03	2.63	0.67	0.88	4.25	1.69	0.28 X 0.5	0.34	#1/0 Cu-Al
100	3	H60100-3	—	SR	—	—	—	CR	COR	—	—	3			5.84								
101	1	H60200-1	—	—	—	—	—	CR	COR*	—	—	7	9.63	3.09	3.0	3.31	0.5	2.0	3.0	0.75	—	0.31	250MCM Cu-Al
to 200	3	H60200-3	—	—	—	—	—	CR	—	—	—	8	(See Figures)										
201	1	H60400-1	—	—	—	—	—	CR†	COR*	—	—	7	12.0	4.0	3.0	4.5	0.63	1.75	3.0	1.0	—	0.56	500MCM – 4/0 Cu-Al
to 400	3	H60400-3	—	—	—	—	—	CR†	—	—	—	9	(See Figures)										
401	1	H60600-1	—	—	—	—	—	CR	—	—	—	7	14.0	4.97	3.0	5.5	1.125	1.75	4.0	1.0	—	0.56	2-500MCM Cu-Al
to 600	3	H60600-3	—	—	—	—	—	CR	—	—	—	10	(See Figures)										

Class R Fuseblocks (600V) Catalog Data (for LPS-RK, FRS-R, DLS-R and KTS-R Fuses)

Amps	Poles	Basic Catalog Number	Terminal Type (Suffix No.) Screw w/: —	Screw w/: Pres. Plate	Box Lug w/: —	Box Lug w/: Clip Cu Only	0.25" Quick-Connect	Fig. No.	Dimensions (Inches): A	B	C	D	E	F	G	H	J Dia. × C' Bore	K	Max. Wire Size
1/10	1	R60030-1	SR	PR	CR	COR	—	1			1.55								
to	2	R60030-2	SR	PR	CR	COR	—	2	6.25	1.73	2.89	1.56	0.25	0.63	3.125	1.56	0.28 x 0.5	0.27	S.P. #10 Cu C #6 Cu-Al
30	3	R60030-3	SR	PR	CR	COR	—	3			4.25								
31	1	R60060-1	SR*	PR	CR	COR	—	4											
to	2	R60060-2	SR*	PR	CR	COR	—	5	(See Figures)										C #2 Cu-Al
60	3	R60060-3	SR*	PR	CR	COR	—	6											
61	1	R60100-1	—	—	CR	COR	—	1			2.22								
to	2	R60100-2	—	—	CR	COR	—	2	9.5	2.38	4.03	2.63	0.67	0.88	4.25	1.81	0.28 x 0.5	0.34	#1/0 Cu-Al
100	3	R60100-3	—	—	CR	COR	—	3			5.84								
101	1	R60200-1	—	—	CR	COR	—	7	9.63	3.15	3.0	3.31	0.5	2.0	3.0	0.75	—	0.31	250MCM Cu-Al
to 200	3	R60200-3	—	—	CR	—	—	8	(See Figures)										
201	1	R60400-1	—	—	CR*	COR*	—	7	12.0	4.0	3.0	4.5	0.63	1.75	3.0	1.0	—	0.56	500MCM – 4/0 Cu-Al
to 400	3	R60400-3	—	—	CR†	—	—	9	(See Figures)										
401	1	R60600-1	—	—	CR	—	—	7	14.0	4.97	3.0	5.5	1.125	1.75	4.0	1.0	—	0.56	2-500MCM Cu-Al
to 600	3	R60600-3	—	—	CR	—	—	10	(See Figures)										

*UL Recognized, CSA Certified.
† No agency listings.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: H600 Series, 1113; R600 Series, 1111

Class H(K) and R Fuseblocks - 600V

Dimensional Data

600V, 1/10A to 30A and 61A to 100A

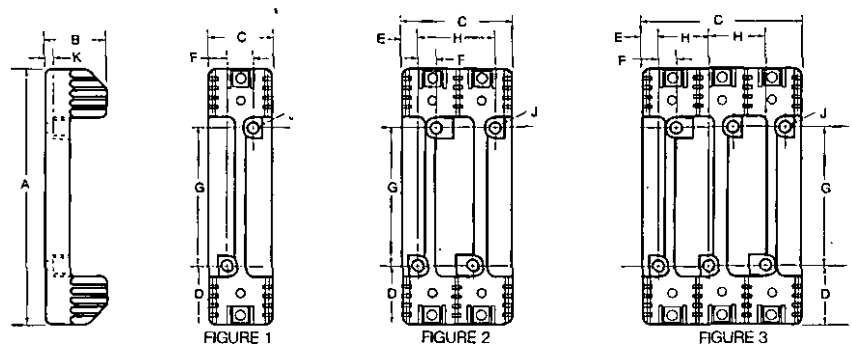


FIGURE 1 FIGURE 2 FIGURE 3

600V, 31A to 60A

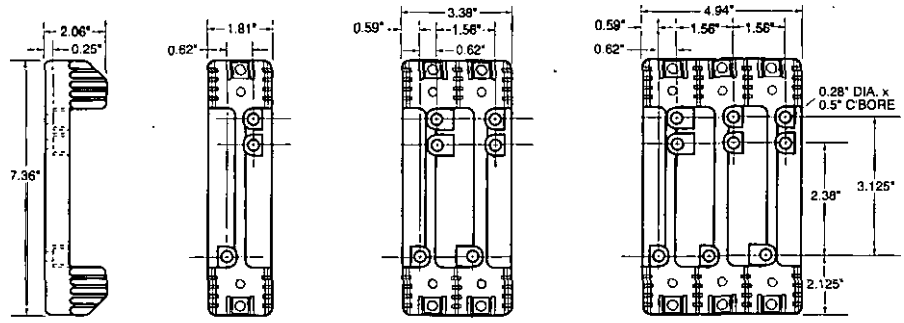


FIGURE 4 FIGURE 5 FIGURE 6

600V, 101A to 600A

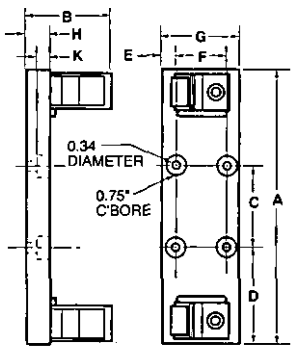


FIGURE 7

600V, 101A to 200A

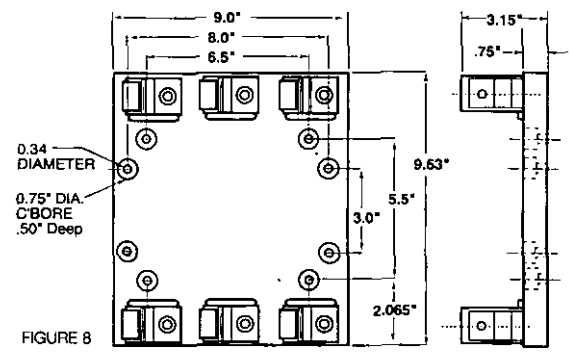


FIGURE 8

600V, 201A to 400A

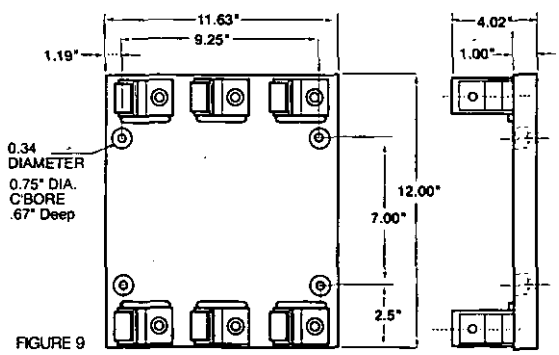


FIGURE 9

600V, 401A to 600A

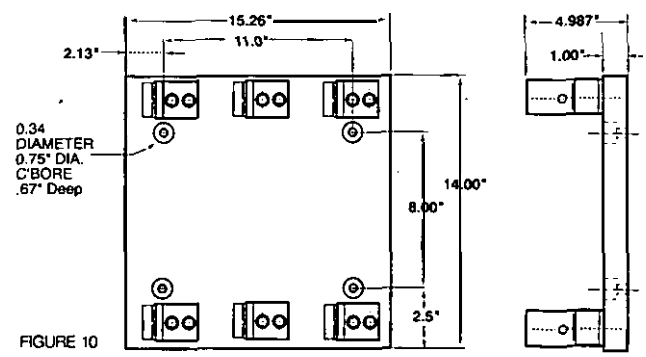
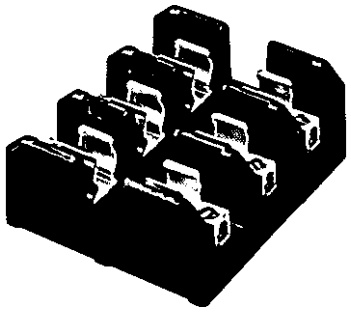


FIGURE 10

Class J Fuseblocks



5600 Series For use with Class J Fuses (Bussmann LPJ. JKS)

Construction: Thermoplastic, UL Flammability: 94V0

Voltage Rating: ½-600 Amps., 600 Volts AC

Withstand Rating: 200,000A RMS Sym.

Agency Approvals:

UL Listed UL512, Guide IZLT, File EI4853

CSA Certified, Class 6225-01, File 47235.

Standard Class J Fuseblocks (600V) Catalog Data

Amps	Poles	Catalog Numbers Screw*	Pressure Plate*	Box Lug	Box Lug w/ Retaining Clip	Fig. No.	Max. Wire Size
½-30	1	J60030-1S*	J60030-1P*	J60030-1C	J60030-1CR**	1	S.P. #10 Cu; C #2 Cu-Al
	2	J60030-2S*	J60030-2P*	J60030-2C	J60030-2CR**	2	
	3	J60030-3S*	J60030-3P*	J60030-3C	J60030-3CR**	3	
31-60	1	—	—	J60060-1C	J60060-1CR**	1	#2 Cu Al
	2	—	—	J60060-2C	J60060-2CR**	2	
	3	—	—	J60060-3C	J60060-3CR**	3	
61-100	3	—	—	—	J60100-3CR**	4	1/0 Cu-Al
101-200	1	—	—	—	J60200-1CR	5	250 MCM Cu-Al
	3	—	—	—	J60200-3CR	6	
201-400	1	—	—	—	J60400-1CR†	7	500 MCM Cu-Al
	3	—	—	—	J60400-3CR††	8	
401-600	1	—	—	—	J60600-1CR	9	(2) 500 MCM Cu-Al
	3	—	—	—	J60600-3CR	10	

*Clip reinforcing springs are standard on fuseblocks rated 100A and above. Available on 30A and 60A blocks by adding the letter "R" to the end of the part number.
**Copper only connections available by changing "CR" suffix to "COR".
† UL Recognized, CSA Certified
†† No agency listings

CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

½ to 60A

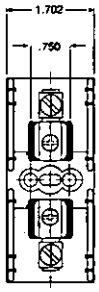


FIGURE 1

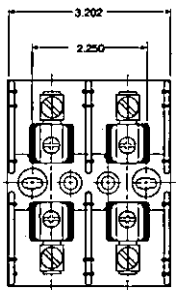


FIGURE 2

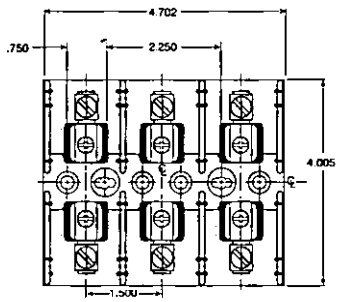
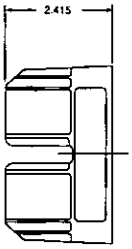
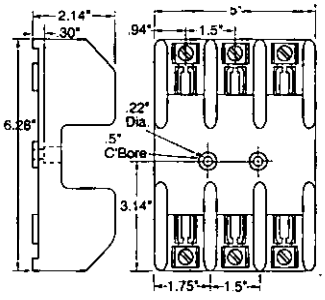


FIGURE 3



61 to 100A



101 *to* 200A

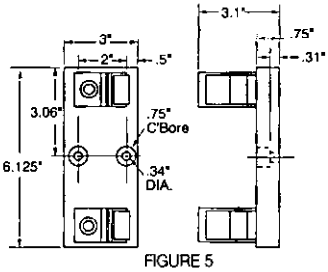


FIGURE 5

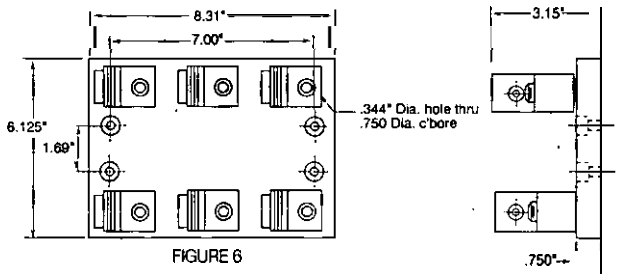


FIGURE 6

201 to 400A

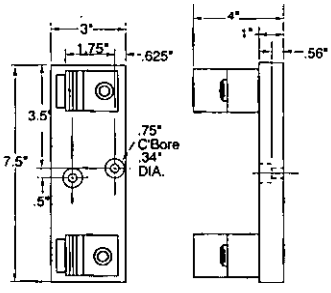


FIGURE 7

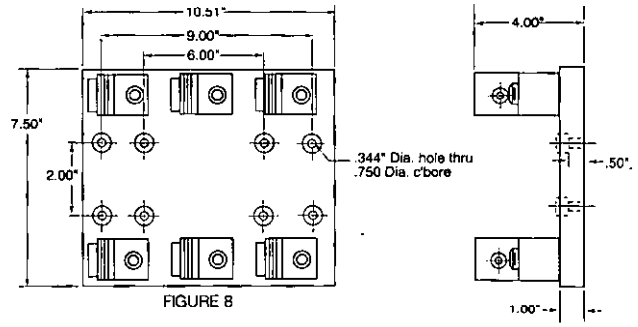


FIGURE 8

BIF document: 1114

Class J Fuseblocks

401 *to 600A*

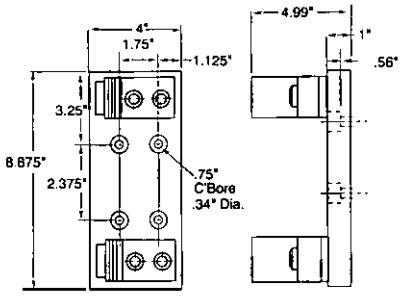


FIGURE 9

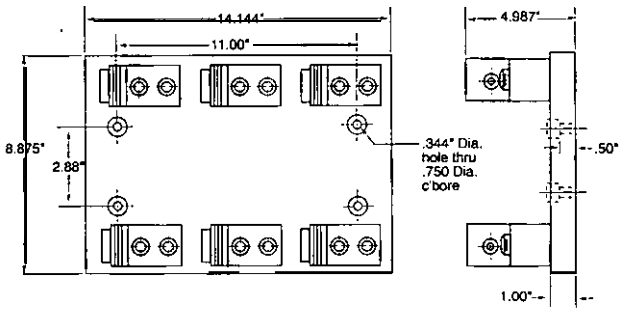
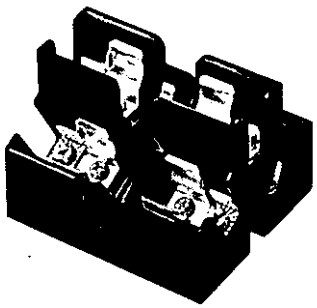


FIGURE 10



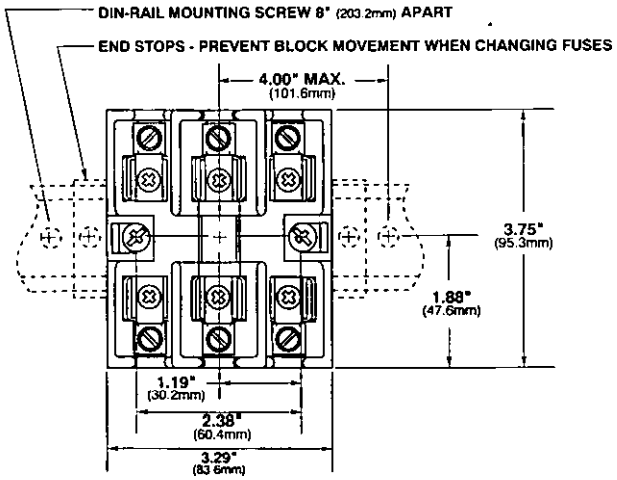
CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

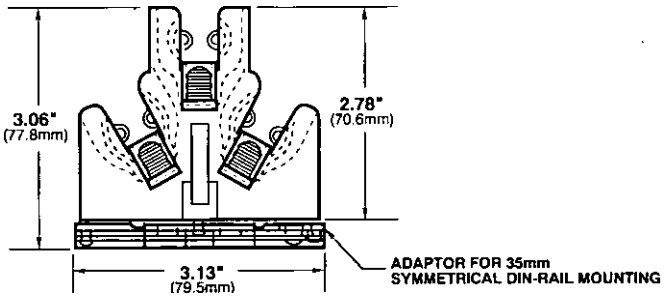
JP **Series** For use with Class J Fuses (Bussmann LPJ, JKS)
Pyramid Style Fuseblock
Voltage Rating: 30 Amps., 600 Volts AC
Withstand Rating: 200,000A RMS Sym.
Construction: Thermoplastic, UL Flammability: 94V0
Agency Approvals:
UL Listed UL512, Guide IZLT, File El 4853
CSA Certified. Class 4225-04, File 47235.
UL Flammability: 94V0

Pyramid **J Fuseblock**
30A, 600V; 3-Pole; Panel **or 35mm** DIN-Rail Mount; Clips with Reinforcing Springs

Mounting	Catalog Numbers		
	Screws with Pressure Plate	Box	
		Aluminum	Copper Only
Panel	JP60030-3PR (#10-14 Cu Wire)	JP60030-3CR (#2-8 Al or #2-14 Cu)	JP60030-3COR (#2-14 Cu)
With DIN-Rail Adapter*	JP60030-3PRA (#10-14 Cu Wire)	JP60030-3CRA (#2-8 Al or #2-14 Cu)	JP60030-CORA (#2-14 Cu)

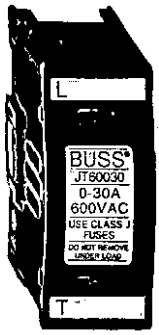
*Adapter Only for DIN-Rail - Cat. No. JPA-3.

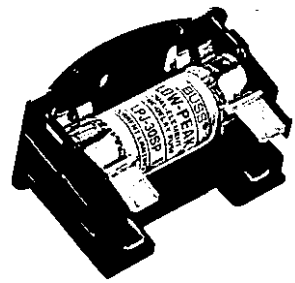


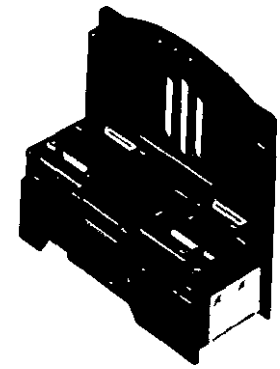


Class J (Touch Safe) Fuseholders

Safety J







JT(N)60030 and JT(N)60060

For **use** with Bussmann **Class "J" fuses** (Bussmann **LPJ, JKS)**

Catalog Numbers:
JT60030 and JT60060 Non-Indicating
JTN60030 and JTN60060 Indicating (Neon)

Construction: Thermoplastic, UL Flammability; 94V0

Voltage Ratings: 600 Volts AC or less

Amperage Rating: JT(N) **60030 - 30** Amps., JT(N)60060 60 Amps

Withstand Rating: 200,000 Amps RMS Sym. (Self Certified at 300,000 Amps using Bussmann LPJ_SP fuses)

Agency Approvals:
Listed to UL 512: Guide IZLT, File 14853
CSA Certified: Class 6225-01, File 47235

CE Mark: Molded into product

Indication: Min. voltage: 90 VAC, 115 DC; Nwn Lamp "ON" when fuse opens, voltage source and current path are present

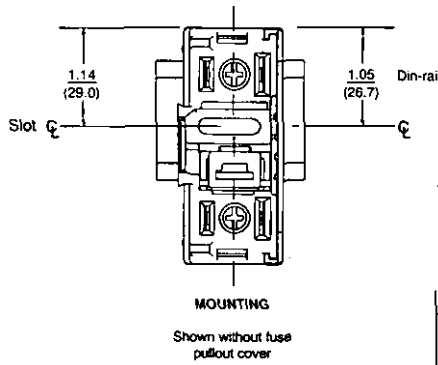
Touch Safe: IP20 per IEC 529

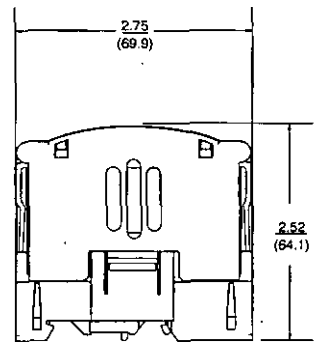
Terminations: 30A Dual Port Torque 20 lb. in., 60A Single Port Torque 45 lb. in., Terminal Construction, Tin plated Copper Alloy

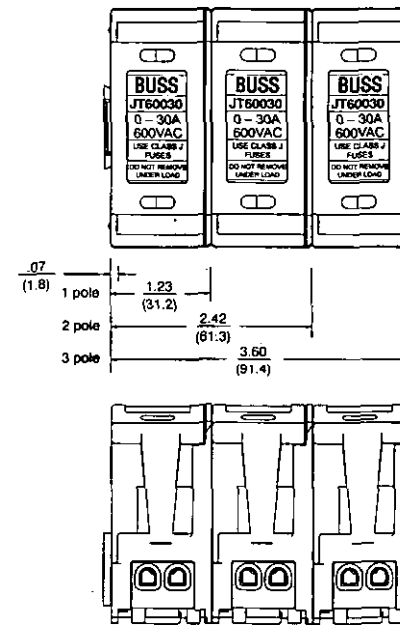
Wire Size: JT(N)60030 Rated for 75°C. AWG#18-#8; CU only, JT(N)60060 Rated for 75°C, AWG#14-#4; cu only.

(Note: For JT(N)60030 use both stranded or solid. in a variety of dual wire combinations of same wire type.)

Packaging: 12 in a carton





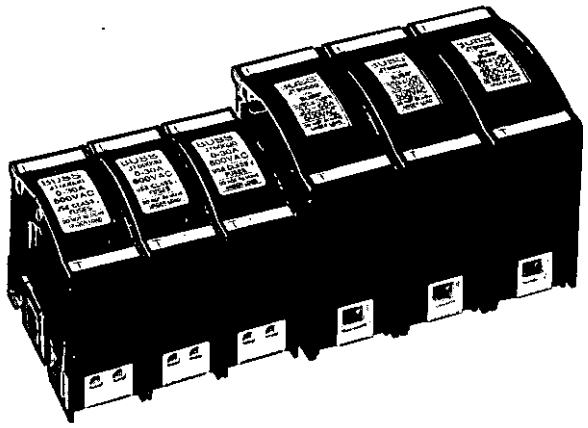


Dim. = in. (mm.)

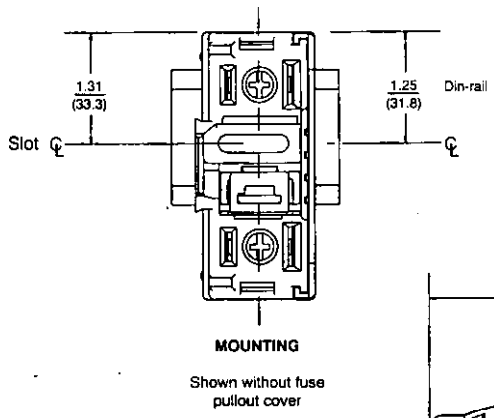
JT60030
JTN60030

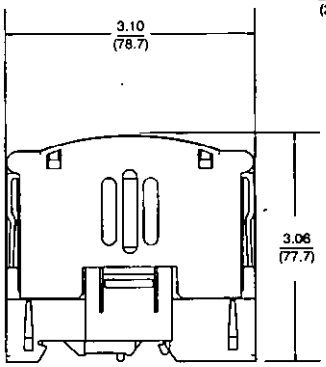
BIF document: 1152

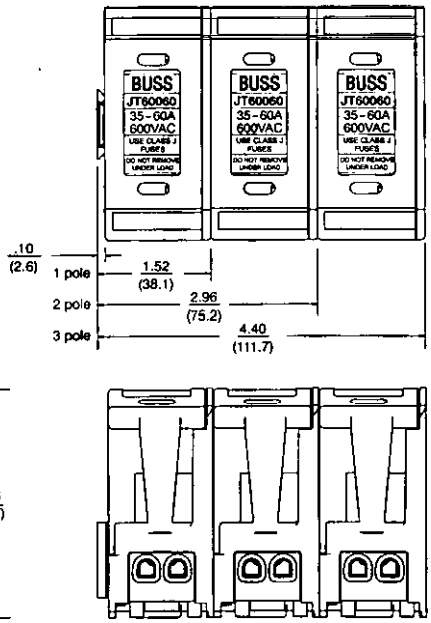
Class J (Touch Safe) Fuseholders



JT(N)600 Series fuseblocks can be dovetailed together within the same current rating to provide multiple pole block configurations.
NOTE: JT(N)60030 cannot be dovetailed to JT(N)60060.

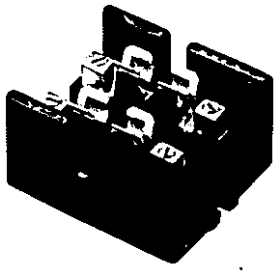


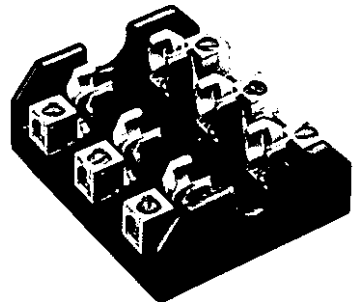




Dim. =	in.	JT60060
	(mm.)	JTN60060

Class **T Fuseblocks** – 300V





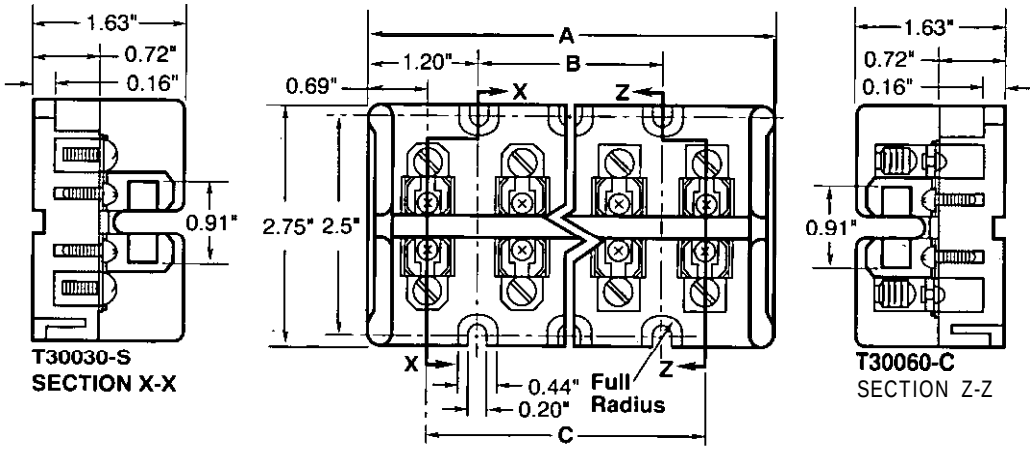
T300 (3OOV AC) For use with Class T Fuses (Bussmann JJN)
Construction: Glass Polyester, Phenolic on 600A, UL Flammability: 94V0
Rating: ½-600 Amps.
Withstand Rating: 200,000A RMS Sym.
Agency Approvals:
UL Listed UL512, Guide IZLT, File EI4853
CSA Certified, Class 6225-01, File 47235.

CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Class **T Fuseblocks (300V)** Catalog Data

Amps	Poles	Catalog Numbers Screw	Box Lug	Fig. No.	Max. Wire Size
½-30	2	T30030-2SR	T30030-2CR	1	SR #10 Cu; CR #2 Cu-Al
	3	T30030-3SR	T30030-3CR		
	4	T30030-4SR	T30030-4CR		
31-60	2	T30060-2SR	T30060-2CR	1	#2 Cu-Al
	3	T30060-3SR	T30060-3CR		
	4	T30060-4SR	T30060-4CR		
61-100	1	—	T30100-1CR	2	1/0 Cu-Al
	2	—	T30100-2CR		
	3	—	T30100-3CR		
101-200	1	—	T30200-1C	3	250MCM Cu-Al
	3	—	T30200-3C	4	
201-400	1	—	T30400-1C	5	600MCM Cu-Al
401-600	1	—	T30600-1C	6	(2) 600MCM Cu-Al

Dimensional Data
Figure 1. **½A** to **60A**



Class T Fuseblocks (300V) Catalog Numbers

Block Type	Dimensions (Inches) A	B	C
T30030-2 T30060-2	2.41	—	1.03
T30030-3 T30060-3	3.44	1.03	2.06
T30030-4 T30060-4	4.47	2.06	3.09

BIF document: 1115

For complete specification data, call Bussmann Information Fax ~ 636.527.1450

Class T Fuseblocks – 300V

Figure 2. 61A to 100A

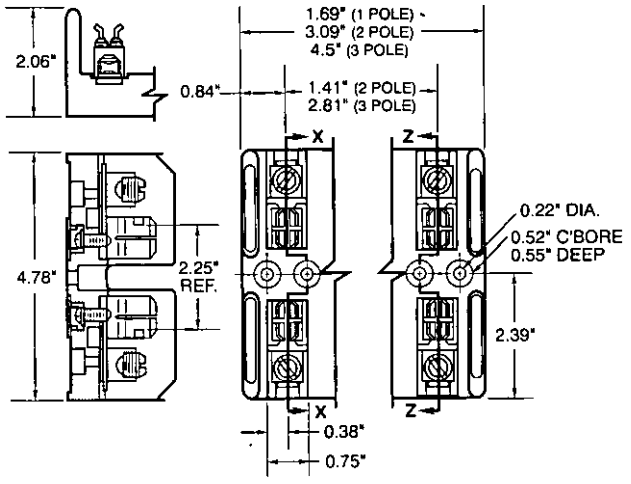


Figure 3. 101A to 200A

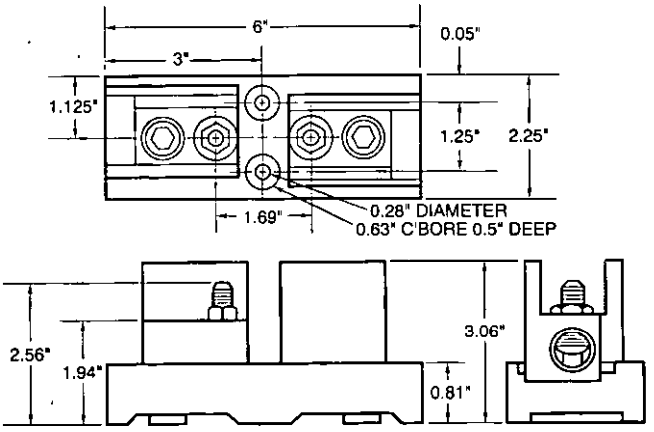


Figure 4. 200A

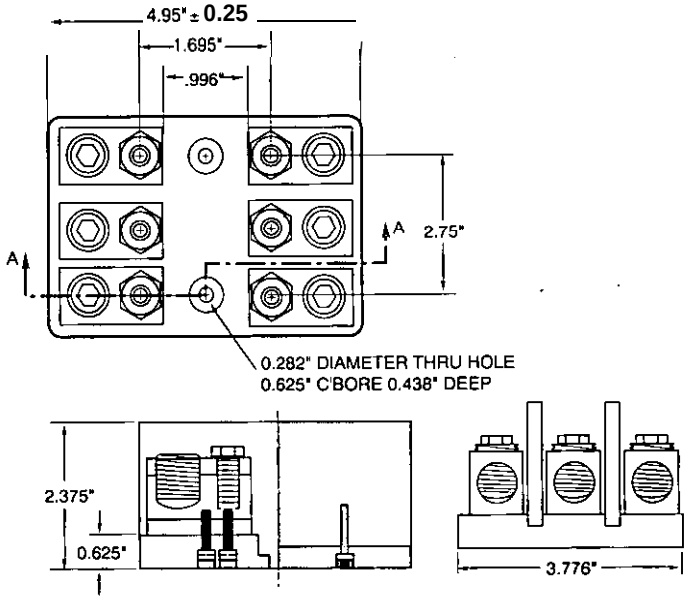


Figure 5. 201A to 400A

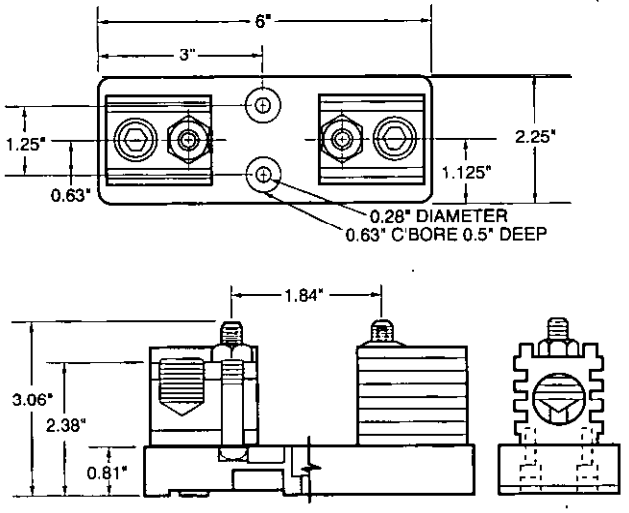
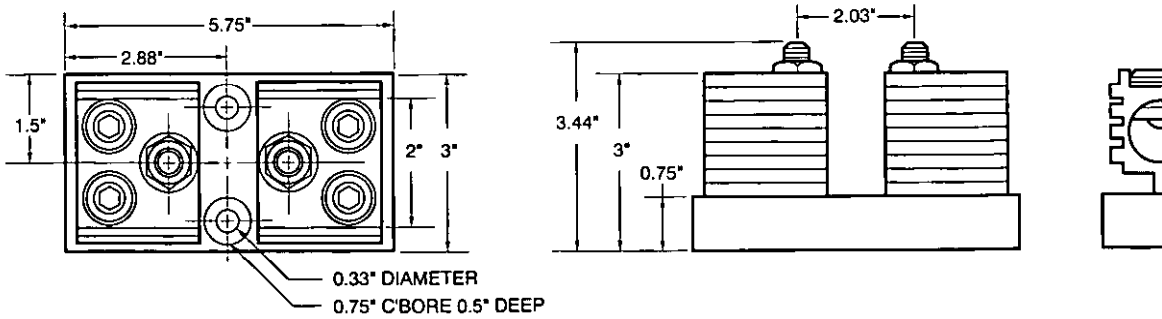
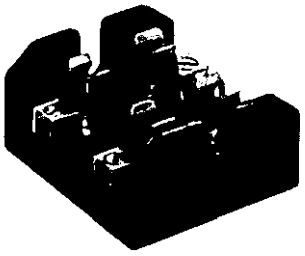
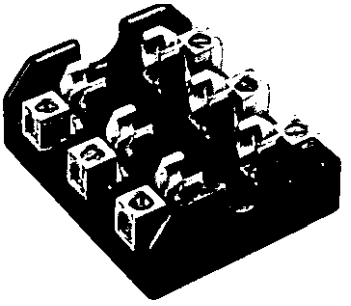


Figure 6. 401A to 600A



Class **T Fuseblocks** – 600V





T600 (600V AC) For use with Class T Fuses (Bussmann JJS)
Construction: Glass Polyester, Phenolic on 600A, UL Flammability: 94V0
Rating: ½-600 Amps.
Withstand Rating: 200,000A RMS Sym.
Agency Approvals:
UL Listed UL512, Guide IZLT, File EI4853
CSA Certified, Class 6225-01, File 47235.

CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Class T Fuseblocks (600V) Catalog Data

Amps	Poles	Catalog Numbers Screw	Box Lug	Fig. No.	Max. Wire Size
½-30	1	T60030-1SR	T60030-1CR	1	SR #10 Cu CR #2 Cu-Al
	2	T60030-2SR	T60030-2CR		
	3	T60030-3SR	T60030-3CR		
31-60	1	T60060-1SR	T60060-1CR	2	CR #2 Cu-Al SR #10 Cu
	2	T60060-2SR	T60060-2CR		
	3	T60060-3SR	T60060-3CR		
61-100	1	—	T60100-1C	3	2/0 Cu-Al
	2	—	T60100-2C		
	3	—	T60100-3C		
101-200	1	—	T60200-1C	4	250MCM Cu-Al
	3	—	1B0089*		
201-400	1	—	T60400-1C	5	600MCM Cu-Al
401-600	1	—	T60600-1C	6	(2) 600MCM Cu-Al

* UL Listed, Guide IZLT, File E14853,
CSA Certified Class 6225-01, File 21455M18

Figure 1. **½A** to **30A**

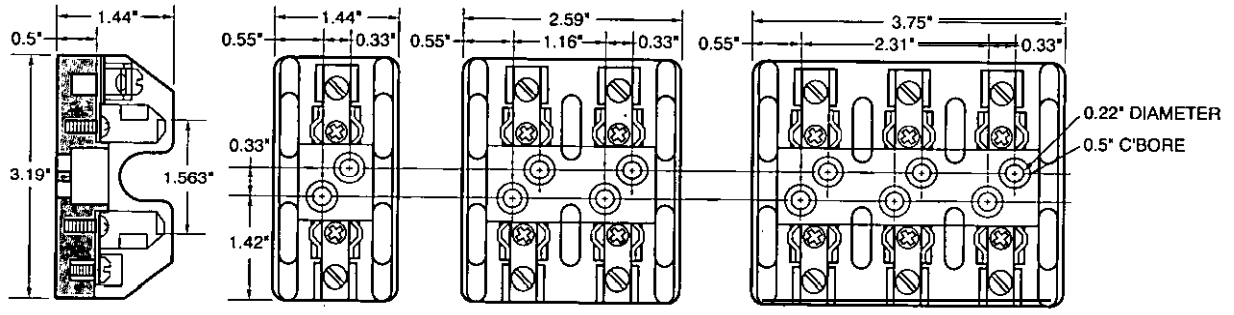
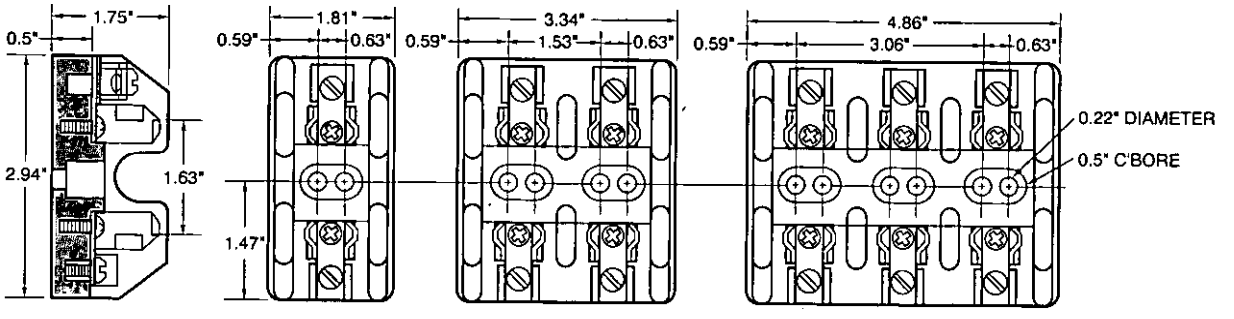


Figure 2. 31A to 60A



BIF document: 1116

Class T Fuseblocks – 600V

Figure 3. 61A to 100A

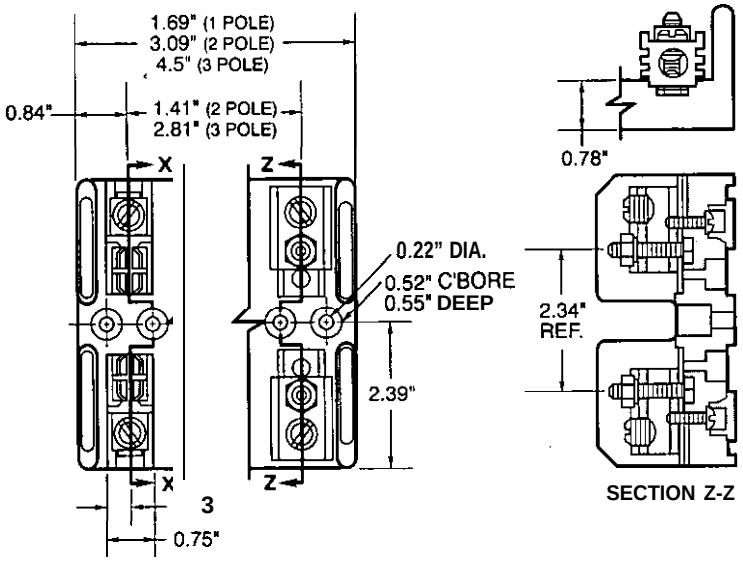


Figure 4. 101A to 200A

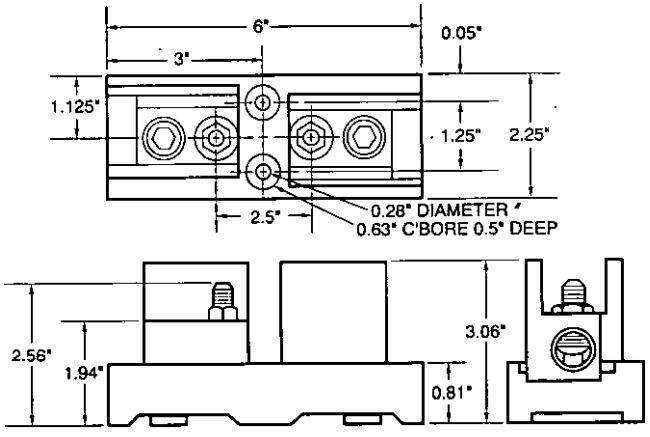


Figure 5. 201A to 400A

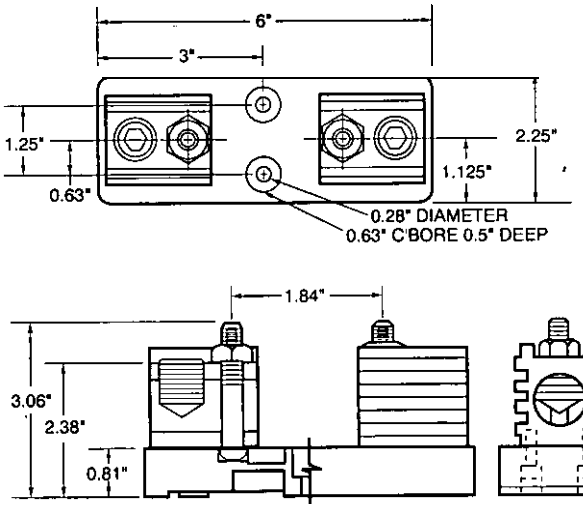
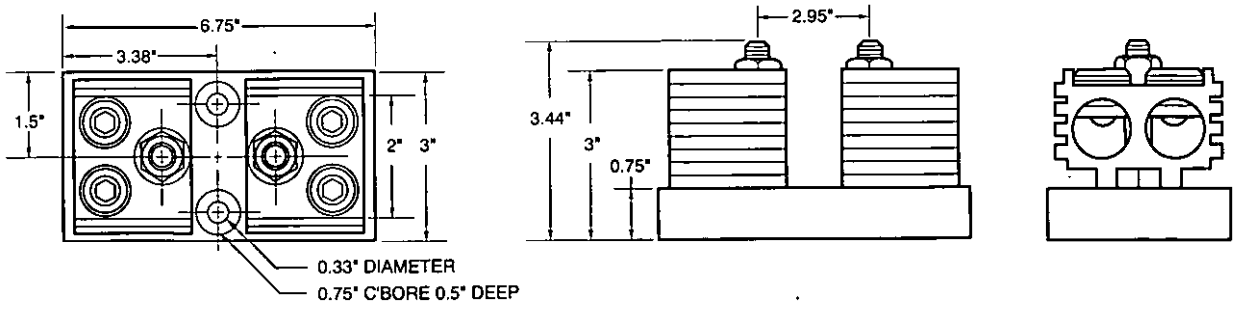
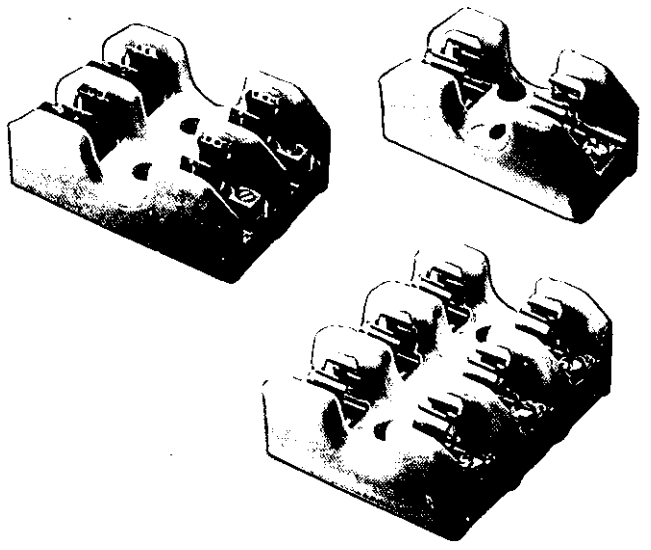


Figure 6. 401A to 600A



Class H(K), J and R Fuseblocks



Porcelain **Type** Fuseblocks

Class H(K) and **R** Dimensions

Agency Approvals: UL Listed

Class **H** and K Dimension **Fuseblocks** - Porcelain **Type**

Volts	Amps	Poles	Fuseblocks Terminal Type		
			Pressure	Screw	Box Lug
250	1/10 to 30	1	—	2601	—
		2	—	2604	—
		3	—	2607	—
	31 to 60	1	—	—	2602
		2	—	—	2605
		3	—	—	2608
600	1/10 to 30	1	—	2610	—
	31 to 60	1	—	—	2611

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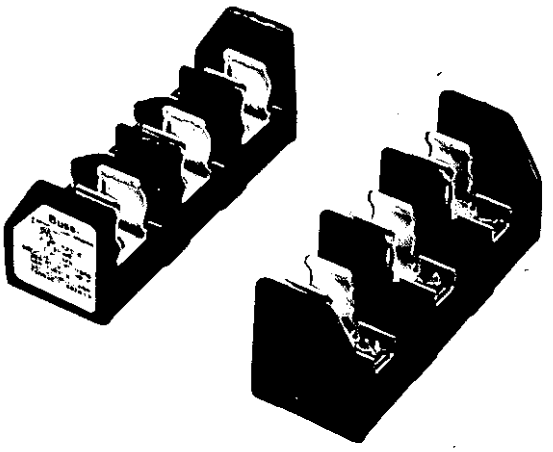


Modular **Type** Fuseblocks

Class H **&** J Fuses

Reinforced retaining clips standard

Available in 30A and 60A, 3-pole models only.

Agency Approvals: UL Recognized, Guide IZLT2, File EI4863
CSA Certified, Class 622501, File 47235

Modular Type For Class H & J Fuses

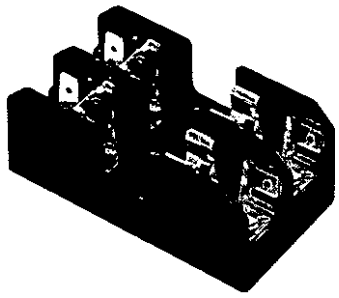
Fuse Type	Volts	Amps	Catalog Number	
			Screw	Pressure
H	250	60	11241-3SR	11241-3PR
			11242-3SR	11242-3PR
	600	30	11241-3SR	11241-3PR
			11242-3SR	11242-3PR
		60	11239-3SR	11239-3PR
			11240-3SR	11240-3PR
J	600	30	11241-3SR	11241-3PR
		60	11239-3SR	11239-3PR

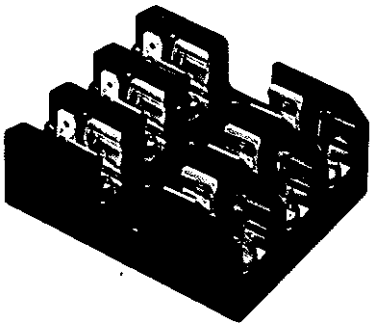
Note: Order two blocks per fuse (matched or mixed.)

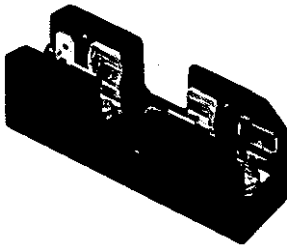
CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 1127

Class CC, Type M and Class G Fuseblocks







BC Series

Class CC Fuseblocks
For use with Class CC Fuses (Bussmann LP-CC, KTK-R, and FNQ-R)
Construction:
Base Thermoplastic
Clips Bright tin-plated bronze
Ratings: 600V, 1/10-30A
Withstand Rating:
200,000A RMS Sym.
Agency Approvals:
UL Listed (Guide IZLT, File El 4853)
CSA (Class 6225-01, File 47235)
UL Flammability: 94VO
Dimensional Data:
See BIF document.
DIN-RAIL Adaptors: Page 185
DRA-1 & DRA-2

Catalog Data

Amps	Poles	Terminal Type: Screw with Quick Connect*	Pressure Plate w/ Quick Connect*	Pressure Plate	Box Lug
1/10	1	BC6031S	BC6031SQ	BC6031P	BC6031B
to	2	BC6032S	BC6032SQ	BC6032P	BC6032B
30	3	BC6033S	BC6033SQ	BC6033P	BC6033B

CE

BIF document: 1105

BM Series Type M

Supplementary Fuseblocks
For use with any 13/32" x 1 1/2" Fuses (Bussmann KTK, FNQ, FNM, BAF, BAN, and AGU)
Construction: Thermoplastic
Ratings: 600V, 1/10-30A
Withstand Rating:
10,000A RMS Sym.
Agency Approvals:
UL Recognized (Guide IZLT2, File E14853)
CSA (Class 6225-01, File 47235)
UL Flammability: 94V0
Dimensional Data:
See BIF document.
DIN-RAIL Adaptors: Page 185
DRA-1 & DRA-2

Catalog Data

Amps	Poles	Terminal Type: Screw with Quick Connect*	Pressure Plate w/ Quick Connect*	Box Lug
1/10	1	BM6031SQ	BM6031PQ	BM6031B
to	2	BM6032SQ	BM6032PQ	BM6032B
30	3	BM6033SQ	BM6033PQ	BM6033B

CE

BIF document: 1104

BG Series and G Series

Class G Fuseblocks
For use with Class G Fuses (Bussmann SC)
Construction: (O-30) Thermoplastic
(35-60) Phenolic
Ratings: 600V or less, 0-20A
480V or less, 25-60A
Withstand Rating:
100,000A RMS Sym.
Agency Approvals:
UL Listed 35-60A (Guide IZLT, File E14853)
UL Recognized 1-30A. (Guide IZLT2, File E14853)
CSA (Class 6225-01, File 47235)
Dimensional Data:
See BIF document.
DIN-RAIL Adaptors: Page 185
DRA-I & DRA-2

Catalog Data

Amps	Poles	Terminal Type: Screw with Quick Connect*	Pressure Plate w/ Quick Connect*	Box Lug	Box Lug w/clip
1	1	BG3011SQ	BG3011PQ	BG3011B	—
to	2	BG3012SQ	BG3012PQ	BG3012B	—
15	3	BG3013SQ	BG3013PQ	BG3013B	—
	1	BG3021SQ	BG3021PQ	BG3021B	—
20	2	BG3022SQ	BG3022PQ	BG3022B	—
	3	BG3023SQ	BG3023PQ	BG3023B	—
25	1	BG3031S	BG3031P	BG3031B	—
to	2	BG3032S	BG3032P	BG3032B	—
30	3	BG3033S	BG3033P	BG3033B	—
35	1	—	—	—	G30060-1CR
to	2	—	—	—	G30060-2CR
60	3	—	—	G30060-3C	G30060-3CR

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BIF document: 1106

BCCM Series

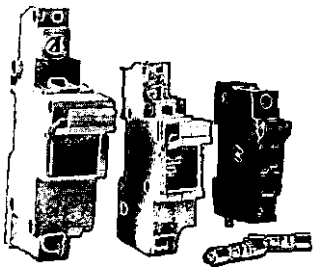
For use with (2) Class CC Fuses and (1) 13/32" x 1 1/2" Fuse.
catalog Data

Terminal Type: Screw with Quick Connect*	Pressure Plate w/Quick Connect*
BCCM6033SQ	BCCM6033PQ

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

*Quick connect terminal rated for 20A max.

Modular Fuseholders



CH Series

Features:

- 10 x 36 Dovetail design provides maximum flexibility in assembling multiple poles
- Touchsafe design - No exposed contacts
- DIN rail mount (35mm)
- Optional open fuse indication lights
- Excellent for switchboard panel, control consoles, small motors, transformers, and similar applications
- Handle/fusepuller to install and remove fuses easily
- Available in single and multi-pole configurations
- Circuit mating system (P/N CH10CL and CH10CM)
- Wire ready: Saves time as terminals are ready to accept wires.
- CE marking

Standards:
North American Class CC
Listed U.L. 512. Guide IZLT, File EI4853
Certified CSA Std. C22.2 No. 39, Class 6225-01, File LR47235
North American Midget 13/32" x 1 1/2"
U.L. Recognized 512. Guide IZLT2, File EI4853
CSA Certified, Std. C22.2 No. 39. Class 6225-01,
File LR47235
European 10 x 38 IEC 269-2-I
14 x 51 IEC 269-2
U.L. Recognized, CSA Certified"
22 x 58 IEC 269-2
U.L. Recognized, CSA Certified"'

Recommended **Buss®** Fuse **Types:**
North American Class CC Fuses - LP-CC, FNQ-R, KTK-R
North American Midget Fuses - FNQ, KTK, AGU, KLM, BAF, BAN, FNM. FWA, FWC, & FNQ
10x36 European Fuses C10M, C10G
14x51 Fuses FWX, FWH, FWP, NON, C14M, C14G
22 x 58 Fuses FWP, C22M, C22G

Specifications

Fuse Size (mm)		10 x 38	14 x 51	22 x 58
Voltage	U.L./CSA***	600V	750V***	750V***
	IEC	690V	660V	660V
Amperage	U.L./CSA***	30A	30A***	50A***
	IEC	32A (See Watts Loss)	50A (See Watts Loss)	125A (See Watts Loss)
Wire Size		#8 - #18 Cu only	#6 - #14 Cu only	#1 - #14 Cu only
Wire Type (& Temp.)		Solid/Stranded (75°)	Solid/Stranded (75°)	Solid/Stranded (75°)
Torque (in-lbs)		12 in-lbs	17.7 in-lbs	22.1 in-lbs
IP Rating		IP 20	IP 20	IP 20
Contact Material (fuseclip)		Tin-plated copper	Tin-plated copper	Tin-plated copper
Connector Material		Steel	Steel	Steel
Maximum Watts Loss of Fuse		3W‡	5W‡	9.5W‡
Dual Wire Rating		Please consult factory		

10 x 38	30A, 600V	30A, 600V	32A, 690V
Description	North American Class CC Fuseholder	North American Midget Fuseholder	European 10 x 38 Fuseholder
1 Pole	CHCC1	CHM1	CH101
1 Pole w/Indication	CHCC1I	CHM1I	CH101I
2 Pole	CHCC2	CHM2	CH102
2 Pole w/Indication	CHCC2I	CHM2I	CH102I
3 Pole	CHCC3	CHM3	CH103
3 Pole w/Indication	CHCC3I	CHM3I	CH103I
*Assembly Pins - 2 Poles	CH102AP	CH102AP	CH102AP
*Assembly Pins - 3 Poles	CH103AP	CH103AP	CH103AP
**Circuit markers	CH10CM	CH10CM	CH10CM
**Circuit marker labels	CH10CL	CH10CL	CH10CL
Spare Fuseholder	5TPH	5TPH	5TPH

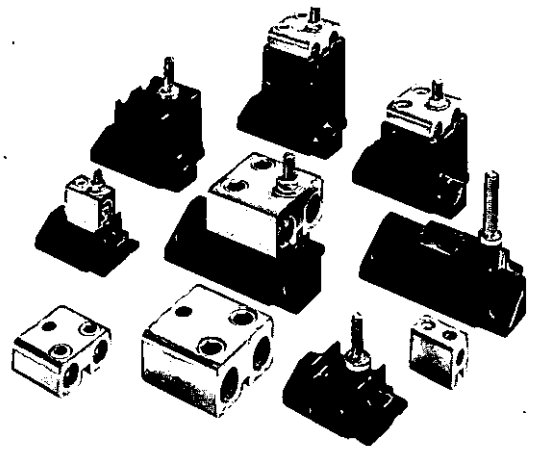
‡Refer to BIF documents 720003, 720008, 720025 and 720028 for watts loss of applicable fuses.
*CH102AP and CH103AP are packaged in quantities of ten pins. One pin is required to gang units together, and rating multiple poles.
**CH10CM are packaged in quantities of ten. CH10CL are packaged in quantities of ten sheets of labels.
***U.L./CSA part numbers include U.L. suffix.

	14 x 51		22 x 58	
Description	Part No.	Ctn. Qty.	Part No.	Ctn. Qty.
1 Pole	CH141G	6	CH221G	6
1 Pole w/U.L. markings	CH141GUL	6	CH221GUL	6
1 Pole w/microswitch	CH141MSG	6	CH221MSG	6
2 Pole	CH142G	3	CH222G	3
3 Pole	CH143G	2	CH223G	2
3 Pole w/microswitch	CH143MSG	2	CH223MSG	2
Handle Profile - 2 Poles	CH142HCG	10	CH222HCG	10
Handle Profile - 3 Poles	CH143HCG	10	CH223HCG	10

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 1151

Modular Fuseblocks



CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BH Series

For use with Bussmann semiconductor fuses.
Base: Light weight, high temperature thermoplastic
Mounting Studs: Plated steel
Nut: Plated steel
Washer: Spring steel
Agency Approvals:
UL Recognized, Guide EZLT2, File No. EI4853 up to ***700 Volts***
CSA Certified, Class 6225-01, File No. 47235 up to 700 Volts
Withstand Rating: 200,000A RMS Sym., or interrupting rating of the fuse used, whichever is smaller.

Available Part Numbers

BH-0001	BH-1001	BH-1231	BH-3004
BH-0002	BH-1002	BH-1233	BH-3033
BH-0003	BH-1003	BH-2001	BH-3044
BH-0111	BH-1031	BH-2002	BH-3045
BH-0112	BH-1032	BH-2003	BH-3144
BH-0113	BH-1033	BH-2031	BH-3145
BH-0121	BH-1131	BH-2032	BH-3245
BH-0122	BH-1132	BH-2033	
BH-0211	BH-1133	BH-3003	

Catalog Code Description:
Block Series

BH-X X X X S

Fuseblock Base
- 0 Small Base for 0-100 Amp fuses, 0-700V
- 1 Medium Base, for 0-400 Amp fuses, 0-2500V
- 2 Medium Base, for 0-400 Amp fuses, 0-5000V
- 3 Large Base, for 0-700 Amp, 0-1250V

Agency Approval
- 0 No Agency Approval
- 1 UL Recognition and CSA Certification
- 2 UL Recognition Only

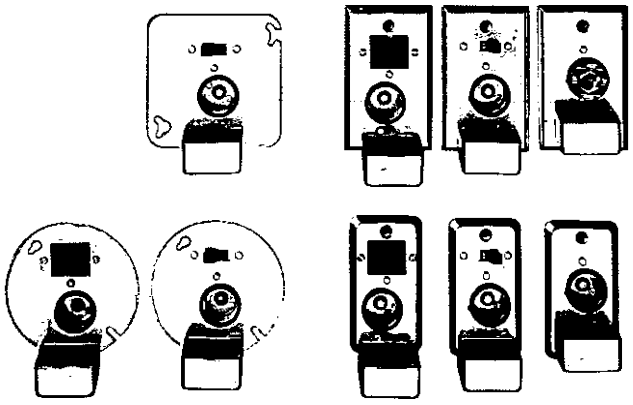
Wire Connector
- 0 No Connector
- 1 1 Hole for #14 - 2/0 Copper Wire (for use with Base 0)
- 2 2 Hole for #14 - 1/0 Copper Wire (for use with Base 0)
- 3 2 Hole for #6 - 250 MCM Copper Wire (for use with Base 1, 2 & 3)
- 4 2 Hole for #4 - 500 MCM Copper Cable (for use with Base 3) See Note 1 below.

Optional Control Wire Screw

Stud Size
- 1 ¼-20 (for use with Bases 0, 1 & 2)
- 2 5/16 - 18 (for use with Bases 0, 1 & 2)
- 3 ⅜ - 16 (for use with Bases 0, 1, 2 & 3)
- 4 7/16-14 (for use with Base 3) See Note 2 below.
- 5 ⅜- 16L (for use with Base 3)

General Notes: 1. The #4 connector must be used with either the 7/16 - 14 or the ⅜ - 16L stud.
2. The only compatible connector for the 7/16 - 14 stud is #4.
3. Always check applicable end use standards for required spacing between blocks, fuses or other hardware.
4. For applications above 700V, consult appropriate electrical standard for proper creepage distances, clearance distances and insulator voltage withstand ratings.

Box Cover Units for Plug Fuses



BOX COVER UNITS

SOU, SRU, SSU, SOW, **SRW,** SSW, SOX, **SRX,** SSX, SOY, **SRY, SSY, SSY-RL, SSY-L,** STY, **SCY,** SOY-B & SKA

- Plug-fuse Box Cover Units provide a simple inexpensive way to protect small motors with Buss dual-element FUSETRON or FUSTAT plug fuses.
- Box Cover Units are easily installed in standard electric boxes.
- Using fuses sized at the ampere rating of a motor or slightly larger, will provide optimum overload and short-circuit protection.

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Selection Data - Plug Fuse Box Cover Units

Box Cover Cat. No.	Type Box	Fuseholder		Receptacle Outlet to Load		Switch Control+	Switch Light++	Motor Size (Max.)	General Data	Agency† Listing/ Certification
		Single	Double	125V	250V					
SOU	2¼" Handy	X						¾ HP	125V, 15A	UL, CSA
SRU		X		X				½ HP	125V, 15A	UL
SSU‡		X				X		½ HP	125V AC (do not use on DC), 15A	UL, CSA
SOW	2¾" Switch	X						¾ HP	125V, 15A	UL, CSA
SRW		X		X				½ HP	125V, 15A	UL
SSW		X				X		½HP	125V, AC (do not use on DC), 15A	UL, CSA
SOX	4" Octagon	X						¾ HP	125V, 15A	UL, CSA
SRX		X		X				½ HP	125V, 15A	UL
SSX		X				X		½ HP	125V, AC (do not use on DC), 15A	UL, CSA
SOY	4" Square	X						¾ HP	125V, 15A	UL, CSA
SRY		X		X				½ HP	125V, 15A	UL
SSY		X				X		½ HP	125V, AC (do not use on DC), 15A	UL, CSA
SSY-RL		X		X		X	X	½ HP	125V, AC (do not use on DC), 15A	—
STY*			X			X*		½ HP*	125V, AC (do not use on DC)*, 15A	UL
SCY**			X			X(2)**		½ HP (2)**	125V, AC (do not use on DC); can protect two motors**, 15A	UL
SOY-B			X					¾ HP	125V, protects two motors, 15A	UL
SKA	4 1/16" Square		X		X(15A)			2 HP	250V, 15A single phase	UL

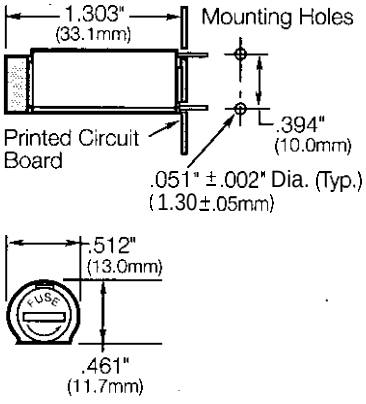
\+ Switch turns power to fused load OFF or ON.
++ Switch light indicates power to load (dark when switch OFF or fuse open).
* Double-pole switch opens both side of circuit. STY can be used for two separate 125V motors not larger than 1/2 HP with the common switch, or a single motor not larger than 2 HP at 250V (Maximum of 150V to ground).
** The SCY unit can be used for protection of a single motor not larger than 2 HP at 250V (Maximum of 150V to ground).
† UL Guide JAMZ, File IE6491; CSA Class 6225-01, File 47235.
‡ Weatherproof version available, Part No. SSN.

BIF document: 1129

Printed Circuit **Board** Mount for 5mm × 20mm Fuses

HTC-45M'

PC8 Vertical Mount
250V, 6.3A, 2.5W
Bayonet Cap/Carrier
See specifications below



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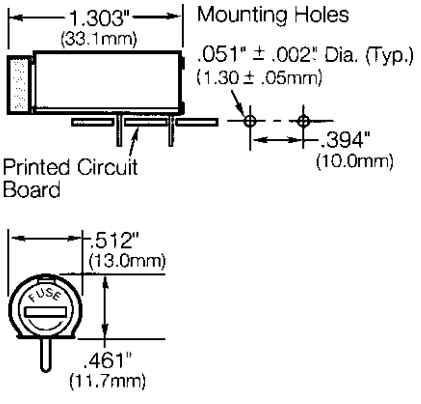
BIF document: 2110

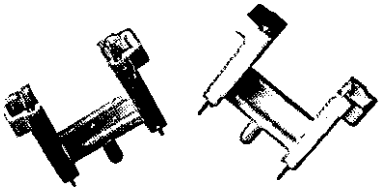
HTC-50M

PCB Horizontal Mount
250V, 6.3A, 2.5W
Bayonet Cap/Carrier
See specifications below



CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

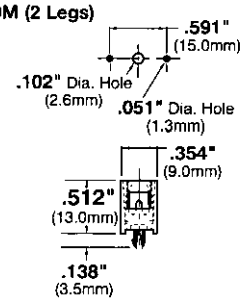
BIF document: 2110



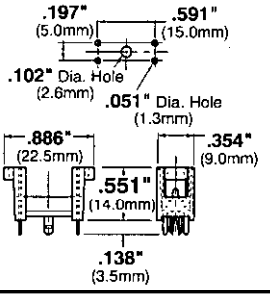
HTC-60M, HTC-65M

250V, 6.3A
Body Material: Valox DR48
Terminals: Phosphor bronze

HTC-60M (2 Legs)



HTC-65M (4 Legs)



CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 2110

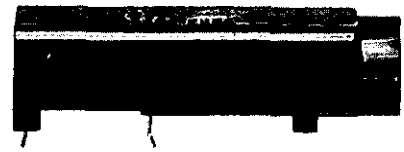
1

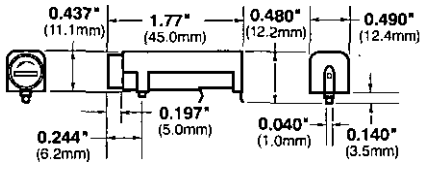
Specifications

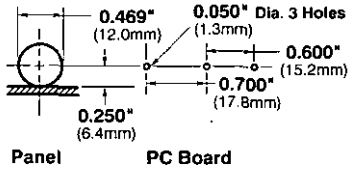
Terminals:	For HTC-45M, HTC-50M Tin-plated.
Molded Materials:	High temperature thermoplastic that meets the flammability ratings of UL 94VO; Glow Wire Test: 960°C per IEC 695-2-I.
Solderability:	In accordance with IEC 68-2-20.
Electrical:	Contact Resistance: ≤ 10mΩ; Insulation Resistance: ≥ 1 0mΩ; Dielectric Strength ≥ 2000 VAC.
Shock Safety:	PC2 (fuseholders).
Agency Approvals:	HTC-45M, HTC-50M UL Recognized, (Guide IZLT2, File E14853; 6.3A, 250V; CSA Certified. (Class 6225-01, File 47235; 1 OA, 250V) SEMKO: (9226032; 6.3A, 250V).
Packaging:	Standard Qty 10 (No Prefix), Bulk Qty 100 (Prefix Catalog Number with BK/).

PC Board Mount for 5mm × 20mm and ¼" × 1¼" Fuses

HBH-I (for ¼" × 1¼" fuses)
HBH-M (for 5mm × 20mm fuses)
Horizontal Mount

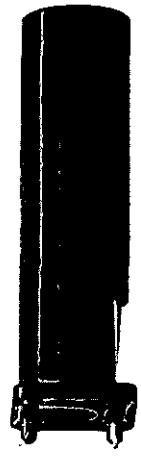


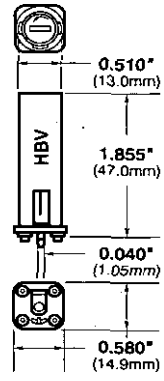


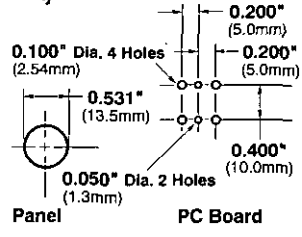


BIF document: 2118

HBV-I (for ¼" × 1¼" fuses)
HBV-M (for 5mm × 20mm fuses)
Vertical Mount with Stability Pins

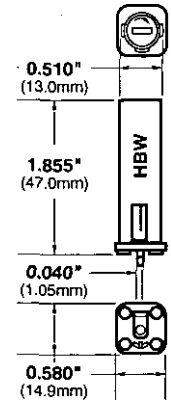


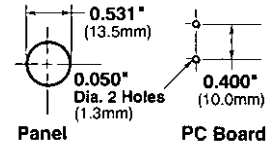




BIF document: 2118

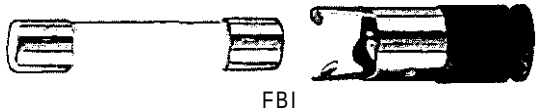
HBW-I (for ¼" × 1¼" fuses)
HBW-M (for 5mm × 20mm fuses)
Vertical Mount without Stability Pins



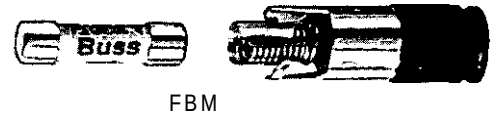


BIF document: 2118

Fuseholder Caps (Fit all three shown above)



FBI



FBM

Specifications

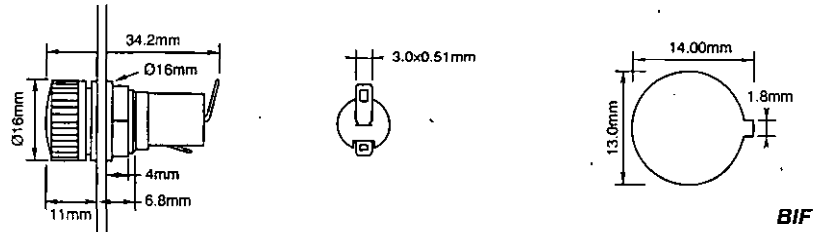
Electrical Ratings:	UL — 16A @ 250V; CSA — 12A @ 250V; VDE — 1 OA @ 250V; SEMKO — 1 OA @ 250V Insulation resistance — 10,000 megohm at 500 VDC. Contact resistance — less than 0.005 ohms @ 20mV. Dielectric strength — over 200 volts/mil.
Molded Material:	High dielectric molded phenolic with a UL 94V0 flammability rating.
Fuse Carrier & Knob:	Spring-loaded, bayonet type. Tin plated brass. Screwdriver slotted.
Mounting:	"Kicked" terminals (all models) and stabilizer pins on HBV model for increased stability,
Environmental:	Maximum operating temperature — (-40°C to +85°C).
Agency Approvals:	UL Recognized — Guide IZLT2, File EI4853; CSA Certified — Class 6225-01, File 47235 VDE-41421 SEMKO — 9308147 (HBH, HBV) 9222106 (HBW)

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Panel Mounted for **5mm** × 20mm Fuses

HTC-30M

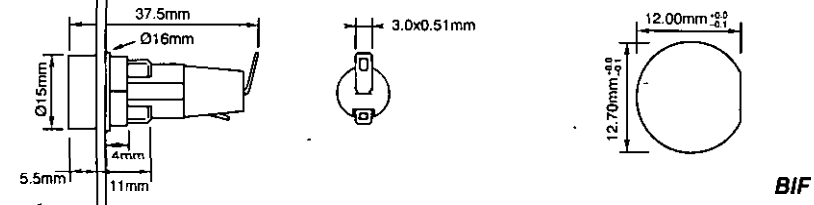
Ratings: 250V, 6.3A, 2.5W
Screwdriver slot



BIF document: 2110

HTC-35M

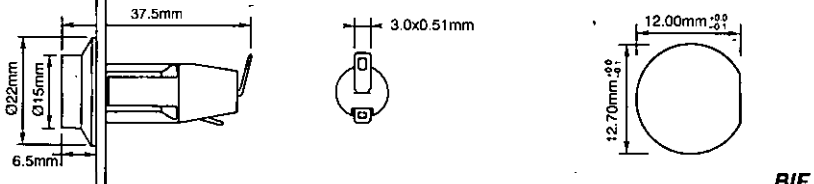
Ratings: 250V, 6.3A, 2.5W
Threaded cap



BIF document: 21 10

HTC-40M

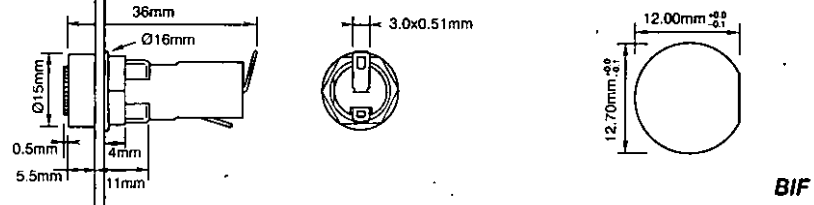
Ratings: 250V, 6.3A, 2.5W
Screwdriver slot



BIF document: 2110

HTC-55M

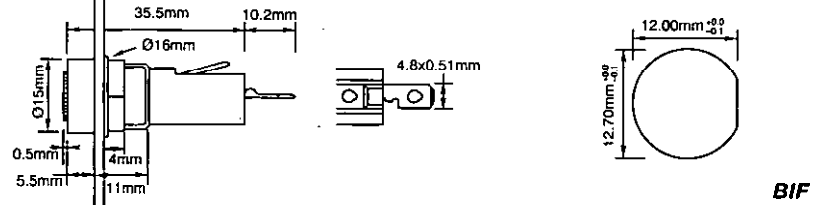
Ratings: 250V, 6.3A, 2.5W
Fuse carrier: bayonet type



BIF document: 2110

HTC-70M

Ratings: 250V, 10A, 2.5W
Fuse carrier: bayonet type



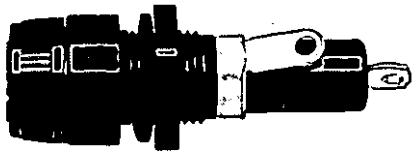
BIF document: 2110

Specifications

Terminals:	Brass, tin-plated.
Molded Materials:	High temperature thermoplastic that meats the flammability ratings of UL 94VO; Glow Wire Test: 960°C per IEC 695-2-I.
Solderability:	In accordance with IEC 68-2-20.
Agency Approvals:	UL Recognized -Guide IZLT2, File E14853; CSA Certified — Class 6225-01, File 47235; SEMKO — 9226031 (HTC-30M, HTC-35M): 9226032 (HTC-40M); 9226033 (HTC-55M); 9226034 (HTC-70M)
Electrical:	Contact Resistance: ≤ 10mΩ; Insulation Resistance: ≥ 10mΩ; Dielectric Strength ≥ 2000 VAC.
Shock Safety:	PC2 (fuseholders).
Packaging:	Standard Qty 10 (No Prefix), Bulk Qty 100 (Prefix Catalog Number with BK/).

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

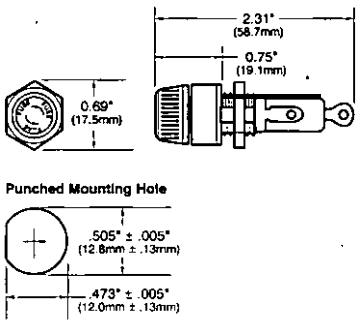
Panel Mounted for ¼" x 1¼" Fuses



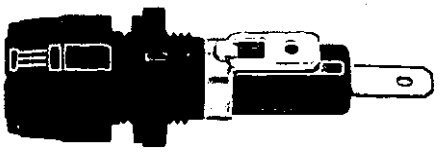
HKP, **HKP-L,** HKP-W
Standard Fuseholders

Electrical Ratings for HPF Series

Catalog Symbol	Amps	Volts	Fuse Description
HKP	30	250	—
HKP-L	30	250	HKP with 2250V stand-off barrier.
HKP-W	30	250	HKP with drip-proof knob.



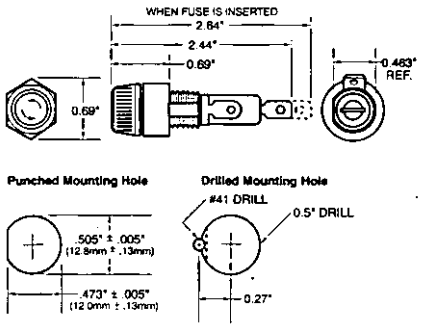
BIF document: 2106



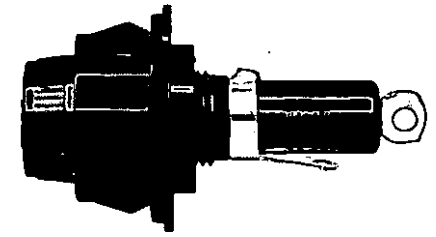
HKP-BBHH, HKP-HH and HKP-LW-HH
Fuseholders with ¼" Quick. connects

Electrical Ratings for **HPF** Series

Catalog Symbol	Amps	Volts	Fuse Description
HKP-BBHH	15	250	HKP with ¼" quick connects, nut and washer assembled.
HKP-HH	15	250	HKP with ¼" quick-connect.
HKP-LW-HH	15	250	HKP with drip-proof knob, 2250V stand-off barrier and quick-connects.



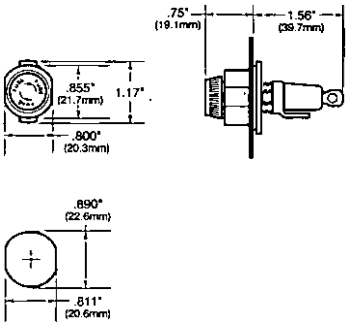
BIF document: 2106



HKP-00
Snap-Lock Fuseholders

Electrical Ratings for HPF Series

Catalog Symbol	Amps	Volts	Fuse Description
HKP-00	30	250	HKP with snap-lock.



BIF document: 2106

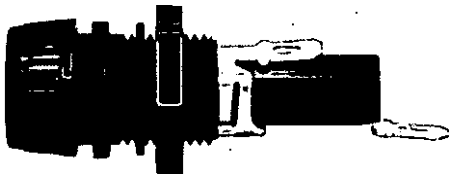
Specifications

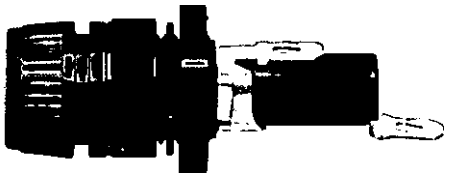
Terminals: Bayonet-type knob.
Vibration resistant.
For panels up to 5/16" (7.9mm) thick.

Agency Approvals: UL Recognized — Guide IZLT2, File EI4853
CSA Certified — Class 6225-01, File 47235

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Panel Mounted for **5mm** × 20mm and **¼" × 1¼"** Fuses





HTB Series

Fuseholders with **Knob-Type** Carriers

Agency Approvals:
UL Recognized -Guide IZLT2, File EI4853
20A (3/16" quick-connect 15A) @ 250V
CSA — 16A @ 250V Class 6225-01 File 47235;
VDE* — 10A @ 250V, 49890
SEMKO* — 1 OA @ 250V, 8945092, 9005230
*Screwdriver slot carrier only

Electrical Data: Insulation resistance (per IEC #257) — 10,000 ohms @ 500VDC; contact resistance (per IEC #257) — 0.005 ohms max. @ 1A; standoff voltage (per IEC #257) — 480V/Mil @ .125 in. thickness.

Environmental: Maximum operating temperature -55°C to 85°C.

Molded Components: High temperature. flame retardant, thermoplastic; UL Component Recognized; 94VO; mounting nut. spacer-black polycarbonate.

Terminals: Tin-plated brass.

Mounting: Withstands 15 to 20 lbs-ins torque to mounting nut when mounting fuseholder to panel. Maximum panel thickness 0.300 inches.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Dimensional Data

Knob Type Carrier Common Dimensional Data: Length (Knob Type) - 1.69" (42.9mm) Plus In-Line Terminal (Screwdriver Slotted) 1.75" (44.5mm) NOTE: Plus In-Line Terminal	Maximum Panel Thickness	Terminal Options: Solder/ 3/16" Quick-Connect — In-Line	Terminal Options: Solder/ 3/16" Quick-Connect — Rt. Angle	Terminal Options: 1/4" Quick-Connect — In-Line	Terminal Options: 1/4" Quick-Connect — Rt. Angle	Carrier Options: 1/4" x 1 1/4" ("I" Equals Inches) Knob	Carrier Options: 5mm x 20mm ("M" Equals Metric) Knob
		0.34" (8.7mm)	0.33" (8.3mm)	0.47" (11.9mm)	0.45" (11.5mm)		
Low Profile Rear Hex Nut HTB-2	0.30" 7.62mm	HTB-22I	HTB-24I	HTB-26I	HTB-28I	✓	—
		HTB-22M	HTB-24M	HTB-26M	HTB-28M	—	✓
High Profile Rear Hex Nut HTB-4	0.125" 3.18mm	HTB-42I	HTB-44I	HTB-46I	HTB-48I	✓	—
		HTB-42M	HTB-44M	HTB-46M	HTB-48M	—	✓
Front Hex Nut HTB-6	0.30" 7.62mm	HTB-62I	HTB-64I	HTB-66I	HTB-68I	✓	—
		HTB-62M	HTB-64M	HTB-66M	HTB-68M	—	✓
Low Profile Snap-In HTB-8	0.125" 3.18mm	HTB-82I	HTB-84I	HTB-86I	HTB-88I	✓	—
		HTB-82M	HTB-84M	HTB-86M	HTB-88M	—	✓

Fuseholders and fuse carriers may be ordered sep ly.

Panel Mounted for 5mm × 20mm and ¼" × 1¼" Fuses

HTB Series
Fuseholders with Screwdriver Slotted Carriers

Dimensional Data

Knob Type Carrier Common Dimensional Data: Length (Knob Type) - 1.69" (42.9mm) Plus In-Line Terminal (Screwdriver Slotted) 1.75" (44.5mm) NOTE: Plus In-Line Terminal	Maximum Panel Thickness	Terminal Options: Solder/ 3/16" Quick-Connect In-Line	Terminal Options: Solder/ 3/16" Quick-Connect Rt. Angle	Terminal Options: ¼" Quick-Connect In-Line	Terminal Options: ¼" Quick-Connect Rt. Angle	Carrier Options: ¼" × 1¼" ("I" Equals Inches) Screwdriver	Carrier Options: 5mm x 20mm ("M" Equals Metric) Screwdriver
		0.34" (8.7mm)	0.33" (8.3mm)	0.47" (11.9mm)	0.45" (11.5mm)		
Low Profile Rear Hex Nut HTB-3	0.30" 7.62mm	HTB-32I	HTB-34I	HTB-36I	HTB-38I	✓	—
		HTB-32M	HTB-34M	HTB-36M	HTB-38M	—	✓
High Profile Rear Hex Nut HTB-5	0.125" 3.18mm	HTB-52I	HTB-54I	HTB-56I	HTB-58I	✓	—
		HTB-52M	HTB-54M	HTB-56M	HTB-58M	—	✓
Low-Profile Snap-In HTB-9	0.125" 3.18mm	HTB-92I	HTB-94I	HTB-96I	HTB-98I	✓	—
		HTB-92M	HTB-94M	HTB-96M	HTB-98M	—	✓

Fuseholders and fuse carriers may be ordered separately.

Ordering Information

Packing
(Blank) – Std.
BK/ – Bulk

Product Symbol
HTB-

Body Configuration and Mounting
Finger Grip Holders
2 — Low Profile (Rear Panel Hex-Nut)
4 — High Profile
***6** — (Front Panel Hex-Nut)
8 — Low Profile (Snap-In)
Screwdriver Slotted Holders
3 — Low Profile
5 — High Profile
9 — Low Profile (Snap-In)

Rear Terminal Configuration
2 — Solder/3/16" Quick-Connect (In-Line)
4 — Solder/3/16" Quick-Connect (Right Angle)
6 — ¼" Quick-Connect (In-Line)
8 — ¼" Quick-Connect (Right Angle)

Fuse Carrier
I — ¼" x 1-1¼"
M — 5mm x 20mm

Splash Proof (Optional on -2, -4, -6, and -8)
S **P**

FUSE CARRIER ONLY

Packaging
(Blank) – Std.
BK/ – Bulk

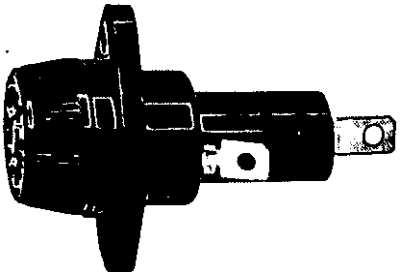
Product Symbol
FT — Knob Type (For 20, 40, 60, and 80 Series Only)
ST — Screwdriver Slotted (For 30, 50, and 90 Series Only)

Fuse Carrier
I — ¼" x 1¼"
M — 5mm x 20mm

***Profile varies with panel thickness. Holder installs thru rear of panel.**

BIF document: 2119

Panel-Mounted for 13/32" x 1 5/16" to 1 1/2" Fuses



HPF

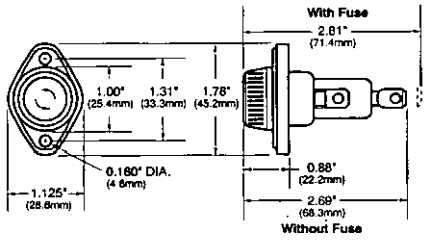
Standard Fuseholders with Screw-type Knob for 13/32" x 1 5/16" to 1 1/2" Fuses

Agency Approvals:

UL Recognized, (Guide IZLT2, File E14853)

CSA Certified (Class 6225-01, File *47235)*

UL 94V0 Flammability Rating.



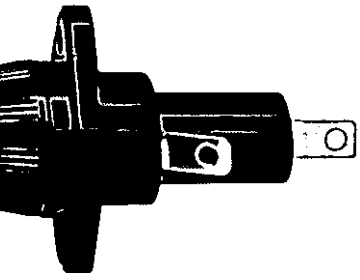
CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Electrical Ratings

Catalog Symbol	Amps	Volts	Fuse Description
HPF	30	600	1 1/2" (38.1mm)
HPF-C	15	250	1 1/2" (38.1mm) clear knob.
HPF-L	5	600	BBS, 13/32" x 1 3/8" fuses.
HPF-EE	15	600	SC 0-15, 13/32" x 1 5/16" fuses.
HPF-JJ	20	600	SC 20, 13/32" x 1 13/32" fuses.
HPF-FF*	30	480	SC 25 & 30, 13/32" x 1 5/8" fuses.
HPF-RR	30	600	KTK-R, LP-CC & FNQ-R class CC fuses.
HPF-WT	30	600	Splash-proof knob.
HPF-F-EE*	15	480	Sleeve on body, leaded for 13/32" x 1 5/16" fuses.

*No CSA Certification

BIF document: 2114



HPS

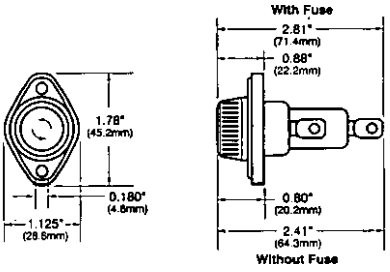
Standard Fuseholders with Bayonet-type Knob for 13/32" x 1 5/16" to 1 1/2" Fuses

Agency Approvals:

JL Recognized, (Guide IZLT2, Fife E 14853)

CSA Certified (Class 6225-01, File *47235)*

UL 94V0 Flammability Rating.



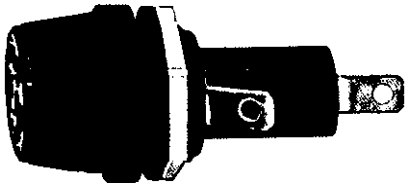
CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Electrical Ratings

Catalog Symbol	Amps	Volts	Fuse Description
HPS	30	600	1 1/2" (38.1mm)
HPS-C*,**	15	250	1 1/2" (38.1mm) clear knob.
HPS-L	5	600	BBS, 13/32" x 1 3/8" fuses.
HPS-EE	15	600	SC 0-15, 13/32" x 1 5/16" fuses.
HPS-JJ	20	600	SC 20, 13/32" x 1 13/32" fuses.
HPS-FF**	30	480	SC 25 & 30, 13/32" x 1 5/8" fuses.
HPS-RR**	30	600	KTK-R, LP-CC, FNQ-R class CC fuses.
HPS-W*,**	30	600	13/32" x 1 1/2" - Drip-proof knob.

* No UL Recognition
**No CSA Certification

BIF document: 2113



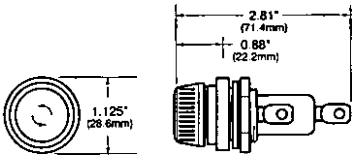
HPG and HPD

Standard Fuseholders with Bayonet-type Knob for 13/32" x 1 1/2" Fuses

Agency Approvals:

UL Recognized. (Guide IZLT2, File E14853)

UL 94V0 Flammability Rating.



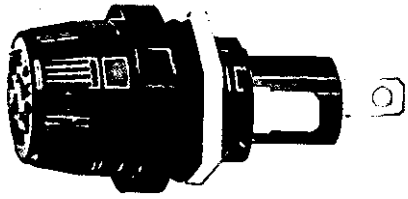
CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Electrical Ratings

Catalog Symbol	Amps	Volts	Fuse Description
HPG	30	600	Only side terminal is a quick-connect; rear terminal 3/16" longer than HPD.
HPD	30	600	Rear terminal is 3/16" shorter than HPG.

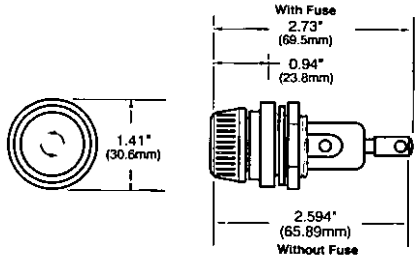
BIF document: 2108

Panel-Mounted for 13/32" x 1½" Fuses



HPM

Standard Fuseholder with Screw-type Knob for 'x2- x 1½" Fuses
Voltage Rating: 600V, 30A
Agency Approvals:
UL Recognized, (Guide IZLT2, File E14853)
CSA Certified (Class 6225-01, File 47235)
UL 94V0 Flammability Rating.



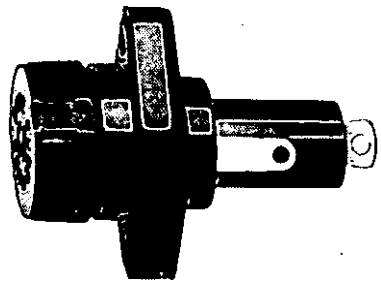
Electrical Ratings

Catalog Symbol	Amps	Volts	Fuse Description
HPM	30	600	¼" quick-connect/solder*
HPM-D	30	600	Splash-proof knob

* Quick connect rated for 20 Amps max

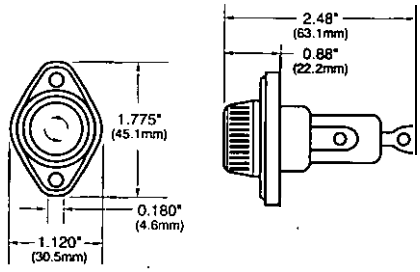
CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 2112



HPC-D

Waterproof Fuseholder with Screw-type Knob for 13/32" x 1½" Fuses
Voltage Rating: 600V, 30A
Agency Appmvals:
UL Recognized. (Guide IZLT2, File E14853)
UL 94V0 Flammability Rating.



Electrical Ratings

Catalog Symbol	Amps	Volts	Fuse Description
HPC-D	30	600	Mount in panels up to ¼" thick.

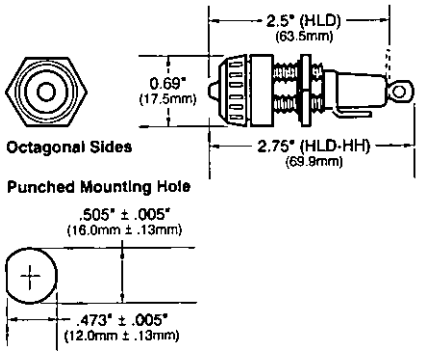
CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 2109

Panel-Mounted for Indicating **Type** Fuses

HLD

Pin Indicating
for ¼" x 1¼" Fuses
Voltage Rating: 250V, 15A
Agency Approvals:
UL Recognized, (File E14853, Guide IZLT2)

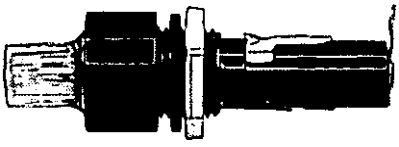


Electrical Ratings

Symbol	Amps	Volts	Features
HLD	15	250	Solder terminals
HLD-HH	15	250	¼" quick-connect terminals

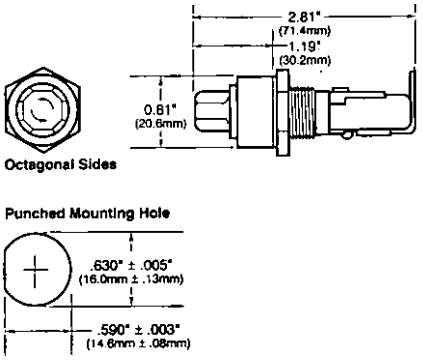
Use w/GBA, GLD Fuses

CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.



HJL

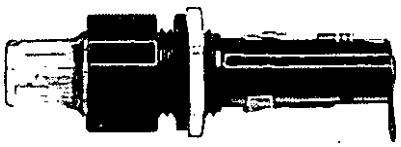
Lamp Indicating
for ¼" x 1" Fuses
Voltage Rating: 250V, 15A
No Agency Approvals



Electrical Ratings

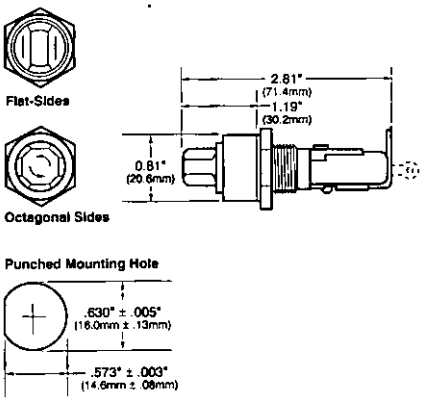
Symbol	Amps	Lamp		Knob	
		Volts	Type	Color	Type
HJL	15	90 to 250	Neon	Clear	Oct

Use w/AGX, MKB Fuses
For panels up to ⅛" thick.



HK Series

Lamp Indicating
for ¼" x 1¼" Fuses
Voltage Rating: 250V, 15A or 20A
Agency Approvals:
UL Recognized, (Guide IZLT? File E14853)
CSA Certified (Class 6225-01, File 47235)



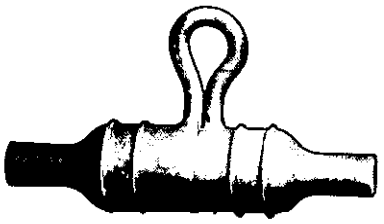
Electrical Ratings

Symbol	Amps	Lamp		Knob	
		Volts	Type	Color	Type
HKL*	15	90 to 250	Neon	Clear	Oct
HKL-X*					FS
HKR	20	22 to 30	**	Amber	Oct
HKT *		13 to 22	**		Oct
HKU		4 to 6	**	Red	Oct
HKX		22 to 33	**	Amber	FS

* UL Recognized and CSA Certified
** Incandescent

CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

In-Line Fuseholders for ¼" × ⅞" to 1¼" Fuses



HFB

Waterproof In-line Fuseholder for ¼" × 1¼" Fuses

Voltage Rating: 32V, 30A

Construction:

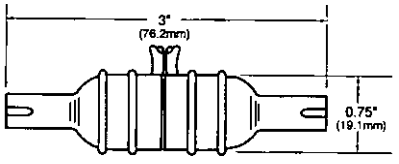
Body - Thermoplastic rubber;

Contacts Albaloy plated copper

Catalog Numbers

Description	Catalog
Standard Pack (10-in)	HFB
Bulk Pack (20-in)	[illegible]
Replacement Contact Clip	BK/1A2294

Dimensional Data



- Ideal for harsh environments:
  - –40° to 150" temp. range
  - Withstands many organic solvents and rigorous shock and vibration.
- Accepts #12 to #18 wire leads (not provided).
- Simple assembly.
- One-piece molded thermo-plastic.
- High visibility yellow color for easy identification in dark or hard-to-access locations.
- Important information molded into body.

HHB

Universal In-Line **Fuseholder** for ¼" × ⅞", 1" and 1¼" Fuses

Voltage Rating: 32V, 30A

Construction:

Body Nylon;

Contacts Albaloy plated copper

Pull Force: 5 lbs. minimum to separate fuseholder housing with fuse installed.

UL Flammability Rating: 94 V2

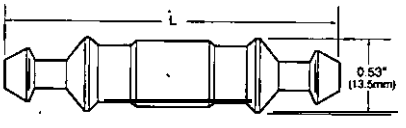
Catalog Numbers

Holder (Without Leads)	
Description	Catalog Number
Standard Pack (10-in)	HHB
Bulk Pack (100-in)	BK/HHB

Holder **With Pre-attached** Lead **Wires**

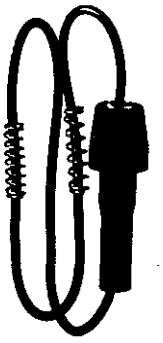
(#14 Insulated)		
Wire Color	19" Length	8" Length
Yellow	BK/HHB-Y419	BK/HHB-Y408
Red	BK/HHB-R419	BK/HHB-R408
Black	BK/HHB-B419	BK/HHB-B408

Dimensional Data



Fuse Length	Fuseholder Length "L"
⅞" (AGW)	2.100 Max.
1" (AGX)	2.250 Max.
1¼" (AGC, MDL)	2.420 Max.

- Accepts #12 to #18 wire leads (not provided with basic fuseholder).



HRK

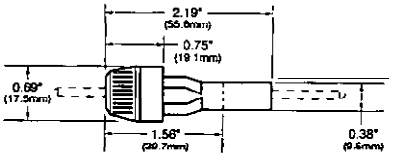
Universal In-Line Fuseholder for ¼" × ⅞" to 1¼" Fuses

Voltage Rating: 32V, 15A

Electrical Ratings

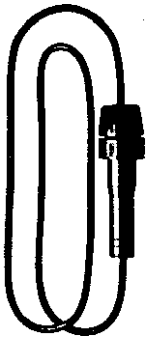
Catalog Symbol	Amps	Volts	Fuse Description
HRK	15	32	¼" diameter fuses of different lengths

Dimensional Data



- Three springs furnished with fuseholder afford acceptance of ¼" fuses of different lengths.
- Wire leads are staked and soldered to the contacts of the fuseholder.
- Leads are 8" (203mm) long.
- Wire size #14.

In-Line Fuseholders



HR and HM Series

In-Line Fuseholders for SFE and **¼" x** Various Length **Fuses**

Voltage Rating: 32V, 20A

No agency **listings.**

Electrical Ratings

Catalog Symbol	Includes Fuse	Wire
HRJ*	SFE-20	19" of #14
HRI	SFE-14	
HRH	SFE-9	
HRE	SFE-7½	
HRG	SFE-6	
HRF	SFE-4	
HMJ**	SFE-20	8" of #14
HMI	SFE-14	
HMH	SFE-9	
HME	SFE-7½	
HMG	SFE-6	
HMF	SFE-4	

*Also available as in-line fuseholder only with lead wire contacts, HRJ-LES-Fuse.

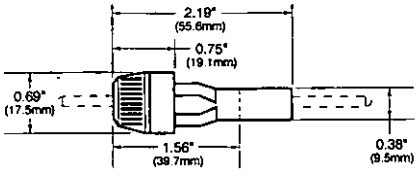
**Also available as in-line fuseholder only with lead wire contacts, HMJ-LES-Fuse.

HHJ-A For ¼" × 1¼" fuse, no wire or fuse included, accepts #18 - #22 wire.

HHJ-B For ¼" × 1¼" fuse, no wire or fuse included, accepts #12 - #16 wire.

HHI-B For ¼" × 1 1/16" fuse, no wire or fuse included, accepts #12 - #16 wire.

Dimensional Data



HFA Series

In-line Waterproof Fuseholders for **¼" x 1¼"** Fuses

Construction:

Body Phenolic;

Contacts - Copper crimp leads

Voltage Rating: 250V, 20A

Agency Approvals:

UL Recognized, (Guide IZLT2, File E14853)

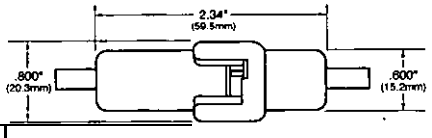
UL Flammability Rating: 94V0

Electrical Ratings

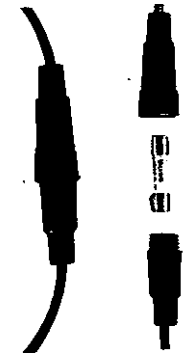
Catalog Symbol	Amps	Volts	Terminals
HFA	20	250	Crimp #12 - #16
HFA-HH*	20	250	¼" Q.C.

*No UL Recognition.

Dimensional Data



CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.



HHT Series

In-line Fuseholders for 5 **x 15mm** or 5 **x 20mm Fuses**

Construction:

Body Black Thermoplastic

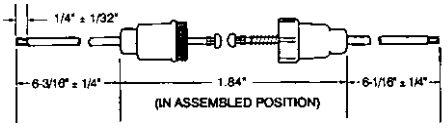
contacts Brass

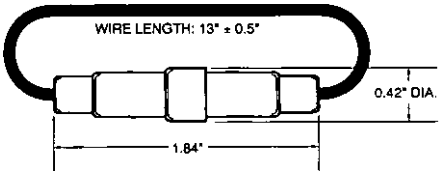
Wire - 16 awg, red

Electrical Ratings

	Amps	Volts
5 x 15mm	5	32
5 x 20mm	10	32

Dimensional Data





Tron® In-Line Fuseholders

Single Pole

Type SC Fuses

HEG Series
In-line **Fuseholders**
Single-Pole
Voltage Rating: 600V, 15A
Non-Breakaway Holders
For SC Fuses 0 to 15A.
480 v (or less).
Fuse size 13/32" × 15/16".

BIF document: *2124*

HEH Series
In-Line **Fuseholders**
Single-Pole
Non-Breakaway Holders
Voltage Rating: 600V, 20A
Agency Approvals:
CSA Certified (Class 6225-01, File 47235)
For Type SC-20 Fuses; 20A, 600V (or less). Also fuse types BBS 8 KTQ (nominal size 13/32" × 1 3/8").

BIF document: *2124*

HEC Series
In-line **Fuseholders**
Single-Pole
Voltage Rating: 480V, 30A
Non-Breakaway Holders
For SC-25, & SC-30 Fuses
Fuse size 13/32" × 15/8".

BIF document: *2124*

HEJ Series
In-line **Fuseholders**
Single-Pole
Non-Breakaway Holders
Voltage Rating: 480V, 60A
Agency **Approvals:**
UL Recognized, (Guide IZLT2, File El 4653)
For SC Fuses; 35A to 60A and high voltage fuses. Type HVV, ½ to 6A, 1200V (or less).
Fuse size 13/32" × 2¼".

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF *document:* ***2123***

Single Pole

13/32" × 1½" Fuses

HEB Series
In-Line Fuseholders
Single-Pole
Voltage Rating: 600V, 30A
Agency Approvals:
UL Recognized. (Guide IZLT2, File E14853) (HEB-AA and HEB-AW-RLC-A)
CSA Certified (Class 6225-01, File 47235)
For any **13/32" × 1½"** fuse.
Typical fuse types: BAF, FNM. FNQ, and KTK (1/10 30A).

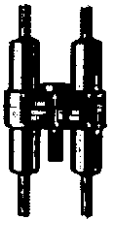
BIF *document: 2127*

HET Series
In-line Fuseholders
Single-Pole
An HEB Fuseholder with a permanently installed solid neutral. Easily identified by white plastic coupling nut.

BIF *document: 2125*

Double Pole

KTK-R Fuses



HEY Series
In-line Fuseholders
Double-Pole
Voltage Rating: 600V, 30A
Optional Break-a-way receptacle, polarized, and accepting Class CC branch circuit fuses (Buss type KTK-R, FNQ-R & LP-CC; 600V or less, 200,000A interrupting rating).

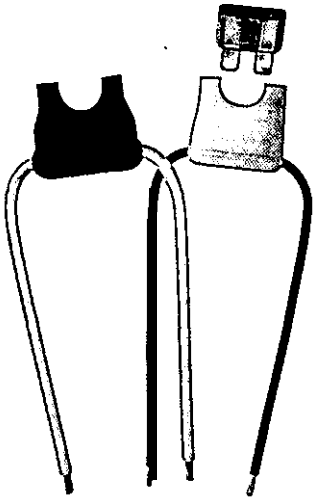
BIF *document:* ***2126***

13/32" X 1 ½" Fuses

HEX Series
In-line **Fuseholders**
Double-Pole
Voltage Rating: 600V, 30A
Agency Approvals:
CSA Certified (Class 6225-01, File 47235)
For any 13/32" × 1½" fuse.
Typical fuse typds: BAF, FNM, FNQ. and KTK (1/10 - 3OA).

BIF document: 2126

In-Line Fuseholders for **Blade-Type** Fuses



HHC, HHD, HHF and HHG

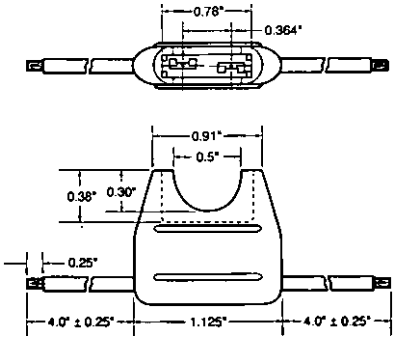
In-line Fuseholders for
ATC® Blade-Type Fuses
Voltage Rating: 32v
Current **Rating:** See **Table**

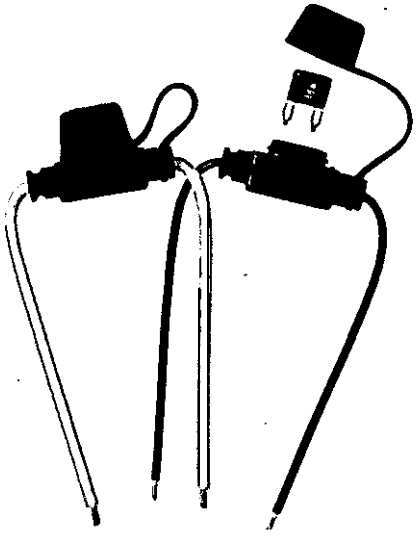
Electrical Ratings

Catalog Symbol	Description	Fuse Size	Electrical Connection
HHC	Yellow fuseholder	3-20A	#16 black leadwire
HHD	Black fuseholder	3-30A	#12 yellow leadwire
HHD-C	Cover only	Fits HHD only	Clear polycarbonate
HHF	Black fuseholder with cover	3-20A	#14 yellow leadwire
HHG	Black fuseholder with cover	3-30A	#12 yellow leadwire

Bulk **Products**
(Bulk **Quantity** . **1000** Pieces)

Catalog Symbol	Description	Fuse Size	Electrical Connection
BK/HHC-R	Yellow fuseholder	3-20A	#16 red leadwire
BK/HHF-B	Black fuseholder with cover	3-20A	#16 black leadwire





HHL and HHM

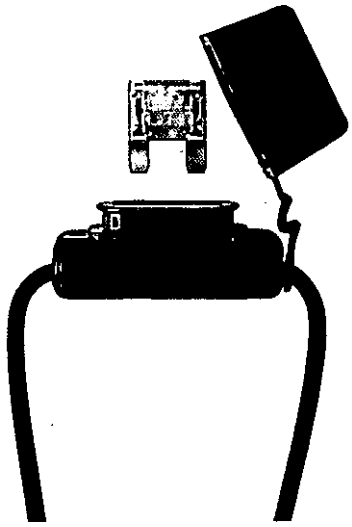
In-Line Fuseholders for
MINI*-Fuses
Voltage Rating: 32V
Current Rating: See **Table**

Electrical Ratings

Catalog Symbol	Description	Fuse Size	Electrical Connection
HHL	Black fuseholder w/cover	2-20A	#16 black lead-wire, 4" length stripped to ¼"
HHL-B	Black fuseholder – body only	2-20A	#16 black lead-wire, 4" length stripped to ¼"
HHM	Black fuseholder w/cover	2-30A	#12 red leadwire, 4" length stripped to ¼"
HHM-B	Black fuseholder – body only	2-30A	#12 red leadwire, 4" length stripped to ¼"
HHM-C	Black cover only		

Bulk Products
(Bulk Quantity - 1000 Pieces)

Catalog Symbol	Description	Fuse Size	Electrical Connection
BK/HHL-R	Black fuseholder – body only	2-20A	#16 red leadwire, 4" length stripped to ¼"



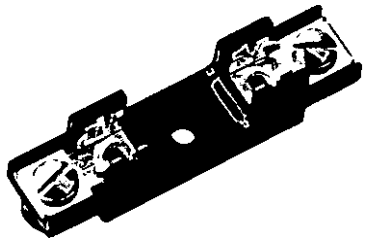
HHX

In-Line **Fuseholders** for
MAXI"-Fuses
Voltage Rating: 32V
Current Rating: See **Table**

Electrical Ratings

Catalog Symbol	Description	Fuse Size	Electrical Connection
HHX	Black fuseholder w/cover	20-60A	#6 red leadwire, 5" with blunt ends
HHX-B	Black fuseholder – body only	20-60A	#6 red leadwire, 5" with blunt ends
HHX-C	Black cover only		

For ¼" × 1¼" Fuses



Series 8000

Bolt-in and Snap-in Mounting for ¼" × 1¼" Fuses

Construction: Blocks are molded flame retarded thermoplastic. Clips are spring-bronze.

voltage Rating: 300V

Agency **Approvals:**

UL Recognized under Components Program; File E14853A, Guide tZLT2

CSA Certified Class 6225-01, File 47235

Anti-Rotation Pin: Single p&blocks may be ordered without the antirotational pin simply by adding an "X" to the number of poles (Example: BK/S-8000-1X).

Carton Quantity: 10; shelf package: 100.

Bulk Carton: Single-pole and 2-pole fuse blocks–1,000; Multiple-pole fuse blocks–3-8 pole: 200; 9-12 pole: 50. When ordering bulk quantities. prefix "BK/" to catalog number: (Example: BK/S-8001-1-SNP).

Bolt-in Mounting

Series	Terminal	Angle	Basic Cat. No.	Amperes	Poles (Suffix)
8000	Solder	0° 40°	S-8001- S-8002-	UL 25A CSA 21A	1 - 12
8100	3/16" Quick Connect	0° 40°	S-8101- S-8102-	UL 20A CSA 13A	
8200	¼" Quick Connect	0° 40° Side	S-8201- S-8202- S-8203-	UL 20A CSA 16A	
8300	Screw	—	S-8301-	UL 30A CSA 10A	

Snap-in Mounting

Series	Terminal	Angle	Cat. No.	Amperes	Poles (Suffix)
8000	Solder	0° 40°	S-8001-1-SNP S-8002-1-SNP	UL 25A CSA 21A	Available only in single pole
8100	3/16" Quick Connect	0° 40°	S-8101-1-SNP S-8102-1-SNP	UL 20A CSA 13A	
8200	¼" Quick Connect	0° Side	S-8201-1-SNP S-8203-1-SNP	UL 20A CSA 16A	

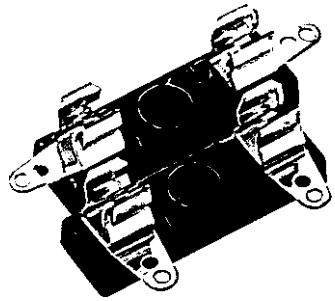
Catalog Code

BK/ | S-8 | 0 | 00 | -00

- Prefix for Bulk Packing
- Series 8000 Product Line
- Type Terminal
  - "0"-Solder
  - "1"-3/16" Quick Connect
  - "2" - ¼" Quick Connect
  - "3" - Screw
- Terminal Angle
  - "01" - straight (0°.)
  - "02"- 40°
  - "03" - side*
- Number of Poles (01-12)

*Available only in single pole

CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.



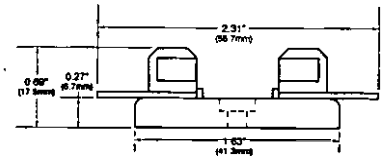
4405

4406

¼" × 1¼" Single Pole (6.4mm x 31.8mm)

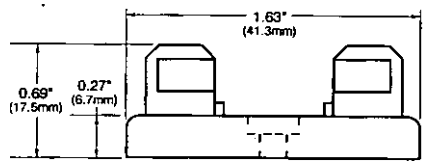
Bakelite base; spring-bronze, Albaloy-plate clips; 30 amperes, 250 volts: base width ½" (12.7mm).

No. **4405**—0° Solder Terminals. Integral terminal and clip.

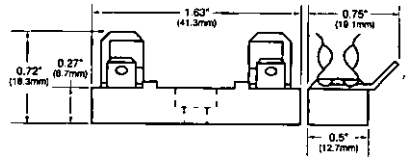


No. **4406**—Side Solder Terminal

No. **4574**—Spare Fuseblock

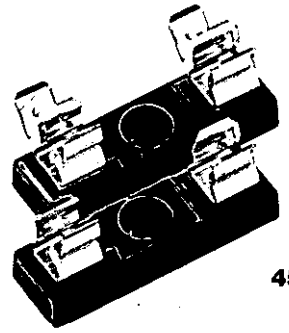


Ho. **2499**—Side Quick-Connect Terminals. ¼" (6.4mm); 15 amperes, 250 volts. UL Recognized. Guide IZLT2, File E14853.



Note—Mounting screw hole diameter is 0.147" (3.7mm). Counterbore diameter, 0.636" (8.0mm). Max. Mounting Screw No. 6.

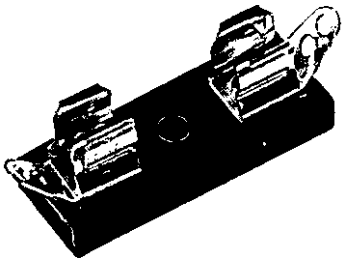
2499



4574

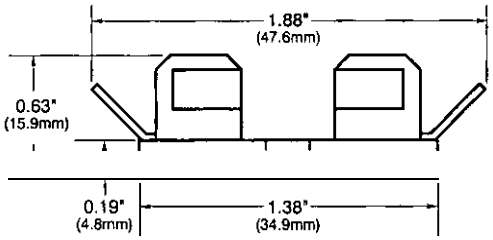
BIF document: ***2101***

For ¼" × 1" Fuses



Series 3828

Solder Terminals Fuseblock for ¼" × 1" Fuses (6.4mm x 25.4mm)

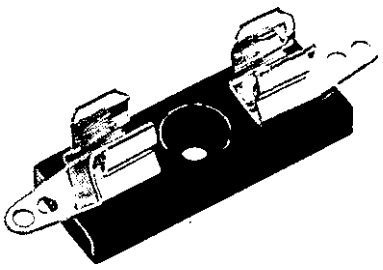


Catalog And Dimensional Data

Catalog Number	No. of Poles	*Base Length	
		inches	mm
3828-1	1	½	12.7
3828-2	2	1⅛	28.6
3828-3	3	1¾	44.5
3828-4	4	2⅜	60.3
3828-5	5	3	76.2
3828-6	6	3⅝	92.1
3828-7	7	4¼	108.0
3828-8	8	4⅞	123.8
3828-10	10	6⅛	155.6
3828-12	12	7⅜	187.3

*Small phenolic base, base width 1⅜" (34.9mm)

Note—Mounting screw hole diameter is 0.147" (3.7mm) Max. Mounting Screw No. 6.

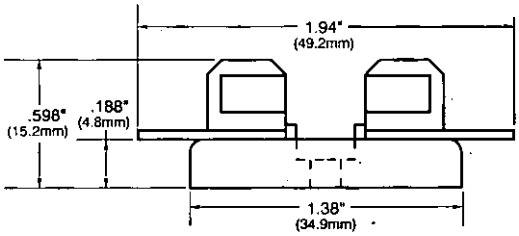


4520 and 4393

Single Pole Fuseblock for ¼" × 1" Fuses

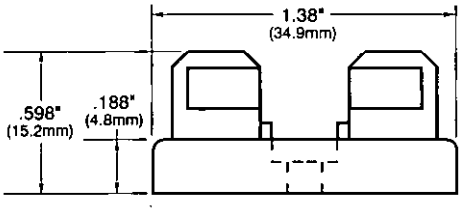
Bakelite base; Width ½" (12.7mm). Spring-bronze, Albaloy plated clips. Rated 30 amperes. 250 volts.

No. **4520**—Solder terminals; straight; integral clip and terminal.

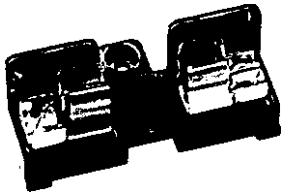


No. 4393—Spare fuseblock.

Note—Mounting screw hole diameter is 0.147" (3.7mm), counterbore 0.636" (8.0mm) diameter. Max. Mounting Screw No. 6.



For 13/32" x 1½" Fuses

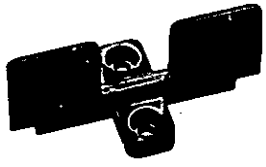


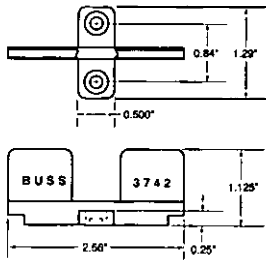
3743

Add-on Fuseblocks for **13/32" x 1½"** (10.3mm x 38.1mm) Fuses, UL Recognized Guide IZLT2, File EI4853

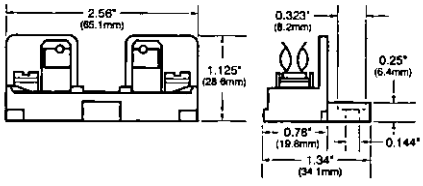
Block with One Pole. Single pole blocks lock into each other and can be added at any time. Each has a single end barrier. Molded phenolic base; screw terminal; beryllium copper, bright-dipped clips. Rated 30 amps, *600* volts.

No. **3742**—End Barrier Only.





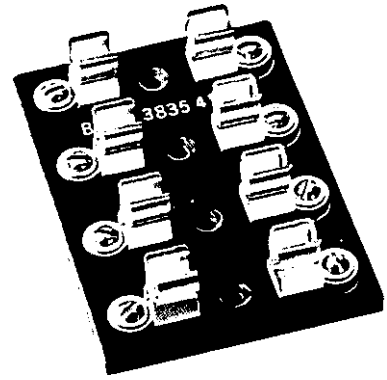
No. **3723**—Marking Strip. Length is 9⅜" (23.8cm). Block and end barrier.



Note—Mounting screw hole diameter is 0.147" (3.7mm). Counterbore diameter, 0.636" (8.0mm) Max. Mounting Screw No. 6.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 2104



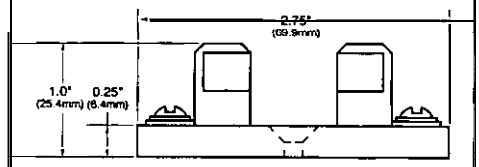
3835

Series Multiple Pole Fuseblocks for **13/32" x 1½"** (10.3mm x 38.1mm) Fuses

Silver-plated, beryllium copper clips. Rated 30 amperes. 250 volts. No side barriers. Screw terminals. Phenolic base.

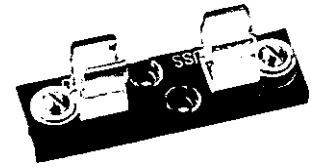
Cat. No.	No of Poles	Base Length Inches	mm
3835-1	1	27/32"	21.4
3835-2	2	1 13/16"	46.0
3835-3	3	2 25/32"	70.6
3835-4	4	3¾"	95.2
3835-5	5	4 23/32"	119.9
3835-6	6	5 11/16"	144.5
3835-7	7	6 21/32"	169.0
3835-8	8	7⅝"	193.7
3835-9	9	8 19/32"	218.8
3835-10	10	9 7/16"	242.9
3835-12	12	11½"	292.1

*Base width—2¾" (69.9mm)



Note—Mounting screw hole diameter is 0.148" (3.7mm). Countersink, 0.313" (7.9mm). Max. Mounting Screw No. 6.

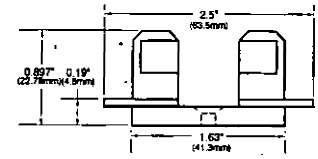
CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.



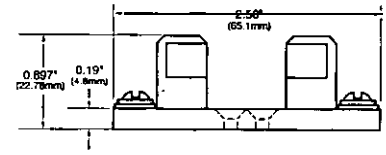
4421 and 4515

Single Pole Fuseblocks for **13/32" x 1½"** (10.3mm x 38.1mm) Fuses

No. **4421**—Solder Terminals. Base width ⅝" (15.9mm).



No. 4515—Screw Terminals. Base width ¾" (19mm).



Note—Mounting screw hole diameter is 0.147" (3.7mm). Countersink, 0.312" (7.9mm). Max. Mounting Screw No. 6.

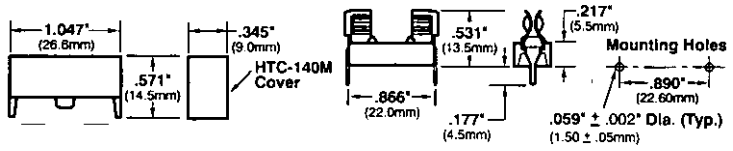
CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Printed Circuit Board for **5mm** Diameter Fuses

HTC-15M, HTC-140M

PCS Fuseblock and Snap-On Cover
Voltage Rating: 250V, 6.3A, 1.6W
HTC-15M (Fuseholder), HTC-140M (Natural Cover),
HTC-150M* (Transparent Cover)

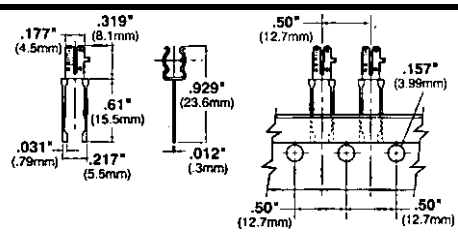
*Available in bulk only. Use this format: BK/HTC-150M



BIF document: 2110

HTC-200M

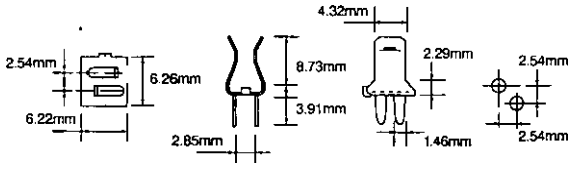
PC Board Mount **Fuseclip**
Construction: Tin plated bronze
Tape and Fan Fold packed
Ammo Pack (HTC-200M) 1000 pieces per box



BIF document: 2110

HTC-21 OM

PC Board Mounted **Fuseclip** with End Stops



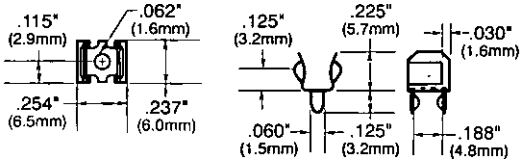
BIF document: 2110

1A3399 Series

Fuseclips with End Stops and Straight Leads

Catalog Number	Clip Material*	Finish
1A3399-01	Beryllium Copper*	Silver
1A3399-04	Beryllium Copper*	Bright Tin
1A3399-10	Spring Bronze	Bright Tin

*Beryllium copper recommended for currents higher than 15 amps (¼" clips).



BIF document: 2131

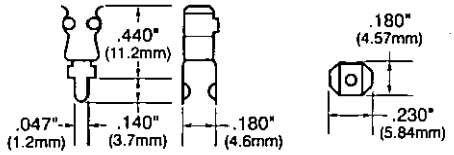
1A5018 Series

Fuseclips with End Stops and Straight Leads

High Profile

Catalog Number	Clip Material*	Finish
1A5018-7	Spring Bronze	Silver
1A5018-10	Spring Bronze	Bright Tin

*Beryllium copper recommended for currents higher than 15 amps (¼" clips).

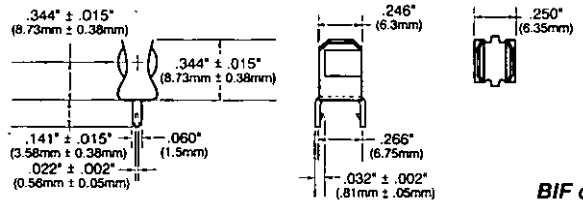


BIF document: 2131

1A5601 Series

Fuseclips (0-7 amps)

Catalog Number	Clip Material	Finish
1A5601	Cartridge Brass	Bright Tin

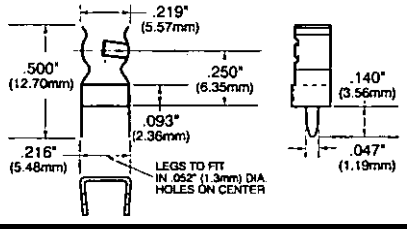


BIF document: 2131

1 A5802 Series

Fuseclips (O-7 amps)

Catalog Number	Clip Material	Finish
1A5602	Cartridge Brass	Bright Tin



BIF document: 2131

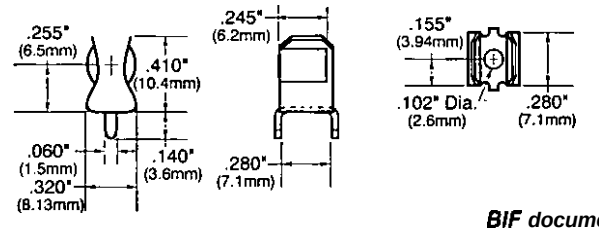
CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Printed Circuit Board foi ¼" Diameter Fuses

1 A3398 Series

Fuseclips without End Stops and Straight Leads

Catalog Number	Clip Material	Finish
1A3398-07	Cartridge Brass	Bright Tin
1A3398-08	Spring Bronze	Bright Tin



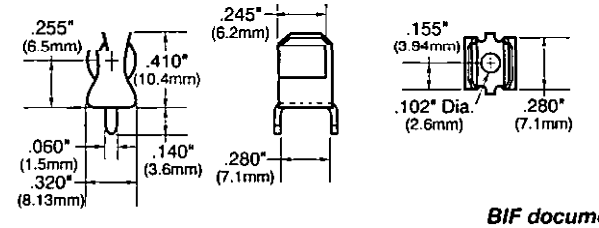
BIF document: 2131

1 Al 907 Series

Fuseclips with End Stops and Straight Leads

Catalog Number	Clip Material	Finish
1A1907-02	Cartridge Brass	None/Bright Dipped
1A1907-03	Beryllium Copper*	Bright Tin
1A1907-05	Beryllium Copper*	Silver
1A1907-06	Cartridge Brass	Bright Tin
1A1907-08	Spring Bronze	None/Bright Dipped
1A1907-09	Spring Bronze	Bright Tin

*Beryllium copper recommended for currents higher than 15 amps (¼" clips).



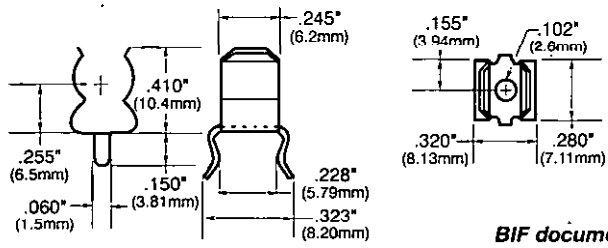
BIF document: 2131

1 A4533 Series

Fuseclips without End Stops and Angled Out Leads

Catalog Number	Clip Material*	Finish
1A4533-01	Beryllium Copper*	Bright Tin
1A4533-06	Cartridge Brass	Bright Tin
1A4533-07	Spring Bronze	Bright Tin

*Beryllium copper recommended for currents higher than 15 amps (¼" clips).



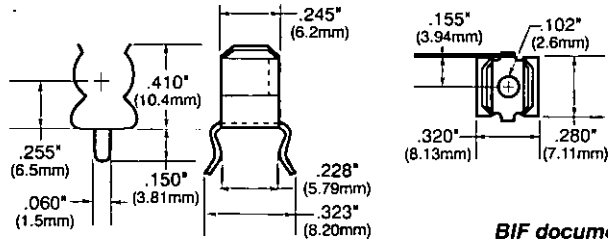
BIF document: 2131

1A4534 Series

Fuseclips with End Stops and Angled Out Leads

Catalog Number	Clip Material*	Finish
1A4534-01	Beryllium Copper*	Bright Tin
1A4534-06	Cartridge Brass	Bright Tin
1A4534-07	Spring Bronze	Bright Tin

*Beryllium copper recommended for currents higher than 15 amps (¼" clips).



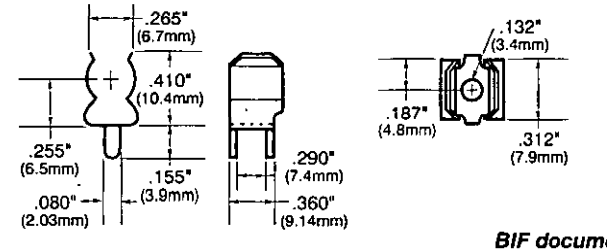
BIF document: 2131

1A1120 Series

Fuseclips without End Stops and Angled in Leads

Catalog Number	Clip Material	Finish
1A1120-02	Cartridge Brass	None/Bright Dipped
1A1120-05	Beryllium Copper*	Silver
1A1120-06	Beryllium Copper*	Bright Tin
1A1120-09	Cartridge Brass	Bright Tin
1A1120-11	Spring Bronze	None/Bright Dipped
1A1120-12	Spring Bronze	Bright Tin

*Beryllium copper recommended for currents higher than 15 amps (¼" clips).



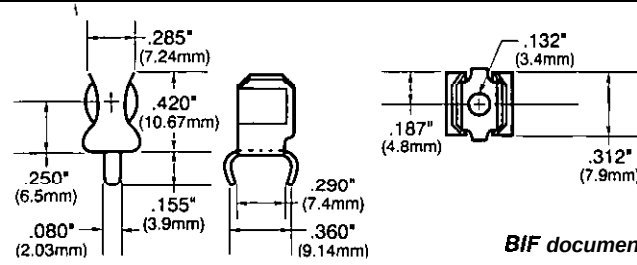
BIF document: 2131

1 Al 119 Series

Fuseclips with End Stops and Angled in Leads

Catalog Number	Clip Material*	Finish
1A1119-04	Beryllium Copper*	Bright Tin
1A1119-05	Beryllium Copper*	Silver
1A1119-10	Cartridge Brass	Bright Tin
1A1119-13	Spring Bronze	Bright Tin

*Beryllium copper recommended for currents higher than 15 amps (¼" clips).



BIF document: 2131

CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

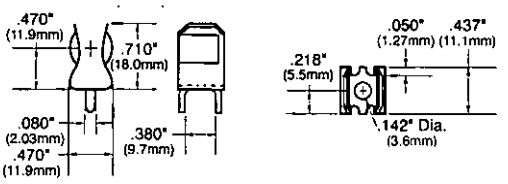
Printed Circuit Board Fuseclips

1 A3400 Series.

Fuseclips for $^{13}/_{32}$" diameter fuses with End Stops and Straight Leads

Catalog Number	Clip Material	Finish
1A3400-09	Spring Bronze	Bright Tin

20 Amps Maximum

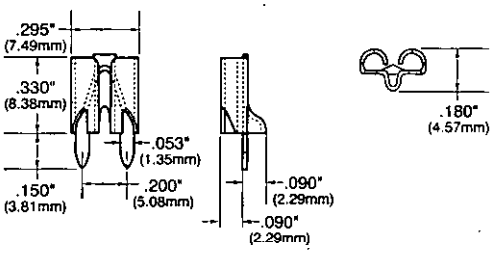


BIF document: 2131

1 A5600 Series

Fuseclips for **ATC®** Fuses (O-20 Amps)

Catalog Number	Clip Material	Finish
1A5600	Brass	Satin Finish Tin



BIF document: 2131

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Printed Circuit Board Fuseclips

5661 & 5662 Series
Fuseclips with Mounting Holes For ¼" Diameter Fuses

Catalog Number	End Stop	Clip Mat.**	Finish	Dimensions (Inches) B (To End Stop)	C (Contact)	D (Height)	E (Width)	Hole Dia.	Fig. Ref.
5661-08	No	Spg. Br.	Nickel	†	.265	.410	.320	.132	2
5661-15		Spg. Br.	Bright Tin						
5662-01	Yes	BeCu	Silver	.106	.260	.410	.320	.132	1
5662-02		BeCu	Silver	.132					
5662-41		Spg. Br.	Bright Tin	.106					
5662-44		Spg. Br.	Bright Tin	.132					

BIF document: 2132

5672 & 5674 Series
Fuseclips with Mounting Holes For 9/32" Diameter Fuses

Catalog Number	End Stop	Clip Mat.**	Finish	Dimensions (Inches) B (To End Stop)	C (Contact)	D (Height)	E (Width)	Hole Dia.	Fig. Ref.
5672-11	No	Spg. Br.	Bright Tin	†	.362	.520	.380	.172	2
5674-01		BeCu	Silver	.168	.356	.520	.380	.172	1
5674-10	Yes	BeCu	Albaloy						
5674-41		Spg. Br.	Bright Tin						

BIF document: 2132

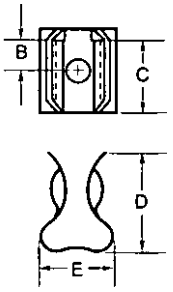


FIGURE 1

5956 & 5960 Series
Fuseclips with Mounting Holes For 13/32" Diameter Fuses

Catalog Number	End Stop	Clip Mat.**	Finish	Dimensions (Inches) B (To End Stop)	C (Contact)	D (Height)	E (Width)	Hole Dia.	Fig. Ref.
5956-16	No	Spg. Br.	Bright Tin	†	.312	.710	.470	.172	2
5960-07	Yes	BeCu	Silver	.168	.389	.710	.470	.196	1
5960-09		BeCu	Silver	.200				.172	
5960-23		BeCu	Albaloy	.168				.196	
5960-51		Spg. Br.	Bright Dip*	.168				.196	
5960-53		Spg. Br.	Bright Dip*	.200				.172	
5960-61		Spg. Br.	Bright Tin	.168				.196	
5960-62		Spg. Br.	Bright Tin	.168				.132	
5960-63		Spg. Br.	Bright Tin	.200				.172	
5960-64		Spg. Br.	Bright Tin	.200				.128	

BIF document: 2132

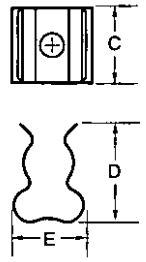


FIGURE 2

5591 & 5592 Series
Fuseclips with Mounting Holes For 9/16" Diameter Fuses

Catalog Number	End Stop	Clip Mat.**	Finish	Dimensions (Inches) B (To End Stop)	C (Contact)	D (Height)	E (Width)	Hole Dia.	Fig. Ref.
5591-42	Yes	Spg. Br.	Bright Dip*	.260	.510	.890	.600	.172	1
5592-01	No	BeCu	Silver	†	.505	.890	.600	.200	2
5592-11		Spg. Br.	Silver					.200	
5592-33		Spg. Br.	Bright Dip*					.172	

* Bright Dip is actually treated bare metal with no plating.
** Spg. Br. — Spring Bronze; BeCu — Beryllium Copper.
† Hole in center of both clip and contact area.

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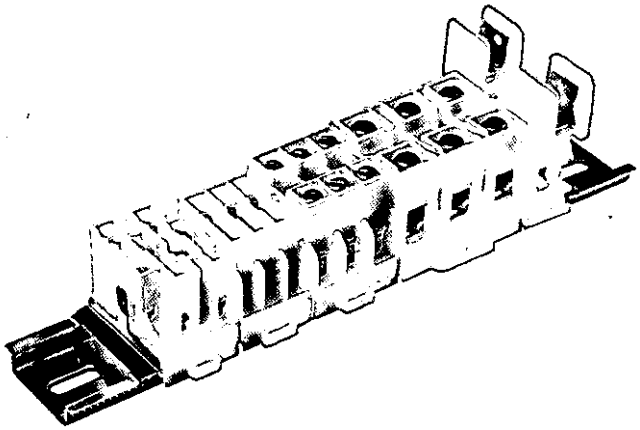
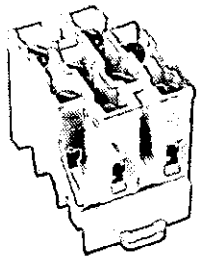
BIF document: 2132

Rail Mount Terminal Blocks

Series NDN

35mm DIN Rail Compatible
Nigh Density Design: Up to 48 circuits per foot
Clamping Collar: Secures wires
Large, Captive, Wire-ready Screws: Speeds assembly
Snap-on Installation to DIN Rail: Fast, easy assembly
Fully Shielded Construction: 600V spacings
Unique One-piece Construction: Increases reliability
Thermoplastic Moldings: Strong and impact resistant
Material: UL Recognized 94V-2 thermoplastic
Collars: Heat treated stainless steel
Terminals: Tin plated copper alloy
Screws: Zinc plated steel
Agency Approvals: UL E62622; CSA LR15364





NDNV4-__ -(color)

Ratings: NDNV4 30A. 600V; UL/CSA
Center Spacing: .250" (6.35)
Number of Poles: 4
Circuits per Foot: 46
Circuit Jumper: JN4, 4 circuits
Wire Size: AWG #10-22 CU
Screw Sire: #6-32
Mounting Options: 35mm DIN rail, C-rail
Marking Tape: MTC6
Torque Rating: 18 in/lb max.
Operating **Temperature:** 105°C
NDNV4 **Colors:** YE Yellow
WH • White

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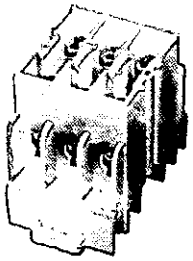

NDN3-__ -(color)

Ratings: 30A field wiring;
40A - factory wiring 600V; UL/CSA
Center Spacing: ,300" (7.62)
Number of Poles: 3
Circuits per Foot: 36
Circuit Jumper: JNDN3, 2 circuits
Wire Size: AWG #10-22 CU
Screw Size: #6-32
Mounting Options: 35mm DIN rail, C-rail
Marking Tape: MT12-½
Torque Rating: 18 in/lb max.
Operating' Temperature: 105°C
NDN3 Colors: YE -Yellow
WH - White

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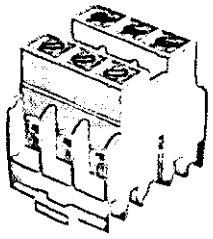

NDN63-__ __(color)

Ratings: 65A. 600V; UL/CSA
Center Spacing: .375" (9.52)
Number of Poles: 3
Circuits per Foot: 30
Circuit Jumper: JN3, 2 circuits
Wire Size: AWG #6-18 CU
Screw Size: HO-32
Mounting Options: 35mm DIN rail, C-rail
Marking Tape: MT12-½
Torque Rating: 35 in/lb max.
Operating Temperature: 105°C'
NDN63 Colors: YE -Yellow
WH- White

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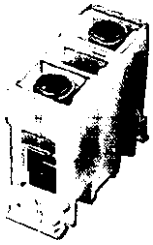
Rail Mount Terminal Blocks



NDN1-WH

Ratings: 90A, 600V
Center Spacing: .635" (16.13)
Number of Poles: 1
Circuits per Foot: 18
Circuit Jumper: JN1, 2 circuits
Wire Size: AWG #2-18 CU
Screw Size: ¼-28
Mounting Options: 35mm DIN rail, C-rail (Dove-tail option is available for mounting side-by-side. Order part no. NDN1A-WH.)
Marking Tape: MT12-½
Torque Rating: 32 in/lb max.
Operating Temperature: 105°C
NDN1 Colors: WH -White

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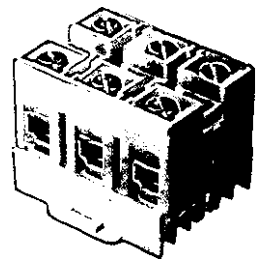
BIF document: 1107



NDN1 1 1-__ -(color)

Ratings: 90A, 600V; UUCSA
Center Spacing: .635" (16.13)
Number of Poles: 3
Circuits per Foot: 16
Circuit Jumper: JN1, 2 circuits
Wire Size: AWG #2-18 CU
Screw Size: ¼-28
Mounting Options: 35mm DIN rail; C-rail, Base Mount. (Dove tail option is available for mounting side-by-side. Order part no. NDN111A-WH.)
Marking Tape: MT12-½
Torque Rating: 32 in/lb max.
Operating Temperature: 105°C

NDN111	**NDN111A**
Colors:	Colors:
YE -Yellow	YE -Yellow
WH- White	WH- White

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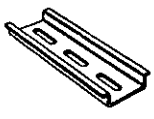
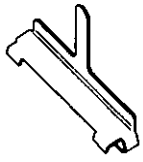
BIF document: 1107

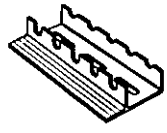
Series **NDN** Terminal **Block** Accessories



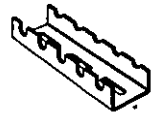
NDNA
35mm DIN rail
Aluminum
NDNA 100 1 meter
NDNA 200 2 meters



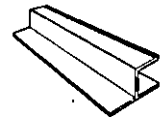
NDNAS
35mm DIN rail
End Stop



NFTA
C-rail
Aluminum
Lengths to 72"

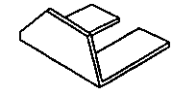


NRA
C-rail
Low profile
No flange
Aluminum
Lengths to 37½"



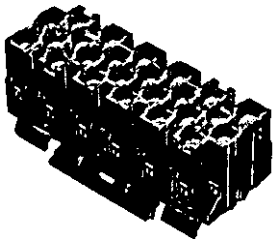
SOA72
72" long
Stand-Off Channel
for C-rail

MARKING TAPE
See series specifications



JUMPERS
See series specifications

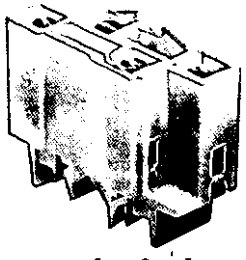
Rail Mount Terminal Blocks



N512-BK

Ratings: 5A, 600V; UUCSA
20A, 300V; UUCSA
Center Spacing: .197" (5.00)
Number of Poles: 12
Circuits per Foot: 60
Circuit Jumper: JN512. 12 circuits
Wire Size: AWG #1 Z-22 CU
Screw Size: #4-48
Mounting Options: C-rail, 15mm DIN rail
Marking Tape: AT512
Torque Rating: 12 in/lb max..
Color: Black-BK
Operating Temperature: 105°C

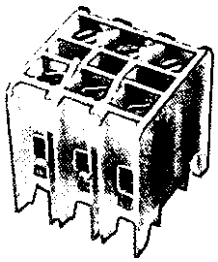
CE



NFT2-__ __(color)

Ratings: 40A. 600V; UUCSA; 55A factory wired.
Center Spacing: .281" (7.13)
Number of Poles: 2
Circuits per Foot: 38
Circuit Jumper: JN2, 2 circuits
Wire Sire: AWG #8-22 CU
Screw Size: #8-32
Mounting Options: C-rail
Marking Tape: MT12-½
Torque Rating: 18 in/lb max.
Operating Temperature: 105°C
NFT2 Colors: WH - White

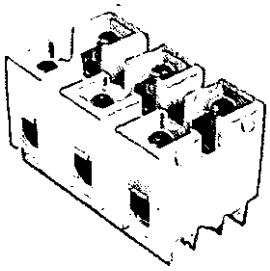
CE



NFT3-__ -(color)

Ratings: 40A, 600V; UUCSA: 55A factory wired.
Center Spacing: .390" (9.91)
Number of Poles: 3
Circuits per Foot: 28
Circuit Jumper: JN3, 2 circuits
Wire Size: AWG #8-22 CU'
Screw Size: #8-32
Mounting Options: C-rail
Marking Tape: MT12-½
Torque Rating: 18 in/lb max.
Operating **Temperature:**105°C
NFT3 Colors:
YE Yellow WH -White

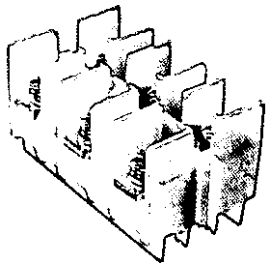
CE



NC3-__ -(color)

Ratings: 175A, 600V; UUCSA
Center Spacing: 1.06" (26.92)
Number of Poles: 3
Circuits per Foot: 11
Wire Size: 2/0-#14 CU/AL
Screw Size: 5/16-24
Mounting Options: C-rail, Base Mount
Marking Tape: MT12-½
Torque Rating: 45 in/lb max.
Operating Temperature: 105°C
NC3 Colors: WH White

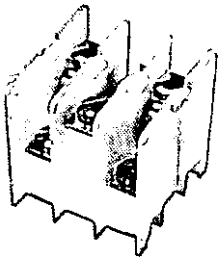
CE



NSE3-WH

Ratings: 115A, 600V; UL/CSA
Center Spacing: 1.06" (26.92)
Number of Poles: 3
Circuits per Foot: 11
Wire Size: For use with wire crimped to ring terminal.
screw Size: ¼-28
Mounting Options: C-rail, Base Mount
Marking Tape: MT12-½
Operating Temperature: 105°C

CE

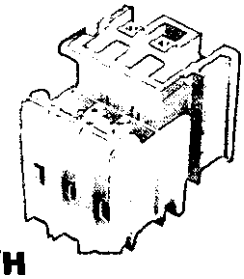


NSS3-__ -(color)

Ratings: 30A, 600V; UUCSA
Center Spacing: .385" (9.77)
Number of Poles: 3
Circuits per Foot: 28
Circuit Jumper: JNSS3, 2 circuits
Wire Size: For use with wire crimped to ring terminal.
Screw Size: #6-32
Mounting Options: C-rail
Marking Tape: MT12-½
Operating Temperature: 105°C
NSS3 Colors: WH- White

CE

Sectional Terminal Blocks



PLU3-WH

Depluggable Rail Mount
Ratings: 40A, 600V; UUCSA
Center Spacing: .390" (9.91)
Number of Poles: 3
Circuits per Foot: 28
Circuit Jumper: JN3, 2 circuits
Wire Size: AWG #8-22 CU
Screw Size: #8-32
Mounting Options: C-rail, Stackable
Marking Tape: MT12-½
Torque Rating: 18 in/lb max.
Operating Temperature: 105°C
PLU3 Colors: YE Yellow
WH White

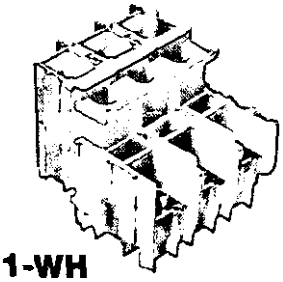
CE

PLU1-WH

Depluggable Rail Mount
Ratings: 70A. 600V; UUCSA
Center Spacing: .625" (15.88)
Number of Poles: PLU1-WH (1 pole); PLU11-WH (2 poles); PLU111-WH (3 poles)
Circuits per Foot: 19
Circuit Jumper: JN1 , 2 circuits
Wire Size: AWG #4-18 CU
Screw Size: ¼-28
Mounting Options: C-rail, Stackable
Marking Tape: MT1 2-½
Torque Rating: 32 in/lb max.
Operating Temperature: 105°C

PLU1	PLU11	PLU111
Colors:	**Colors:**	**Colors:**
WH-White	WH-White	WH-White

CE

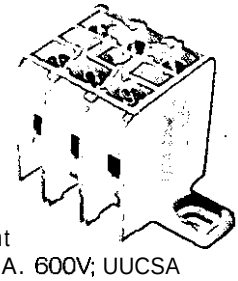


PSU1-WH

Depluggable Rail Mount
Ratings: 45A*, 600V; UUCSA
(*45A rating achieved with ring terminal crimped to wire)
Center Spacing: ,625" (15.88)
Number of Poles: PSU1-WH (1 pole); PSU11-WH (2 poles); PSU111-WH (3 poles)
Circuits per Foot: 19
Wire Size: For use with crimp on connectors only.
Screw Size: #10-32
Mounting Options: C-rail, Stackable
Marking Tape: MT12-½
Torque Rating: 32 in/lb max.
Operating Temperature: 105°C

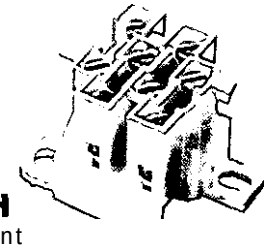
PSU1	PSU11	PSU111
Colors:	**Colors:**	**Colors:**
WH- White	WH-White	WH-White

CE



KT3-WH

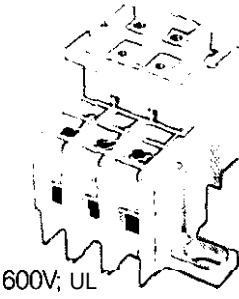
Base Mount
Ratings: 40A. 600V; UUCSA
Center Spacing: .390" (9.91)
Number of Poles: 3
Circuits per Foot: 28
Circuit Jumper: JN3, 2 circuits
Wire Size: #8-22 CU
Screw Size: #8-32
Mounting Options: Base Mount, Stackable. KAD end mount adapter optional.
Marking Tape: MT12-½
Torque **Rating:** 18 in/lb max.
Operating Temperature: 105°C
KT3 Colors: WH- White



KT4-WH

Base Mount
Ratings: 30A. 600V; UUCSA
Center Spacing: .250" (6.35)
Number of Poles: 4
Circuits per Foot: 48
Circuit Jumper: JN4, 4 circuits
Wire Size: AWG #10-22 CU
Screw Sire: #6-32
Mounting Options: Base Mount. Mounting screws recommended every 12 circuits.
Marking Tape: MTC6
Torque Rating: 18 in/lb max.
Operating Temperature: 105°C
KT4 Colors: WH- White

CE

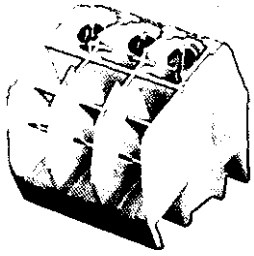


PLK3-WH

Base Mount
Ratings: 40A, 600V; UL
center spacing: ,390" (9.91)
Number of Poles: 3
Circuits per Foot: 28
Circuit Jumper: JN3, 2 circuits
Wire Size: AWG #8-22 CU
Screw Sire: #8-32
Mounting Options: Base Mount, Stackable. End Piece (Part No. KAD) is required for mounting. Mounting screws recommended every 15 circuits.
Marking Tape: MT1 2-½
Torque Rating: 18 in/lb max.
Operating Temperature: 105°C
PLK3 Colors: YE -Yellow
WH -White

CE

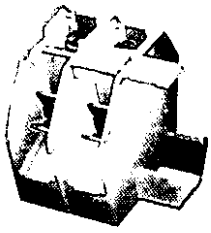
Quick Connect Terminal Blocks



NTQ23-WH

Ratings: 40A, 600V
Center Spacing: .390" (9.91)
Number of Poles: 3
Circuits per Foot: 28
Wire Sire: AWG #8-22 CU
Screw Size: #8-32
Mounting Options: C-rail
Marking Tape: MT12-½
Color: White-WH
Torque Rating: 18 in/lb max.
Operating Temperature: 105°C

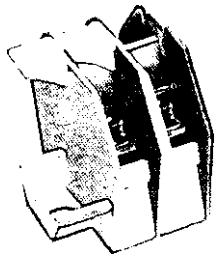
CE



BNQ21-WH

Ratings,: 40A, 600V; UL/CSA
Center Spacing: .437" (11 .10)
Number of Poles: 1
Circuits per Foot: 24
Wire Size: AWG #8-22 CU
Screw Size: #8-32
Quick Connects: ,250" x .031"
Mounting Options: Base Mount, Stackable. End Piece (Part No. BQE) is required for mounting. Mounting screws recommended every 8 circuits.
Torque Rating: 18 in/lb max.
Operating Temperature: 105°C

CE

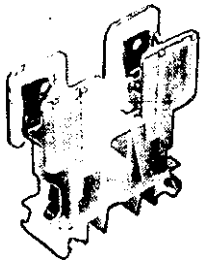


BQQ41-WH

Ratings: 30A. 600V; UL/CSA
center spacing: .437" (11 .10)
Number of Poles: 1
Circuits per Foot: 24
Wire Size: For use with quick connect terminals only.
Quick Connects: ,250" x .031"
Mounting Options: Base Mount, Stackable. End Piece (Part No. BQE) is required for mounting. Mounting screws recommended every 8 circuits.
Operating Temperature: 105°C

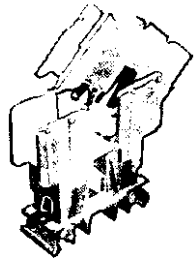
CE

Rail Mount **Fuseholders** and **Circuit** Breakers



NDNF1-WH

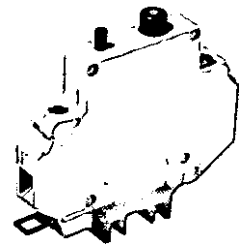
Ratings: 30A, 600V; UL/CSA
Number of Poles: 1
Fuse Size: 13/32" x 1½"
(KTK-R. FNQ-R or LP-CC).
Circuit Jumper: JF1, 2 circuits
Win? Size: AWG #8-22 CU
Mounting Options: 35mm DIN rail, C-rail
Marking Tape: MT12-½
Torque Rating: 18 in/lb max.
Operating Temperature: 105°C
NDNF1 Colors: WH White
Fuse Pullers (Optional):
PF1
Lighted neon or incandescent –
LPF-(Voltage rating)
LPF1-24
LPF1-120
LPF1-120-C
LPF1-220
LPF1-440



NDNLFD1

Ratings:
NDND1: 30A, 600V; UL/CSA (non-fused)
NDNFD1: 15A, 600V/CSA (fused)
NDNLFD1*: 15A, 600V (fused)
Number of Poles: 1
Fuse Size: ¼" x 1¼"
(Buss® AGC, MDL or equivalent.)
Circuit Jumper: JF1, 2 circuits
Wire Size: AWG #8-22 CU
Mounting Options: 35mm DIN rail, C-rail
Marking Tape: MT12-½
Torque Rating: 18 in/lb max.
Operating Temperature: 105°C
Extension: WH -White
*WH24 24V White
(Only available with NDNLFD1)

CE



UB Series

Ratings: .5 - 15A,
250VAC/65VDC; UL*/CSA/VDE
*For 9A 15A units, UL voltage ratings: 125VAC/65VDC
Number of Poles: 1
Max. Interrupt Cap.: 200A, but not over 1 00 times rated current.
Life: 4,000 cyc. 200% rated current: 6.000 cyc. rated current
Dielectric Strength: 1,500 VAC
Insulation Resist: 100 Megohms
Mounting Options: 35mm DIN rail. C-rail (Adapter required for C-rail, Part No. UBA-CR).
Weight: 3.2 oz.

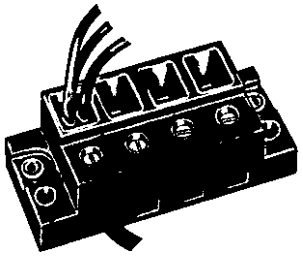
Part Numbering System

UB□□□ – BN

Series Amperage
001 – 150
(.1A – 15A)

For complete specification data, call Bussmann Information Fax ~ 636.527.1450

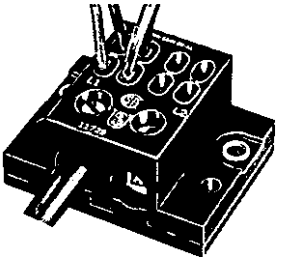
Power Distribution Blocks



Series 11676

Quick-Connect Power Distribution Block
Ratings: 40A, 250V; UUCSA
Poles: 2 to 6 poles with (3) .250" quick-connect terminals per pole.
Input wire Sizes: #8 – #14 cu
Torque Rating: 9 ivlb max.
Operating Temperature: 150°C
Design: For equipment that requires screw connections in the field. Reduces assembly costs of internal wiring.
Agency Approvals: UL E62622; CSA LR15364

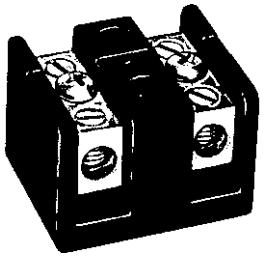
CE



Series 11726

Quick-Connect Power Distribution Block
Ratings: 70A, 600V; UUCSA
Poles: 2. 3 or 4 poles with (4) .250" quick-connect terminals per pole.
Input Wire Sizes: #2 – #14 CU/#8 AL
Torque **Rating:** 45 in/lb max.
Operating ***Temperature:*** 150°C
Design: For equipment that requires screw connections in the field. Reduces assembly costs of internal wiring.
Agency Approvals: UL E62622; CSA LR15364

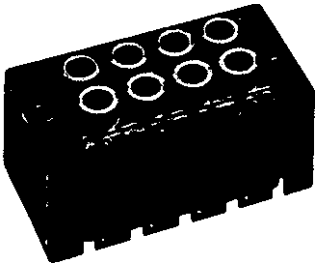
CE



Series 14002

Barrier Terminal **Block**
Ratings: 115A, 600V; UUCSA
Poles: 2 to 6 poles
Wire Sues: #2 – #14 CU/#8 AL
Operating Temperature: 150°C
Marking: Marking strip optional, consult factory
Options For **Load** Side Connector:
CP: Sems pressure plate, rated 60A, 600V
Q: Quick-Connect. rated 50A. 600V
To order options, enter letter code **In front** of Part No.: ie; CP14002-2.
Agency Approvals: UL E62622; CSA LR15364

CE

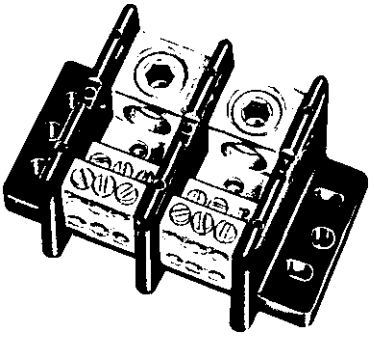


Series 14004

Dead Front Terminal Block
Ratings: 90A, 600V; UUCSA
Poles: 2 to 12 poles
Wire Sizes: #4 – #14 CU/#8 AL
Operating ***Temperature: 75°C***
Marking: Marking strip optional. consult factory.
Agency Approvals: UL E62622; CSA LR15364

CE

Power Distribution & Terminal Blocks



Series 160, 162, 163 & 165

Ratings: To 840A, 600V; UL Recognized/CSA. See Table

Materials: Molded material: Black, UL rated 94V-0 thermoplastic.

Operating Temperature: 150°C

Marking: Marker strip is optional; consult factory.

Agency Approvals: UL E62622 General Industrial Class per UL 1059: CSA LR15364; CE Pending.

Power Distribution **Blocks (600V)** Catalog Data

Part Number	Line Connection	Load Connection	Connector Material & Ampacity	Agency Approvals	
*16021	2/0-#14CU/#8AL	[5]#4-#14CU/#8AL	AL-175A	UL	CSA
*16023	350MCM-#6CU-AL	[5]#4-#14CU/#8AL	AL-310A	UL	CSA
16220	2/0-#14CU/#8AL	[4]#4-#14CU/#8AL	AL-175A	UL	CSA
16321	2/0-#14CU-AL	[5]#4-#14CU/#8AL	AL-175A	UL	CSA
16323	350MCM-#6CU-AL	[5]#4-#14CU/#8AL	AL-310A	UL	CSA
16325	[2]2/0-#14CU/#8AL	[5]#4-#14CU/#8AL	AL-350A	UL	CSA
16330	500MCM-#6CU-AL	[5]#2-#14CU/#8AL	AL-380A	UL	CSA
16332	350MCM-#6CU-AL	[3]#2-#14CU/#8AL [2]1/0-#14CU/#8AL	AL-310A	UL	CSA
16335	500MCM-#6CU-AL	[3]#2-#14CU/#8AL [2]1/0-#14CU/#8AL	AL-380A	UL	CSA —
16370	350MCM-#6CU-AL	[12]#4-#14CU/#8AL	AL-310A	UL	CSA
16371	350MCM-#6CU-AL	[5]#2-#14CU/#8AL [3]1/0-#14CU/#8AL	AL-310A	UL	CSA
16372	350MCM-#6CU-AL	[21]#10-#14CU/#10AL	AL-310A	UL	CSA
16373	350MCM-#6CU-AL	[3]1/0-#14CU/#8AL [14]#10-#14CU/#8AL	AL-310A	UL	CSA
16375	600MCM-#2CU-AL	[12]#4-#14CU/#8AL	AL-420A	UL	CSA
16376	600MCM-#2CU-AL	[5]#2-#14CU/#8AL [3]1/0-#14CU/#8AL	AL-420A	UL	CSA
16377	[2]300MCM-#2CU-AL	[12]#4-#14CU/#8AL	AL-570A	UL	—
16528	[2]600MCM-#2CU-AL	[4]3/0-#8CU-AL [4]#4-#14CU/#8AL	AL-840A	UL	CSA
16530	[2]500MCM-#6CU-AL	[12]#4-#14CU/#8AL	AL-760A	UL	CSA

*160 Series Bases have mounting holes outside the barriers. Other bases (162 through 165) have mounting holes within barriers. See BIF document for dimensional drawings.

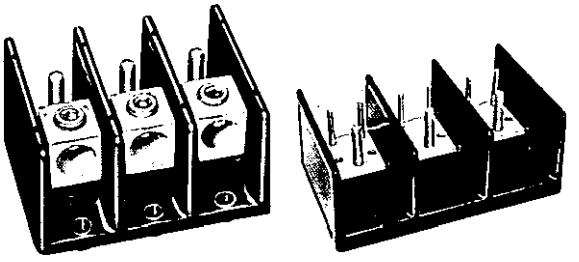
How To Order: Catalog Number + # of Poles

Example: 16020 - 3 (complete part number)

Optional **covers:** 160 series: CPB 160 (pole)
162 Series: CPB 162 (pole)
165 Series: CPB 165 (pole)

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 1117 (Series 160, 162, 165); 1148 (Series 163)



Series 162, 163, 165

Ratings: To 760A, 600V; UL Recognized/CSA. See Table.

Materials: Molded material: Black. UL rated 94V-0 thermoplastic.

Operating Temperature: 150°C

Agency Appmvals: UL E62622 General industrial Class per UL 1059; CSA LR1 5364; CE Pending.

Connector–Stud Blocks (600V) Catalog Data

Part Number	Line Connection	Load Connection	Connector Material & Ampacity	Agency Approvals	
Connector to Stud					
16280	2/0-#14CU/#8AL	¼-20 × ½ Stud	AL-175A	UL	CSA
16281	2/0-#14CU/#8AL	¼-20 Tapped hole	AL-175A	UL	CSA
16378	500MCM-#6CU-AL	[2]¼-20 × 1 Stud	AL-380A	UL	CSA
16383	500MCM-#6CU-AL	[13]⅜-16 × 1¼ Stud	AL-380A	UL	CSA
16582	[2]500MCM-#6CU-AL	[2]⅜-16 × 1⅝ Stud	AL-760A	UL	CSA
Stud to Stud					
16390	⅜-16 × 1⅛ Stud	⅜-16 × 1⅛ Stud	CU-250A	UL	CSA
16394	½-13 × 1 1/16 Stud	½-13 × 1 1/16 Stud	CU-400A	UL	CSA
16395	⅜-16 × 1 1/16 Stud	[2]¼-20 × 9/16 Stud	CU-310A	UL	CSA
16591	⅜-16 × 1 7/16 Stud	[2]⅜-16 × 1 7/16 Stud	CU-400A	UL	—
16593	½-13 × 1 Stud	½-13 × 1 Stud	CU-600A	UL	CSA

Series 160, 162, 163 and 165

Ratings: To 620A, 600V; UL Recognized/CSA. See Table.

Materials: Molded material: Black, UL rated 94V-0 thermoplastic.

Operating Temperature: 150°C

Marking: Marker strip is optional; consult factory

Agency **Approvals:** UL E62622 General Industrial Class per UL 1059; CSA LR15364; CE Pending.

Power Distribution Blocks **(600V)** Catalog Data

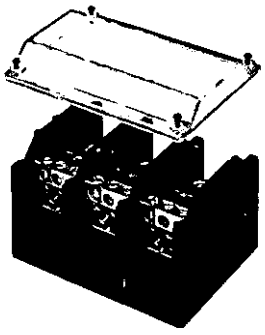
Part Number	Line Connection	Load Connection	Connector Material & Ampacity	Agency Approvals	
*16000	2/0-#8CU-AL	2/0-#8CU-AL	AL-175A	UL	—
*16003	250MCM-#6CU	250MCM-#6CU	CU-255A	UL	—
*16005	350MCM-#6CU-AL	350MCM-#6CU-AL	AL-310A	UL	—
16200	#2-#14CU/#8AL	#2-#14CU/#8AL	AL-115A	UL	CSA
16201	1/0-#14CU	1/0-#14CU	CU-150A	UL	CSA
16204	2/0-#8CU-AL	2/0-#8CU-AL	AL-175A	UL	CSA
16301	250MCM-#6CU	250MCM-#6CU	CU-255A	UL	CSA
16303	350MCM-#6CU-AL	350MCM-#6CU-AL	AL-310A	UL	CSA
16306	500MCM-#6CU-AL	500MCM-#6CU-AL	AL-380A	UL	CSA
16500	[2]350MCM-#4CU-AL	[2]350MCM-#4CU-AL	AL-620A	UL	CSA
16504	[2]500MCM-#6CU-AL	[2]500MCM-#6CU-AL	AL-760A	UL	CSA

*160 Series Bases have mounting holes outside the barriers. Other bases (162 through 165) have mounting holes within barriers. See BIF documents for dimensional drawings.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 1117 (Series 160, 162, 165)

Power Distribution Blocks



163 Series

(Replaces Bussmann 164 Series)

Ampere **Ratings:** up to 420 Amps.

Voltage Ratings: 600 Volts

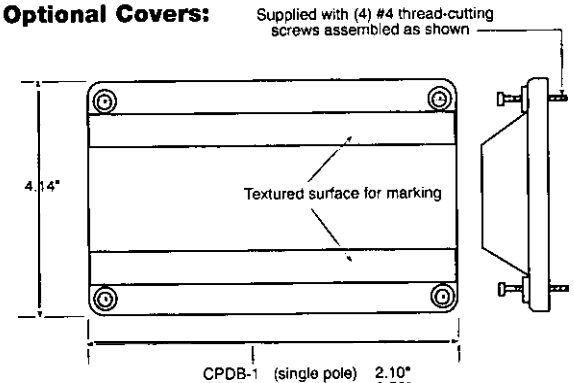
Construction: Thermoset plastic with UL rating 150°C. UL 94V0. Tin-plated aluminum connectors; contact factory for copper connector op

Agency **Approvals:**

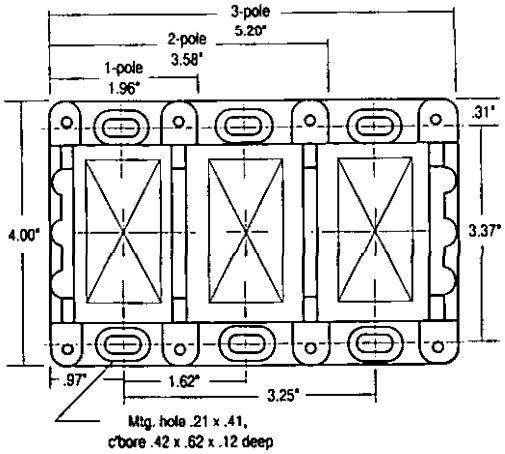
UL Recognized: UL E62622
General Industrial Class per UL1059

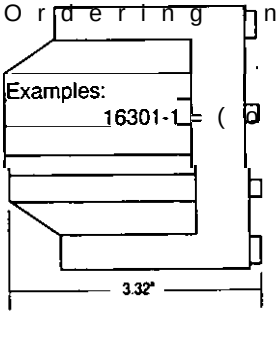
CSA Certified: CSA LR15364

Optional Covers:



CPDB-1 (single pole) 2.10"
CPDB-2 (two pole) 3.72"
CPDB-3 (three pole) 5.34"
Covers ordered and shipped separately.





Input/Output Termination Options

Basic Part No.	Wire Size Line Side	Wire Size Load Side	Amps/ Pole	Line/Load
16301*	250MCM-6	250MCM-6	255	
16303	350MCM-6	350MCM-6	310	
16306	500MCM-#6CU-AL	500MCM-#6CU-AL	380	
16321	2/0-14	(6)4-14	175	
16323	350MCM-6	(6)4-14	310	
16325	2/0-14	(6)4-14	350	
16330	500MCM-6	(6)2-14	380	
16332	350MCM-6	(3) 2-14 (2) 1/0-14	310	
16335	500MCM-6	(3) 2-14 (2) 1/0-14	310	
16370	350MCM-6	(12)4-14	310	
16371	350MCM-6	(6) 2-14 (3) 1/0-14	310	
16372	350MCM-6	(21) 10-14	310	
16373	350MCM-6	(14) 10-14 (3) 1/0-14	310	
16375	600MCM-2	(12)4-14	420	
16376	600MCM-2	(6) 2-14 (3) 1/0-14	420	
16377	(2)300MCM-#2CU-AL	(12)4-#14CU/#8AL	570	
16378	500MCM-4	Stud Size (2) ¼-20 x 1	380	
16383	500MCM-#6CU-AL	Stud Size 1⅜-16 x 1¼	380	
16390	Stud Size ⅜-16 x 1⅛	Stud Size ⅜-16 x 1⅛	250	
16394	Stud Size ½-13 x 1 1/16	Stud Size ½-13 x 1 1/16	400	
16395	Stud Size ⅜-16 x 1 7/16	Stud Size (2) ¼-20 x 9/16	310	

*Copper connectors for use with copper wire only.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

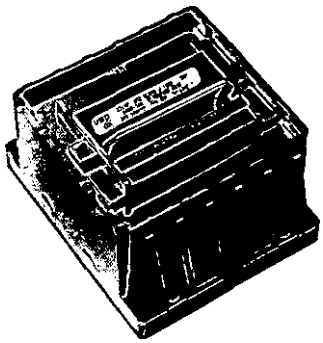
Ordering Information:

163 Series blocks are available in 1, 2 or 3 poles.
To order: Basic **Part** No. + Number of poles

Examples:
16301-1 = (one-pole block)
16303-3 = (three-pole block)

BIF document: 1148

Fused, Dead Front, Disconnect Switches



15 149 Series

Voltage Ratings! 600V AC, 30A

Agency **Approvals:**

UL Recognized, file EI 16716 for General Industrial installations. Guide WFXV2.

CSA certified, file LR37129-6

- In 2 and 3 poles.
- Class J fuses.
- Fuse holders in the pull-out head eliminate possibility of electric shock while changing fuse.
- Examined under the new proposed standard UL 1429 which imparts a stricter set of test conditions than the former program that combined the applicable portions for UL 512 (Fuse Holders) and UL 98 (Enclosed Switches).

Specifications

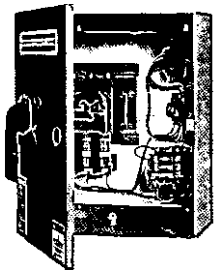
Voltage Rating	600V AC (maximum)
Current Rating	0 to 30A
Motor Rating	5 HP
Dielectric Withstand	2200V
Current Withstand	200,000 RMS Symmetrical Amperes

Ordering information:
15149 is available in 2 or 3 poles.
To order: Basic Part No. + number of poles
Example: 15149-2 = 2-pole device.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 1141

Power Modules



PS

Power Module Switch (All-in-one)
(Fusible switch with remote trip and fire safety interface)
Ampere Ratings: 30-400 Amps.
Voltage Ratings: 600V AC 3p fused power switch
Interrupting Ratings: 200,000 amp RMS
Agency Approval:
UL Listed (UL 98) Enclosed and Dead front switch
Guide 96NK3917, File EI62262
NEMA 1, UL 50 Listed enclosure
ULc per Canadian Standards C22.2, No. 0-M91-CAN/CSA C22.2, No. 4-M89 enclosed switch.

Horsepower Ratings (with Time-Delay Fuses)

	3-Pole		
Rating (Amps)	240	480	600
30	7½	15	20
60	15	30	50
100	30	60	75
200	60	125	150
400	125	250	350

Shunt Trip Requirements

Amp Rating	Voltage	Max Inrush	Max Ontime
30-100	120V, 60HZ	4 amps	1.5 cycles
200			
400			

Features and Options
- Shunt trip 120V
- Control power terminal block
- Ground lug per NEC
- Class J fuse mounting only
- Fire safety interface relay
- Control power transformer
- Control power fuses and blocks
- Key to test
- Pilot lights
- Neutral (200% available)
- NEMA 1, 3R, 4, & 12
- For added safety, use the Bussmann SAMI fuse covers to improve maintenance personnel protection (OSHA 1910.333. paragraph C).

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 1145

PMP

Power Module Panel (All-in-one)
(Fusible switch with remote trip and fire safety interface)
Ampere Ratings: 400-800 Amps. Bus MLO and/or Main Switch
Interrupting Ratings: 200,000 amp RMS
Agency Approval:
UL Listed (UL 67) Panel Boards, E181664(R) or (UL 691) Dead Front Switchboard, E181663(R)
ULc per Canadian Standards

Horsepower Ratings (with Time-Delay Fuses)

	AC Volts 3-Pole		
Rating (Amps)	240	480	600
30	7½	15	20
60	15	30	50
100	30	60	75
200	60	125	150
400	125	250	350
600	200	400	500
800	250	500	500

Shunt Trip Requirements

Amp Rating	Voltage	Max Inrush	Max Ontime
200	120V, 60HZ	4 amps	1.5 cycles
400-800			

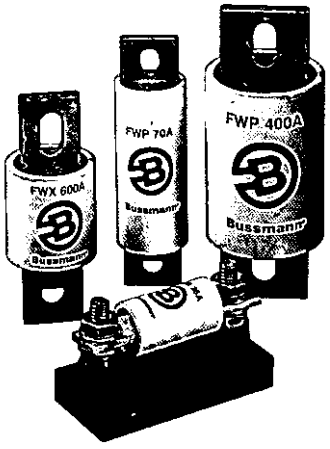
*Contact Bussmann for applications greater than 800 amp and switchboard construction.

Features and Options
- Feeder switches 30-400 amp, 600V AC with Class J clips
- copper BUS
- Shunt trip
- Fire safety interface relay
- Control power transformer with fuses and blocks
- Pilot lights
- Key to test
- Neutral (200% available)
- NEMA 1
- For added safety, use the Bussmann SAMI fuse covers to improve maintenance personnel protection (OSHA 1910.333. paragraph C).

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 1146

North American Style-General Information



Voltage Rating	
130V AC/DC	1000 to 4000 Amperes
150V AC/DC	70 to 1000 Amperes
250V AC/DC	35 to 2500 Amperes
500V AC/DC	35 to 1600 Amperes
600V AC	1 to 1000 Amperes
700V AC/DC	5 to 1200 Amperes
800V DC	35 to 600 Amperes
1000V AC, 700V DC	35 to 2000 Amperes

All Bussmann North American Style fuses are certified for their rated voltage.

Characteristics:

- Low energy let-thru (I^2t)
- LOW watts loss
- Superior cycling capability
- Low arc voltage
- Excellent DC performance

North American style fuses provide an excellent solution for medium power applications. While there are currently no published standards for these fuses. the industry has standardized on mounting centers that accept Bussmann fuses.

Accessories

Bussmann offers a comprehensive line of fuse bases that provide the user with design and manufacturing flexibility.

North American Style

FWA 130V

Voltage Rating: 130V AC/130V DC (13OV DC rating applies to 1000 through 2000 amperes only.)
Interrupting Rating: 200kA RMS Symmetrical.
Agency Approvals: UL Recognized, Std. 248-13
Watts loss provided at rated current.

Electrical Characteristics

Rated Current RMS-Amps	I^2t (A^2 SEC) @ 100kA Pre-arc	I^2t (A^2 SEC) @ 100kA Clearing at 130V	Watts Loss
1000	170000	460000	60.0
1200	270000	730000	70.0
1500	520000	1400000	78.0
2000	860000	2400000	108.0
2500	1500000	4100000	130.0
3000	2100000	5700000	150.0
4000	3400000	9200000	257.0

Ordering Information

Part Number	Carton Qty.	Carton Weight (lbs)
FWA-1000AH	1	3.3
FWA-1200AH	1	3.3
FWA-1500AH	1	3.3
FWA-2000AH	1	3.3
FWA-2500AH	1	3.3
FWA-3000AH	1	3.3
FWA-4000AH	1	3.3

BIF document: 720001

FWA 150V

Voltage Rating: 150V AC/150V DC (15OV DC rating applies to 70 through 800 amperes only.)
Interrupting Rating: 100kA RMS Symmetrical.
Agency Approvals: UL Recognized, Std. 248-13
Watts loss provided al rated current.

Electrical Characteristics

Rated Current RMS-Amps	I^2t (A^2 SEC) @ 100kA Pre-arc	I^2t (A^2 SEC) @ 100kA Clearing at 150V	Watts Loss
70	470	4000	6.9
80	670	6000	7.7
100	1200	12000	9.0
125	1870	18000	11.2
150	2700	26000	13.5
200	4780	45000	17.6
250	7470	70000	22.5
300	10760	100000	27.0
350	15700	140000	30.6
400	20300	180000	35.2
500	39000	120000	35.0
600	46000	140000	47.0
700	75000	220000	49.0
800	92000	280000	58.0
1000	170000	510000	60.0

Ordering Information

Part Number	Carton Qty.	Carton Weight (lbs)
FWA-70A	10	1.76
FWA-80A	10	1.76
FWA-100A	10	1.76
FWA-125A	10	1.76
FWA-150A	10	1.76
FWA-200A	10	1.76
FWA-250A	10	1.76
FWA-300A	10	1.76
FWA-350A	10	1.76
FWA-400A	10	1.76
FWA-500A	5	2.42
FWA-600A	5	2.42
FWA-700A	5	2.42
FWA-800A	5	2.42
FWA-1000A	5	2.42

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 720002

North American Style

FWX 250V

Voltage Rating: 250V AC/250V DC (250V DC rating on 35 through 800 amperes only.)
Interrupting Rating: 200kA RMS Symmetrical.
Agency Approvals:
UL Recognized, Std. 248-13

Watts loss provided at rated current.

Electrical Characteristics **Ordering Information**

Rated Current RMS-Amps	I^2t (A^2 SEC) @ 100kA Pre-arc	I^2t (A^2 SEC) @ 100kA Clearing at 250V	Watts Loss	Part Number	Carton Qty.	Carton Weight (lbs)
35	50	230	4.2	FWX-35A	5	1.40
40	60	310	5.2	FWX-40A	5	1.40
45	80	390	5.7	FWX-45A	5	1.40
50	100	520	6.0	FWX-50A	5	1.40
60	140	740	8.1	FWX-60A	5	1.40
70	330	1400	7.2	FWX-70A	1	0.32
80	430	1850	8.1	FWX-80A	1	0.32
90	570	2450	9.0	FWX-90A	1	0.32
100	740	3150	10.0	FWX-100A	1	0.32
125	1130	4850	12.5	FWX-125A	1	0.32
150	1620	6950	15.7	FWX-150A	1	0.32
175	2170	9300	18.5	FWX-175A	1	0.32
200	2790	12000	22	FWX-200A	1	0.32
225	3210	14700	24	FWX-225A	1	0.52
250	3960	18100	27	FWX-250A	1	0.52
275	4720	21600	31	FWX-275A	1	0.52
300	6000	27300	32	FWX-300A	1	0.52
350	10600	48600	39	FWX-350A	1	0.52
400	14500	66100	44	FWX-400A	1	0.52
450	22100	101000	49	FWX-450A	1	0.52
500	28000	128000	54	FWX-500A	1	0.52
600	41100	188000	62	FWX-600A	1	0.52
700	48800	190000	72	FWX-700A	1	0.90
800	59000	230000	84	FWX-800A	1	0.90
1000	44000	360000	100	FWX-1000AH	1	2.86
1200	92000	750000	103	FWX-1200AH	1	2.86
1500	120000	880000	140	FWX-1500AH	1	2.86
1600	160000	1200000	140	FWX-1600AH	1	2.86
2000	320000	2300000	151	FWX-2000AH	1	2.86
2500	670000	4700000	163	FWX-2500AH	1	2.86

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

North American Style

FWH **500V**

Voltage Rating: 500V AC/500V **DC** (500V **DC rating applies to 35 through** 800 **amperes only.)**

Interrupting Rating: 200kA **RMS Symmetrical.**

Agency Approvals: **UL Recognized, Std.** 248-13, 35-1200A; **CSA Component Acceptance** 35-1600A

Watts loss provided at rated current.

Electrical Characteristics

Ordering Information

Rated Current RMS-Amps	I^2t (A^2 SEC) @ 100kA Pre-arc	Clearing at 500V	Watts Loss	Part Number	Carton Qty.	Carton Weight (lbs)
35	34	150	.8	FWH- 35B	10	1.34
40	76	320	7.5	FWH-40B	10	1.34
45	105	450	7.5	FWH-45B	10	1.34
50	135	670	7.5	FWH-50B	10	1.34
60	210	900	9.9	FWH-60B	10	1.34
70	210	900	10.6	FWH-70B	10	2.05
80	305	1400	12.7	FWH-80B	10	2.05
90	360	1600	15	FWH-90B	10	2.05
100	475	2000	17	FWH-100B	10	2.05
125	800	3500	25	FWH-125B	5	1.65
150	1100	4600	30	FWH-150B	5	1.65
175	1450	6200	35	FWH-175B	5	1.65
200	1900	8500	40	FWH-200B	5	1.65
225	4600	23300	39	FWH-225A	1	0.57
250	6300	32200	41	FWH-250A	1	0.57
275	7900	40300	46	FWH-275A	1	0.57
300	9800	49800	51	FWH-300A	1	0.57
325	13700	63800	53	FWH-325A	1	0.57
350	14500	72900	58	FWH-350A	1	0.57
400	19200	96700	65	FWH-400A	1	0.57
450	24700	127000	74	FWH-450A	1	1.00
500	29200	149000	84	FWH-500A	1	1.00
600	41300	206000	108	FWH-600A	1	1.00
700	55000	298000	120	FWH-700A	1	2.14
800	76200	409000	129	FWH-800A	1	2.14
1000	92000	450000	145	FWH-1000A	1	4.62
1200	122000	600000	180	FWH 1200A	1	4.62
1400	200000	1000000	210	FWH-1400A	1	11.66
1600	290000	1400000	230	FWH-1600A	1	11.66

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 720007

North American Style

KAC 600V

Voltage Rating: 600V AC
Interrupting Rating: 200kA
RMS Symmetrical.
Agency Approvals:
UL Recognized, Std. 248-13,1-600A

- For new installations, Bussmann recommends the 700 Volt FWP series fuse. The 600V fuses are supplied as replacements only.

Ordering Information

Part Number	Carton Qty.	Carton Weight (lbs)
KAC-1	10	0.50
KAC-2	10	0.50
KAC-3	10	0.50
KAC-5	10	0.50
KAC-6	10	0.50
KAC-7	10	0.50
KAC-8	10	0.50
KAC-9	10	0.50
KAC-10	10	0.50
KAC-12	10	0.50
KAC-15	10	0.50
KAC-17.5	10	0.50
KAC-20	10	0.50
KAC-25	10	0.50
KAC-30	10	0.50
KAC-35	10	1.40
KAC-40	10	1.40
KAC-45	10	1.40
KAC-50	10	1.40
KAC-60	10	1.40
KAC-70	5	1.56
KAC-80	5	1.56
KAC-90	5	1.56
KAC-100	5	1.56
KAC-110	1	0.78
KAC-125	1	0.78
KAC-150	1	0.78
KAC-175	1	0.78
KAC-200	1	0.78
KAC-225	1	1.92
KAC-250	1	1.92
KAC-300	1	1.92
KAC-350	1	1.92
KAC-400	1	1.92
KAC-450	1	3.16
KAC-500	1	3.16
KAC-600	1	3.16
KAC-700	1	3.16
KAC-800	1	3.16
KAC-1000	1	6.24

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 720009

KBC 600V

Voltage Rating: 600V AC
Interrupting Rating: 200kA
RMS Symmetrical.
Agency Approvals:
JL Recognized. Std. 248-13,
35-600A

- For new installations, Bussmann recommends the 700 Volt FWP series fuse. The 600V fuses are supplied as replacements only.

Ordering Information

Part Number	Carton Qty.	Carton Weight (lbs)
KBC-35	10	1.40
KBC-40	10	1.40
KBC-45	10	1.40
KBC-50	10	1.40
KBC-60	10	1.40
KBC-70	5	1.44
KBC-80	5	1.44
KBC-90	5	1.44
KBC-100	5	1.44
KBC-110	1	0.48
KBC-125	1	0.48
KBC-150	1	0.48
KBC-175	1	0.48
KBC-200	1	0.48
KBC-225	1	0.77
KBC-250	1	0.77
KBC-300	1	0.77
KBC-350	1	0.77
KBC-400	1	0.77
KBC-450	1	1.32
KBC-500	1	1.32
KBC-600	1	1.32
KBC-800	1	4.50

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 720010

North American Style

FWP 700V

Voltage Rating: 700V AC/700V DC (7OOV DC rating applies to 5 through 800 amperes only.)

Interrupting Rating: 200kA RMS Symmetrical.

Agency Approvals: UL Recognized. Std. 248-13, 5-800A; CSA Component Acceptance, 35-100A & 700-800A

Watts loss provided at rated current.

CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Electrical Characteristics **Ordering Information**

Rated Current RMS-Amps	I^2t (A^2 SEC) @ 100kA Pre-arc	I^2t (A^2 SEC) @ 100kA Clearing at 700V	Watts Loss	Part Number	Carton Qty.	Carton Weight (lbs)
5	1.6	10	1.5	FWP-5B	10	2.25
10	3.6	20	4	FWP-10B	10	2.25
15	10	75	5.5	FWP-15B	10	2.25
20	26	180	6	FWP-20B	10	2.25
25	44	340	7	FWP-25B	10	2.25
30	58	450	9	FWP-30B	10	2.25
35	34	160	12	FWP-35B	10	2.42
40	76	320	12	FWP-40B	10	2.42
50	135	600	12	FWP-50B	10	2.42
60	210	950	15.5	FWP-60B	10	2.42
70	305	1400	18	FWP-70B	10	2.42
80	360	1600	21	FWP-80B	10	2.42
90	415	1900	25	FWP-90B	10	2.42
100	540	2500	27	FWP-100B	10	2.42
125	1800	7300	28	FWP-125A	1	0.65
150	2900	11700	32	FWP-150A	1	0.65
175	4200	16700	35	FWP-175A	1	0.65
200	5500	22000	43	FWP-200A	1	0.65
225	7700	31300	45	FWP-225A	1	1.17
250	10500	42500	48	FWP-250A	1	1.17
300	17600	71200	58	FWP-300A	1	1.17
350	23700	95600	65	FWP-350A	1	1.17
400	31000	125000	78	FWP-400A	1	1.17
450	36400	137000	94	FWP-450A	1	2.39
500	45200	170000	107	FWP-500A	1	2.39
600	66700	250000	122	FWP-600A	1	2.39
700	54000	300000	125	FWP-700A	1	1.21
800	78000	450000	140	FWP-800A	1	1.21
900	91500	530000	150	FWP-900A	1	6.60
1000	120000	600000	170	FWP-1000A	1	6.60
1200	195000	1100000	190	FWP-1200A	1	6.60

BIF document: 720012

North American Style

FWJ 1000V

Voltage Rating: 1000V AC/800V **DC** (Ampere **ratings** 35-200 **and** 500-600 **rated** up **to 800V'DCj**
Interrupting Rating: 25kA **for** 35-200A, 100kA **for** 250-600A
Agency Approvals:
UL Recognition through 600 amperes only, Std 248-13
Watts loss provided at rated current.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Electrical Characteristics **Ordering Information**

Rated Current RMS-Amps	I^2t (A^2 SEC) @ 100kA Pre-arc	Clearing at 130V	Watts Loss	Part Number	Carton Qty.	Carton Weight (lbs)
35	210	2000	7	FWJ-35A	10	4.18
40	300	2500	8	FWJ-40A	10	4.18
50	470	3500	10	FWJ-50A	10	4.18
60	670	5000	11	FWJ-60A	10	4.18
70	1100	6900	12	FWJ-70A	10	4.18
80	1550	9700	13	FWJ-80A	10	4.18
90	1900	12000	14	FWJ-90A	10	4.18
100	2800	17500	15	FWJ-100A	10	4.18
125	4800	35000	16	FWJ-125A	1	4.40
150	6300	45000	25	FWJ-150A	1	4.40
175	7500	65000	30	FWJ-175A	1	4.40
200	11700	80000	32	FWJ-200A	1	4.40
250	9000	50000	50	FWJ-250A	1	4.84
300	15000	80000	56	FWJ-300A	1	4.84
350	22000	120000	62	FWJ-350A	1	4.84
400	32000	180000	67	FWJ-400A	1	4.84
500	28500	155000	95	FWJ-500A	1	4.84
600	46500	260000	105	FWJ-600A	1	4.84
800	87000	500000	182	FWJ-800A	1	5.28
1000	190000	1100000	206	FWJ-1000A	1	5.28
1200	370000	2100000	240	FWJ-1200A	1	5.28
1400	470000	2700000	248	FWJ-1400A	1	5.28
1600	700000	4000000	267	FWJ-1600A	1	5.28
1800	925000	5300000	239	FWJ-1800A	1	5.28
2000	1330000	7600000	244	FWJ-2000A	1	5.28

North American Style Fuseblocks

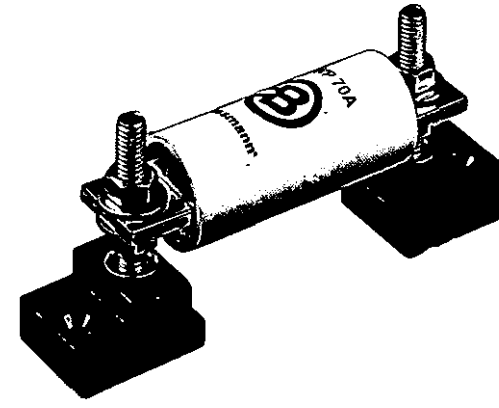
Modular Style

Bussmann offers a comprehensive line of fuse bases that provide the user with design and manufacturing flexibility Two identical half bases make up a Buss Modular fuse base. These "split" units can be panel mounted any distance apart to accommodate any length fuse.

Stud **Type**

The simpler design is the C5268 Series Modular fuse base. With this design, the fuse terminal and cable (with termination) are mounted on the same stud, minimizing labor needed for installation. The stud Type Base is available in the configuration shown in the table below. (Must order 2 pieces per fuse, they do not come in pairs.)

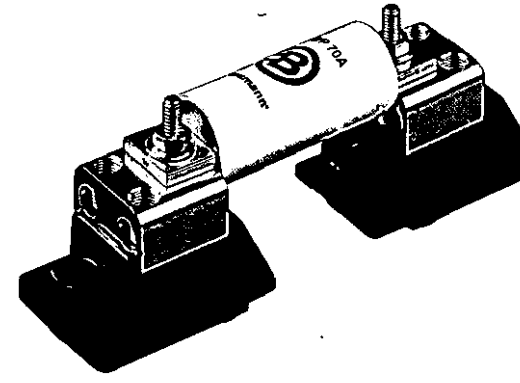
PartNO.	Stud Heights	Stud Dia. & Threads
C5268-1	1.00"	5/16-18
C5268-2	1.75"	5/16-18
C5268-3	0.75	5/16-18
C5268-4	1.00"	1/4-20
C5268-5	,.75"	1/4-20



Connector Type

Bussmann also offers a modular style fuse base that utilizes a tin plated connector (for wire termination and heat dissipation) and a plated steel stud (for fuse mounting). The connector type fuse base is available in the configurations shown below. Consult Bussmann for additional product details. (Order 1 piece per fuse, parts come in pairs.)

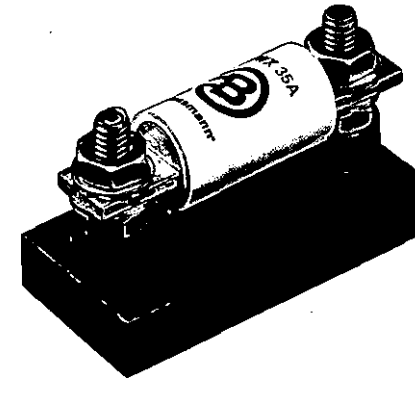
Modular Base Style	Max. Voltage	Max. Fuse Current Rating
BH-0 Series	700V	100A
BH-1 Series	2500V	400A
BH-2 Series	5000V	400A
BH-3 Series	1250V	700A



See page 85.

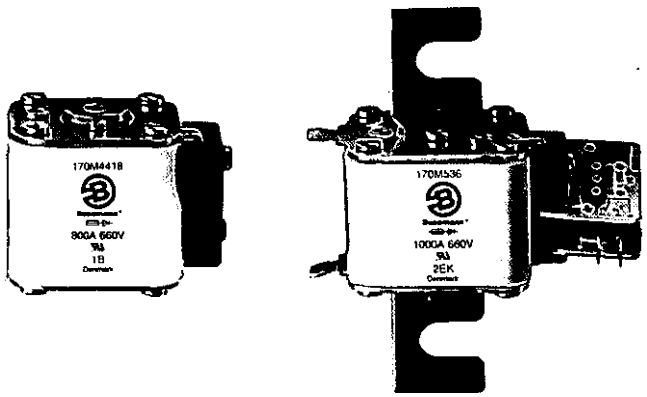
Fixed Center Base Style

Bussmann offers a comprehensive line of fixed mount style fuse bases under the trademark TRON® Rectifier Fuseblocks. The cable and fuse connections are similar to the Stud Type fuse base — both are mounted on the same stud. Consult Bussmann for complete product details.



CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

European Style Square Body-General Information



Voltage Rating	
690 Volt AC	10 to 7500 Amperes
1250 Volt AC	50 to 1400 Amperes

All Bussmann European Style fuses are tested to IEC 60269, Part 4. This standard requires a test voltage which is 10% higher than the rated voltage. In North America, fuses are required to clear only their rated voltage.

Characteristics

Designed and tested to:

- IEC 60269: Part 4
- UL Recognized
- Minimal energy let-thru (I^2t)
- Low operating temperature
- LOW watts loss

General Information

Each European Style fuse is available with a number of different end fittings. Options include:

- DIN 43 653
- North American Slotted Blade
- DIN 43 620
- Flush End (Metric/U.S.)
- French Style

Accessories

European Style fuses are available with three different open fuse indicator systems. Options include visual indication and indication utilizing a microswitch. Fuseblocks are also available for most applications.

European Style Square Body

DIN 43 653-10-400 Amps.

Voltage Rating: 690V (IEC/UL)

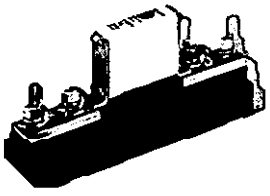
Interrupting Rating: 300kA RMS Symmetrical (estimated)

UL Recognized, Std. 248-13

Watts loss provided at rated current.

Microswitch indicator ordered separately.

See bottom of page 138.



CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Electrical Characteristics **Ordering Information**

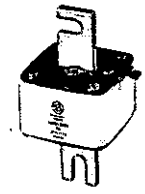
Size	Rated Current RMS-Amps	I^2t (A^2s) Pre-arc	I^2t (A^2s) Clearing at 660V	Watts Loss	Protection Class	-U/80 Without Indicator	-/80 Visual Indicator	-TN/80 Type T Indicator for Micro	Carton Qty.	Carton Weight (Kg)
000	10	3.8	25.5	3.0	gR	170M1308*	170M1358*	170M1408*	10	1.34
	16	7.2	48	5.5	gR	170M1309*	170M1359*	170M1409*	10	1.34
	20	11.5	78	7	gR	170M1310*	170M1360*	170M1410*	10	1.34
	25	19	130	9	gR	170M1311*	170M1361*	170M1411*	10	1.34
	32	40	270	10	gR	170M1312*	170M1362*	170M1412*	10	1.34
	40	69	460	12	gR	170M1313*	170M1363*	170M1413*	10	1.34
	50	115	770	15	gR	170M1314*	170M1364*	170M1414*	10	1.34
	63	215	1450	16	gR	170M1315*	170M1365*	170M1415*	10	1.34
	80	380	2550	19	aR	170M1316*	170M1366*	170M1416*	10	1.34
	100	695	4650	24	aR	170M1317*	170M1367*	170M1417*	10	1.34
	125	1200	8500	28	aR	170M1318*	170M1368*	170M1418*	10	1.34
	160	2300	16000	32	aR	170M1319*	170M1369*	170M1419*	10	1.34
	200	4200	28000	37	aR	170M1320*	170M1370*	170M1420*	10	1.34
	250	7750	51500	42	aR	170M1321*	170M1371*	170M1421*	10	1.34
	315	12000	80500	52	aR	170M1322*	170M1372*	170M1422*	10	1.34
00	25	19	130	6	gR	—	170M2608	170M2658	5	1.05
	32	28.5	195	7	gR	—	170M2609	170M2659	5	1.05
	40	50	360	9	gR	—	170M2610	170M2660	5	1.05
	50	95	640	10	gR	—	170M2611	170M2661	5	1.05
	63	170	1200	12	gR	—	170M2612	170M2662	5	1.05
	80	310	2100	15	gR	—	170M2613	170M2663	5	1.05
	100	620	4150	20	aR	—	170M2614	170M2664	5	1.05
	125	1000	6950	25	aR	—	170M2615	170M2665	5	1.05
	160	1900	13000	30	aR	—	170M2616	170M2666	5	1.05
	200	3400	23000	35	aR	—	170M2617	170M2667	5	1.05
	250	6250	42000	45	aR	—	170M2618	170M2668	5	1.05
	315	10000	68500	55	aR	—	170M2619	170M2669	5	1.05
	350	13500	91500	60	aR	—	170M2620	170M2670	5	1.05
	400	18000	125000	70	aR	—	170M2621	170M2671	5	1.05

*UL Recognized.

European Style Square Body

DIN 43 **653—40-2000** Amps.

Voltage Rating: 690V (IEC) & 700V (UL)
Interrupting Rating: 300kA RMS Symmetrical (estimated)
Agency Approvals:
UL Recognized, Std. 248-13 CE
Watts loss provided at rated current.
Microswitch indicator ordered separately. See bottom of page *138.*



Electrical Characteristics **Ordering Information**

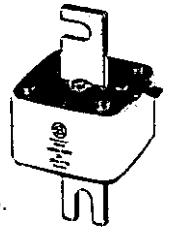
Size	Rated Current RMS-Amps	I^2t (A^2s) Pre-arc	I^2t (A^2s) Clearing at 660V	Watts Loss	-/80 Visual Indicator	-TN/80 Type T Indicator for Micro	-/110 Visual Indicator	-TN/110 Type T Indicator for Micro	Carton Qty.	Carton Weight (Kg)
1*	40	40	270	9	170M3008*	170M3058*	170M3158*	170M3208*	5	1.50
	50	77	515	11	170M3009*	170M3059*	170M3159*	170M3209*	5	1.50
	63	115	770	14	170M3010*	170M3060*	170M3160*	170M3210*	5	1.50
	80	185	1250	18	170M3011*	170M3061*	170M3161*	170M3211*	5	1.50
	100	360	2450	21	170M3012*	170M3062*	170M3162*	170M3212*	5	1.50
	125	550	3700	26	170M3013*	170M3063*	170M3163*	170M3213*	5	1.50
	160	1100	7500	30	170M3014*	170M3064*	170M3164*	170M3214*	5	1.50
	200	2200	15000	35	170M3015*	170M3065*	170M3165*	170M3215*	5	1.50
	250	4200	28500	40	170M3016*	170M3066*	170M3166*	170M3216*	5	1.50
	315	7000	46500	50	170M3017*	170M3067*	170M3167*	170M3217*	5	1.50
	350	10000	68500	55	170M3018*	170M3068*	170M3168*	170M3218*	5	1.50
	400	15000	105000	60	170M3019*	170M3069*	170M3169*	170M3219*	5	1.50
	450	21000	140000	65	170M3020*	170M3070*	170M3170*	170M3220*	5	1.50
	500	27000	180000	70	170M3021*	170M3071*	170M3171*	170M3221*	5	1.50
	550	34000	230000	75	170M3022*	170M3072*	170M3172*	170M3222*	5	1.50
	630	48500	325000	80	170M3023*	170M3073*	170M3173*	170M3223*	5	1.50
1	200	1650	11500	45	170M4008*	170M4058*	170M4158*	170M4208*	3	1.29
	250	3100	21000	55	170M4009*	170M4059*	170M4159*	170M4209*	(-/80)	—
	315	6200	42000	58	170M4010*	170M4060*	170M4160*	170M4210*	—	—
	350	8500	59000	60	170M4011*	170M4061*	170M4161*	170M4211*	2	0.94
	400	13500	91500	65	170M4012*	170M4062*	170M4162*	170M4212*	(-/110)	—
	450	17000	120000	70	170M4013*	170M4063*	170M4163*	170M4213*	—	—
	500	25000	170000	72	170M4014*	170M4064*	170M4164*	170M4214*	—	—
	550	34000	230000	75	170M4015*	170M4065*	170M4165*	170M4215*	—	—
	630	52000	350000	80	170M4016*	170M4066*	170M4166*	170M4216*	—	—
	700	69500	465000	85	170M4017*	170M4067*	170M4167*	170M4217*	—	—
	800	105000	725000	95	170M4018*	170M4068*	170M4168*	170M4218*	—	—
	‡900	155000	‡850000	100	170M4019	170M4069	170M4169	170M4219	—	—
2	400	11000	74000	65	170M5008*	170M5058*	170M5158*	170M5208*	2	1.20
	450	15500	105000	70	170M5009*	170M5059*	170M5159*	170M5209*	2	1.20
	500	21500	145000	75	170M5010*	170M5060*	170M5160*	170M5210*	2	1.20
	550	28000	190000	80	170M5011*	170M5061*	170M5161*	170M5211*	2	1.20
	630	41000	275000	90	170M5012*	170M5062*	170M5162*	170M5212*	2	1.20
	700	60500	405000	95	170M5013*	170M5063*	170M5163*	170M5213*	2	1.20
	800	86000	575000	105	170M5014*	170M5064*	170M5164*	170M5214*	2	1.20
	900	125000	840000	110	170M5015*	170M5065*	170M5165*	170M5215*	2	1.20
	1000	180000	1250000	115	170M5016*	170M5066*	170M5166*	170M5216*	2	1.20
	1100	245000	1600000	120	170M5017*	170M5067*	170M5167*	170M5217*	2	1.20
	1250	365000	2400000	130	170M5018*	170M5068*	170M5168*	170M5218*	2	1.20
3	500	14000	95000	95	170M6008*	170M6058*	170M6158*	170M6208*	2	1.66
	550	19500	135000	100	170M6009*	170M6059*	170M6159*	170M6209*	(-/80)	—
	630	31000	210000	105	170M6010*	170M6060*	170M6160*	170M6210*	—	—
	700	44500	300000	110	170M6011*	170M6061*	170M6161*	170M6211*	1	0.89
	800	69500	465000	115	170M6012*	170M6062*	170M6162*	170M6212*	(-/110)	—
	900	100000	670000	120	170M6013*	170M6063*	170M6163*	170M6213*	—	—
	1000	140000	945000	125	170M6014*	170M6064*	170M6164*	170M6214*	—	—
	1100	190000	1300000	130	170M6015*	170M6065*	170M6165*	170M6215*	—	—
	1250	290000	1950000	140	170M6016*	170M6066*	170M6166*	170M6216*	—	—
	1400	370000	2450000	155	170M6017*	170M6067*	170M6167*	170M6217*	—	—
	1500	460000	3100000	160	170M6018*	170M6068*	170M6168*	170M6218*	—	—
	1600	580000	3900000	160	170M6019*	170M6069*	170M6169	170M6219	—	—
	†1800	880000	†5250000	165	170M6020	170M6070	170M6170	170M6220	—	—
	‡2000	1150000	‡6350000	175	170M6021	170M6071	170M6171	170M6221	—	—

*UL Recognized. Rated voltage †600V ‡550V

European Style Square Body

DIN 43 653-40-2000 Amps.

Voltage Rating: 690V (IEC) 8 700V (UL)
Interrupting Rating: 300kA RMS Symmetrical (estimated)
Agency **Approvals:**
UL Recognized. Std. 248-13 CE
Watts loss provided at rated current.
Microswitch indicator ordered separately. See bottom of page 136.



Electrical Characteristics **Ordering Information**

Size	Rated Current RMS-Amps	I^2t (A^2s) Pre-arc	I^2t (A^2s) Clearing at 660V	Watts Loss	-KN/80 Type K Indicator for Micro	-KN/110 Type K Indicator for Micro	Carton Qty.	Carton Weight (Kg)
1*	40	40	270	9	170M3108*	170M3258*	5	1.60
	50	77	515	11	170M3109*	170M3259*	5	1.60
	63	115	770	14	170M3110*	170M3260*	5	1.60
	80	185	1250	18	170M3111*	170M3261*	5	1.60
	100	360	2450	21	170M3112*	170M3262*	5	1.60
	125	550	3700	26	170M3113*	170M3263*	5	1.60
	160	1100	7500	30	170M3114*	170M3264*	5	1.60
	200	2200	15000	35	170M3115*	170M3265*	5	1.60
	250	4200	28500	40	170M3116*	170M3266*	5	1.60
	315	7000	46500	50	170M3117*	170M3267*	5	1.60
	350	10000	68500	55	170M3118*	170M3268*	5	1.60
	400	15000	105000	60	170M3119*	170M3269*	5	1.60
	450	21000	140000	65	170M3120*	170M3270*	5	1.60
	500	27000	180000	70	170M3121*	170M3271*	5	1.60
	550	34000	230000	75	170M3122*	170M3272*	5	1.60
	630	48500	325000	80	170M3123*	170M3273*	5	1.60
1	200	1650	11500	45	170M4108*	170M4258*	3	1.38
	250	3100	21000	55	170M4109*	170M4259*	(-/80)	—
	315	6200	42000	58	170M4110*	170M4260*	—	—
	350	8500	59000	60	170M4111*	170M4261*	2	1.00
	400	13500	91500	65	170M4112*	170M4262*	(-/110)	—
	450	17000	120000	70	170M4113*	170M4263*	—	—
	500	25000	170000	72	170M4114*	170M4264*	—	—
	550	34000	230000	75	170M4115*	170M4265*	—	—
	630	52000	350000	80	170M4116*	170M4266*	—	—
	700	69500	465000	85	170M4117*	170M4267*	—	—
	800	105000	725000	95	170M4118*	170M4268*	—	—
	‡900	155000	‡850000	100	170M4119	170M4269	—	—
2	400	11000	74000	65	170M5108*	170M5258*	2	1.26
	450	15500	105000	70	170M5109*	170M5259*	2	1.26
	500	21500	145000	75	170M5110*	170M5260*	2	1.26
	550	28000	190000	80	170M5111*	170M5261*	2	1.26
	630	41000	275000	90	170M5112*	170M5262*	2	1.26
	700	60500	405000	95	170M5113*	170M5263*	2	1.26
	800	86000	575000	105	170M5114*	170M5264*	2	1.26
	900	125000	840000	110	170M5115*	170M5265*	2	1.26
	1000	180000	1250000	115	170M5116*	170M5266*	2	1.26
	1100	245000	1600000	120	170M5117*	170M5267*	2	1.26
	1250	365000	2400000	130	170M5118*	170M5268*	2	1.26
3	500	14000	95000	95	170M6108*	170M6258*	1	0.92
	550	19500	135000	100	170M6109*	170M6259*	1	0.92
	630	31000	210000	105	170M6110*	170M6260*	1	0.92
	700	44500	300000	110	170M6111*	170M6261*	1	0.92
	800	69500	465000	115	170M6112*	170M6262*	1	0.92
	900	100000	670000	120	170M6113*	170M6263*	1	0.92
	1000	140000	945000	125	170M6114*	170M6264*	1	0.92
	1100	190000	1300000	130	170M6115*	170M6265*	1	0.92
	1250	290000	1950000	140	170M6116*	170M6266*	1	0.92
	1400	370000	2450000	155	170M6117*	170M6267*	1	0.92
	1500	460000	3100000	160	170M6118*	170M6268*	1	0.92
	1600	580000	3900000	160	170M6119*	170M6269*	1	0.92
	†1800	880000	†5250000	165	170M6120	170M6270	1	0.92
	‡2000	1150000	‡6350000	175	170M6121	170M6271	1	0.92

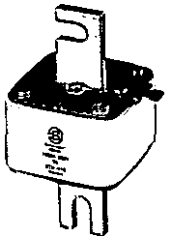
*UL Recognized. Rated voltage †600V ‡550V

BIF document: 720015

European Style Square Body

DIN 43 653-60-1400 Amps.

Voltage Rating: 125OV (IEC)/1300V (UL)
Interrupting Rating: 300kA RMS Symmetrical (estimated)
Agency Approvals:
UL Recognized, Std. 248-13 CE
Watts loss provided at rated current.
Microswitch indicator ordered separately. See bottom of page 138..



Electrical Characteristics Ordering Information

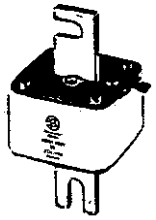
Size	Rated Current RMS-Amps	I^2t (A^2s) Pre-arc	I^2t (A^2s) Clearing at 1000V	I^2t (A^2s) Clearing at 1250V	Watts Loss	-/110 Visual Indicator	-TN/110 Type T Indicator for Micro	Carton Qty.	Carton Weight (Kg)
	50	135	815	1100	15	170M3138*	170M3188*	5	1.90
	63	215	1300	1750	20	170M3139*	170M3189*	5	1.90
	80	420	2500	3350	25	170M3140*	170M3190*	5	1.90
	100	750	4450	5950	30	170M3141*	170M3191*	5	1.90
	125	1450	9000	11500	35	170M3142*	170M3192*	5	1.90
1"	160	2600	16000	21000	40	170M3143*	170M3193*	5	1.90
	200	5150	31000	41000	45	170M3144*	170M3194*	5	1.90
	250	9200	54500	73000	55	170M3145*	170M3195*	5	1.90
	315	18500	115000	150000	60	170M3146*	170M3196*	5	1.90
	350	27000	165000	220000	65	170M3147*	170M3197*	5	1.90
	400	53000	265000	335000	70	170M3148*	170M3198*	5	1.90
	160	1900	11500	15500	45	170M4138*	170M4188*	2	1.18
	200	3800	22500	30000	50	170M4139*	170M4189*	2	1.18
	250	7750	46000	61500	60	170M4140*	170M4190*	2	1.18
	315	15000	90000	120000	65	170M4141*	170M4191*	2	1.18
1	350	20000	125000	165000	70	170M4142*	170M4192*	2	1.18
	400	29500	175000	235000	75	170M4143*	170M4193*	2	1.18
	450	42000	250000	335000	80	170M4144*	170M4194*	2	1.18
	500	69500	340000	435000	85	170M4145*	170M4195*	2	1.18
	550	95000	465000	590000	95	170M4146*	170M4196*	2	1.18
	†630	130000	†660000	—	100	170M4147	170M4197	2	1.18
	250	6500	38500	51500	65	170M5138*	170M5188*	2	1.58
	280	9350	55500	74500	70	170M5139*	170M5189*	2	1.58
	315	13000	77500	105000	75	170M5140*	170M5190*	2	1.58
	350	16500	97500	135000	80	170M5141*	170M5191*	2	1.58
	400	23000	140000	180000	85	170M5142*	170M5192*	2	1.58
2	450	34000	205000	270000	90	170M5143*	170M5193*	2	1.58
	500	48000	285000	380000	95	170M5144*	170M5194*	2	1.58
	550	62000	370000	495000	100	170M5145*	170M5195*	2	1.58
	630	115000	575000	730000	110	170M5146*	170M5196*	2	1.58
	700	160000	795000	1050000	115	170M5147*	170M5197*	2	1.58
	800	245000	1200000	1550000	120	170M5148*	170M5198*	2	1.58
	†900	360000	†1750000	—	125	170M5149	170M5199	2	1.58
	†1000	480000	†2350000	—	135	170M5150	170M5200	2	1.58
	315	9500	58000	77500	85	170M6138*	170M6188*	1	1.23
	350	13500	81500	110000	90	170M6139*	170M6189*	1	1.23
	400	19500	120000	160000	95	170M6140*	170M6190*	1	1.23
	450	31000	185000	245000	100	170M6141*	170M6191*	1	1.23
	500	39000	235000	310000	105	170M6142*	170M6192*	1	1.23
	550	55000	325000	435000	110	170M6143*	170M6193*	1	1.23
	630	83500	495000	665000	115	170M6144*	170M6194*	1	1.23
3	700	115000	705000	940000	120	170M6145*	170M6195*	1	1.23
	800	205000	995000	1300000	125	170M6146*	170M6196*	1	1.23
	900	305000	1500000	1900000	130	170M6147*	170M6197*	1	1.23
	1000	450000	2150000	2750000	135	170M6148*	170M6198*	1	1.23
	1100	575000	2800000	3600000	140	170M6149*	170M6199*	1	1.23
	†1250	810000	†3950000	—	145	170M6150	170M6200	1	1.23
	†1400	1250000	†6000000	—	150	170M6151	170M6201	1	1.23

*UL Recognized. Rated voltage †1100V

European Style Square Body

DIN 43 653-50-1400 Amps.

Voltage Rating: 125OV (IEC)/1300V (UL)
Interrupting Rating: 300kA RMS Symmetrical (estimated)
Agency Approvals:
UL Recognized, Std. 248-13 CE
Watts loss provided at rated current.
Microswitch indicator ordered separately. See bottom of page 138.



Electrical Characteristics **Ordering Information**

Size	Rated Current RMS-Amps	I^2t (A^2s) Pre-arc	I^2t (A^2s) Clearing at 1000V	I^2t (A^2s) Clearing at 1250V	Watts Loss	-KN/110 Type K Indicator for Micro	Carton Qty.	Carton Weight (Kg)
	50	135	815	1100	15	170M3238*	2	0.84
	63	215	1300	1750	20	170M3239*	2	0.84
	80	420	2500	3350	25	170M3240*	2	0.84
	100	750	4450	5950	30	170M3241*	2	0.84
	125	1450	9000	11500	35	170M3242*	2	0.84
1*	160	2600	16000	21000	40	170M3243*	2	0.84
	200	5150	31000	41000	45	170M3244*	2	0.84
	250	9200	54500	73000	55	170M3245*	2	0.84
	315	18500	115000	150000	60	170M3246*	2	0.84
	350	27000	165000	220000	65	170M3247*	2	0.84
	400	53000	265000	335000	70	170M3248*	2	0.84
	160	1900	11500	15500	45	170M4238*	2	1.26
	200	3800	22500	30000	50	170M4239*	2	1.26
	250	7750	46000	61500	60	170M4240*	2	1.26
	315	15000	90000	120000	65	170M4241*	2	1.26
1	350	20000	125000	165000	70	170M4242*	2	1.26
	400	29500	175000	235000	75	170M4243*	2	1.26
	450	42000	250000	335000	80	170M4244*	2	1.26
	500	69500	340000	435000	85	170M4245*	2	1.26
	550	95000	465000	590000	95	170M4246*	2	1.26
	†630	130000	†660000	—	100	170M4247	2	1.26
	250	6500	38500	51500	65	170M5238*	2	1.66
	280	9350	55500	74500	70	170M5239*	2	1.66
	315	13000	77500	105000	75	170M5240*	2	1.66
	350	16500	97500	135000	80	170M5241*	2	1.66
	400	23000	140000	180000	85	170M5242*	2	1.66
2	450	34000	205000	270000	90	170M5243*	2	1.66
	500	48000	285000	380000	95	170M5244*	2	1.66
	550	62000	370000	495000	100	170M5245*	2	1.66
	630	115000	575000	730000	110	170M5246*	2	1.66
	700	160000	795000	1050000	115	170M5247*	2	1.66
	800	245000	1200000	1550000	120	170M5248*	2	1.66
	†900	360000	†1750000	—	125	170M5249	2	1.66
	†1000	480000	†2350000	—	135	170M5250	2	1.66
	315	9500	58000	77500	85	170M6238*	1	1.27
	350	13500	81500	110000	90	170M6239*	1	1.27
	400	19500	120000	160000	95	170M6240*	1	1.27
	450	31000	185000	245000	100	170M6241*	1	1.27
	500	39000	235000	310000	105	170M6242*	1	1.27
	550	55000	325000	435000	110	170M6243*	1	1.27
	630	83500	495000	665000	115	170M6244*	1	1.27
3	700	115000	705000	940000	120	170M6245*	1	1.27
	800	205000	995000	1300000	125	170M6246*	1	1.27
	900	305000	1500000	1900000	130	170M6247*	1	1.27
	1000	450000	2150000	2750000	135	170M6248*	1	1.27
	1100	575000	2800000	3600000	140	170M6249*	1	1.27
	†1250	810000	†3950000	—	145	170M6250	1	1.27
	†1400	1250000	†6000000	—	150	170M6251	1	1.27

*UL Recognized. Rated voltage †1100V

BIF document: 720030

For complete specification data, call Bussmann Information Fax ~ 636.527.1450

European Style Square Body

DIN 43 620-10-315 Amps.

Voltage Rating: 690V (IEC/UL)

Interrupting Rating: 300kA RMS Symmetrical (estimated)

Agency Approvals:

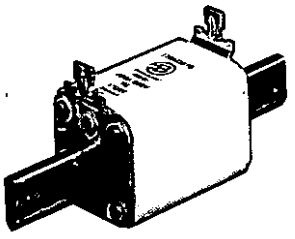
UL Recognized, Std. 248-13

Rated Current: The rated current of this fuse range has been given with copper conductors that have a current density of 1.3 A/mm^2 (IEC 60269-4). For conductor cross section according to IEC 60269-1, the fuses with a rated current higher than 125A must be derated. Please contact Bussmann for application assistance.

Watts loss provided at rated current.

Microswitch indicator ordered separately.

See bottom of page 138.



CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Electrical Characteristics

Ordering Information

Size	Rated Current RMS-Amps	I^2t (A^2s) Pre-arc	I^2t (A^2s) Clearing at 660V	Watts Loss	Protection Class	DIN 000 Type T Indicator for Micro	Carton Qty.	Carton Weight (Kg)
000	10	3.8	25.5	3.0	gR	170M1558*	10	1.30
	16	7.2	48	5.5	gR	170M1559*	10	1.30
	20	11.5	78	7	gR	170M1560*	10	1.30
	25	19	130	9	gR	170M1561*	10	1.30
	32	40	270	10	gR	170M1562*	10	1.30
	40	69	460	12	gR	170M1563*	10	1.30
	50	115	770	15	gR	170M1564*	10	1.30
	63	215	1450	16	gR	170M1565*	10	1.30
	80	380	2550	19	aR	170M1566*	10	1.30
	100	695	4650	24	aR	170M1567*	10	1.30
	125	1200	8500	28	aR	170M1568*	10	1.30
	160	2300	16000	32	aR	170M1569*	10	1.30
	200	4200	28000	37	aR	170M1570*	10	1.30
	250	7750	51500	42	aR	170M1571*	10	1.30
	315	12000	80500	52	aR	170M1572*	10	1.30

*UL Recognized.

European Style Square Body

DIN 43 **620—40-1000** Amps.

Voltage Rating: 690V (IEC)/700V (UL)

Interrupting Rating: 3OOkA RMS Symmetrical (estimated)

Agency Approvals:

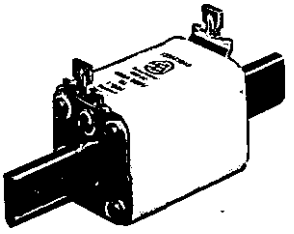
UL Recognized. Std. 248-13

Rated Current: me rated current of this fuse range has been given with copper conductors that have a current density of 1.3 A/mm^2 (IEC 60269-4). For conductor cross section according to IEC 60269-1, the fuses with a rated current higher than 125A must be derated. Please contact Bussmann for application assistance.

Watts loss provided at rated current.

Microswitch indicator ordered separately.

See bottom oi page 136.



CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Electrical Characteristics **Ordering Information**

Size	Rated Current RMS-Amps	I^2t (A^2s) Pre-arc	I^2t (A^2s) Clearing at 660V	Watts Loss	DIN Type T Indicator for Micro	Carton Qty.	Carton Weight (Kg)
	40	40	270	9	170M3808*	5	1.85
	50	77	515	11	170M3809*	5	1.85
	63	115	770	14	170M3810*	5	1.85
	80	185	1250	18	170M3811*	5	1.85
	100	360	2450	21	170M3812*	5	1.85
	125	550	3700	26	170M3813*	5	1.85
1*	160	1100	7500	30	170M3814*	5	1.85
	200	2200	15000	35	170M3815*	5	1.85
	250	4200	28500	40	170M3816*	5	1.85
	315	7000	46500	50	170M3817*	5	1.85
	350	10000	68500	55	170M3818*	5	1.85
	400	15000	105000	60	170M3819*	5	1.85
	400	11000	74000	65	170M5808*	5	3.00
	450	15500	105000	70	170M5809*	5	3.00
	500	21500	145000	75	170M5810*	5	3.00
2	550	28000	190000	80	170M5811*	5	3.00
	630	41000	275000	90	170M5812*	5	3.00
	700	60500	405000	95	170M5813*	5	3.00
	500	14000	95000	95	170M6808*	1	1.15
	550	19500	135000	100	170M6809*	1	1.15
	630	31000	210000	105	170M6810*	1	1.15
3	700	44500	300000	110	170M6811*	1	1.15
	800	69500	465000	115	170M6812*	1	1.15
	900	100000	670000	120	170M6813*	1	1.15
	1000	140000	945000	125	170M6814*	1	1.15

*UL Recognized.

European Style Square Body

Flush End Contact 25-400 Amps.

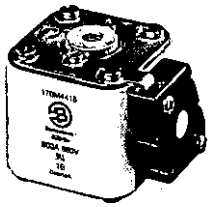
Voltage Rating: 690V (IEC)

Interrupting Rating: 300kA RMS Symmetrical (estimated)

Watts loss provided at rated current.

Microswitch indicator ordered separately.

See bottom of page 136.



CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

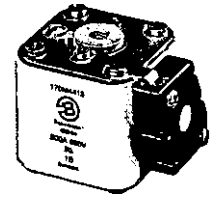
Electrical Characteristics **Ordering Information**

Size	Rated Current RMS-Amps	I^2t (A^2s) Pre-arc	I^2t (A^2s) Clearing at 660V	Watts Loss	Protection Class	00B/60 Visual Indicator	00BTN/60 Type T Indicator for Microswitch	Carton Qty.	Carton Weight (Kg)
00	25	19	130	6	gR	170M2708	170M2758	5	1.35
	32	28.5	195	7	gR	170M2709	170M2759	5	1.35
	40	50	360	9	gR	170M2710	170M2760	5	1.35
	50	95	640	10	gR	170M2711	170M2761	5	1.35
	63	170	1200	12	gR	170M2712	170M2762	5	1.35
	80	310	2100	15	gR	170M2713	170M2763	5	1.35
	100	620	4150	20	aR	170M2714	170M2764	5	1.35
	125	1000	6950	25	aR	170M2715	170M2765	5	1.35
	160	1900	13000	30	aR	170M2716	170M2766	5	1.35
	200	3400	23000	35	aR	170M2717	170M2767	5	1.35
	250	6250	42000	45	aR	170M2718	170M2768	5	1.35
	315	10000	68500	55	aR	170M2719	170M2769	5	1.35
	350	13500	91500	60	aR	170M2720	170M2770	5	1.35
	400	18000	125000	70	aR	170M2721	170M2771	5	1.35

European Style Square Body

Flush End Contact 40-2000 Amps.

Voltage Rating: 690V (IEC) 700V (UL)
Interrupting Rating: 300kA RMS Symmetrical (estimated)
Agency Approvals:
UL Recognized, Std. 248-13 CE
Watts loss provided at rated current.
Microswitch indicator ordered separately. See bottom of page 136.



Electrical Characteristics **Ordering Information**

Size	Rated Current RMS-Amps	I^2t (A^2s) Pre-arc	I^2t (A^2s) Clearing at 660V	Watts Loss	-B/- Visual Indicator	-BKN/- Type K Indicator for Micro	-G/- Visual Indicator	-GKN/- Type K Indicator for Micro	Carton Qty.	Carton Weight (Kg)
	40	40	270	9	170M3408*	170M3458*	170M3508*	170M3558*	10	2.40
	50	77	515	11	170M3409*	170M3459*	170M3509*	170M3559*	(-B/-)	—
	63	115	770	14	170M3410*	170M3460*	170M3510*	170M3560*	—	—
	80	185	1250	18	170M3411*	170M3461*	170M3511*	170M3561*	10	2.40
	100	360	2450	21	170M3412*	170M3462*	170M3512*	170M3562*	(-G/-)	—
	125	550	3700	26	170M3413*	170M3463*	170M3513*	170M3563*	—	—
	160	1100	7500	30	170M3414*	170M3464*	170M3514*	170M3564*	6	1.62
	200	2200	15000	35	170M3415*	170M3465*	170M3515*	170M3565*	(-BKN/-)	—
1*	250	4200	28500	40	170M3416*	170M3466*	170M3516*	170M3566*	—	—
	315	7000	46500	50	170M3417*	170M3467*	170M3517*	170M3567*	—	—
	350	10000	68500	55	170M3418*	170M3468*	170M3518*	170M3568*	6	1.62
	400	15000	105000	60	170M3419*	170M3469*	170M3519*	170M3569*	(-GKN/-)	—
	450	21000	140000	65	170M3420*	170M3470*	170M3520*	170M3570*	—	—
	500	27000	180000	70	170M3421*	170M3471*	170M3521*	170M3571*	—	—
	550	34000	230000	75	170M3422*	170M3472*	170M3522*	170M3572*	—	—
	630	48500	325000	80	170M3423*	170M3473*	170M3523*	170M3573*	—	—
	200	1650	11500	45	170M4408*	170M4458*	170M4508*	170M4558*	6	2.40
	250	3100	21000	55	170M4409*	170M4459*	170M4509*	170M4559*	6	2.40
	315	6200	42000	58	170M4410*	170M4460*	170M4510*	170M4560*	6	2.40
	350	8500	59000	60	170M4411*	170M4461*	170M4511*	170M4561*	6	2.40
	400	13500	91500	65	170M4412*	170M4462*	170M4512*	170M4562*	6	2.40
	450	17000	120000	70	170M4413*	170M4463*	170M4513*	170M4563*	6	2.40
1	500	25000	170000	72	170M4414*	170M4464*	170M4514*	170M4564*	6	2.40
	550	34000	230000	75	170M4415*	170M4465*	170M4515*	170M4565*	6	2.40
	630	52000	350000	80	170M4416*	170M4466*	170M4516*	170M4566*	6	2.40
	700	69500	465000	85	170M4417*	170M4467*	170M4517*	170M4567*	6	2.40
	800	105000	725000	95	170M4418*	170M4468*	170M4518*	170M4568*	6	2.40
	‡900	155000	‡850000	100	170M4419	170M4469	170M4519	170M4569	6	2.40
	400	11000	74000	65	170M5408*	170M5458*	170M5508*	170M5558*	6	3.30
	450	15500	105000	70	170M5409*	170M5459*	170M5509*	170M5559*	6	3.30
	500	21500	145000	75	170M5410*	170M5460*	170M5510*	170M5560*	6	3.30
	550	28000	190000	80	170M5411*	170M5461*	170M5511*	170M5561*	6	3.30
	630	41000	275000	90	170M5412*	170M5462*	170M5512*	170M5562*	6	3.30
2	700	60500	405000	95	170M5413*	170M5463*	170M5513*	170M5563*	6	3.30
	800	86000	575000	105	170M5414*	170M5464*	170M5514*	170M5564*	6	3.30
	900	125000	840000	110	170M5415*	170M5465*	170M5515*	170M5565*	6	3.30
	1000	180000	1250000	115	170M5416*	170M5466*	170M5516*	170M5566*	6	3.30
	1100	245000	1600000	120	170M5417*	170M5467*	170M5517*	170M5567*	4	2.40
	1250	365000	2400000	130	170M5418*	170M5468*	170M5518*	170M5568*	4	2.40
	500	14000	95000	95	170M6408*	170M6458*	170M6508*	170M6558*	3	2.52
	550	19500	135000	100	170M6409*	170M6459*	170M6509*	170M6559*	3	2.52
	630	31000	210000	105	170M6410*	170M6460*	170M6510*	170M6560*	3	2.52
	700	44500	300000	110	170M6411*	170M6461*	170M6511*	170M6561*	3	2.52
	800	69500	465000	115	170M6412*	170M6462*	170M6512*	170M6562*	3	2.52
	900	100000	670000	120	170M6413*	170M6463*	170M6513*	170M6563*	3	2.52
3	1000	140000	945000	125	170M6414*	170M6464*	170M6514*	170M6564*	3	2.52
	1100	190000	1300000	130	170M6415*	170M6465*	170M6515*	170M6565*	3	2.52
	1250	290000	1950000	140	170M6416*	170M6466*	170M6516*	170M6566*	3	2.52
	1400	370000	2450000	155	170M6417*	170M6467*	170M6517*	170M6567*	3	2.52
	1500	460000	3100000	160	170M6418*	170M6468*	170M6518*	170M6568*	3	2.52
	1600	580000	3900000	160	170M6419*	170M6469*	170M6519*	170M6569*	2	1.82
	†1800	880000	†5250000	165	170M6420	170M6470	170M6520	170M6570	2	1.82
	‡2000	1150000	‡6350000	175	170M6421	170M6471	170M6521	170M6571	2	1.82

*UL Recognized. Rated voltage †600V ‡550V

BIF document: 720019

European Style Square Body

Flush End Contact -1000-4000 Amps.

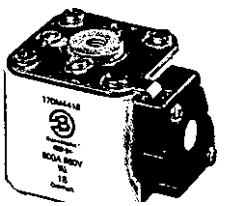
Voltage Rating: *690V (IEC)*

Interrupting Rating: 300kA RMS Symmetrical (estimated)

Watts loss provided at rated current.

Microswitch indicator ordered separately.

See bottom of page 138.



CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Electrical Characteristics **Ordering Information**

Size	Rated Current RMS- Norm Cool.-	Rated Current RMS- Liquid Cool.	I^2t (A^2s) Pre-arc	I^2t (A^2s) Clearing at 660V	Watts Loss Norm. Cool.	Watts Loss Liquid Cool.	-B/- Visual Indicator	-BKN/- Type K Indicator for Micro	-G/- Visual Indicator	-GKN/- Type K Indicator for Micro	Carton Qty.	Carton Weight (Kg)
	1000	1350	76000	505000	175	315	170M7058	170M7078	170M7098	170M7118	2	1.80
	1250	1700	145000	965000	195	355	170M7059	170M7079	170M7099	170M7119	2	1.80
	1400	1900	205000	1400000	205	375	170M7060	170M7080	170M7100	170M7120	2	1.80
	1600	2200	305000	2050000	220	405	170M7061	170M7081	170M7101	170M7121	2	1.80
4	2000	2700	600000	3950000	245	445	170M7062	170M7082	170M7102	170M7122	2	1.80
	2500	3400	1200000	7800000	275	495	170M7063	170M7083	170M7103	170M7123	2	1.80
	3000	4100	2000000	13500000	305	555	170M7064	170M7084	170M7104	170M7124	2	1.80
	3500	4700	3250000	22000000	325	585	170M7065	170M7085	170M7105	170M7125	2	1.80
	†4000	†5400	4700000	†28000000	355	640	170M7066	170M7086	170M7106	170M7126	2	1.80

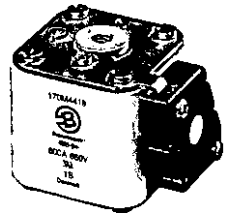
Rated voltage †600V.

Liq. Cool. - Liquid cooling. Temperature on the terminals not to exceed 60°C.

'European Style Square Body

Flush End **Contact—50-1** 400 Amps.

Voltage Rating: 1250V (IEC) 1300V (UL)
Interrupting Rating: 300kA RMS Symmetrical (estimated)
Agency Approvals:
UL Recognized, Std. 248-13 CE
Watts loss provided at rated current.
Microswitch indicator ordered separately. See bottom of page 138.



Electrical Characteristics **Ordering Information**

Size	Rated Current RMS-Amps	I^2t (A^2s) Pre-arc	I^2t (A^2s) Clearing at 1000V	I^2t (A^2s) Clearing at 1250V	Watts Loss	-BKN/75 Type K Indicator for Micro	-BKN/80 Type K Indicator for Micro	-BKN/90 Type K Indicator for Micro	-GKN/75 Type K Indicator for Micro	-GKN/90 Type K Indicator for Micro
	50	135	815	1100	15	170M3388*	170M3438*	—	170M3488*	—
	63	215	1300	1750	20	170M3389*	170M3439*	—	170M3489*	—
	80	420	2500	3350	25	170M3390*	170M3440*	—	170M3490*	—
	100	750	4450	5950	30	170M3391*	170M3441*	—	170M3491*	—
	125	1450	9000	11500	35	170M3392*	170M3442*	—	170M3492*	—
1"	160	2600	16000	21000	40	170M3393*	170M3443*	—	170M3493*	—
	200	5150	31000	41000	45	170M3394*	170M3444*	—	170M3494*	—
	250	9200	54500	73000	55	170M3395*	170M3445*	—	170M3495*	—
	315	18500	115000	150000	60	170M3396*	170M3446*	—	170M3496*	—
	350	27000	165000	220000	65	170M3397*	170M3447*	—	170M3497*	—
	400	53000	265000	335000	70	—	170M3448*	—	—	—
	160	1900	11500	15500	45	170M4388*	170M4438*	—	170M4488*	—
	200	3800	22500	30000	50	170M4389*	170M4439*	—	170M4489*	—
	250	7750	46000	61500	60	170M4390*	170M4440*	—	170M4490*	—
	315	15000	90000	120000	65	170M4391*	170M4441*	—	170M4491*	—
1	350	20000	125000	165000	70	170M4392*	170M4442*	—	170M4492*	—
	400	29500	175000	235000	75	170M4393*	170M4443*	—	170M4493*	—
	450	42000	250000	335000	80	170M4394*	170M4444*	—	170M4494*	—
	500	69500	340000	435000	85	†170M4395	170M4445*	—	†170M4495	—
	550	95000	465000	590000	95	‡170M4396	170M4446*	—	‡170M4496	—
	630	130000	660000	—	100	‡170M4397	†170M4447	—	‡170M4497	—
	250	6500	38500	51500	65	170M5388*	170M5438*	—	170M5588*	—
	280	9350	55500	74500	70	170M5389*	170M5439*	—	170M5589*	—
	315	13000	77500	105000	75	170M5390*	170M5440*	—	170M5590*	—
	350	16500	97500	135000	80	170M5391*	170M5441*	—	170M5591*	—
	400	23000	140000	180000	85	170M5392*	170M5442*	—	170M5592*	—
2	450	34000	205000	270000	90	170M5393*	170M5443*	—	170M5593*	—
	500	48000	285000	380000	95	170M5394*	170M5444*	170M5494*	170M5594*	170M5644*
	550	62000	370000	495000	100	170M5395*	170M5445*	170M5495*	170M5595*	170M5645*
	630	115000	575000	730000	110	†170M5396	170M5446*	170M5496*	†170M5596	170M5646*
	700	160000	795000	1050000	115	‡170M5397	†170M5447	170M5497*	‡170M5597	170M5647*
	800	245000	1200000	1550000	120	‡170M5398	‡170M5448	170M5498*	‡170M5598	170M5648*
	†900	360000	1750000	—	125	—	—	170M5499	—	170M5649
	†1000	480000	2350000	—	135	—	—	170M5500	—	170M5650
	315	9500	58000	77500	85	170M6338*	170M6538*	—	170M6588*	—
	350	13500	81500	110000	90	170M6339*	170M6539*	—	170M6589*	—
	400	19500	120000	160000	95	170M6340*	170M6540*	—	170M6590*	—
	450	31000	185000	245000	100	170M6341*	170M6541*	—	170M6591*	—
	500	39000	235000	310000	105	170M6342*	170M6542*	—	170M6592*	—
	550	55000	325000	435000	110	170M6343*	170M6543*	—	170M6593*	—
	630	83500	495000	665000	115	170M6344*	170M6544*	170M6494*	170M6594*	170M6644*
3	700	115000	705000	940000	120	170M6345*	170M6545*	170M6495*	170M6595*	170M6645*
	800	205000	995000	1300000	125	†170M6346	170M6546*	170M6496*	†170M6596	170M6646*
	900	305000	1500000	1900000	130	‡170M6347	†170M6547	170M6497*	‡170M6597	170M6647*
	1000	450000	2150000	2750000	135	‡170M6348	†170M6548	170M6498*	‡170M6598	170M6648*
	1100	575000	2800000	3600000	140	‡170M6349	‡170M6549	170M6499*	‡170M6599	170M6649*
	†1250	810000	3950000	—	145	—	—	170M6500	—	170M6650
	†1400	1250000	6000000	—	150	—	—	170M6501	—	170M6651

*UL Recognized. Rated voltage †1100 ‡1000V 1 kg = 2.2 lbs. 1 lb = 0.45 kg

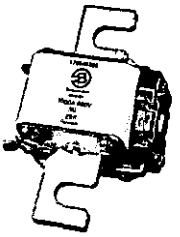
Individual Fuse Weight: Size 1" = 0.380 Kg
Size 1 = 0.580 Kg
Size 2 = 0.900 Kg
Size 3 = 1.250 Kg

BIF document: 720031

European Style Square Body

French Standard—40-1500 Amps.

Voltage Rating: 690V (IEC), 700V (UL)
Interrupting Rating: 300kA RMS Symmetrical (estimated)
Agency Approvals:
UL Recognized, Std. 248-13 CE
Watts loss provided at rated current.
Microswitch indicator ordered separately. See bottom of page 138.



Electrical Characteristics **Ordering Information**

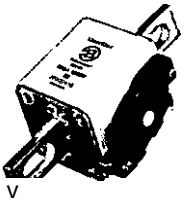
Size	Rated Current RMS-Amps	I^2t (A^2s) Pre-arc	I^2t (A^2s) Clearing at 660V	Watts Loss	-E/ Type T Indicator for Micro	-EKN/ Type K Indicator for Micro	Carton Qty.	Carton Weight (Kg)
1*	40	40	270	9	170M3308*	170M3358*	1	0.300
	50	77	515	11	170M3309*	170M3359*	1	0.300
	63	115	770	14	170M3310*	170M3360*	1	0.300
	80	185	1250	18	170M3311*	170M3361*	1	0.300
	100	360	2450	21	170M3312*	170M3362*	1	0.300
	125	550	3700	26	170M3313*	170M3363*	1	0.300
	160	1100	7500	30	170M3314*	170M3364*	1	0.300
	200	2200	15000	35	170M3315*	170M3365*	1	0.300
	250	4200	28500	40	170M3316*	170M3366*	1	0.300
	315	7000	46500	50	170M3317*	170M3367*	1	0.300
	350	10000	68500	55	170M3318*	170M3368*	1	0.300
	400	15000	105000	60	170M3319*	170M3369*	1	0.300
	450	21000	140000	65	170M3320*	170M3370*	1	0.300
	500	27000	180000	70	170M3321*	170M3371*	1	0.300
1	200	1650	11500	45	170M4308*	170M4358*	1	0.470
	250	3100	21000	55	170M4309*	170M4359*	1	0.470
	315	6200	42000	58	170M4310*	170M4360*	1	0.470
	350	8500	59000	60	170M4311*	170M4361*	1	0.470
	400	13500	91500	65	170M4312*	170M4362*	1	0.470
	450	17000	120000	70	170M4313*	170M4363*	1	0.470
	500	25000	170000	72	170M4314*	170M4364*	1	0.470
	550	34000	230000	75	170M4315*	170M4365*	1	0.470
	630	52000	350000	80	170M4316*	170M4366*	1	0.470
	700	69500	465000	85	170M4317*	170M4367*	1	0.470
	800	105000	725000	95	170M4318*	170M4368*	1	0.470
2	400	11000	74000	65	170M5308*	170M5358*	1	0.620
	450	15500	105000	70	170M5309*	170M5359*	1	0.620
	500	21500	145000	75	170M5310*	170M5360*	1	0.620
	550	28000	190000	80	170M5311*	170M5361*	1	0.620
	630	41000	275000	90	170M5312*	170M5362*	1	0.620
	700	60500	405000	95	170M5313*	170M5363*	1	0.620
	800	86000	575000	105	170M5314*	170M5364*	1	0.620
	900	125000	840000	110	170M5315*	170M5365*	1	0.620
	1000	180000	1250000	115	170M5316*	170M5366*	1	0.620
3	500	14000	95000	95	170M6308*	170M6358*	1	0.930
	550	19500	135000	100	170M6309*	170M6359*	1	0.930
	630	31000	210000	105	170M6310*	170M6360*	1	0.930
	700	44500	300000	110	170M6311*	170M6361*	1	0.930
	800	69500	465000	115	170M6312*	170M6362*	1	0.930
	900	100000	670000	120	170M6313*	170M6363*	1	0.930
	1000	140000	945000	125	170M6314*	170M6364*	1	0.930
	1100	190000	1300000	130	170M6315*	170M6365*	1	0.930
	1250	290000	1950000	140	170M6316*	170M6366*	1	0.930
	1400	370000	2450000	155	170M6317*	170M6367*	1	0.930
	1500	460000	3100000	160	170M6318*	170M6368*	1	0.930

*UL Recognized.

European Style Square Body

US Standard-40-2000 Amps.

Voltage Rating: 690V (IEC), 700V (UL)
Interrupting Rating: 300kA RMS Symmetrical (estimated)
Agency Approvals:
UL Recognized. Std. 248-13 CC
Watts loss provided at rated current.
Microswitch indicator ordered separately. See bottom of page 138.



V

Electrical Characteristics **Ordering Information**

Size	Rated Current RMS-Amps	I^2t (A^2s) Pre-arc	I^2t (A^2s) Clearing at 660V	Watts Loss	-FU/- Without Indicator	-FKE/- Type K Indicator for Micro	-FU/115 Without Indicator	-FKE/115 Type K Indicator for Micro	Carton Qty.	Carton Weight (Kg)
1*	40	40	270	9	170M3608*	170M3658*	170M3708*	170M3758*	1	0.340
	50	77	515	11	170M3609*	170M3659*	170M3709*	170M3759*	1	0.340
	63	115	770	14	170M3610*	170M3660*	170M3710*	170M3760*	1	0.340
	80	185	1250	18	170M3611*	170M3661*	170M3711*	170M3761*	1	0.340
	100	360	2450	21	170M3612*	170M3662*	170M3712*	170M3762*	1	0.340
	125	550	3700	26	170M3613*	170M3663*	170M3713*	170M3763*	1	0.340
	160	1100	7500	30	170M3614*	170M3664*	170M3714*	170M3764*	1	0.340
	200	2200	15000	35	170M3615*	170M3665*	170M3715*	170M3765*	1	0.340
	250	4200	28500	40	170M3616*	170M3666*	170M3716*	170M3766*	1	0.340
	315	7000	46500	50	170M3617*	170M3667*	170M3717*	170M3767*	1	0.340
	350	10000	68500	55	170M3618*	170M3668*	170M3718*	170M3768*	1	0.340
	400	15000	105000	60	170M3619*	170M3669*	170M3719*	170M3769*	1	0.340
	450	21000	140000	65	170M3620*	170M3670*	170M3720*	170M3770*	1	0.340
	500	27000	180000	70	170M3621*	170M3671*	170M3721*	170M3771*	1	0.340
	550	34000	230000	75	170M3622*	170M3672*	170M3722*	170M3772*	1	0.340
	630	48500	325000	80	170M3623*	170M3673*	170M3723*	170M3773*	1	0.340
1	200	1650	11500	45	170M4608*	170M4658*	170M4708*	170M4758*	1	0.500
	250	3100	21000	55	170M4609*	170M4659*	170M4709*	170M4759*	1	0.500
	315	6200	42000	58	170M4610*	170M4660*	170M4710*	170M4760*	1	0.500
	350	8500	59000	60	170M4611*	170M4661*	170M4711*	170M4761*	1	0.500
	400	13500	91500	65	170M4612*	170M4662*	170M4712*	170M4762*	1	0.500
	450	17000	120000	70	170M4613*	170M4663*	170M4713*	170M4763*	1	0.500
	500	25000	170000	72	170M4614*	170M4664*	170M4714*	170M4764*	1	0.500
	550	34000	230000	75	170M4615*	170M4665*	170M4715*	170M4765*	1	0.500
	630	52000	350000	80	170M4616*	170M4666*	170M4716*	170M4766*	1	0.500
	700	69500	465000	85	170M4617*	170M4667*	170M4717*	170M4767*	1	0.500
	800	105000	725000	95	170M4618*	170M4668*	170M4718*	170M4768*	1	0.500
	‡900	155000	‡850000	100	170M4619	170M4669	170M4719	170M4769	1	0.500
2	400	11000	74000	65	170M5608*	170M5658*	170M5708*	170M5758*	1	0.630
	450	15500	105000	70	170M5609*	170M5659*	170M5709*	170M5759*	1	0.630
	500	21500	145000	75	170M5610*	170M5660*	170M5710*	170M5760*	1	0.630
	550	28000	190000	80	170M5611*	170M5661*	170M5711*	170M5761*	1	0.630
	630	41000	275000	90	170M5612*	170M5662*	170M5712*	170M5762*	1	0.630
	700	60500	405000	95	170M5613*	170M5663*	170M5713*	170M5763*	1	0.630
	800	86000	575000	105	170M5614*	170M5664*	170M5714*	170M5764*	1	0.630
	900	125000	840000	110	170M5615*	170M5665*	170M5715*	170M5765*	1	0.630
	1000	180000	1250000	115	170M5616*	170M5666*	170M5716*	170M5766*	1	0.630
	1100	245000	1600000	120	170M5617*	170M5667*	170M5717*	170M5767*	1	0.630
	1250	365000	2400000	130	170M5618*	170M5668*	170M5718*	170M5768*	1	0.630
3	500	14000	95000	95	170M6608*	170M6658*	170M6708*	170M6758*	1	0.950
	550	19500	135000	100	170M6609*	170M6659*	170M6709*	170M6759*	1	0.950
	630	31000	210000	105	170M6610*	170M6660*	170M6710*	170M6760*	1	0.950
	700	44500	300000	110	170M6611*	170M6661*	170M6711*	170M6761*	1	0.950
	800	69500	465000	115	170M6612*	170M6662*	170M6712*	170M6762*	1	0.950
	900	100000	670000	120	170M6613*	170M6663*	170M6713*	170M6763*	1	0.950
	1000	140000	945000	125	170M6614*	170M6664*	170M6714*	170M6764*	1	0.950
	1100	190000	1300000	130	170M6615*	170M6665*	170M6715*	170M6765*	1	0.950
	1250	290000	1950000	140	170M6616*	170M6666*	170M6716*	170M6766*	1	0.950
	1400	370000	2450000	155	170M6617*	170M6667*	170M6717*	170M6767*	1	0.950
	1500	460000	3100000	160	170M6618*	170M6668*	170M6718*	170M6768*	1	0.950
	1600	580000	3900000	160	170M6619*	170M6669*	170M6719*	170M6769*	1	0.950
	†1800	880000	†5250000	165	170M6620	170M6670	170M6720	170M6770	1	0.950
	‡2000	1150000	‡6350000	175	170M6621	170M6671	170M6721	170M6771	1	0.950

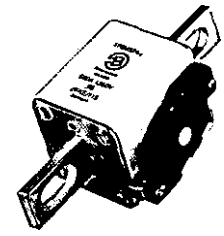
*UL Recognized. Rated voltage †600V ‡550V

BIF document: **720023**

European Style Square Body

US Standard-50-1400 Amps.

Voltage Rating: 1250V (IEC). 1300V (UL)
Interrupting Rating: 300kA RMS Symmetrical (estimated)
Agency Approvals:
UL Recognized, Std. 248-13 CE
Watts loss provided at rated current.
Microswitch indicator ordered separately. See bottom of page 138.



Electrical Characteristics **Ordering Information**

Size	Rated Current RMS-Amps	I^2t (A^2s) Pre-arc	I^2t (A^2s) Clearing at 1000V	I^2t (A^2s) Clearing at 1250V	Watts Loss	-FU/115 Without Indicator	-FKE/115 Type K Indicator for Micro	Carton Qty.	Carton Weight (Kg)
	50	135	815	1100	15	170M3688*	170M3738*	1	0.425
	63	215	1300	1750	20	170M3689*	170M3739*	1	0.425
	80	420	2500	3350	25	170M3690*	170M3740*	1	0.425
	100	750	4450	5950	30	170M3691*	170M3741*	1	0.425
1*	125	1450	9000	11500	35	170M3692*	170M3742*	1	0.425
	160	2600	16000	21000	40	170M3693*	170M3743*	1	0.425
	200	5150	31000	41000	45	170M3694*	170M3744*	1	0.425
	250	9200	54500	73000	55	170M3695*	170M3745*	1	0.425
	315	18500	115000	150000	60	170M3696*	170M3746*	1	0.425
	350	27000	165000	220000	65	170M3697*	170M3747*	1	0.425
	400	53000	265000	335000	70			1	0.425
	160	1900	11500	15500	45	170M4688*	170M4738*	1	0.675
	200	3800	22500	30000	50	170M4689*	170M4739*	1	0.675
	250	7750	46000	61500	60	170M4690*	170M4740*	1	0.675
	315	15000	90000	120000	65	170M4691*	170M4741*	1	0.675
	350	20000	125000	165000	70	170M4692*	170M4742*	1	0.675
1	400	29500	175000	235000	75	170M4693*	170M4743*	1	0.675
	450	42000	250000	335000	80	170M4694*	170M4744*	1	0.675
	†500	69500	340000	435000	85	170M4695	170M4745	1	0.675
	†550	95000	465000	590000	95	170M4696	170M4746	1	0.675
	‡630	130000	660000	—	100	170M4697	170M4747	1	0.675
	250	6500	38500	51500	65	170M5688*	170M5738*	1	0.740
	280	9350	55500	74500	70	170M5689*	170M5739*	1	0.740
	315	13000	77500	105000	75	170M5690*	170M5740*	1	0.740
	350	16500	97500	135000	80	170M5691*	170M5741*	1	0.740
	400	23000	140000	180000	85	170M5692*	170M5742*	1	0.740
	450	34000	205000	270000	90	170M5693*	170M5743*	1	0.740
2	500	48000	285000	380000	95	170M5694*	170M5744*	1	0.740
	550	62000	370000	495000	100	170M5695*	170M5745*	1	0.740
	630	115000	575000	730000	110	170M5696*	170M5746*	1	0.740
	†700	160000	795000	1050000	115	170M5697	170M5747	1	0.740
	†800	245000	1200000	1550000	120	170M5698	170M5748	1	0.740
	†900	360000	1750000	—	125	170M5699	170M5749	1	0.740
	‡1000	480000	2350000	—	135	170M5700	170M5750	1	0.740
	315	9500	58000	77500	185	170M6688*	170M6738*	1	1.250
	350	13500	81500	110000	90	170M6689*	170M6739*	1	1.250
	400	19500	120000	160000	95	170M6690*	170M6740*	1	1.250
	450	31000	185000	245000	100	170M6691*	170M6741*	1	1.250
	500	39000	235000	310000	105	170M6692*	170M6742*	1	1.250
	550	55000	325000	435000	110	170M6693*	170M6743*	1	1.250
3	630	83500	495000	665000	115	170M6694*	170M6744*	1	1.250
	700	115000	705000	940000	120	170M6695*	170M6745*	1	1.250
	800	205000	995000	1300000	125	170M6696*	170M6746*	1	1.250
	900	305000	1500000	1900000	130	170M6697*	170M6747*	1	1.250
	¥1000	450000	2150000	2750000	135	†170M6698*	†170M6748*	1	1.250
	¥1100	575000	2800000	3600000	140	†170M6699*	†170M6749*	1	1.250
	¥1250	810000	3950000	—	145	‡170M6700*	‡170M6750*	1	1.250
	¥1400	1250000	6000000	—	150	‡170M6701*	‡170M6751*	1	1.250

*UL Recognized. Rated voltage †1100V ‡1000V ¥ UL Recognized at 1000V

Indicator System

Indicators

Typower ZILOX fuses are available with three different indicator systems.

Visual Indicator

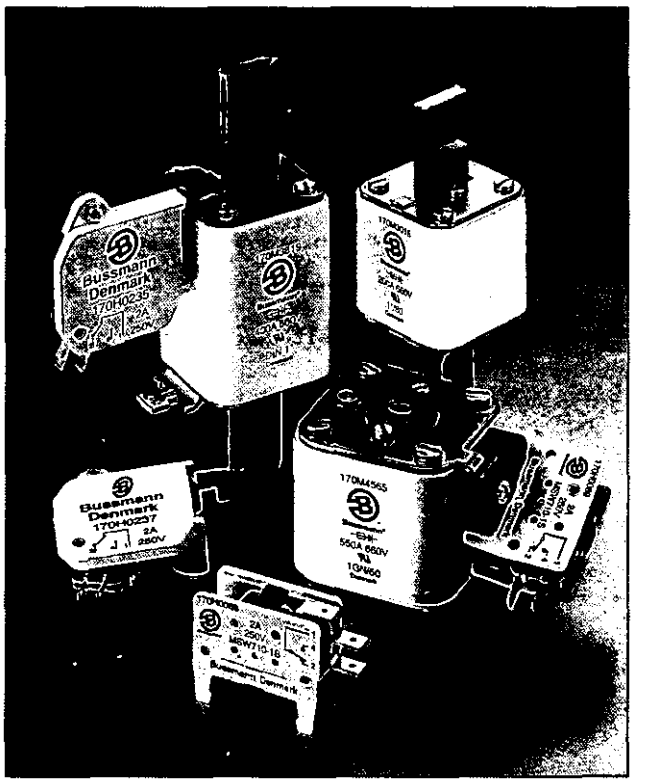
The indicator situated in one cover plate is clearly visible as soon as the fuse has operated. The minimum voltage for operating the indicator is 20V.

Type T Indicator

The indicator is situated on one cover plate with a cover plate tag to accommodate an auxiliary switch. The minimum voltage for operating the indicator is 20V. A special low voltage indicator (1.5V) is available on request.

Type K Indicator

This indicator is situated on the fuse body. It is covered by an adaptor for snap-w mounting of an auxiliary switch. The operating voltage of the indicator is 1.5V. As a matter of safety, the factory mounted adaptor must not be removed from the fuse.



Microswitch

The Typower ZILOX fuses with either type T indicator or type K indicator can be equipped with a microswitch for remote electrical indication of fuse operations. All microswitches have one normally open and one normally closed contact. Ratings are 2A, 250 Vac.

Microswitch	6.3 x 0.8 mm Lugs	2.8 x 0.5 mm Lugs	Indicator Type
170H0235	×		T
170H0236	×		T
170H0237		×	T
170H0238		×	T
170H0069	×		K

Size	DIN 43 653		DIN 43 620		French Style		Flush End		US Style
	Type T	Type K	Type T	Type K	Type T	Type K	Type T	Type K	Type K
000	170H0236 170H0238		170H0236 170H0238						
00	170H0235 170H0237						170H0235 170H0237		
1*	170H0235 170H0237	170H0069	170H0235 170H0237		170H0236 170H0238	170H0069		170H0069	170H0069
1	170H0235 170H0237	170H0069			170H0236 170H0238	170H0069		170H0069	170H0069
2	170H0235 170H0237	170H0069	170H0235 170H0237		170H0236 170H0238	170H0069		170H0069	170H0069
3	170H0235 170H0237	170H0069	170H0236 170H0238		170H0236 170H0238	170H0069		170H0069	170H0069
4								170H0069	
23								170H0069	
24								170H0069	

BIF document: 720034

Fuse Bases (Blocks)

DIN 43 653 Fuse Bases

For the Typower ZILOX fuses according to DIN 43 653, the following fuse bases are available:

Part Number	Max. Voltage	Rated Current	Center Distance
170H3003	1000V	630A	80mm
170H3004	1000V	1250A	80mm
170H3005	1400V	630A	110mm
170H3006	1400V	1250A	110mm

The fuse bases rated 1250A can also be used for the fuses with higher rated current if the maximum load current is derated according to the table below:

Fuse Rating	Max. Load Current In Fuse Base
1400A	1325A
1500A	1400A
1600A	1500A
1800A	1650A
2000A	1800A

Fixed Center Style	Max. Voltage	Fuse Current Rating	Fuse Sire
170H1007	1000V	400A	00,000
170H1013	660V	200A	0000,000

U.L. Recognized to U.L. 512.

Universal Fuse Bases

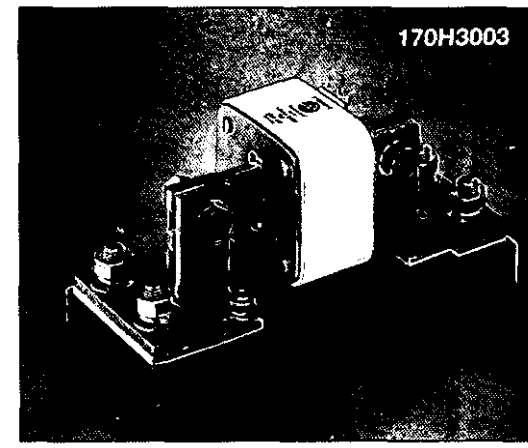
For the Typower ZILOX fuses according to DIN 43 653, French style and North American style, the following fuse bases are available:

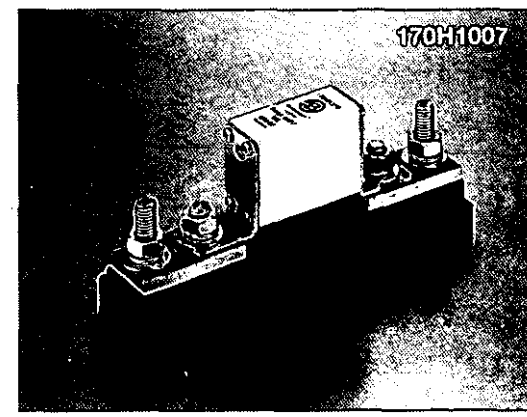
Modular Base Style	Max. Voltage	Max. Fuse Current Rating	BIF Document
1BS101	600V	100A	1206
1BS102	600V	400A	1207
1BS103	600V	400A	1208
1BS104	600V	600A	1209
BH-0	7oov	100A	1200
BH-,	2500V	400A	1201
w-2	5000V	400A	1202
BH-3	1250V	700A	1203

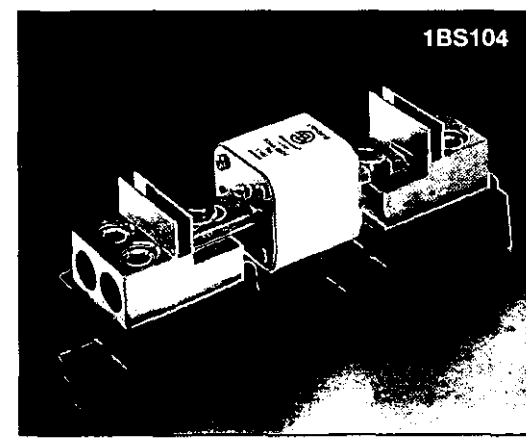
Modular fuse bases are U.L. Recognized to U.L. 512 and meet the spacing requirements of U.L. 347. Contact Bussmann sales representative for more complete ordering information.

DIN 43 620 Fuse Bases

For fuse bases used with Typower ZILOX fuses according to DIN 43 620, please contact your local Bussmann sales representative.







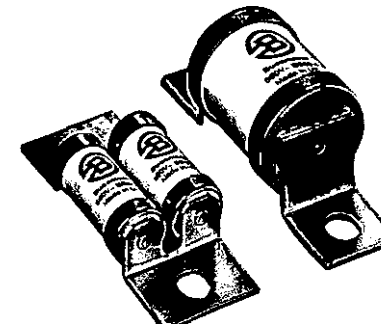
British Standard BS88: Part 4

Voltage **Rating**	
240 Volt AC/l 50 Volt DC	6 to 900 Amperes
690 Volt AC/450 Volt DC	***6 to*** 700 Amperes

All Bussmann British Style fuses are tested to IEC 269: Part 4. This standard requires a test ***voltage*** which is 10% higher than the rated voltage. In North America, fuses are required to clear only their rated voltage.

Designed and tested to:
- BS 88: Part 4
- IEC 269: Part 4
- UL Recognized, Std. 248-13

Bussmann British Style products use innovative arc quenching techniques and high grade materials to provide:
- Minimal energy let-thru (I^2t)
- Excellent DC performance
- Good surge withstand profile



Accessories

Trip-indicator fuses are available for use in parallel with the main fuse. Indicator fuses can be attached to the associated fuselink, or mounted separately in panel-mounted fuseclips. In addition, a push-on adaptor and microswitch attachment are available, to provide remote indication. Fuseblocks are also available for most applications

240V AC/150V DC - 6 to 900 Amps.

Interrupting Rating: 200kA RMS Symmetrical.
Agency **Approvals:** UL Recognized. Std. 248-13
Watts loss provided at rated current.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Electrical Characteristics **Ordering Information**

Size	Rated Current RMS-Amps	I^2t (A^2 SEC) Pre-arc	Clearing at 120V	Clearing at 240V	Watts Loss	Part Number	Carton Qty.	Carton Weight (Kg)
LCT	6	2	6	9	1.0	6LCT	20	0.110
	10	3.8	12	22	2.5	10LCT	20	0.110
	12	7	22	32	2.5	12LCT	20	0.110
	16	20	50	100	2.5	16LCT	20	0.110
	20	25	80	160	4.0	20LCT	20	0.110
LET	25	18	120	250	4.0	25LET	10	0.310
	32	32	200	450	5.0	32LET	10	0.310
	35	50	320	600	5.0	35LET	10	0.310
	50	100	500	1400	7.0	50LET	10	0.310
	63	180	1100	2200	9.0	63LET	10	0.310
	80	300	1900	3800	10.0	80LET	10	0.310
	100	600	3800	7500	10.0	100LET	10	0.310
	125	600	3800	7500	16.0	125LET	10	0.310
	160	1100	7000	16000	20.0	160LET	10	0.310
	180	1600	12000	29000	21.0	180LET	10	0.310
LMT	160	1100	7000	16000	17.0	160LMT	1	0.180
	200	1500	10000	20000	28.0	200LMT	1	0.180
	250	3200	20000	40000	28.0	250LMT	1	0.180
	315	6000	35000	75000	35.0	315LMT	1	0.180
	355	8000	50000	100000	35.0	355LMT	1	0.180
	400	14000	70000	160000	40.0	400LMT	1	0.180
	450	18000	100000	220000	42.0	450LMT	1	0.180
LMMT	400	6000	35000	80000	60.0	400LMMT	1	0.370
	500	14000	80000	170000	64.0	500LMMT	1	0.370
	630	24000	150000	300000	75.0	630LMMT	1	0.370
	710	32000	200000	460000	77.0	710LMMT	1	0.370
	800	52000	300000	600000	82.0	800LMMT	1	0.370
	900	75000	400000	800000	97.0	900LMMT	1	0.370

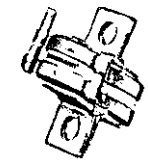
Note: 7LET, 10LET, 12LET and 16LET are available for replacement purposes on existing equipment (not UL recognized).

BIF document: 720004

British Standard BS88: Part 4

660V AC/450V DC 6-700 Amps.

Interrupting Rating: 200kA RMS Symmetrical.
UL Recognized. Std. 248-13, Watts loss provided at rated current.
MT, MMT and additional ratings of ET and EET are available for replacement purposes on existing equipment and are BS 88: Part 4 approved. CE



Electrical Characteristics

Ordering Information

Size	Rated Current RMS-Amps	I^2t (A^2 SEC) Pre-arc	I^2t (A^2 SEC) Clearing at 415V	I^2t (A^2 SEC) Clearing at 660V	Watts Loss	Part Number	Carton Qty.	Carton Weight (Kg)
CT	6	1.8	8.5	12	2	6CT	20	0.160
	10	7	30	48	3	10CT	20	0.160
	12	10	40	65	3	12CT	20	0.160
	16	16	66	110	7	16CT	20	0.160
	20	32	150	220	7	20CT	20	0.160
ET	25	25	150	250	7	25ET	10	0.420
	32	32	190	350	11	32ET	10	0.420
	35	52	310	500	11	35ET	10	0.420
	40	103	600	900	9	40ET	10	0.420
	45	103	680	1100	11	45ET	10	0.420
	56	135	950	1500	14	56ET	10	0.420
	63	171	1200	2000	16	63ET	10	0.420
	80	360	2500	4000	18	80ET	10	0.420
FE	35	33	130	200	9	35FE	10	0.420
	40	52	180	300	9	40FE	10	0.420
	45	76	270	450	11	45FE	10	0.420
	50	103	380	600	11	50FE	10	0.420
	63	135	480	750	12	63FE	10	0.420
	71	210	600	950	17	71FE	10	0.420
	80	250	900	1500	20	80FE	10	0.420
	90	360	1300	2100	20	90FE	10	0.420
	100	470	1800	2800	23	100FE	10	0.420
EET	90	490	3000	4500	19	90EET	5	0.450
	110	600	4000	6500	27	110EET	5	0.450
	140	1050	7000	12000	35	140EET	5	0.450
	160	1500	10000	17000	39	160EET	5	0.450
FEE	100	400	1600	2400	24	100FEE	5	0.450
	120	540	1900	3100	32	120FEE	5	0.450
	140	850	2500	3800	36	140FEE	5	0.450
	160	1000	3700	5700	46	160FEE	5	0.450
	180	1400	5300	8400	46	180FEE	5	0.450
	200	1900	7100	11400	52	200FEE	5	0.450
FM	180	1400	7500	13500	40	180FM	1	0.240
	200	2600	10500	18500	40	200FM	1	0.240
	225	3700	14500	26500	44	225FM	1	0.240
	250	5200	20500	37500	48	250FM	1	0.240
	280	7000	30500	55000	48	280FM	1	0.240
	315	10000	40000	77000	55	315FM	1	0.240
	350	15000	60000	105000	55	350FM	1	0.240
FMM	400	10000	40000	72500	85	400FMM	1	0.450
	450	15000	60000	105000	90	450FMM	1	0.450
	500	20000	82000	150000	100	500FMM	1	0.450
	550	30000	120000	215000	100	550FMM	1	0.450
	630	45000	180000	310000	100	630FMM	1	0.450
	700	60000	245000	420000	120	700FMM	1	0.450
MT†	160	2400	15000	25000	26	160MT	1	0.260
	180	3800	25000	38000	26	180MT	1	0.260
	200	6000	40000	58000	27	200MT	1	0.260
	250	11500	80000	110000	32	250MT	1	0.260
	280	16500	100000	150000	35	280MT	1	0.260
	315	19000	125000	180000	42	315MT	1	0.260
	355	22000	160000	200000	51	355MT	1	0.260
MMT†	180	1650	12000	18000	42	180MMT	1	.0470
	200	2200	16000	23000	42	200MMT	1	.0470
	225	3700	26000	40000	42	225MMT	1	.0470
	280	6600	47000	70000	47	280MMT	1	.0470
	315	8600	62000	91000	51	315MMT	1	.0470
	355	13500	97000	140000	54	355MMT	1	.0470
	400	21000	150000	220000	60	400MMT	1	.0470
	450	30000	220000	320000	57	450MMT	1	.0470
	500	42000	300000	450000	64	500MMT	1	.0470
	560	60000	430000	640000	64	560MMT	1	.0470
	630	68500	500000	720000	86	630MMT	1	.0470
	710	78000	600000	850000	105	710MMT	1	.0470

Note: 8ET, 12ET, 15ET, 20ET, 65EET and 75EET are available for replacement purposes on existing equipment (not UL recognized).

† 500V DC (IEC) rating.

Indicator System and **Fuse** Bases (Blocks)

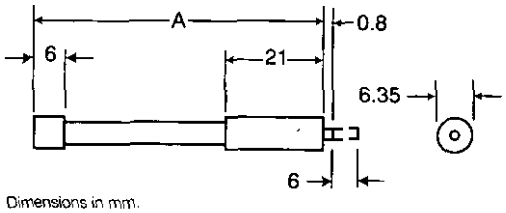
Trip-indicator fuselinks are available for use in parallel with the main fuselinks. They can either be attached to the associated fuselink or mounted separately in panel mounted fuse clips, Part No. CL1. A push-on adaptor and microswitch attachment is available for use with the trip indicator to give the facility of remote indication. reference MAI or MBI.

Fuse ratings of 20A and below cannot usually accommodate a trip fuselink in parallel.

Where trip indicator fuselinks are to be attached to the main fuselink, an accessory pack comprising a pair of mounting clips and an appropriate trip indicator fuselink will be required.

The ordering code references for these packs are listed below:

Fuse Type	Order Ref.	Fuse Type	order Ref.
ET	EC-600	FM	MC-600
EET	EC-600	FMM	MC-600
FE	EC-600	LMT	MC-250
FEE	EC-600	LMMT	MC-250
LET	EC-250		



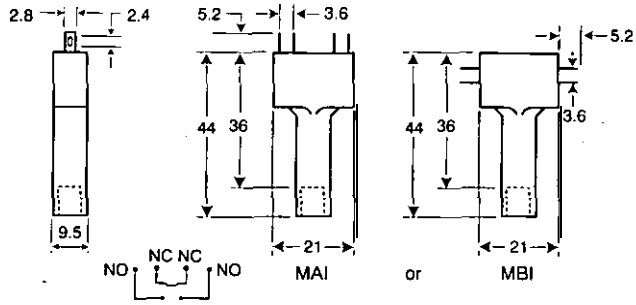
Dimensions in mm.
1mm = 0.0394" 1" = 25.4mm

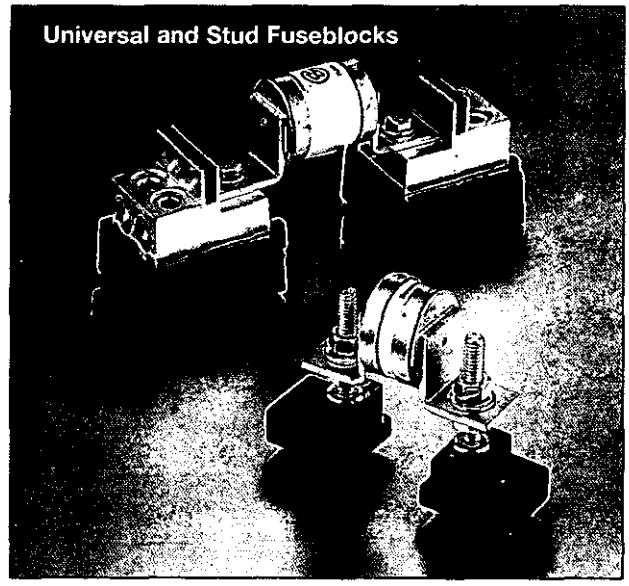
Trip-Indicator Fuselink Data

Type	Dim. 'A' Max.	Voltage Rating	Type	Dim. 'A' Max.	Voltage Rating
TI250	37.6	250	TI1100	98.4	1100
TI500	47.5	500	TI1500	120.8	1500
TI600	55.7	600	TI2000	147.5	2000
TI700	61.8	700	TI2500	198.3	2500

Microswitch and Adaptor Type MAI

Current Rating:	
AC 50/60Hz resistive load @ 250 VRMS	4A
AC 50/60Hz resistive load @ 127 VRMS	6A
DC, resistive load @ 110 Vdc	0.7
DC, resistive load @ 30 Vdc	2
Maximum Working Voltage:	
Contact-to-contact (RMS)	1000V
Contact-to-contact (RMS)	1500V





Stud Fuseblocks

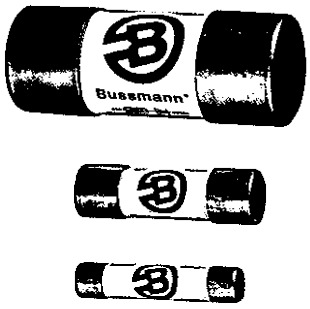
Part No.	Stud Height	Stud Dia. & Threads
C5268-1	1.00"	5/16-18
C5268-2	1.75"	5/16-18
C5268-3	0.75"	5/16-18
C5268-4	1.00"	1/4-20
C5268-5	1.75"	1/4-20

Universal Fuseblocks

Modular Base	Max. Voltage	Max. Fuse Current Rating	BIF Document
1BS101	600V	100A	1206
1BS102	600V	400A	1207
1BS103	600V	400A	1208
1BS104	600V	600A	1209

BIF document: 720037

Ferrule Style



Voltage Rating	
150 Volt AC/DC	5 to 60 Amperes
250 Volt AC/DC	1 to 30 Amperes
500 Volt AC/DC	0.25 to 30 Amperes
600/400 Volt AC/DC	6 to 32 Amperes
700 Volt AC/DC	1 to 100 Amperes
750 Volt AC/DC	5 to 60 Amperes
1000/800 Volt AC/DC	20 to 30 Amperes
1250/1000 Volt AC/DC	***20 to 30*** Amperes
1500/1000 Volt AC/DC	2 to 15 Amperes

All Bussmann Ferrule fuses-except 660 Volt-have been tested at their rated voltage. The 660 Volt Ferrule fuse has been tested to the IEC 269 standard, which requires clearing at the rated voltage +10%.

Select Fuses designed and tested to:
. IEC 269: Part 4
- UL Recognized, Std. 248-13

Bussmann offers a full line of Ferrule Style (cylindrical and clip-mounted) fuses, designed and tested to meet standards and requirements in various locations around the world. Their unique design and construction provide:
- Superior cycling capability
- Low energy let-thru (I^2t)

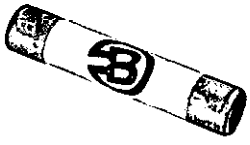
Ferrule fuses provide an excellent solution for small UPS, small AC drives and other low power applications where space is at a premium.

Accessories

Ferrule fuses may be mounted in fuse clips, fuseholders, fuseblocks or fused switches. A variety of products are available to suit most end-use requirements.

FWA 150V AC

Interrupting Rating: 100kA RMS Symmetrical.
Agency Approvals: UL Recognized. 150V, Std. 248-13
Watts loss provided at rated current.



CE

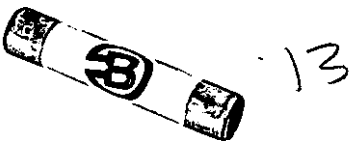
Electrical Characteristics **Ordering Information**

Size	Rated Current RMS-Amps	I^2t (A^2 SEC) Pre-arc	I^2t (A^2 SEC) Clearing at 150V	Watts Loss	Part Number	Carton Qty.	Carton Weight (Kg)
10 x 38 mm (13/32")	5	1.6	8	1	FWA-5A10F	10	0.100
	10	3.6	16	2.7	FWA-10A10F	10	0.100
	15	14	55	3.3	FWA-15A10F	10	0.100
	20	33	130	3.8	FWA-20A10F	10	0.100
	25	58	220	4.9	FWA-25A10F	10	0.100
	30	100	400	4.9	FWA-30A10F	10	0.100
21 x 51 mm (13/16")	35	75	800	4.5	FWA-35A21F	10	0.600
	40	100	1000	5.1	FWA-40A21F	10	0.600
	45	130	1300	6	FWA-45A21F	10	0.600
	50	170	1600	7.3	FWA-50A21F	10	0.600
	60	250	2400	8.0	FWA-60A21F	10	0.600

Ferrule Style

FWX 250V AC/250V DC (250V DC on 5 through 30)

Interrupting Rating: 200kA **RMS Symmetrical.**
Agency Approvals: **UL Recognized.** 250V, **Std. 246-13**
Watts loss provided at rated current. Cf



Electrical Characteristics

Ordering Information

Size	Rated Current RMS-Amps	I^2t (A^2 SEC) Pre-arc	I^2t (A^2 SEC) Clearing at 250V	Watts Loss	Part Number	Carton Qty.	Carton Weight (Kg)
14 x 51mm	1	—	—	—	FWX-1A14F	10	0.225
	2	—	—	—	FWX-2A14F	10	0.225
	3	—	—	—	FWX-3A14F	10	0.225
	4	—	—	—	FWX-4A14F	10	0.225
	5	1.6	13	1.3	FWX-5A14F	10	0.225
	10	3.6	24	3.4	FWX-10A14F	10	0.225
	15	14	83	3.8	FWX-15A14F	10	0.225
	20	33	200	4.6	FWX-20A14F	10	0.225
	25	58	300	5.3	FWX-25A14F	10	0.225
	30	100	500	5.9	FWX-30A14F	10	0.225

Fuse Block: 1976 - (pole) BIF #1210

BIF document: 720006

FWH 500V AC/500V DC

Interrupting Rating: 6 mm x 32 mm (Interrupting rating varies—See BIF document for details)
14 mm x 51 mm (200kA RMS Symmetrical).

Agency Approvals: UL Recognized, 500V, Std. 248-13

Watts loss provided at rated current.

CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Electrical Characteristics

Ordering Information

Size	Rated Current RMS-Amps	I^2t (A^2 SEC) Pre-arc	I^2t (A^2 SEC) Clearing at 500V	Watts Loss	Part Number	Carton Qty.	Carton Weight (Kg)
6 x 32 mm (¼" x 1¼")	0.25	0.01	0.05	2.7	FWH-.250A6F	10	0.03
	0.5	0.05	0.25	1.2	FWH-.500A6F	10	0.03
	1	0.4	2	1.7	FWH-001A6F	10	0.03
	2	1.3	3.5	3.2	FWH-002A6F	10	0.03
	3.15	3.1	7.7	2.9	FWH-3.15A6F	10	0.03
	5	15	40	2.1	FWH-005A6F	10	0.03
	6.3	36	90	2.3	FWH-6.30A6F	10	0.03
	7	50	125	2.5	FWH-007A6F	10	0.03
	10	—	—	—	FWH-010A6F	10	0.03
	12.5	20	—	3.53	FWH-12.5A6F	10	0.03
	15	44	146	3.08	FWH-015A6F	10	0.03
	16	48	177	4.48	FWH-016A6F	10	0.03
	20	75	259	4.26	FWH-020A6F	10	0.03
	25	—	—	—	FWH-025A6F	10	0.03
	30	—	—	—	FWH-030A6F	10	0.03
14 x 51mm (9/16")	1	—	—	—	FWH-1A14F	—	—
	2	—	—	—	FWH-2A14F	—	—
	3	—	—	2.3	FWH-3A14F	—	—
	4	—	—	—	FWH-4A14F	—	—
	5	1.6	6.4	1.5	FWH-5A14F*	10	0.250
	6	1.6	6.4	1.5	FWH-6A14F*	—	—
	10	3.6	13	4	FWH-10A14F*	10	0.250
	12	—	—	—	FWH-12A14F*	—	—
	15	10	40	5.5	FWH-15A14F*	10	0.250
	20	26	96	6	FWH-20A14F*	10	0.250
	25	49	191	7	FWH-25A14F*	10	0.250
	30	58	232	9	FWH-30A14F*	10	0.250

BIF document: 14mm x 51mm, 720008 & 6mm x 32mm, 720038

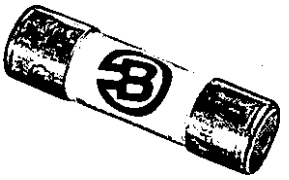
*UL Recognized at 500V DC & CSA Component Acceptance at 500V AC/DC

Ferrule Style

FWC 600V AC

Interrupting Rating: 200kA RMS Symmetrical.
Agency Approvals: UL Recognized. 600V, Std. 248-13

Watts loss provided at rated current.



CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Electrical Characteristics **Ordering Information**

Size	Rated Current RMS-Amps	I^2t (A^2 SEC) Pre-arc	I^2t (A^2 SEC) Clearing at 600V	Watts Loss	Part Number	Carton Qty.	Carton Weight (Kg)
10 x 38 mm (13/32")	6	4	30	1.5	FWC-6A10F	10	0.100
	8	6	50	2.0	FWC-8A10F	10	0.100
	10	9	70	2.5	FWC-10A10F	10	0.100
	12	15	120	3.0	FWC-12A10F	10	0.100
	16	25	150	3.5	FWC-16A10F	10	0.100
	20	34	260	4.8	FWC-20A10F	10	0.100
	25	60	390	6.0	FWC-25A10F	10	0.100
	32	95	600	7.5	FWC-32A10F	10	0.100

Fuse Block: BM Series BIF #1104 . 400V DC U.L. Recognition

BIF document: 720011

FWP 700V AC/700V DC; 660V (IEC)/700V (UL)

Interrupting Rating: 200kA RMS Symmetrical..
Agency Approvals: UL Recognized. 700V, Std. 248-13 (700V DC ratings for 5 through 30 amperes only). Consult Bussmann for other ratings.

Watts loss provided at rated current.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Electrical Characteristics **Ordering Information**

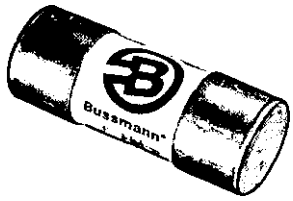
Size	Rated Current RMS-Amps	I^2t (A^2 SEC) Pre-arc	I^2t (A^2 SEC) Clearing at 660V	Watts Loss	Part Number	Carton Qty.	Carton Weight (Kg)
14 x 51mm (9/16")	1	—	—	—	FWP-1A14F	10	0.225
	2	—	—	—	FWP-2A14F	10	0.225
	3	—	—	—	FWP-3A14F	10	0.225
	4	—	—	—	FWP-4A14F	10	0.225
	5	1.6	4	1.5	FWP-5A14F	10	0.225
	10	3.6	10	4	FWP-10A14F	10	0.225
	15	10	22	5.5	FWP-15A14F	10	0.225
	20	26	60	6	FWP-20A14F	10	0.225
	25	44	130	7	FWP-25A14F	10	0.225
	30	58	150	9	FWP-30A14F	10	0.225
	32	95	800	7.6	FWP-32A14F	10	0.225
	40	110	980	8	FWP-40A14F	10	0.225
	50	220	1800	9	FWP-50A14F	10	0.225

Fuse Block: 1976 - (pole) BIF #1210 □ CSA Component Acceptance 5-30A at 700V AC/DC

BIF document: 720025

Ferrule Style

FWP 700V AC



Interrupting Rating: 200kA RMS Symmetrical.
Agency Approvals: UL Recognized. 700V, Std. 248.13
Watts loss provided at rated current.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

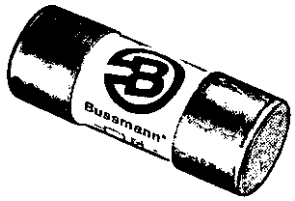
Electrical **Characteristics** — **Ordering Information**

Size	Rated Current RMS-Amps	I^2t (A^2 SEC) Pre-arc	I^2t (A^2 SEC) Clearing at 660V	Watts Loss	Part Number	Carton Qty.	Carton Weight (Kg)
22 × 58 mm (7/8")	20	34	370	4.6	FWP-20A22F	10	0.450
	25	60	560	5.6	FWP-25A22F	10	0.450
	32	95	850	7.0	FWP-32A22F	10	0.450
	40	185	1350	8.5	FWP-40A22F	10	0.450
	50	155	1120	9.5	FWP-50A22F	10	0.450
	63	310	2700	11	FWP-63A22F	10	0.450
	80	620	5100	13.5	FWP-80A22F	10	0.450
	100	1250	10000	16	FWP-100A22F	10	0.450

Fuse Block: J70100 - (pole) CR BIF #1211 ■ ***500V DC UL Recognition***

BIF document: 720026

FWJ 1000V AC/800V DC



Interrupting Rating: 25kA RMS Symmetrical.
Agency Appmvals: UL Recognized. 1000V AC/800V DC, Std. 248-13
Watts loss provided at rated current.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Electrical Characteristics — **Ordering Information**

Size	Rated Current RMS-Amps	I^2t (A^2 SEC) Pre-arc	I^2t (A^2 SEC) Clearing at 1000V	Watts Loss	Part Number	Carton Qty.	Carton Weight (Kg)
14 × 67 mm (9/16")	20	25	220	9	FWJ-20A14F	10	0.300
	25	33	350	11	FWJ-25A14F	10	0.300
	30	52	450	14	FWJ-30A14F	10	0.300

BIF document: 720028

Ferrule Style

FWK 750V 5-60A

Size	Rated Current RMS-Amps	I^2t (A^2S) Pre-arc	I^2t (A^2S) Clearing at 750 VDC	Watts Loss	Part Number	Carton Qty.	Carton Weight (kg)	Dimensions Figure Number
20 x 127mm (13/16")	5	8.5	16	—	FWK-5A20F	10	0.95	Fig. 1
	8	50	100	—	FWK-8A20F			
	10	95	200	—	FWK-10A20F			
	15	100	240	—	FWK-15A20F			
	20	125	315	—	FWK-20A20F			
	25	400	1100	—	FWK-25A20F			
	30	800	2600	—	FWK-30A20F			
25 x 146mm (1")	35	1300	4300	—	FWK-35A25F	10	1.65	Fig. 2
	40	1600	5300	—	FWK-40A25F			
	50	3100	12000	—	FWK-50A25F			
	60	5900	24000	—	FWK-60A25F			

- Interrupting rating 45kA RMS symmetrical.
- 750 Vdc rating for 5 through 60 amperes (Time constant = 10-15 mS).

1 kg = 2.2 lbs. 1 lb = 0.45 kg

Dimensions

Fig. 1: 5-30 Amp Range

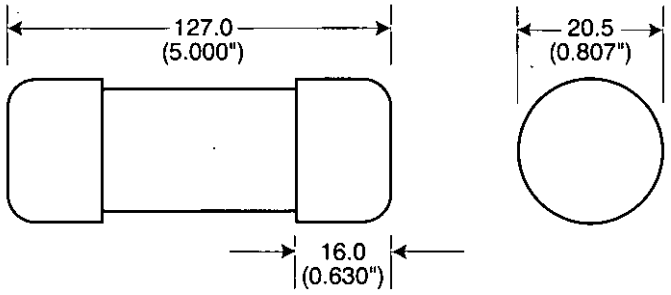
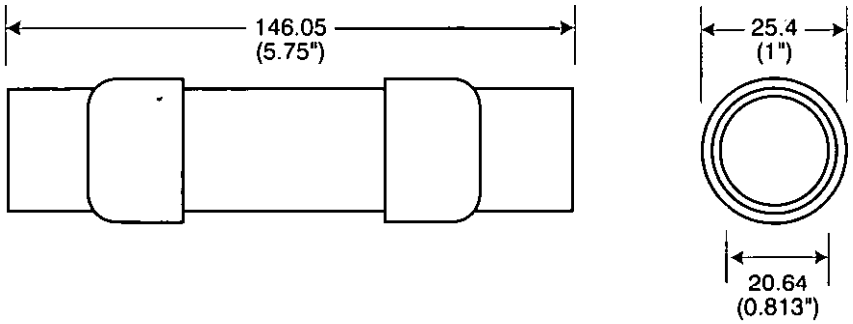


Fig. 2: 35-W Amp Range



Dimension in mm.
1mm = 0.0394" 1" = 25.4mm

Ferrule Style

FWL/FWS 1250V/1500V 2-30A

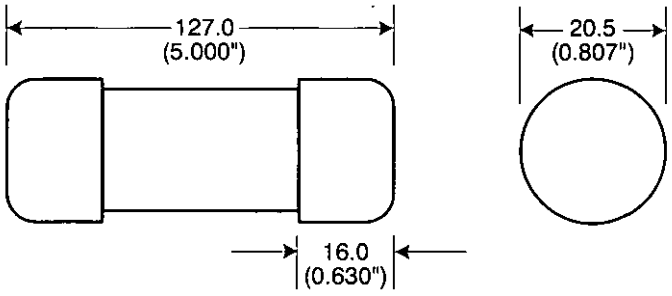
Size	Rated Current RMS-Amps	I^2t (A^2S) Pre-arc	I^2t (A^2S) Clearing at 1000 VDC	Watts Loss	Part Number	Carton Qty.	Carton Weight (kg)	Dimensions Figure Number
20 × 127mm (13/16")	†2	0.8	2.4	4.4	FWS-2A20F	10	1.00	Fig. 1
	†6	27	81	6.7	FWS-6A20F			
	†10	170	400	3.0	FWS-10A20F			
	†15	300	700	5	FWS-15A20F			
	‡20	675	1550	5.9	FWL-20A20F			
	‡30	1850	4300	7.5	FWL-30A20F			

- Interrupting rating 45kA RMS Symmetrical.
- Rated voltage (IEC) †1500V ‡1250V
- 1000 Vdc rating.

1 kg = 2.2 lbs. 1 lb = 0.45 kg

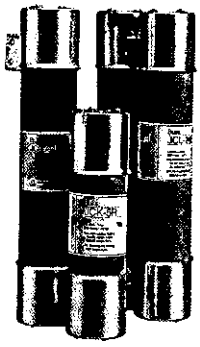
Dimensions

Fig. 1: 2-30 Amp Range



Dimension in mm.
1mm = 0.0394" 1" = 25.4mm

R-Rated Fuses for Motor Circuit, Protection



JCK, JCK-A, JCL & JCL-A

Medium Voltage
Current Limiting
Voltage Rating: JCK, JCK-A: 2750V AC;
JCL, JCL-A: 55OOV AC
Max. Design Voltage: JCK, JCK-A: 2750V AC;
JCL, JCL-A: 5500V AC
Agency Approvals:
UL Recognized Maximum: JCK, JCK-A: 2540V AC
JCL, JCL-A: 5080V AC
UL Recognized, Guide M5552, File E96676

Specifications

Buss Catalog No.	Amperage	Maximum Design Voltage	Construction	Max. Int. Cap. Amps (Asym.)	Max. Int. Cap. Amps (Sym.)	Min. Int. Cap. Amps (Sym.)	Dimensions Length	Dimensions Diameter
2400V; R-Rated; Indoor/Enclosure								
JCK-2R	70 2R	2750V	Single	80,000	50,000	165		
JCK-3R	100 3R	2750V	Single	80,000	50,000	220		
JCK-4R	130 4R	2750V	Single	80,000	50,000	320		
JCK-5R	150 5R	2750V	Single	80,000	50,000	410		
JCK-6R	170 6R	2750V	Single	80,000	50,000	480		
JCK-9R	200 9R	2750V	Single	80,000	50,000	720		
JCK-12R	230 12R	2750V	Single	80,000	50,000	970		
JCK-18R	390 18R	2750V	Double	80,000	50,000	1430		
JCK-24R	450 24R	2750V	Double	80,000	50,000	1880		
2400V; R-Rated; Indoor/Enclosure; With Westinghouse Amp guard Hookeye							11.235" (285.37mm)	3" (76.20mm)
JCK-A-2R	70 2R	2750V	Single	80,000	50,000	165		
JCK-A-3R	100 3R	2750V	Single	80,000	50,000	220		
JCK-A-4R	130 4R	2750V	Single	80,000	50,000	320		
JCK-A-5R	150 5R	2750V	Single	80,000	50,000	410		
JCK-A-6R	170 6R	2750V	Single	80,000	50,000	480		
JCK-A-9R	200 9R	2750V	Single	80,000	50,000	720		
JCK-A-12R	230 12R	2750V	Single	80,000	50,000	970		
JCK-A-18R	390 18R	2750V	Double	80,000	50,000	1430		
JCK-A-24R	450 24R	2750V	Double	80,000	50,000	1880		
4800V; R-Rated; Indoor/Enclosure								
JCL-2R	70 2R	5500V	Single	80,000	50,000	165		
JCL-3R	100 3R	5500V	Single	80,000	50,000	220		
JCL-4R	130 4R	5500V	Single	80,000	50,000	320		
JCL-5R	150 5R	5500V	Single	80,000	50,000	410		
JCL-6R	170 6R	5500V	Single	80,000	50,000	480		
JCL-9R	200 9R	5500V	Single	80,000	50,000	720		
JCL-12R	230 12R	5500V	Single	80,000	50,000	970		
JCL-18R	390 18R	5500V	Double	80,000	50,000	1430		
JCL-24R	450 24R	5500V	Double	80,000	50,000	1880		
4800V; R-Rated; Indoor/Enclosure; With Westinghouse Amp guard Hookeye							15.745" (399.92mm)	3" (76.20mm)
JCL-A-2R	70 2R	5500V	Single	80,000	50,000	165		
JCL-A-3R	100 3R	5500V	Single	80,000	50,000	220		
JCL-A-4R	130 4R	5500V	Single	80,000	50,000	320		
JCL-A-5R	150 5R	5500V	Single	80,000	50,000	410		
JCL-A-6R	170 6R	5500V	Single	80,000	50,000	480		
JCL-A-9R	200 9R	5500V	Single	80,000	50,000	720		
JCL-A-12R	230 12R	5500V	Single	80,000	50,000	970		
JCL-A-18R	390 18R	5500V	Double	80,000	50,000	1430		
JCL-A-24R	450 24R	5500V	Double	80,000	50,000	1880		

Recommended Fuseclips: 1A0065.

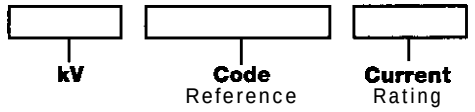
BIF document: 6001

Medium Voltage for Motor Circuit **Protection**

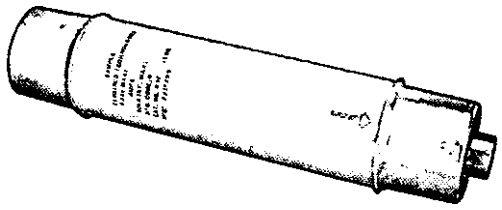
Table of Ratings

kV	Code Reference	Breaking Capacity (kA)	Current Rating (A)	Dimensions		Dimensional Standard
				Length	Diameter	
3.6	WJON6	50	5 6.3 10 16 20 25 31.5 40 50	7.56" (192mm)	1.4" (35mm)	BS2692 (TA1) Interchangeable with GEC type K2 PA
3.6	WDOH6	50	50 63 80 100 125	7.56" (192mm)	2" (51mm)	BS 2692 (TA1) or DIN 43625
3.6	WFOH6	50	160 200	11.5" (292mm)	3" (76mm)	
3.6	WDLSJ	50	50 63 80 100 125	11.5" (292mm)	2" (51mm)	DIN 43625
3.6	WFLSJ	50	160 200	11.5" (292mm)	3" (76mm)	
3.6	WDFHO	50	50 63 80 100 125	10" (254mm)	2" (51mm)	BS 2692 (TA2)
3.6	WFFHO	50	160 200	10" (254mm)	3" (76mm)	
3.6	WKFHO	50	250 315 355 400	10" (254mm)	3" (76mm)	
5.5	VFNHA	60	2R-6R	15.86" (403mm)	3" (76mm)	N. American Practice
5.5	VKNHA	60	9R-24R	15.86" (403mm)	3" (76mm)	
7.2	WFNHO	40	25 31.5 40 50 63 80 100 125 160	15.86" (403mm)	3" (76mm)	BS2692 (TA4)
7.2	WKNHO	40	200 224 250 315	15.86" (403mm)	3" (76mm)	
7.2	WFMSJ	40	25 31.5 40 50 63 80 125 160	17.40" (442mm)	3" (76mm)	DIN 43625
7.2	WKMSJ	40	200 224 250 315 355	17.40" (442mm)	3" (76mm)	

Catalog Code:



E-Rated Medium Volt for Transformers and Feeders



MV055 and MV155

E-Rated Medium Voltage Fuses
Meets E requirements per ANSI C37.46
Meets full range requirements per ANSI C37.40
For Transformer and Feeder Protection
Current Limiting
Voltage Rating: 5.5 kV **and 15.5 kV**
Interrupting Rating: 50KA **Maximum Sym.**
Agency Approvals: **UL pending.**
Construction: Silver **ribbon element surrounded by silica filler housed in a fiberglass tube and plated endcaps. An epoxy paint protects the fuse tube from the surrounding environment.**

Electrical Characteristics 5.5kV

Part Number	Ampere Rating	Min. Melt I²t	Max. Clear I²t	Physical Size Length	Clip Dia.	Center	Barrels
MV055F1CAX5E	5A	180	2,400				
MV055F1CAX7E	7A	850	8,000				
MV055F1CAX10E	10A	850	8,000				
MV055F1CAX15E	15A	2,070	11,000				
MV055F1CAX20E	20A	2,370	23,000	15.75	2	12	1
MV055F1CAX25E	25A	4,650	31,000				
MV055F1CAX30E	30A	9,490	45,000				
MV055F1CAX40E	40A	9,490	45,000				
MV055F1CAX50E	50A	13,600	90,000				
MV055F1CAX65E	65A	30,700	181,000				
MV055F1DAX10E	10A	850	8,000				
MV055F1DAX15E	15A	2,070	12,000				
MV055F1DAX20E	20A	2,370	23,000				
MV055F1DAX25E	25A	4,650	31,000				
MV055F1DAX30E	30A	9,490	45,000	15.75	3	12	1
MV055F1DAX40E	40A	9,490	45,000				
MV055F1DAX50E	50A	13,600	90,000				
MV055F1DAX65E	65A	30,700	181,000				
MV055F1DAX80E	80A	54,600	270,000				
MV055F1DAX100E	100A	116,200	580,000				
MV055F1DAX125E	125A	167,400	600,000				
MV055F1DAX150E	150A	218,700	786,000				
MV055F1DAX175E	175A	227,900	1,100,000	15.75	3	12	1
MV055F1DAX200E	200A	297,600	1,520,000				
MV055F2DAX250E	250A	669,600	2,400,000				
MV055F2DAX300E	300A	874,800	3,149,000				
MV055F2DAX350E	350A	911,600	4,376,000	15.75	3	12	2
MV055F2DAX400E	400A	1,190,400	6,071,000				
MV055F2DAX450E	450A	1,920,000	9,796,000				

BIF document: 6700

Electrical Characteristics 15.5kV

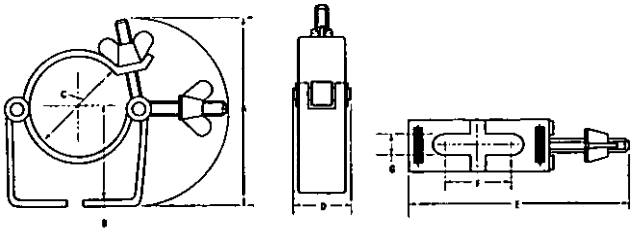
Part Number	Ampere Rating	Min. Melt I²t	Max. Clear I²t	Physical Size Length	Clip Dia.	Center	Barrels
MV155F1CBX5E	5A	180	2,900				
MV155F1CBX7E	7A	850	8,000				
MV155F1CBX10E	10A	850	8,000				
MV155F1CBX15E	15A	2,070	12,000	18.75	2	15	1
MV155F1CBX20E	20A	2,370	23,000				
MV155F1CBX25E	25A	4,650	31,000				
MV155F1CBX30E	30A	9,490	45,000				
MV155F1DBX10E	10A	850	8,000				
MV155F1DBX15E	15A	2,070	12,000				
MV155F1DBX20E	20A	2,370	23,000				
MV155F1DBX25E	25A	4,650	31,000				
MV155F1DBX30E	30A	9,490	45,000				
MV155F1DBX40E	40A	9,490	45,000	18.75	3	15	1
MV155F1DBX50E	50A	13,600	90,000				
MV155F1DBX65E	65A	30,700	181,000				
MV155F1DBX80E	80A	54,600	270,000				
MV155F1DBX100E	100A	116,200	600,000				
MV155F2DBX125E	125A	123,000	677,000				
MV155F2DBX150E	150A	218,700	1,287,000	18.75	3	15	2
MV155F2DBX175E	175A	314,700	1,689,000				
MV155F2DBX200E	200A	465,100	2,405,000				
MV155F1DCX65E	65A	30,700	181,000				
MV155F1DCX80E	80A	54,600	270,000	21.75	3	18	1
MV155F1DCX100E	100A	116,200	600,000				
MV155F2DCX125E	125A	123,000	677,000				
MV155F2DCX150E	150A	218,700	1,287,000				
MV155F2DCX175E	175A	314,700	1,689,000	21.75	3	18	2
MV155F2DCX200E	200A	465,100	2,405,000				

BIF document: 6701

Recommended Fuse Clips for Medium Voltage Fuses

Part No.	Fuse Diameter	Clip Dimensions A	B	C	D	E	F	G
A3354710	2"	3.74"	1.97"	2.00"	1.18"	4.53"	1.50"	.39"
A3354730	3"	4.13"	2.44"	3.00"	1.18"	5.63"	1.50"	.39"

Fuseclips are for single barrel applications only. Are not sold in pairs.



E-Rated Medium Volt for Potential & Sm Power Transformers

JCD, JCW, JCE, JCQ, JCI & JCT

Current Limiting
Indicating/Non-Indicating
Plated Ferrules
Voltage Rating: (Max. Design) 2475, 2750, 5500, 8300, 15,500
Current Ratings: 1/4E through 10E

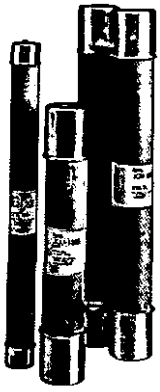
Specifications

Buss Catalog No.	Amperage	Maximum Design Voltage	Construction	Maximum Interrupting Capacity Amps (Asym.)	Maximum Interrupting Capacity Amps (Sym.)	Dimensions Length	Dimensions Diameter
2475V; E-Rated Fuse; Non-Indicating							
JCD-¼E	0.25E	2475V	Single	100,000	63,000		
JCD-½E	0.50E	2475V	Single	100,000	63,000	4.50"	.75"
JCD-1E	1.00E	2475V	Single	60,000	40,000	(114mm)	(19.05mm)
JCD-2E	2.00E	2475V	Single	60,000	40,000		
JCD-5E	5.00E	2475V	Single	40,000	25,000		
2450/5500V; E-Rated Fuse; Non-Indicating							
JCW-½E	0.50E	2750V/5500V	Single	60,000	40,000		
JCW-1E	1.00E	2750V/5500V	Single	60,000	40,000		
JCW-2E	2.00E	2750V/5500V	Single	60,000	40,000	7.312"	1.563"
JCW-3E	3.00E	2750V/5500V	Single	60,000	40,000	(185.72mm)	(39.70mm)
JCW-4E	4.00E	2750V/5500V	Single	60,000	40,000		
JCW-5E	5.00E	2750V/5500V	Single	60,000	40,000		
5500V; E-Rated Fuse; Non-Indicating							
JCE-¼E	0.25E	5500V	Single	100,000	63,000		
JCE-½E	0.50E	5500V	Single	100,000	63,000	5.625"	.75"
JCE-2E	2.00E	5500V	Single	60,000	40,000	(142.88mm)	(19.05mm)
JCE-4E	4.00E	5500V	Single	60,000	40,000		
5500V; E-Rated Fuse; Indicating							
JCQ-½E	0.50E	5500V	Single	130,000	80,000		
JCQ-1E	1.00E	5500V	Single	130,000	80,000	9.5" (241.3mm)	
JCQ-1½E	1.50E	5500V	Single	130,000	80,000		1.563"
JCQ-3E	3.00E	5500V	Single	130,000	80,000		(39.70mm)
JCQ-5E	5.00E	5500V	Single	130,000	80,000	12.88" (327.15mm)	
JCQ-10E	10.00E	5500V	Single	130,000	80,000		
8300V; E-Rated Fuse; Indicating							
JCI-½E	0.50E	8300V	Single	130,000	80,000	9.5" (241.3mm)	
JCI-3E	3.00E	8300V	Single	130,000	80,000		1.563"
JCI-5E	5.00E	8300V	Single	80,000	50,000	12.88" (327.15mm)	(39.70mm)
JCI-10E	10.00E	8300V	Single	80,000	50,000		
15,500V; E-Rated Fuse; Indicating							
JCT-½E	0.50E	15500V	Single	130,000	80,000		
JCT-1E	1.00E	15500V	Single	130,000	80,000	12.88" (327.15mm)	
JCT-1½E	1.50E	15500V	Single	130,000	80,000		1.563"
JCT-3E	3.00E	15500V	Single	130,000	80,000		(39.70mm)
JCT-5E	5.00E	15500V	Single	130,000	80,000	17.5" (444.5mm)	
JCT-10E	10.00E	15500V	Single	80,000	50,000		

Fuse clip for 1.56" Diameter Fuses - 1A0835.
Fuse clip for .75" Diameter Fuses - 1A1837.

BIF document: 6002

E-Rated Fuses for **Trans. &** Feeder Protection



E-Rated
Current Limiting
Blown Fuse Indication
Construction: Plated Ferrules
Voltage **Ratings:** (Max. Design): 2,750, 5,500, 8,300, 15,500 Volt
Current **Ratings:** ½E through 750E

Specifications

Buss Catalog No.	Amperage	Maximum Design Voltage	Construction	Maximum Interrupting Capacity Amps. (Asym.)	Amps. (Sym.)	Dimensions Length	Diameter
2400V; E-Rated; Indoor/Enclosure							
JCX-½E	½E	2750V	Single	60,000	40,000		
JCX-1E	1E	2750V	Single	60,000	40,000		
JCX-2E	2E	2750V	Single	60,000	40,000		
JCX-3E	3E	2750V	Single	60,000	40,000		
JCX-5E	5E	2750V	Single	60,000	40,000	9.5" (233.38mm)	2" (50.8mm)
JCX-7E	7E	2750V	Single	60,000	40,000		
JCX-10E	10E	2750V	Single	60,000	40,000		
JCX-15E	15E	2750V	Single	60,000	40,000		
JCX-20E	20E	2750V	Single	60,000	40,000		
JCX-25E	25E	2750V	Single	60,000	40,000		
JCX-30E	30E	2750V	Single	60,000	40,000		
JCX-40E	40E	2750V	Single	60,000	40,000		
JCX-50E	50E	2750V	Single	60,000	40,000		
JCX-65E	65E	2750V	Single	60,000	40,000		
JCX-80E	80E	2750V	Single	60,000	40,000		
JCX-100E	100E	2750V	Single	60,000	40,000		
JCX-125E	125E	2750V	Single	60,000	40,000		
JCX-150E	150E	2750V	Single	60,000	40,000	10.88" (276.35mm)	3" (76.2mm)
JCX-200E	200E	2750V	Single	60,000	40,000		
JCX-225E	225E	2750V	Single	80,000	50,000		
JCX-250E/280X	250E/280X	2750V	Double	80,000	50,000		
JCX-300E/325X	300E/325X	2750V	Double	80,000	50,000		
JCX-350X	350X	2750V	Double	80,000	50,000		
JCX-400X	400X	2750V	Double	80,000	50,000		
JCX-450X	450X	2750V	Double	80,000	50,000		
5500V; E-Rated; Indoor/Enclosure							
JCY-½E	½E	5500V	Single	60,000	40,000		
JCY-1E	1E	5500V	Single	60,000	40,000		
JCY-2E	2E	5500V	Single	60,000	40,000		
JCY-3E	3E	5500V	Single	60,000	40,000		
JCY-5E	5E	5500V	Single	60,000	40,000	11.188" (284.18mm)	2" (50.8mm)
JCY-7E	7E	5500V	Single	60,000	40,000		
JCY-10E	10E	5500V	Single	60,000	40,000		
JCY-15E	15E	5500V	Single	60,000	40,000		
JCY-20E	20E	5500V	Single	60,000	40,000		
JCY-25E	25E	5500V	Single	60,000	40,000		

Contact Bussmann for the latest product information on E-Rated Fuses for Transformer and feeder protection.
Recommended Fuse Clips: 3" - 1A0065, 9078A67G04, A3354730

E-Rated Fuses for Trans. & Feeder Protection

Specifications

Buss Catalog No.	Amperage	Maximum Design Voltage	Construction	Maximum Interrupting Capacity Amps. (Asym.)	Maximum Interrupting Capacity Amps. (Sym.)	Dimensions Length	Dimensions Diameter
5500V; E-Rated; Indoor/Enclosure							
JCU-10E	10E	5500V	Single	80,000	50,000	17.81" (452.4mm)	3" (76.2mm)
JCU-15E	15E	5500V	Single	80,000	50,000	12.88" (327.0mm)	2" (50.8mm)
JCU-20E	20E	5500V	Single	80,000	50,000		
JCU-25E	25E	5500V	Single	80,000	50,000		
JCU-30E	30E	5500V	Single	80,000	50,000	17.81" (452.4mm)	3" (76.2mm)
JCU-450X	450X	5500V	Double	80,000	50,000		
JCU-600E	600E	5500V	N.A.	64,000	40,000	16" (406.4mm)	N.A.
JCU-750E	750E	5500V	N.A.	64,000	40,000		N.A.
8300V; E-Rated; Indoor/Enclosure							
JCZ-15E	15E	8300V	Single	80,000	50,000	15.52" (394.1mm)	2" (50.8mm)
JCZ-20E	20E	8300V	Single	80,000	50,000		
JCZ-25E	25E	8300V	Single	80,000	50,000		
JCZ-30E	30E	8300V	Single	80,000	50,000	17.81" (452.4mm)	3" (76.2mm)
JCZ-40E	40E	8300V	Single	80,000	50,000		
JCZ-50E	50E	8300V	Single	80,000	50,000		
JCZ-65E	65E	8300V	Single	80,000	50,000		
JCZ-80E	80E	8300V	Single	80,000	50,000		
JCZ-100E	100E	8300V	Single	80,000	50,000		
JCZ-2-100E	100E	8300V	Double	80,000	50,000		
JCZ-125E	125E	8300V	Single	80,000	50,000		
JCZ-150E	150E	8300V	Double	80,000	50,000		
JCZ-200E	200E	8300V	Double	80,000	50,000		
JDZ-20E	20E	8300V	Single	80,000	50,000	15.88" (403.2mm)	3" (76.2mm)
JDZ-25E	25E	8300V	Single	80,000	50,000		
JDZ-30E	30E	8300V	Single	80,000	50,000		
JDZ-40E	40E	8300V	Single	80,000	50,000		
JDZ-50E	50E	8300V	Single	80,000	50,000		
JDZ-65E	65E	8300V	Single	80,000	50,000		
JDZ-80E	80E	8300V	Double	80,000	50,000		
JDZ-100E	100E	8300V	Double	80,000	50,000		
JDZ-125E	125E	8300V	Double	80,000	50,000		

Recommended Fuse Clips: 3" - 1A0065, 9078A67G04, A3354730

General Notes:

1. All fuses are fitted with a striker pin which can be used for indication or tripping purposes.
2. The fuses are suitable for use either indoors or outdoors.
3. These fuses are interchangeable with corresponding fuses produced by most other leading North American manufacturers.

Contact Bussmann for the latest product information on E-Rated Fuses for Transformer and feeder protection.

Medium Voltage DIN Distribution Fuses

DIN Dimension Fuses To **Spec.** DIN 43625

This product group covers current limiting fuses with dimensions to DIN 43625 and performance in compliance with IEC 262-I.

Striker Characteristics

The spring operated striker pin has a travel and energy output in compliance with the requirements of DIN 43625 and IEC 282-I.

current **Ratings**

These are in accordance with the R10 and. in some cases, the R20 series of preferred numbers.

Table of Ratings and Dimensions

kV	Code Ref.	Current Rating	Dimensions Inches and mm Diameter × Length	DIN Series	IR RMS Symm
3.6	ADOSJ WDOSJ	6.3, 16, 20, 25, 31.5, 40, 50, 63, 80, 100, 125	2.00" × 7.56" 51 × 192	3.6/7.2	50KA
	WFOSJ	160, 200	3.00" × 7.56" 76 × 192		
	ADLSJ WDLSJ	6.3, 10, 16, 20, 25, 31.5, 40, 50, 63, 80, 100, 125	2.00" × 11.50" 51 × 292	10/12	
	WFLSJ WFLSJ WKLSJ WKLSJ	160 200 250 315, 400	3.00" × 11.50" 76 × 292		
7.2	SDLSJ SDLSJ	6.3, 10, 16, 20, 25, 31.5 40, 50, 63	2.00" × 11.50" 51 × 292	10/12	
	SFLSJ SFLSJ SFLSJ SFLSJ	80 100 125 160	3.00" × 11.50" 76 × 292		
	WKMSJ WKMSJ	200 250, 315, 355	3.00" × 17.41" 76 × 442	20/24	
12	SDLSJ SDLSJ SDLSJ	6.3, 10, 16, 20, 25 31.5, 40 50, 63	2.00" × 11.50" 51 × 292	10/12	50KA
	SFLSJ SFLSJ SKLSJ	63, 80 100 125, 160, 200	3.00" × 11.50" 76 × 292		
17.5	SDLSJ SDLSJ SDLSJ	6.3, 10, 16 20, 25 40	2.00" × 11.50" 51 × 292	10/12	35.5KA
	SFLSJ SFLSJ	31.5 40, 50	3.00" × 11.50" 76 × 292		
	SDMSJ SDMSJ SDMSJ	6.3, 10, 16 20, 25, 31.5 40	2.00" × 17.41" 51 × 442	20/24	
	SFMSJ SFMSJ	50 63, 80	3.00" × 17.41" 76 × 442		
15.5	SFMSJ SKMSJ	100 125	3.00" × 17.41" 76 × 442		25KA
24	SDMSJ SDMSJ SDMSJ	6.3, 16 20, 25, 31.5 40 (24kv application only)	2.00" × 17.41" 51 × 442	20/24	50KA
	SFMSJ SFMSJ SFMSJ	40, 50 63 71 (24kv application only)	3.00" × 17.41" 76 × 442		
36	SDQSJ	6.3, 10, 16, 20, 25, 31.5 3.15	2.00" × 21.16" 51 × 442	30/36	35.5KA
	SFQSJ	31.5, 40, 50, 56	3.00" × 21.16" 76 × 537		

Recommended Fuseclips for DIN Style Fuses: Bussmann Part Number 270303

Potential Transformer Fuses

These are a range of fuses with low current rating, for use with voltage transformers or operating transformers to provide isolation of the associated system in the event of faults in the transformer circuit.

"AB" & "AM" Series

kV	Code Reference	Current Ratings	Type	Length	Diameter	IR
3.6	ABWNA	3.15, 6.3	AB	5.6"	1"	50KA
3.6	ABCNA	3.15, 6.3, 10	AB	7.69"	1"	
5.5	ABWNA	0.5E, 1E, 2E, 3E, 5E	AB	5.6"	1"	
5.5	AMWNA	0.5E, 1.0E, 2.0E, 3.0E, 4.0E, 5.0E	AM	5.6"	.81"	
7.2	ABWNA	3.15, 6.3	AB	5.6"	1"	45KA
7.2	ABCNA	3.15, 6.3	AB	7.69"	1"	
12.0	ABCNA	3.15	AB	7.69"	1"	
15.5	ABFNA	3.15	AB	10.00"	1"	32KA
17.5	ABGNA	3.15	AB	14.13"	1"	35KA
24.0	ABGNA	3.15	AB	14.13"	1"	25KA
36.0*	ABGNA	3.15	AB	14.13"	1"	31.5KA

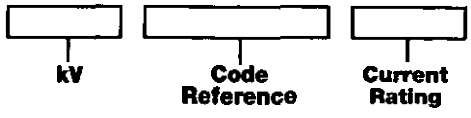
Recommended fuse clip for 1" diameter fuses – A3354705.

"CAV" Series

kV	Code Reference	Current Ratings	Length	Diameter	IR
3.6	CAV	2	8.66"	1.63"	40KA
5.5	CAV	15E	7.375"		
5.5	CAVH	0.5E, 1E, 2E	7.375"		
7.2	CAV	2, 10	8.66"		
12	CAV	2	8.66"		
15.5	CAV	0.5E, 1E, 2E, 3E, 7E	12.87"		
15.5	CAVH	0.5E, 1E, 2E	12.87"		
17.5	CAV	2, 4, 6, 10	8.66"		
24	CAV	2, 3, 4	13.39"		
36	CAV	2, 4	17.32"		
36	CAVH	2	17.32"		
38	CAV	4E	17.32"		
38	CAVH	0.5E, 1E, 2E	17.32"		

*For clean indoor applications only.
Type CAVH are fitted with a striker pin for indication.

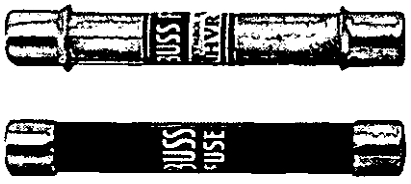
catalog **Code:**



Recommended Fuse Clips: 1" dia. A3354705
1.63" dia. 1A0835

Contact Bussmann for complete specifications on Potential Transformer Fuses

Medium Voltage, Fast Acting Fuses



HVA, HVB, HVJ, HVL, HVR, HVT, HVU, HVW & HVX

Non-Time Delay
Ampere Ratings:
Voltage Rating: 1000 to 10,000 Volts

HVA (1000 Volts) (Max. S.C. 20KW DC, 30KVA AC)

Amps		Dia.	Length In.	Length mm	*Wt./100 Lbs.	*Wt./100 Kg
1/16	3/4					
1/8	1					
1/4	1 1/2					
1/10	2	0.41"	3"	76.1	2	0.91
2/10	3					
3/10	4					
3/8	6					
1/2	10					

HVB (2500 Volts) (Max. S.C. 20KW DC, 30KVA AC)

1/2	1 1/2					
3/4	2	0.41"	4.5"	114.2	3	1.36
1	3					

HVJ (5000 Volts) (Max. S.C. 20KW DC, 30KVA AC)

1/16	1 1/2					
1/8	2					
1/4	4					
1/2	6	0.81"	5"	126.9	9	4.08
3/4	10					
1	—					

HVL (10,000 Volts) (Max. S.C. 20KW DC, 30KVA AC)

1/16	1					
1/8	1 1/2	0.81"	10"	253.8	15	6.80
1/4	2					
1/2	3					

HVR (1000 Volts) (Max. S.C. kVA-500 AC only)

1/2	3					
1	4	0.41"	3"	76.1	3	1.36
2	5					

HVW (1200 Volts) (Max. S.C. kVA-12,000 AC only)

—	3					
1	4					
2	5	0.41"	2.25"	57.1	2	0.91
—	8					

HVT (2500 Volts) (Max. S.C. kVA-1250 AC only)

1/2	3					
1	5	0.41"	4.5"	114.2	4	1.81
2	—					

HVU (5000 Volts) (Max. S.C. kVA-2500 AC only)

1/2	3					
1	4	0.81"	5"	126.9	19	8.62
2	5					

HVX (10,000 Volts) (Max. S.C. kVA-5,000 AC only)

1/2	3	0.41"	10.0"	253.8	36	16.33

*Shipping.
Carton quantity: 10.

Test Specifications

Catalog Number	Load	Opening Time
HVA, HVB, HVJ, HVL	110% 135%	4 Hours (min.) 1 Hour (max.)
HVR, HVT, HVU, HVW	100% 150%	4 Hours (min.) 1 Hour (max.)

4528, 4529, 4530 & 2980

Fuseblocks

Voltage Rating: 1000 to 10,000 Volts

For Fuse	Block Cat.
HVA, HVR	4528
HVB, HVT	4529
HVJ, HVU	4530
HVL, HVX	2960

Use #8 screws on blocks 4528 and 4529.
Use #10 screws on blocks 4530 and 2960.

BIF document: 6003

Medium **Voltage—BS2692-1** Fuses

General Guide to the Selection of HV Fuse Links, used in oilfield switchgear. For use in the Primary Circuit of Three Phase 50 Hz Transformers

Transformer kVA	Transformer Primary Voltage				
			11kV		
	3.3kV	6.6kV	ESI 12-8 Ref.	Fuse Rating	13.8kV
200	3.6kV OEFMA 63	12kV OEFMA 31.5	01	12kV OEFMA 25	15.5kV OEFMA 16
250	3.6kV OEFMA 80	12kV OEFMA 40	—	12kV OEFMA 25	15.5kV OEFMA 20
300/315	3.6kV OEFMA 100	12kV OEFMA 50	02	12kV OEFMA31.5	15.5kV OEFMA 25
400	3.6kV OEFMA 125	12kV OEFMA 63	—	12kV OEFMA 40	15.5kV OEFMA 31.5
500	3.6kV OEFMA 160	12kV OHFMA 71	03	12kV OEFMA 50	15.5kV OEFMA 40
630	3.6kV OEFMA 200	7.2kV OEFMA 100	—	12kV OEFMA 63	15.5kV OEFMA 50
750/800	3.6kV OLGMA 250	7.2kV OHGMA 125	04	12kV OHFMA 80	15.5kV OEFMA 63
1000	3.6kV OLGMA 250*	7.2kV OHGMA 140	05	12kV OHGMA 90**	15.5kV OHGMA 71
1250	—	7.2kV OHGMA 160*	—	12kV OHGMA 100	15.5kV OHGMA 90
1600	—	—	—	12kV OLGMA 125*	15.5kV OLGMA 100*

This selection table has been based upon the following criteria:

1. Withstand against magnetizing inrush current taken as 12 times full-load current for 0.1 second.
2. Withstand against 150% permissible overload current. Recommendations marked with asterisks have the following significance:-
   *Limited to permissible overloads of 130%.
   **Permits use of a 12kV OHFMA 80A fuse with a 100kVA transformer where permissible overload does not exceed 130%.
3. For 6.6kV systems, 12kV fuse links are recommended where possible in the interests of standardization.
4. Wherever possible, 10 inch long FO1 fuse links are offered rather than equivalent 14 inch FO2 types.
5. The above recommendations are not generally applicable to transformers feeding motor circuits with starting currents in excess of the transformer full load current. In this event. please consult Bussmann.

Code References in Table

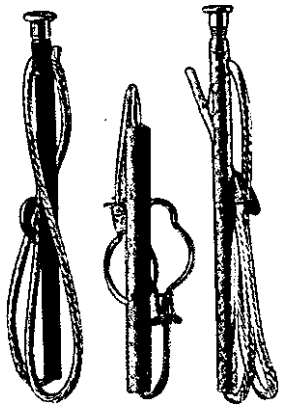
Letter	Reference	Explanation
1st	Type	0 = Oiltight
2nd	Diameter	E, H. L = 63.5 mm
3rd	Length	F = 254 mm, G = 359 mm
4th	Striker	M = As specified in BS 2692 table 11.
5th	Tags	A = none, i.e. plain caps

Table of Preferred Ratings

Rated kV	Code Reference	Dimensional Ref. BS 2692	Current Ratings (amps)	Breaking Capacity (kA)
3.6	OEFMA	FO1	6.3, 10, 16, 20, 25, 31.5, 40, 50, 63, 80, 100, 125, 160, 200	50
3.6	OEGMA	FO2	100, 125, 160, 200	50
3.6	OLGMA	FO2	250	50
7.2	OEFMA	FO1	80, 100, 112	45
7.2	OHGMA	FO2	125, 140, 160	45
12.0	OEFMA	FO1	6.3, 10, 16, 20, 25, 31.5, 40, 50, 63	40
12.0	OHFMA	FO1	71, 80	40
12.0	OHGMA	FO2	6.3, 10, 16, 20, 25, 31.5, 40, 50, 63, 71, 80, 90, 100	40
12.0	OLGMA	FO2	125	40
15.5	OEFMA	FO1	6.3, 10, 16, 20, 25, 31.5, 40, 50, 63	40
15.5	OHGMA	FO2	71, 80, 90	40
15.5	OLGMA	FO2	100	40
17.5	OHGMA	FO2	6.3, 10, 16, 20, 25, 31.5, 40, 50, 63, 80	35
24.0	OEGMA	FO2	6.3, 10, 16, 20, 25, 31.5, 40, 50	25

Contact Bussmann for complete specifications on Medium Voltage Fuses

Medium Voltage Fuse Links



EEI-NEMA Type K and T Fuse Links

These fuse links afford effective overcurrent protection to systems and equipment. In addition to apparatus protection, they can be coordinated with other overcurrent protective devices for sectionalizing in order to isolate feeder branches.

Catalog Data-EEI-NEMA and High-Surge Universal Tine Element Fuse Links for Cutouts. Rated to 27kV

Link Amps	Type H (High Surge)	EEI-Nema Type K (Fast)	EEI-Nema Type T (Slow)	Carton Data Qty.	Weight Lbs.	Weight Kg's.
Non-Removable Button-Head For Standard Open Or Enclosed Cutouts						
1	FL11H1	—	—	25	2	0.91
2	FL11H2	—	—			
3	FL11H3	—	—			
5	FL11H5	—	—			
6	—	FL11K6	FL11T6	25	2	0.91
8	—	FL11K8	FL11T8			
10	—	FL11K10	FL11T10			
12	—	—	FL11T12			
15	—	FL11K15	FL11T15			
20	—	FL11K20	FL11T20			
25	—	FL11K25	FL11T25			
30	—	FL11K30	FL11T30	25	4	1.34
40	—	FL11K40	FL11T40			
50	—	FL11K50	FL11T50			
65	—	FL11K65	FL11T65	15	5	2.27
80	—	FL11K80	FL11T80		5.5	2.49
100	—	FL11K100	FL11T100		6	2.72
140	—	FL11K140	FL11T140	10	7	3.17
200	—	FL11K200	FL11T200		10	4.53

High-Surge Type H Fuse Links

High-surge. Type H fuse links are manufactured in ratings of 1, 2, 3. and 5 amperes. They have been developed principally for primary fusing of small-sized transformers. Type H links are manufactured in the universal buttonhead design..

Type N Fuse Links

Type N fuse links conform to previous NEMA standards and have been superseded by Type K and T links. Type N fuse links are manufactured in the universal button design in ratings of 5 through 200 amperes for use in NEMA standard dimensioned cutouts rated through 27 kv.

Removable Button-Head For Cutouts Requiring Removable-Button Links*

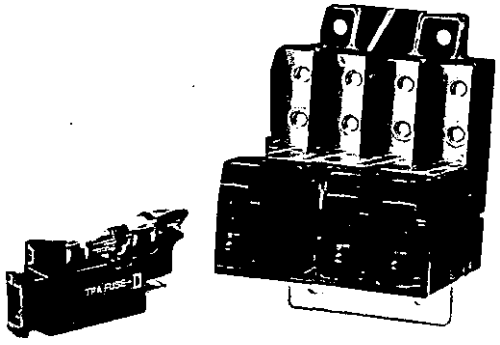
6	—	FL3K6	FL3T6	25	2	0.91
8	—	FL3K8	—			
10	—	FL3K10	FL3T10			
12	—	FL3K12	—			
15	—	FL3K15	FL3T15			
20	—	FL3K20	FL3T20			
25	—	FL3K25	FL3T25		3	1.34
30	—	FL3K30	—	25	3	1.34
40	—	FL3K40	FL3T40			
50	—	FL3K50	FL3T50			
65	—	FL3K65	FL3T65	15	5	2.27
80	—	FL3K80	FL3T80		5.5	2.49
100	—	FL3K100	FL3T100		6	2.72

*Adapter-type removable-button links with ferrule adapter to convert to double-leader links are available in K and T types. Order by description.

Catalog Data—EEI-NEMA Type K Universal Silver-Element Fuse Links for Cutouts Rated through 27kV

Link Rating Amps	EEI-Nema Type K	Carton Data Qty.	Weight Lbs.	Weight Kg's.
Non-Removable Button-Head For Standard Open Or Enclosed Cutouts				
8	FL12K8	25	2	0.91
10	FL12K10			
12	FL12K12			
15	FL12K15			
25	FL12K25			
50	FL12K50	25	3	1.34

Fused Disconnect Switch



TP15914

4 Pole Disconnect **Switch** and **TPA** Series Fuses
Ampere Rating: 50A per pole
Voltage Rating: 145V DC
Agency **Approvals:**
UL recognized as a disconnect switch for interruption of load current by means of withdrawing the fuse carrier.
UL recognized as a component for telecommunication power distribution equipment (UL category QPQYZ).
UL recognized fuses for branch circuit protection.
CSA component acceptance for the system.

Material: UL rated 94V-0, 140°C rated

Fuse

Fuse Type	TPA	TPA-B
Current	***3.5,*** IO, 15, 20, 25, 30, 40, 50	20, 25
Voltage	***170v DC***	65V DC
Interrupting	100 kA	***20*** kA

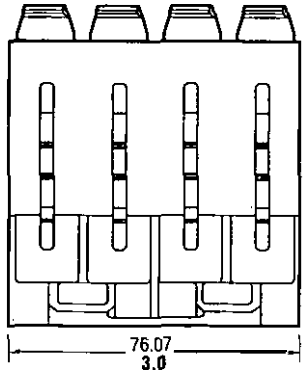
UL Recognized, Guide JFHR2, File E56412
CSA Certified, Class 1422-30, File 53787

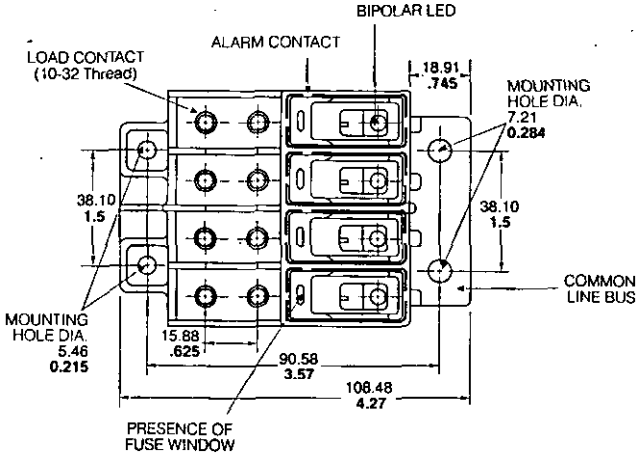
- Front access load and line connection standard—double lug load connections 8 AWG wire.
- Recognized branch circuit protection device.
- Modular design-l poles per module up to four modules banked together.
- Ease of installation—Connection directly to bus bar.
- Reduces external wiring-per pole.
- LED alarm signaling (LED current 30mA max.).
- Blown fuse indication.
- Alarm test probe point. to allow on-site checking of alarm circuitry.
- Snap into alarm bus.
- Bi-polar LED provides capability for both –48V DC and +24V DC applications.
- Fuse presence indication.
- Fuse orientation rejection feature.
- Totally enclosed module.
- Spare fuseholders: Part No. 5TPH and TF'SFH-A
- Remote alarm.
- Contact Bussmann for options on standard module (Hardware, Color, Front line connection. Mounting bezel).

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Dimensional Data

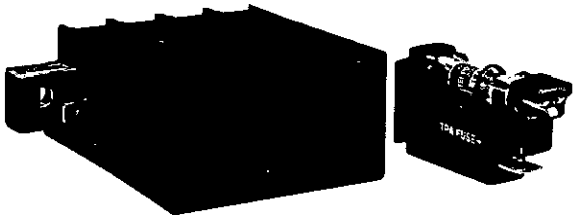
MM
Inches





BIF document: 5011

Fused Disconnect Switch & TPA Fuses



TP15900-4

4-Pole Disconnect Switch
Ampere Rating: 40A per pole
Voltage Rating: 145V DC
Agency Approvals:
UL recognized as a disconnect switch for interruption of load current by means of withdrawing the fuse carrier.
UL recognized as a component for telecommunication power distribution equipment (UL category QPQY2).
UL recognized fuses for branch circuit protection.
CSA component acceptance for the system.

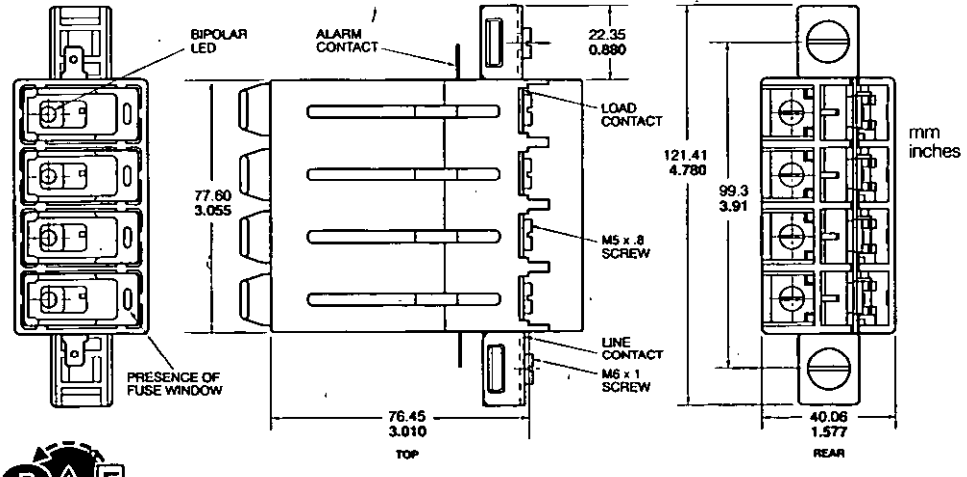
- Ease of installation connection directly to bus bar.
- Reduces external wiring per pole.
- LED alarm signaling (LED current 10mA max.).
- Blown fuse indication.
- Alarm test probe point, to allow on-site checking of alarm circuitry.
- Fuse presence indication.
- Fuse orientation rejection feature.
- Rear accessibility for line and load terminations.

Material: UL rated,94V-0, 140°C rated

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 5001

Dimensional Data



TPA & TPA-B

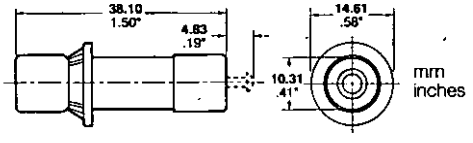
DC Power Distribution Fuses
Ampere Rating: TPA: 3.5, 10, 15. 20, 25, 30, 40, 50
TPA-B: 20.25
Voltage Rating: TPA, 170V DC; TPA-B, 65V DC
Interrupting Rating: TPA, 100 kA; TPA-B. 20 kA
Agency Approvals:
UL Recognized. Guide JFHR2, File E56412
CSA Certified, Class 1422-30, File 53767

Construction:

- Silver-plated brass ferrules and indicator pin on TPA 3-15 and TPA-B. Tin-plated brass on TPA 20-50 on indicator end.
- Glass melamine tube.
- Spare fuseholders: 5 position holder; 5TPH: 6 position holder; TPSFH-AS.

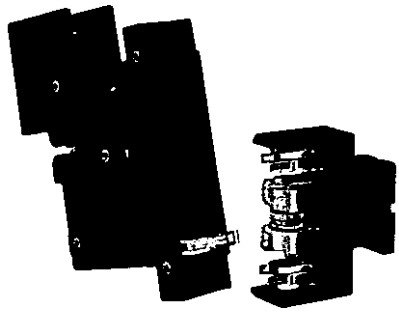
CE CE logo denotes compliance with Europeaan Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Dimensional Data



BIF document: 5012

Fused Disconnect Switch



15800

Fused Disconnect Switch
Ampere Ratings: 1 to 70 Amps.
Voltage Rating: 60 Volts DC
Agency Approvals:
UL Recognized. Guide QPQY2, File E97649
UL Withstand Rating: 100,000 Amps.,

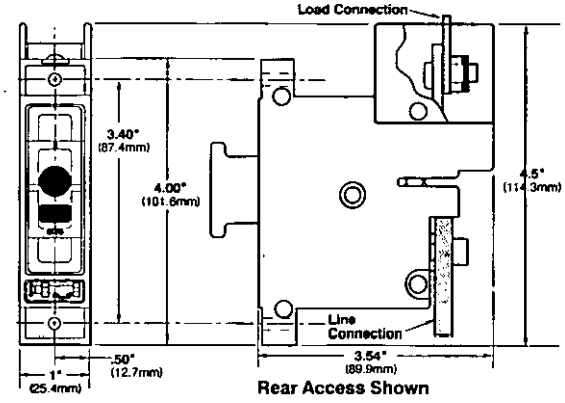
Catalog **Numbers**

15800-R-200	Rear Access Panel Mounting
15800-F-200	Front Access Panel Mounting

- Includes alarm signaling circuit (visual & remote).
- Common Alarm Bus.
- Front access version for load connections.
- For use with Fuse Type: TPS
- Thermoplastic housing material UL Rated 94V-O, 150°C.
- Spare alarm and power fuse compartment.
- Mounting hardware included.
- Spare fuseholders:
  for TPS fuses (TPSFH-AS);
  for GMT fuses (TPSFH-T).

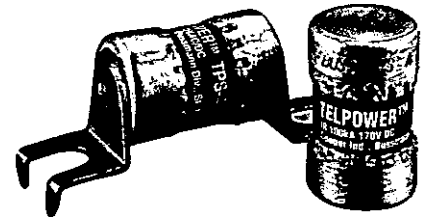
CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Dimensional Data



Rear Access Shown

BIF document: 5002



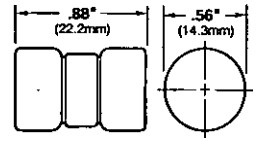
TPS

Ampere Ratings: 1 to 70 Amps.
Voltage Rating: 170 Volts DC
Agency **Approvals:**
UL Recognized. Guide JFHR2. File E56412

Catalog Numbers

TPS-1	TPS-10	TPS-25	TPS-50
TPS-3	TPS-15	TPS-30	TPS-60
TPS-5	TPS-20	TPS-40	TPS-70
TPS-6	—	—	—

Dimensional Data

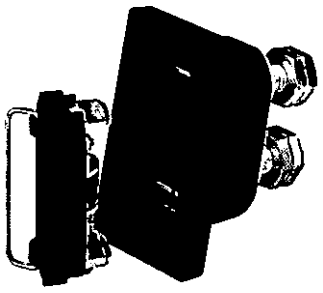


- TELPOWER® fuses bring modem power fuse design to the telecommunications industry.
- TELPOWER fuse line is the first to be specifically designed to meet the unique needs of DC Power Distribution Systems.
- The UL Recognized ratings of 170 Volts DC and 100,000 Amps interrupting rating along with the fuse's current limiting capability make this fuse ideal for cable protection on existing DC Distribution Systems.
- A unique BLUE label is used on all TELPOWER fuses to designate their DC capability.
- Circuit board applications available.
- Silver-plated brass ferrules.
- Glass melamine tube.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 5009

Fused Disconnect Switches



15100
Fused Disconnect System
For use with Telpower® Fuses Type TPL.

Ampere Ratings: 70-600 Amps.
Voltage Rating: 145 Volts DC
Agency **Approvals:**
UL Recognized, Guide QPQY2, File E97649

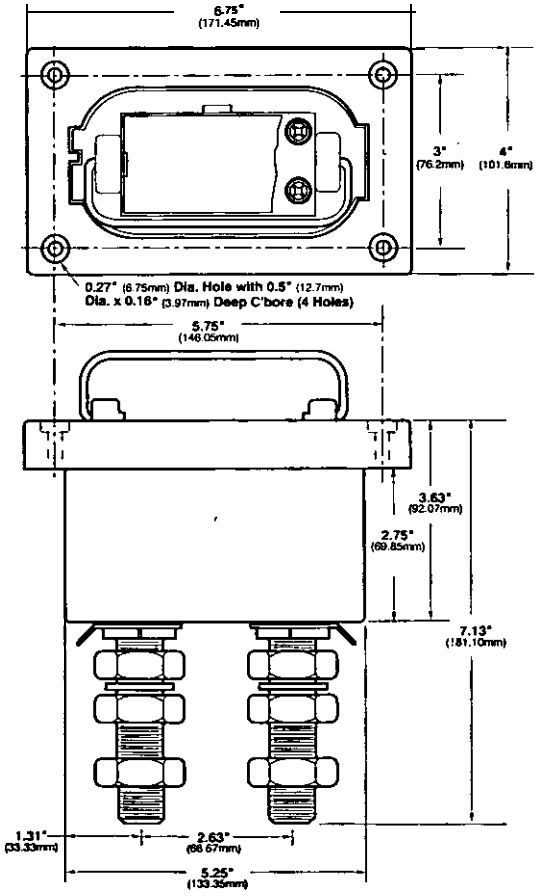
Catalog Numbers

15100-401	For Use With TPL series fuses	70-250 Amp
15100-601	For Use With TPL series fuses	300-600 Amp

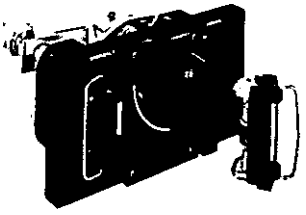
Short-circuit capability 100kA at 145V DC.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Dimensional Data 15100-40



BIF document: 5003



15200
Fused Disconnect System
For use with Telpower® Fuses Type TPL.

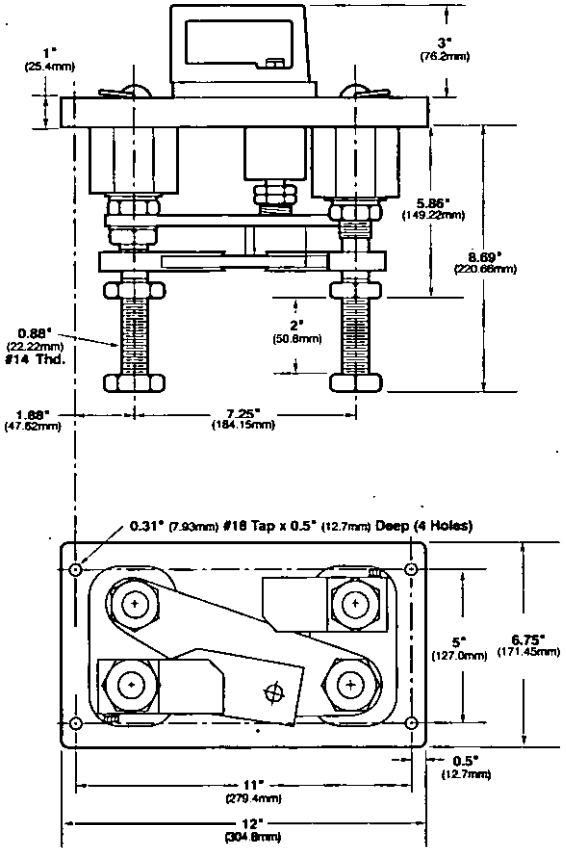
Ampere Ratings: 70-600 Amps.
Voltage Rating: 145 Volts DC
Agency Approvals:
UL Recognized, Guide QPQY2, File E97649
UL Withstand Rating: 100,000A

Catalog Numbers

15200-601	For Use With TPL 300 to 600 Amp

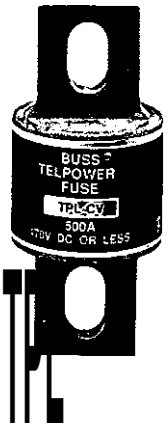
CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Dimensional Data 15200-601



BIF document: 5004

Telpower® Fuses, 70-600 Amps, 170 Volts DC



DC Power Distribution Fuses
Ampere Ratings: 70-600 **Amps.**
Voltage Rating: ***170*** **Volts DC**
Current Limiting
Interrupting Rating: 100,000A
Construction: Silver-Plated **Terminals**
Agency Approvals:
UL Recognized Guide JFHR2, File E56412
Bellcore

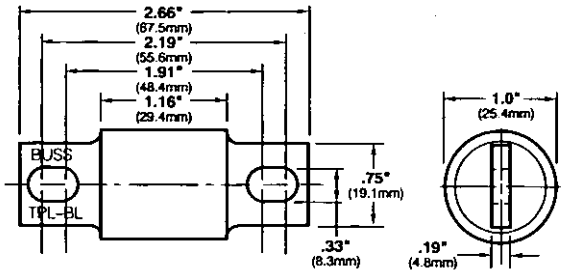
CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Ordering Information:
TPL Telpower (170 Volts DC)

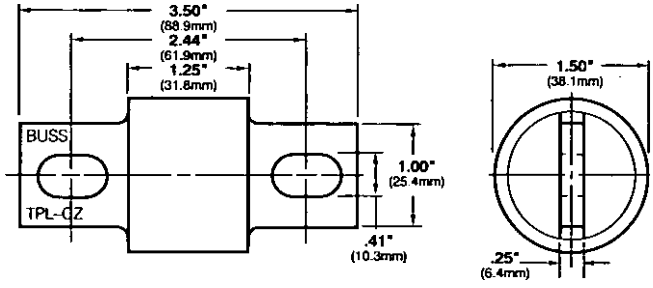
Catalog Number	Ampere Rating	Carton Qty.	Weight* Lbs.	Weight* Kg.
TPL-BA	70	5	1.6	0.73
TPL-BB	80	5	1.6	0.73
TPL-BD	100	5	1.6	0.73
TPL-BE	125	5	1.6	0.73
TPL-BF	150	5	1.6	0.73
TPL-BH	200	5	1.6	0.73
TPL-BK	225	5	1.6	0.73
TPL-BL	250	5	1.6	0.73
TPL-CN	300	1	0.9	0.4
TPL-CR	400	1	0.9	0.4
TPL-CV	500	1	0.9	0.4
TPL-CZ	600	1	0.9	0.4
TPL-CZH	800	1	0.9	0.4

*Weight per carton.

Dimensional Data



TPL-BA, TPL-BB, TPL-ELI, TPL-BE, TPL-BF, TPL-BH, TPL-BK AND TPL-BL

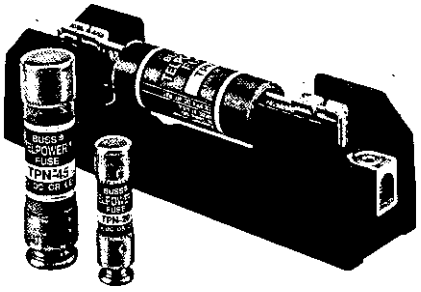


TPL-CN, TPL-CR, TPL-CV, TPL-Ci! AND TPL-CZH

- **Designed for DC power distribution systems.**
- **Recognized branch circuit protection.**
- **Current-limiting capability.**
- **Complete system coordination capability.**
- **Energy savings with low watts loss, low operating temperatures, and minimum I^2t levels.**
- **Use with Telpower 15100 and 15200 disconnect systems.**
- **For replacement of Bussmann's UBO fuses a TPL-TA adaptor kit is necessary.**
- **Spare fuseholders:**
  TPSFH-LB (for TPL-B fuses)
  TPSFH-LC (for TPL-C fuses)

BIF document: 5005

Telpower® Fuses, I-600 Amps, 170 Volts DC



T P N
Current Limiting
DC Power Distribution Fuses
Ampere Ratings: I-600 Amps.
Voltage Rating: 170 Volts DC
Interrupting Rating: 100,000A
Construction: Silver-Plated Terminals
Agency Approvals:
UL Recognized, Guide JFHR2, File E56412

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Catalog Numbers

TPN-1	TPN-45	TPN-200
TPN-3	TPN-50	TPN-225
TPN-5	TPN-60	TPN-250
TPN-6	TPN-70	TPN-300
TPN-10	TPN-80	TPN-350
TPN-15	TPN-90	TPN-400
TPN-20	TPN-100	TPN-450
TPN-25	TPN-110	TPN-500
TPN-30	TPN-125	TPN-600
TPN-35	TPN-150	
TPN-40	TPN-175	

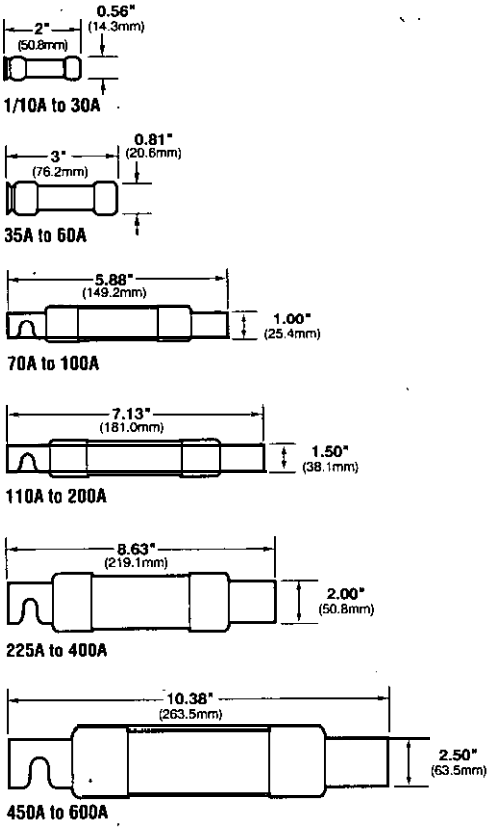
Carton Quantity and Weight
TPN Telpower (170 Volts DC)

Catalog Number	Carton Qty.	Weight* Lbs.	Kg.
1-30	10	0.45	0.204
35-60	10	1.82	0.824
70-100	5	1.85	0.838
110-200	1	1.05	0.476
225-400	1	2.38	1.078
450-600	1	3.50	1.587

*Weight per carton.

- Designed for DC power distribution systems.
- The TPN series of fuses are dimensionally similar to Class R fuses.
- Recognized branch circuit protection.
- Current-limiting capability.

Dimensional Data

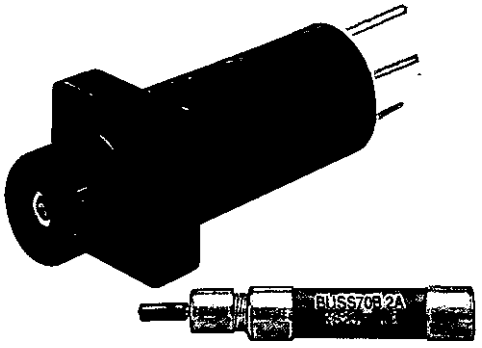


Recommended **Class R Fuseblocks**

Amps	Poles	Catalog Number
1/10 to 30	1	R25030-1CR
	2	R25030-2CR
	3	R25030-3CR
31 to 60	1	R25060-1CR
	2	R25060-2CR
	3	R25060-3CR
61 to 100	1	R25100-1CR
	2	R25100-2CR
	3	R25100-3CR
to 200	1	R25200-1CR
	3	R25200-3CR
to 400	1	R25400-1CR
to 600	1	R25600-1CR

. Complete system coordination capability.
- Energy savings with low watts loss, low operating tempera tures, and minimum I^2t levels.
- Spare fuseholders:
  TPSFH-N30 (for TPN I-30)
  TPSFH-N60 (for TPN 35-60)

Indicating Fuse 8 Holder



70 Series

Indicating **Type** Fuse

Voltage Rating: 125 Volts AC; 300 Volts DC

Agency **Approvals:**

UL Recognized, Guide JDYX2, File E19180

Bellcore

70 **Series Telpower (125 Volts** AC, 300 **Volts** DC)

Catalog Number	Ampere Rating	Voltage Rating AC	Voltage Rating DC	Color Code	Lucent Comcode Ref. No.	Code/ List No.
70P-1/10A*	1/10	125V	300V	Gray/Wh	100203413	KS23751-L10
70R-15/100A*	15/100	125V	300V	Red/Wh	101384550	KS23751-L11
70E-18/100A*	18/100	125V	300V	Yellow	100203363	KS23751-L5
70X-2/10A	2/10	125V	300V	Black	—	—
70F-¼A*	¼	125V	300V	Violet	100203371	KS23751-L6
70K-¼A*	¼	125V	300V	Violet/Wh	100203405	KS23751-L9
70G-½A*	½	125V	300V	Red	100203389	KS23751-L7
70H-¾A*	¾	125V	300V	Brown	100203397	KS23751-L8
70I-1A	1	125V	300V	Pink	—	—
70A-1-⅓A*	1⅓	125V	300V	White	100203322	KS23751-L1
70B-2A*	2	125V	300V	Orange	100203330	KS23751-L2
70C-3A*	3	125V	300V	Blue	100203348	KS23751-L3
70J-3½A	3½	125V	300V	Black/Wh	—	—
70D-5A*	5	125V	300V	Grn/Wh	100203355	KS23751-L4
70L-6A	6	125V	300V	Grn/Wh	—	—
70M-8A	8	125V	300V	Brown/Wh	—	—
70N-10A	10	125V	300V	Violet/Yel	—	—
GKB-10A	10	125V	300V	Violet/Yel	—	—
72A Plastic Case	Dummy	—	—	—	100203421	—
72B Blister Pack	Dummy	—	—	—	103757977	—

*Product designed to comply with Bellcore Technical Reference TR-TSY-000799 Issue 1, December 1988.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

15087 Fuseholder

For 70 Series Fuses

Ampere Ratings: 12 Amps.

Voltage Rating: 300 Volt DC

Agency Appprovals:

UL Recognized, Guide IZLT2, File E14853

Construction:

Body: Thermoplastic, UL 94VO flammability rating

Terminals: Copper alloy, tin plating

Screws: 3-24 × ⅜" steel, zinc plated

- Panel mount fuseholder for 70 Type fuses supplied with two screws.
- Remote alarm capability.

Optional Color Code Eyelets (order separately)

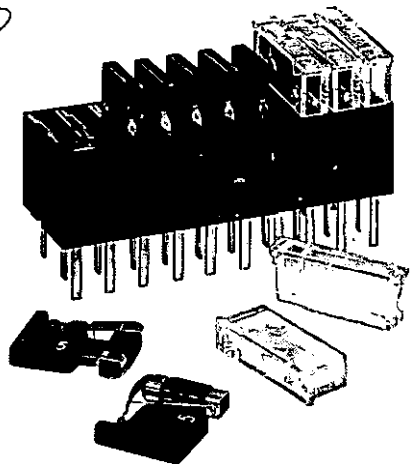
Catalog Symbol	Amp Rating Ref.	Color Code	Catalog Symbol	Amp Rating Ref.	Color Code
1A1706-01	18/100	Yellow	1A1706-10	3	Blue
1A1706-02	2/10	Black	1A1706-11	5	Green/Black
1A1706-03	¼	Violet	1A1706-12	6	Green/White
1A1706-04	¼	Violet/White	1A1706-13	8	Brown/White
1A1706-05	½	Red	1A1706-14	10	Violet/Yellow
1A1706-06	¾	Brown	1A1706-15	1/10	Gray/White
1A1706-07	1	Pink	1A1706-16	3½	Black/White
1A1706-08	1⅓	White	1A1706-17	15/100	Red/White
1A1706-09	2	Orange	—	—	—

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 5007

BIF document: 5007

Indicating Fuses 8 Holders



GMT

Fast Acting Fuses
Voltage Rating: 60V DC; 125V AC
Interrupting Rating: 450 Amps., 60 Volt DC;
300 Amps., 125 Volt AC
Agency Approvals:
UL Recognized, Guide JFHR2, File E56412
Materials:
Body: Thermoplastic, UL 94V0 flammability rating
Terminals: Beryllium copper
Carton Qty. and Weight: 100 Fuses per carton;
0.33 lbs. (150g)
Fuseholders: Catalog No. HLT, HLS, and PCT
Spare Fuseholder: TPSFH-T

Catalog Numbers

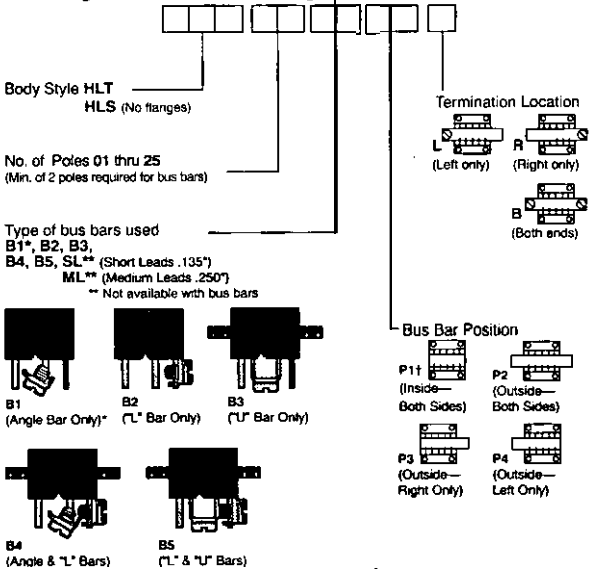
Catalog Symbol	Color Code	Catalog Symbol	Color Code
GMT-$^{18}/_{100}$	Yellow	GMT-3	Blue
GMT-¼	Violet	GMT-3½	White/Blue
GMT-⅜	White/Gray	GMT-4	White/Brown
GMT-½	Red	GMT-5	Green
GMT-$^{65}/_{100}$	Black	GMT-7½	Black/White
GMT-¾	Brown	GMT-10	Red/White
GMT-1	Gray	GMT-12	Yellow/Green
GMT-1⅓	White	GMT-15	Red/Blue
GMT-1½	White/Yellow	GMT-Dummy	—
GMT-2	Orange	—	—

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

HLS, HLT, **PCT**

Fuseholders for GMT **Type** Indicating Fuses
Voltage Rating: 60V DC: 125V AC
Agency Approvals:
UL Recognized, Guide IZLT2, File E14853, 15 Amps (60V DC)
Materials:
Body: Thermoplastic, UL 94V0 flammability rating
Terminals: Tin-plated copper

Multiple Fuseholders with bus bars
Ordering Information— Catalog No.

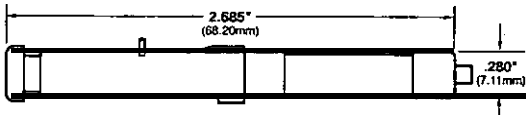


*Angle Bar mounts on common or center terminals only.
**SL Version is not available with bus bars.
†Minimum of 4 Poles Required.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Telpower® Specialty Fuses

Dimensional Data



81 Type

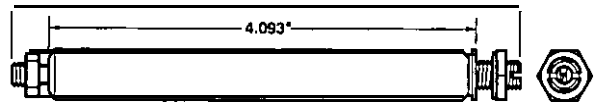
Description: Cylindrical, fast acting, non-indicating high current companion to the 80 Type. UL Recognized. Guide JDYX2, File E19180.

Catalog Data

Catalog Symbol	Ampere Rating	Voltage Rating AC	Voltage Rating DC	Color Code	Lucent Comcode Ref. No.	Code/ List No.
81B-7½	7.5	250V	65V	Gray	103828141	KS23824-L12
81A-10	10	250V	65V	Yellow	103752176	KS23824-L11
81C-12	12	250V	65V	Lt Blue	104391842	KS23824-L13

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Dimensional Data



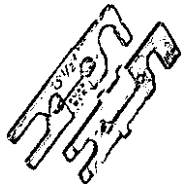
7 Type

Description: Fiber tube, threaded ends. Typically used on wall type main distribution frames and central battery substations.

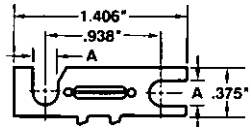
Catalog Data

Catalog Symbol	Ampere Rating	Lucent Comcode Ref. No.	Dimension A Length
7 Type			
7A-7	7	100863737	4.562
7T-7	7	100202753	4.828

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.



Dimensional Data



24 and **WER** Type

Description: Flat, nonindicating visible link element mounted on 1 inch centers using either No. 6 or No. 10 screws.

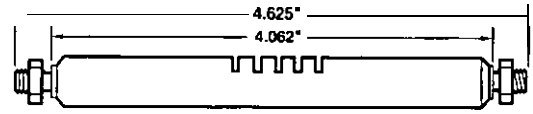
Catalog Data

Catalog Symbol	Ampere Rating	DC Volt.	Color Code	Lucent Comcode Ref. No.	Dimension A Length
WER-¼	¼	32V	—	—	—
24E-½*	½	60V	Red	100202894	.200
24D-¾*	¾	60V	Black	100202886	.150
WER-1	1	32V	—	—	—
24G-1⅓*	1⅓	60V	White	100202910	.200
24C-2*	2	60V	Orange	100202878	.200
24B-3*	3	60V	Blue	100202852	.150
WER-3½	3½	32V	—	—	—
24B-4*	4	60V	Yellow	100202860	.150
24F-5*	5	60V	Green	100202902	.150
WER-8	8	32V	—	—	—
WER-10	10	32V	—	—	—
64A-Dummy	—	—	—	100203280	—

*Designed to comply with Bellcore Technical Reference TR-TSY-000799 Issue 1, Dec. 1988.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Dimensional Data



11 Type

Description: Fiber tube, threaded ends, identical to 7 Type except for vent slots in fiber tube.

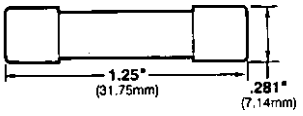
Catalog Data

Catalog Symbol	Ampere Rating	Lucent Comcode Ref. No.	Dimension A Length
11 Type			
11C-7	7	100863745	—

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Telpower® Specialty Fuses

Dimensional Data



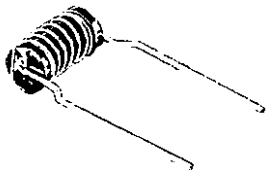
74 Type

Description: .281" × 1.25" cylindrical fuse, fast acting. Designed to comply with Lucent specification KS23753. High current companion to 70 Type Fuse.

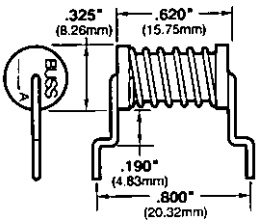
Catalog Data

Catalog Symbol	Ampere Rating	Voltage Rating DC	Lucent Comcode Ref. No.	Code/ List No.
74A-1¼	1¼	60V	102630290	KS23753-L1
74G-2	2	60V	103064952	KS23753-L7
74B-3	3	60V	102630308	KS23753-L2
74H-4	4	60V	103264669	KS23753-L8
74C-5	5	60V	102630316	KS23753-L3
74J-7½	7½	60V	103228425	KS23753-L9
74D-10	10	60V	102630324	KS23753-L4
74E-15	15	60V	102630332	KS23753-L5
74F-20	20	60V	102630340	KS23753-L6

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.



Dimensional Data



75 Type

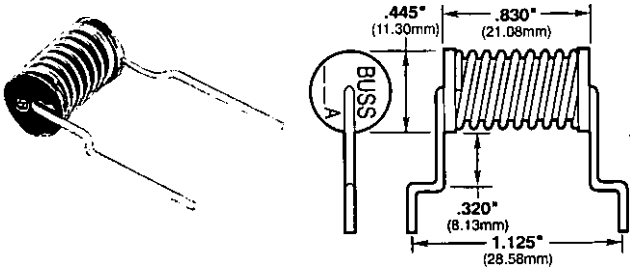
Description:. Cylindrical with leads, designed to provide protection against currants resulting from the application of foreign voltages. Application for data sets and telephones.

Catalog Data

Catalog Symbol	Ampere Rating	Voltage Rating AC	Voltage Rating DC	Lucent Comcode Ref. No.	Code/ List No.
75C	.007	135V	440V	103260816	KS23825-L3
75F	.063	135V	220V	104172861	KS23825-L6
75B	.115	135V	220V	102732112	KS23825-L2
75D	.129	135V	220V	104013180	KS23825-L4
75A	.200	135V	220V	102660008	KS23825-L1
75E	.230	135V	220V	104015292	KS23825-L5

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Dimensional Data



76 Type

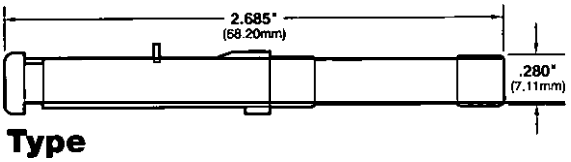
Description: Cylindrical with leads, designed to provide protection against currents resulting from the application of foreign voltages. Application for data sets and telephones.

Catalog Data

Catalog Symbol	Ampere Rating	Voltage Rating AC	Voltage Rating CC	Lucent Comcode Rd. NO.	Code/ List NO.
76D	.012	135"	440"	103798245	KS23825-L10
76B	.191	135"	440V	102965688	KS23825-L8
76A	.231	135V	440"	102810181	KS23825-L7
76C	.412	135V	440"	103656625	KS23825-L9

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Dimensional Data



80 Type

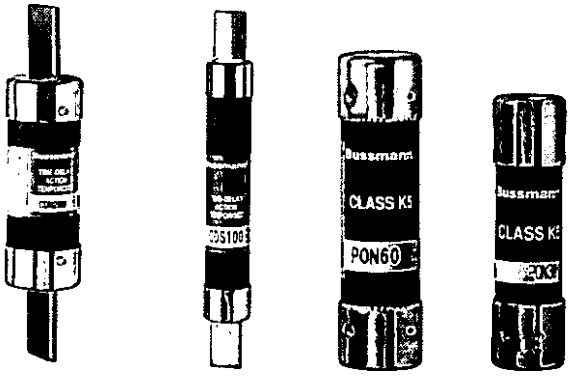
Description: A fuse designed for high reliability applications where high ambient temperatures. low circuit voltages, low power dissipation and low contact resistance are prime considerations. lhe 80 Type is a visual indicating fuse with remote electrical alarm capability. UL Recognized, Guide JDYX2, File E19180.

Catalog Data

Catalog Symbol	Ampere Rating	Voltage Rating AC	Voltage Rating DC	Color Code	Lucent Comcode Ref. No.	Code/ List No.
80G-½	.50	250V	—	Red	103839916	KS23824-L6
80A-1⅓	1.33	250V	—	White	103752143	KS23824-L1
80B-2	2	250V	—	Orange	103752150	KS23824-L2
80C-3	3	250V	—	Blue	103752168	KS23824-L3
80D-5	5	250V	—	Green	103800637	KS23824-L4

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

CSA Type P and **Type** D Fuses



CDS, CDN & PON

Voltage Ratings: 250V (CDN & PON) & 600V (CDS)
Interrupting Rating: 10kA minimum
Agency Approvals: CSA Certified to C22.2 No. 59.1

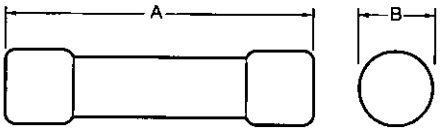
Time-Delay CSA Type "D"

Volts	Cat. No.	Amp Ratings	Ctn. Qty.
250V	CDN	Below 10A use FRN-R 10, 12, 15, 20, 25, 30, 35, 40, 45, 50, 60	10
		70, 80, 90, 100	5
		110, 125, 150, 175, 200, 225, 250, 300, 350, 400, 450, 500, 600	1
600V	CDS	Below 10A use FRS-R 10, 12, 15, 20, 25, 30, 35, 40, 45, 50, 60	10
		70, 80, 90, 100	5
		110, 125, 150, 175, 200, 225, 250, 300, 350, 400, 450, 500, 600	1

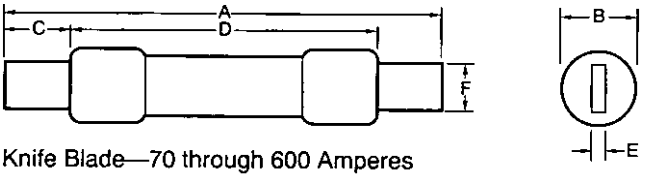
One-Time CSA Type "P"

Volts	Cat. No.	Amp Ratings	Ctn. Qty.
250V	PON	15, 20, 25, 30, 35, 40, 45, 50, 60	10

Dimensional Data



Ferrule Design-I through 60 Amperes



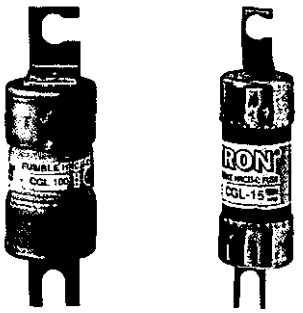
Knife Blade—70 through 600 Amperes

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Catalog Number and Volts	Amps	A Overall Inches	A Overall (mm)	B Maximum Diameter Inches	B Maximum Diameter (mm)	C Minimum Blade Length Inches	C Minimum Blade Length (mm)	D Minimum Barrel Length Inches	D Minimum Barrel Length (mm)	E Blade Thickness Inches	E Blade Thickness (mm)	F Blade Width Inches	F Blade Width (mm)
CDN PON 250 V AC	1-30	2.0	(50.8)	.56	(14.3)	—	—	—	—	—	—	—	—
	35-60	3.0	(76.2)	.81	(20.6)	—	—	—	—	—	—	—	—
	70-100	5.88	(149.4)	—	—	1.0	(25.4)	—	—	.13	(3.2)	.75	(19.1)
	110-200	7.3	(185.4)	—	—	1.38	(34.9)	4.13	(104.8)	.19	(4.8)	1.13	(28.6)
	225-400	8.63	(219.2)	—	—	1.88	(47.6)	4.63	(117.5)	.25	(6.4)	1.63	(41.3)
	450-600	10.38	(263.7)	—		2.25	(57.2)	5.19	(131.8)	.25	(6.4)	2	(50.8)
CDS 600V	1-30	5.0	(127.0)	.81	(20.6)	—	—	—	—	—	—	—	—
	35-60	5.5	(139.7)	1.06	(27.0)	—	—	—	—	—	—	—	—
	70-100	7.88	(200.2)	—	—	1.0	(25.4)	—	—	.13	(3.2)	.75	(19.1)
	110-200	9.63	(244.6)	—	—	1.38	(34.9)	6.13	(115.6)	.19	(4.8)	1.13	(28.6)
	225-400	11.63	(295.4)	—	—	1.88	(47.6)	7.13	(118.1)	.25	(6.4)	1.63	(41.3)
	450-600	13.38	(339.9)	—	—	2.25	(57.2)	8.19	(208.0)	.25	(6.4)	2	(50.8)

BIF document: 4126

HRC Form II Class C Fuses



CGL

Tron® HRC Form II Class C Fuses
Ampere Ratings: 2 to 600 Amps.
Voltage Rating: 600 Volts AC, 250 Volts DC (1-30A)
Interrupting Rating: 200,000 Amps. (40,000 Amp?, DC)
Current Limiting
Agency Approvals: CSA Certified, C22.2106

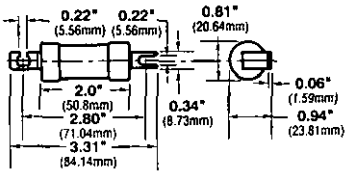
- Tron® HRCII-C fuses are designed to withstand inrush currents on typical motor start-ups while offering high current limitation in the short-circuit region.
- The Tron® HRCII-C fuses can be sized close to the motor nameplate rating.
- Closer protection is offered for many motor sizes with the availability of these additional fuse ratings.
- Tron® HRCII-C fuses have a high degree of current limitation greatly reducing the magnetic forces and thermal stresses produced in today's high capacity systems.

Catalog Numbers (Ampere ratings)

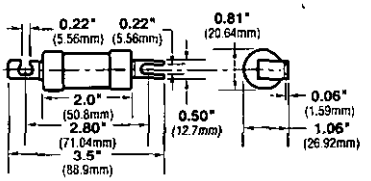
CGL-1	CGL-40	CGL-175
CGL-2	CGL-45	CGL-200
CGL-3	CGL-50	CGL-225
CGL-4	CGL-60	CGL-250
CGL-6	CGL-70	CGL-300
CGL-10	CGL-80	CGL-350
CGL-15	CGL-90	CGL-400
CGL-20	CGL-100	CGL-450
CGL-25	CGL-110	CGL-500
CGL-30	CGL-125	CGL-600
CGL-35	CGL-150	—

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

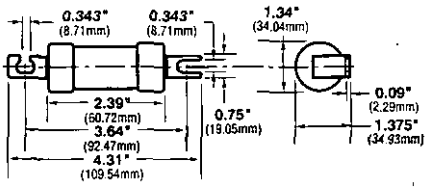
Dimensional Data



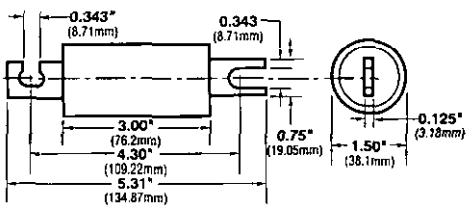
CGL 1-30



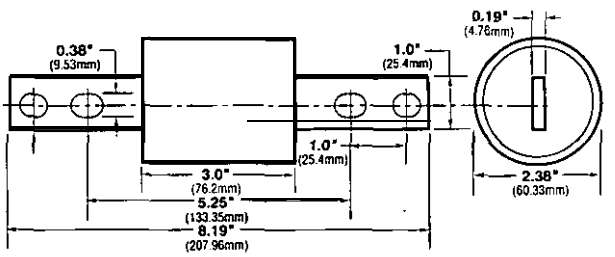
CGL 35-60



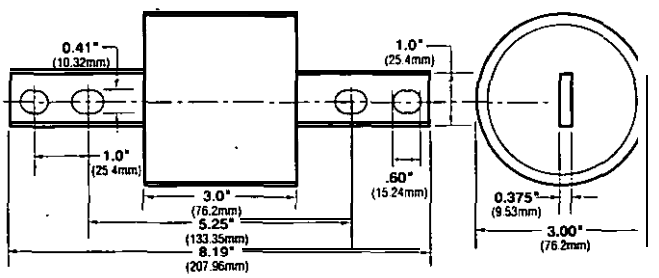
CGL 70-100



CGL 110-200



CGL 225-400



CGL 450-600

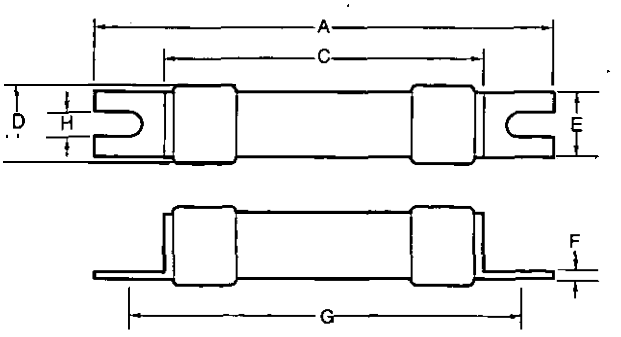
HRCI Industrial Ceramic Body Fuses

CIF21

HRCI-CA Bolt-On Mounting
Ampere Rating& I-30 Amps.
Voltage Rating: 600 Volts AC;
250 Volts DC
Interrupting Rating: 200,000A RMS Symmetrical
Agency Approvals: CSA C22.2 No. 106-M92

- Provides both overload and short-circuit protection to HRCI requirements.
- Offset blades for bolt-on mounting.
- CIF21 fuse fits the Bussmann-Camaster Fuseholder.

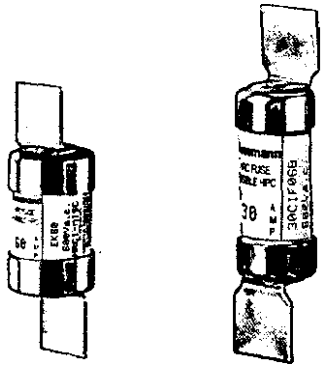
Dimensional Data



CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Type	Catalog Symbol	Current Ratings	Dimensions in Inches and (mm)						
			Overall	Tags		Mounting		Body	
			A	E	F	G	H	C	D
HRCI-CA	(AMP) CIF21	1, 10, 15, 20, 25, 30	2.15 (54.50)	.44 (11.10)	.03 (0.81)	1.75 (44.50)	.19 (4.70)	1.44 (35.50)	.54 (13.80)

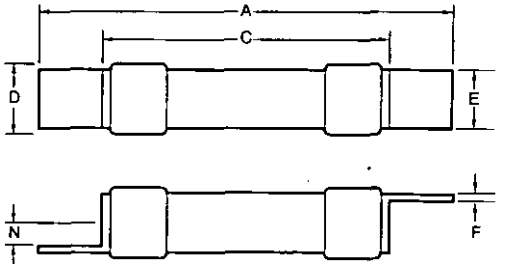
BIF document: 4127



CIFO6 & EK

HRCI-CB Clip-h Mounting
Ampere Ratings: CIF06: I-30 Amps., EK: 35-W Amps.
Voltage Rating: 600 Volts AC: 250 Volts DC
Interrupting Rating: 200,000A RMS Symmetrical
Agency Approvals: CSA 622.2 No. 106-M92

Dimensional Data



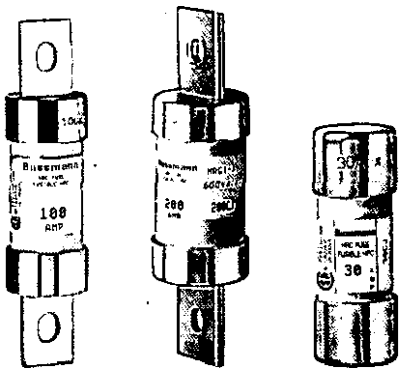
- Industrial miniature fuse with offset blades for clip-in mounting.
- Ground ceramic body with plated endcaps.
- Provides both short-circuit and overload protection.
- CIFO6 fits the 30 Amp SafeLOC fuseholder.
  EK fits the 60 Amp SafeLOC fuseholder.

CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Type	Catalog Symbol	Current Ratings	Dimensions in Inches and (mm)					
			A	E	F	N	C	D
HRCI-CB	(AMP) CIF06	1, 10, 15, 20, 25, 30	2.38 (60.40)	.50 (12.70)	.03 (0.81)	.14 (3.50)	1.44 (35.50)	.54 (13.80)
	EK (AMP)	30, 35, 40, 50, 60	2.65 (67.30)	.58 (14.80)	.05 (1.22)	.14 (3.50)	1.44 (36.30)	.8 (21.40)

BIF document: 4128

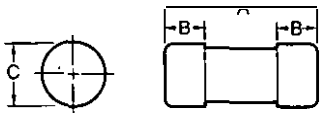
HRCI-J Fast Acting Fuses



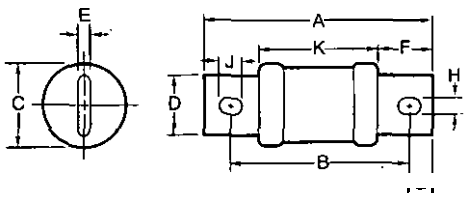
C J

HRCI-J Fast Acting Fuses
Voltage Rating: 600 Volts AC or less. 250 Volts DC
Construction: Ceramic Body Fuse
Interrupting Rating: 200,000A I.R.
Agency Approvals: CSA C22.2 No. 106 M92; BS88:2, IEC269:2

Dimensional Data



1 CJ to 60CJ

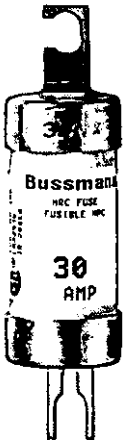


70CJ to 600CJ

- Industrial duty fuses with ceramic bodies.
- The excellent current limiting characteristics of fast-acting HRCI-J fuses limits damage to equipment and installations by the thermal and magnetic energy associated with a large short-circuit fault current.
- Overload characteristics limit cable damage due to low overload currents.

Current Ratings (Amps)	Catalog Number	Dimensions in Inches and (mm)									
		A	B	C	D	E	F	G	H	J	K
1 3 6 10 15 20 25 30	1CJ 3CJ 6CJ 10CJ 15CJ 20CJ 25CJ 30CJ	2.25 (57)	.5 (12.7)	.81 (20.6)	—	—	—	—	—	—	—
35 40 45 50 60	35CJ 40CJ 45CJ 50CJ 60CJ	2.38 (60)	.63 (16)	1.06 (27)	—	—	—	—	—	—	—
70 80 90 100	70CJ 80CJ 90CJ 100CJ	4.63 (117)	3.63 (92)	1.13 (28)	.75 (19)	.13 (3.2)	1 (25.4)	.5 (12.7)	.28 (7.1)	.38 (9.5)	2.63 (67)
110 125 150 175 200	110CJ 125CJ 150CJ 175CJ 200CJ	5.75 (146)	4.38 (111)	1.63 (41)	1.13 (28.6)	.19 (4.8)	1.38 (35)	.69 (17.5)	.28 (7.1)	.38 (9.5)	3 (76)
225 250 300 350 400	225CJ 250CJ 300CJ 350CJ 400CJ	7.13 (181)	5.25 (133)	2.13 (54)	1.63 (41)	.25 (6.3)	1.88 (47.6)	.94 (24)	.41 (10.3)	.53 (13.5)	3.38 (86)
450 500 600	450CJ 500CJ 600CJ	8 (203)	6 (152)	2.63 (66)	2 (51)	.38 (9.5)	2.13 (54)	1 (25.4)	.53 (13.5)	.69 (17.5)	3.75 (96)

HRCI-Misc. Type K Fuses



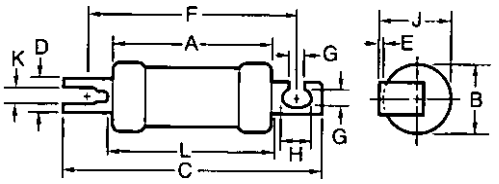
CIH, CIK 8 CIL

HRI Ceramic Body Fuses
Ampere Ratings: 30, 60 8 100 Amps.
Voltage Rating: 600 Volts
Interrupting Rating: 200,000A at 600V
Agency Approvals: CSA C22.2 No. 106 M92

- Offset blades for bolt down mounting.
- Provides both overload and short-circuit protection

CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Dimensional Data



(The CIL14 has a rejection hole, not a slot as shown above.)

Ratings, Categories and Dimensions

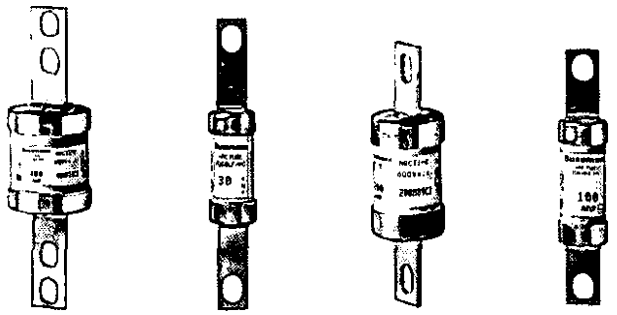
Current Ratings (Amps)	Catalog Number	Dimensions in Inches and (mm)									
		A	B	C	D	E	F	G	H	J	K	L
		Max.	Max.	Max.	Nom.	Nom.	Nom.	Nom.	Nom.	Max.	Nom.	Max.
1	1CIH07											
3	3CIH07											
6	6CIH07											
10	10CIH07	2.25	.94	3.38	.38	.04	2.88	.21	.31	1	.10	2.38
15	15CIH07	(57)	(24)	(86)	(9.2)	(1.0)	(73)	(5.2)	(8)	(25.4)	(2.6)	(60)
20	20CIH07											
25	25CIH07											
30	30CIH07											
35	35CIK07											
40	40CIK07	2.28	1.06	3.56	.5	.05	2.88	.21	.41	1.09	.13	2.38
50	50CIK07	(58)	(27)	(91)	(12.7)	(1.2)	(73)	(5.2)	(10.5)	(28)	(3.2)	(61)
60	60CIK07											
80	80CIL14	2.75	1.44	4.38	.75	.09	3.69	.34	.41	1.5	—	2.91
90	90CIL14	(70)	(37)	(111)	(19)	(2.5)	(94)	(8.7)	(10.5)	(38.5)	—	(74)
100	100CIL14											

Recommended Fuseholders

Fuse	Fuseholder
1-30A	CM30CF
35-60A	CM60CF
80-100A	CM100CF

BIF document: 4130

HRC Form II Current Limiting Fuses



HRC Form II Current Limiting Fuses

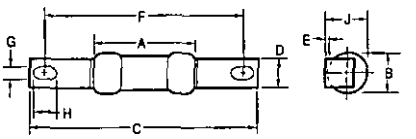
Voltage Rating: 600 Volts AC or less, 250 Volts DC
Construction: Ceramic Body
Interrupting Rating: 200,000 Amps. RMS Symmetrical
Agency Approvals:
CSA C22.2 No.106M1992; BS88:2, IEC269:2

Applications

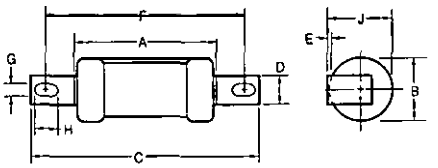
- HRC FORM II fuses are often used to protect motor control circuits, together with contactors and overload protection relays.
- Type 2 coordination per IEC 947-4.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

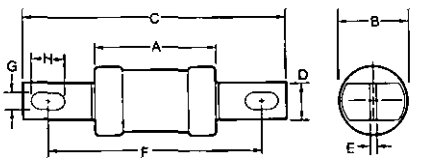
Dimensional Data



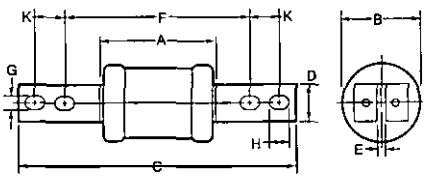
H07C (Offset Blades)



K07C/K07CR/
L14C/M14C
(Offset Blades)



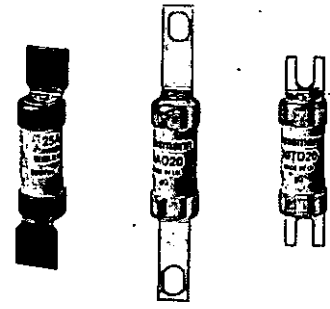
L09C/M09C/P09C
(Center Blades)



P11C/R11C
(Center Blades)

Current Ratings (Amps)	Catalog Number	Dimensions in Inches and (mm) A	B	C	D	E	F	G	H	J	K	CSA Category
2 4 6 10 15 20 25 30	2H07C 4H07C 6H07C 10H07C 15H07C 20H07C 25H07C 30H07C	1.38 (35)	.56 (14)	3.38 (85)	.38 (9)	.06 (1.2)	2.88 (73)	.22 (5.6)	.31 (8)	.56 (14)	— —	HRCII-C
40 50 60	40K07C 50K07C 60K07C	2.19 (56)	.88 (22)	3.44 (87)	.5 (13)	.06 (1.2)	2.88 (73)	.22 (5.6)	.31 (8)	.88 (22)	— —	HRCII-C
80 100	80K07CR 100K07CR	2.19 (56)	.88 (22)	3.75 (95)	.5 (13)	.06 (1.2)	2.88 (73)	.22 (5.6)	.31 (8)	.88 (22)	— —	HRCII-MISC
80 100	80L14C 100L14C	2.38 (60)	.88 (21.4)	4.38 (111)	.56 (14.3)	.13 (3.2)	3.69 (94)	.34 (8.7)	.44 (11)	1 (25.4)	— —	HRCII-C
125 150 200	125M14C 150M14C 200M14C	2.56 (65)	1.5 (38)	4.38 (111)	.75 (19)	.09 (2.4)	3.69 (94)	.34 (8.7)	.44 (11)	— —	— —	HRCII-MISC
80 100	80L09C 100L09C	2.38 (60)	.88 (21.4)	5 (127)	.56 (14)	.13 (3.2)	4.38 (111)	.34 (8.7)	.44 (11)	— —	— —	HRCII-MISC
125 150 200	125M09C 150M09C 200M09C	2.56 (65)	1.5 (38)	5.38 (136)	.75 (19)	.13 (3.2)	4.38 (111)	.34 (8.7)	.56 (14)	— —	— —	HRCII-C
250 300 350 400	250P09C 300P09C 350P09C 400P09C	3.06 (178)	2.31 (59)	5.38 (1136)	1 (25.4)	.19 (4.8)	4.38 (111)	.34 (8.7)	.5 (13)	— —	— —	HRCII-MISC
250 300 350 400	250P11C 300P11C 350P11C 400P11C	3.06 (178)	2.31 (59)	8.25 (210)	1 (25.4)	.19 (5)	5.25 (133)	.41 (10)	.63 (16)	— —	1 25	HRCII-C
450 500 600	450R11C 500R11C 600R11C	3.19 (81)	2.88 (73)	8.25 (210)	1 (25.4)	.25 (6.3)	5.25 (133)	.41 (10)	.63 (16)	— —	1 25	HRCII-C

BS88 British Standard Low Voltage Fuses



BBD, NSD, ESD

Offset Blades

Meets the requirements of BS88 Part 1 and IEC269-1.
The NSD and ESD fuses comply with general purpose gG characteristics.

Catalog No.	Ampere Ratings	Maximum Voltage Rating AC	DC	BS88 Ref.	BIF Document
SSD	2, 4, 6, 10, 16, 20, 25, 32	240	—	E1	4105
NSD	2, 4, 6, 10, 16, 20, 25, 32	550	—	F1	4100
	20M25*, 20M32*	550	—	F1	
	20M36*, 32M36*, 32M40*,	415	—	—	
	32M50*, 32M63*	415	—	—	
ESD	2, 4, 6, 10, 16, 25, 32	550	250	F2	4101
	40, 50, 63	415	250	F2	
	63M80, 63M100	415	—	—	

*"M" indicates motor starter ratings.

Recommended Fuseholders

NSD	32NNSF
ESD	63ENSF

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

STD, **NITD, AAO,** BAO, OSD, CEO, **DEO**

Offset Bolted Blades

Meets the requirements of BS88 Part 1 and IEC269-1.
The NITD to DEO types comply with general purpose gG characteristics. The STD type are used in 240V street lighting cut-outs.

Catalog No.	Ampere Ratings	Maximum Voltage Rating AC	DC	BS88 Ref.	BIF Document
STD	2, 4, 6, 10, 16, 20, 25, 32	240	—	—	4123
NITD	2, 4, 6, 10, 16, 20	550	—	A1	4106
	25, 32	550	—	—	
	20M25*, 20M32*	550	—	A1	
	32M40*, 32M50*, 32M63*	415	—	—	
AAO	2, 4, 6, 10, 16, 20, 25, 32	550	—	A2	4109
	32M40*, 32M50*, 32M63*	550	—	A2	
BAO	40, 50, 63	550	—	A3	4112
	63M80*, 63M100*	550	—	A3	
OSD	80, 100	550	—	—	4107
	100M125*, 100M160*	415	—	—	
CEO	32, 40, 50, 63, 80, 100	550	—	A4	4115
	100M125*, 100M160*	415	—	A4	
	100M200*	415	—	A4	
DEO	125, 160, 200	415	—	—	4117
	200M250*, 200M315*	415	—	—	

*"M" indicates motor starter ratings.

Recommended Fuseblock & Holders

NITD	CM32FC
AAO	CM32F
BAO	CM63F
OSD	CM100F
CEO	BH-0111

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BS88 British Standard Low Voltage Fuses

AC, **AD,** BC, BD, CD, DD, ED, EFS

Center Bolted Blades, **Two** Hole Mount

Meets the requirements of BS88 Parts 1 and 2 and IEC269-1.

Complies with general purpose gG characteristics and available up to 400A with two hole mount and up to 1250A with four hole mount.

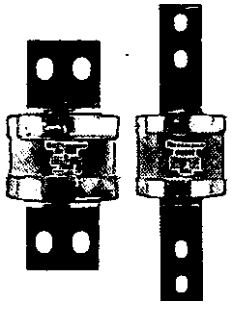
Catalog No.	Ampere Ratings	Maximum Voltage Rating AC	DC	BS88 Ref.	BIF Document
AC	2, 4, 6, 10, 16, 20, 25, 32	550	250	—	4110
AD	2, 4, 6, 10, 16, 20, 25, 32	550	250	—	4111
BC	40, 50, 63	550	250	—	4113
	63M80*, 63M100*	550	—		
BD	40, 50, 63	550	250	—	4114
CD	80, 100	550	—	B1	4116
	100M125*, 100M160*	415	—	B1	
	100M200*	415	—	B1	
DD	125, 160, 200	415	—	B2	4118
	200M250*, 200M315*	415	—	B2	
ED	250	415	—	B3	4119
	315	415	—	B3	
	315M400*	415	—	B3	
	355, 400	415	—	B4	
	400M500*	550	—	B4	
EFS	125, 160, 200, 250	415	—	—	4121
	315	415	—	—	

*"M" indicates motor starter ratings.

Recommended **Fuseblock/Holder**

AC	BH-0111 Modular Fuseblock
AD	200DF Fuseholder
BC	BH-0111 Modular Fuseblock
BD	200DF Fuseholder
CD	200DF Fuseholder
DD	200DF Fuseholder
ED	BH-1131 Modular Fuseblock

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.



EF, FF, FG, GF, GG, GH

Center Bolted Blades, Four Hole Mount

Meets the requirements of BS88 Parts 1 and 2 and IEC269-1

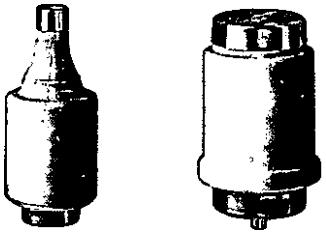
Complies with general purpose gG characteristics and available up to 400A with two hole mount and up to 1250A with four hole mount.

Catalog No.	Ampere Ratings	Maximum Voltage Rating AC	DC	BS88 Ref.	BIF Document
EF	355, 400	415	—	C1	4120
	400M500*	550	—	C1	
FF	450, 500, 560, 630	550	400	C2	4102
FG	450, 500, 560, 630	550	400	—	4122
GF	710, 800	550	250	C3	4103
GG	710, 800	550	250	—	4104
	1000, 1250	550	—	—	
GH	710, 800	550	250	D1	4108
	1000, 1250	550	—	D1	

*"M" indicates motor starter ratings.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

DIN Style **Type** D and Neozed Low Voltage Fuses



Type D Fuse

Ampere Ratings: 2 to 100 Amps.
Voltage Ratings: 500 Volts AC
Interrupting Rating: 100kA
Agency Approvals:
"D" type fuses complying with DIN 49360 Part 2 and DIN 49515, operating class gL

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Catalog Number	Dimension "D"	Ampere Rating	Color Code	Figure Number
2D16	6	2	Pink	
4D16	6	4	Brown	
6D16	6	6	Green	
10D16	7	10	Red	1
16D16	10	16	Grey	
20D16	12	20	Blue	
25D16	14	25	Yellow	
2D27	6	2	Pink	
4D27	6	4	Brown	
6D27	6	6	Green	
10D27	8	10	Red	2
16D27	10	16	Grey	
20D27	12	20	Blue	
25D27	14	25	Yellow	
35D33	16	35	Black	
50D33	18	50	White	3
63D33	20	63	Copper	
80D125	5	80	Silver	4
100D125	7	100	Red	

Additional Fuselinks: Quick acting fuselinks in body sized D16, D27, D33 and D125 rated 2-100 Amps. Reference number suffixed Q, i.e. 10D27Q. Voltage rating 500 Volts. Gauge rings and keys can also be supplied.

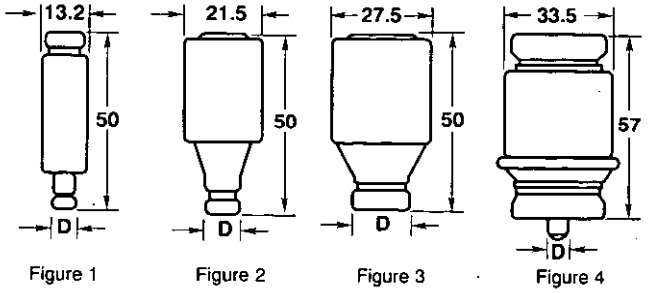


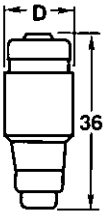
Figure 1 Figure 2 Figure 3 Figure 4

BIF document: 4124

Neozed Fuse

Also suitable for use on 250 Volt DC systems
Ampere Ratings: 2 to 63 Amps.
Voltage Rating: 440 Volts AC
Interrupting Rating: 100kA

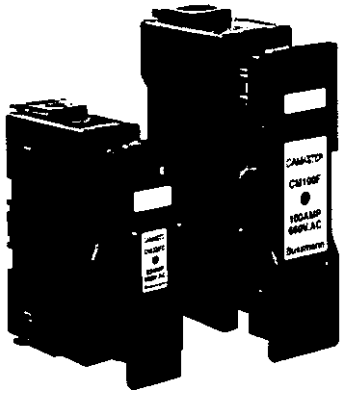
Catalog Number	Dimension D (mm)	Ampere Rating	Color Code
2NZ01	11	2	Pink
4NZ01	11	4	Brown
6NZ01	11	6	Green
10NZ01	11	10	Red
16NZ01	11	16	Grey
20NZ02	15	20	Blue
25NZ02	15	25	Yellow
35NZ02	15	35	Black
50NZ02	15	50	White
63NZ02	15	63	Copper



CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 4124

HRC Fuseholders



CAMASTER

HRC **Fuseholders**

Ampere **Ratings:** 30, 60 and 100 Amps.

Agency Approvals: CSA C22.2 No. 39; IEC 269 AND BS88

- Unique Cam-Action for ease of removal from the Fuse Bases allowing significantly improved contact pressure between Fuse Carrier and Fuse Base contacts, with a corresponding enhanced electrical performance level.
- A range of Lockable Safety Carriers for the CAMASTER Fuseholder (Cat ref: LSC), are available.

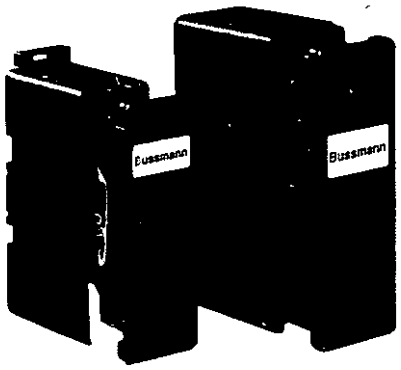
CAMASTER Ratings

Rating	Details	Catalog Number	Fuse Accommodated
30 Amp	For HRCI-CA Applications	CM20CF	—C1F21
30 Amp 60 Amp 100 Amp	For HRCII Applications	CM30CF CM60CF CM100CF	—H07C —K07C —K07CR

Accessories for CAMASTER Units

Rating	Details	Catalog Number	Fuseholder Accommodated
30 Amp 30 Amp 60/100 Amp	Back Stud	20BS 32BS 60/100BS	For CM20CF For CM30CF For CM60/100CF
All	Ganging Link Kit	GLP	For 3 Pole
All	660V Neon Indicator	NI	—
30 Amp 30 Amp 60/100 Amp	Security Carrier with Clip	20LSC 30LSC 60/100LSC	For CM20CF For CM30CF For CM60/100CF

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.



SAFELOC

HRC **Fuseholders**

For use with HRCI-CB fuses. Suitable for bolted panel mounting or DIN rail mounting.

Ampere Ratings: 30 and 60 Amps.

SAFELOC Ratings

For use with HRCI-CB Fuses

Rating	Connection	Catalog Number	Fuse Accommodated
30 Amp	Front Back Front-Back	C30F C30BS C30FBS	CIF06
60 Amp	Front Back Front-Back	C60F C60BS C60FBS	EK-Amp

Features

- Designed to accommodate the compact range of offset blade fuse to CSA C22.2 No. 106, HRCI-CB.
- Carrier provides a positive, stress free fitting of fuse and locks the fuse in position ensuring safe insertion and withdrawal from the base.
- Base Contacts are fully shrouded to help protect against electric shock.
- Shrouds utilize simple slide/snap action allowing access to the contact terminal screws.
- 35mm DIN-rail mounting.
- Single screw mounting.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

NH Low **Voltage** **Fuse** Links

NH-G

Voltage Rating: 500V AC

gL/gG Category

Agency Approvals:

IEC269, VDE, DIN43620 Part 1

A range of industrial fuse links for a wide variety of applications.

The ordering code is made up as follows:

Rating	Product Code	Body	Category
50	NH	00	G

Type	Rating (A)	Size
NHC00G	6, 10, 16, 20, 25, 32, 35, 40, 50, 63, 80, 100	C00
NH00G	6, 10, 16, 20, 25, 32, 35, 40, 50, 63, 80, 100, 125, 160	00
NH0G	6, 10, 16, 20, 25, 32, 35, 40, 50, 63, 80, 100, 125, 160	0
NH1G	25, 32, 35, 40, 50, 63, 80, 100, 125, 160, 200, 224, 250	1
NH2G	40, 50, 63, 80, 100, 125, 160, 200, 224, 250, 300, 315, 355, 400	2
NH3G	315, 355, 400, 425, 500, 630	3
NH4G	800, 1000, 1250, 1600	4

Dimensional Detail (mm)

Type	Depth	Width	Overall Length
NHC00G	41	21	78.5±1.5
NH00G	48	30	78.5±1.5
NH0G	48	30	125±2.5
NH1G	53	41	135±2.5
NH2G	61	51	150±2.5
NH3G	76	72	150±2.5
NH4G	85	100	200±3.0

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 4173

NH-M

Voltage Rating: 500V AC

aM Category

Agency Approvals:

IEC269. VDE, DIN43620 Part 1

A range of industrial fuse links for the protection of motor circuits.

The ordering code is made up as follows:

Rating	Product Code	Body	Category
100	NH	1S	M

Type	Rating (A)	Fuse Body Size
NH00M	2, 4, 6, 10, 16, 20, 25, 32, 35, 40, 50, 63, 80, 100, 125, 160	00
NH0M	6, 10, 16, 20, 25, 32, 35, 40, 50, 63, 80, 100, 125, 160	0
NH1SM	35, 40, 50, 63, 80, 100, 125, 160	1 (small)
NH1M	125, 160, 200, 224, 250	1
NH2M	100, 125, 160, 200, 224, 250, 300, 315, 355, 400	2
NH3M	160, 200, 224, 250, 300, 315, 355, 400, 425, 500, 630	3

Dimensional Detail (mm)

Type	Depth	Width	Overall Length
NH00M	48	30	78.5±1.5
NH0M	48	30	125±2.5
NH1SM	48	30	135±2.5
NH1M	53	41	135±2.5
NH2M	61	51	150±2.5
NH3M	76	72	150±2.5

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 4174

NH-G-690

Voltage Rating: 660V AC/440V DC

gL/gG Category

Agency Approvals:

IEC269, VDE, DIN43620 Part 1

A range of industrial fuse links for a wide variety of applications where 660V is needed.

The ordering code is made up as follows:

Rating	Product Code	Body	Category
250	NH	2	G-660

Type	Rating (A)	Fuse Body Size
NH00G-690	6, 10, 16, 20, 25, 32, 35, 40, 50, 63, 80, 100, 125, 160	00
NH1G-690	40, 50, 63, 80, 100, 125, 160, 200, 224, 250	1
NH2G-690	100, 125, 160, 200, 224, 250, 300, 315	2
NH3G-690	315, 355, 400, 500, 630	3

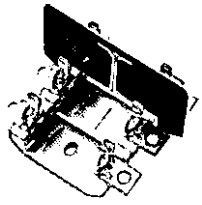
Dimensional Detail (mm)

Type	Depth	Width	Overall Length
NH00G-690	48	30	78.5±1.5
NH1G-690	53	41	135±2.5
NH2G-690	61	51	150±2.5
NH3G-690	76	72	150±2.5

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 4172

NH Fuse System



SB, TB

NH-LV Fuse Bases
Voltage Rating: 660V AC
Agency Appmvals:
DIN43620/1, VDE

A range of single and triple pole fuse bases with dimensions to DIN43620/1. The ordering code is made up as follows:
Rating: 400
Product Code: SB2

Type	Rating (A)	Fuse Body Size*
SB00	160	00
SB1	250	1
SB2	400	2
SB3	630	3
SB4	1250	4 A
TB00	160	0
TB1	250	01
TB2	400	2

SB - Single Pole Base

TB - Triple Pole Base

*Size 00 is available with "V" shaped terminal lugs, when ordering add "V" to part number i.e. SB00V/TB00V

N.B. Size 1 bases will accommodate size 0 fuse links.

Photo shown with side walls. To order side wall, reference "PB" followed by the fuse body size (i.e. PB00).

Vertical Fuse bases in size 00 to size 3 are available, details upon request.
Universal Handle: Type 630 for sizes 00 to 3.
1250A size 4A Switchable base available.
Accessory details are on BIF document number 4175.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIFdocument: 4170

VLB

NH-LV Vertical Load Break Fuse Switch Disconnector
Agency Approvals:
IEC, DIN43620/1

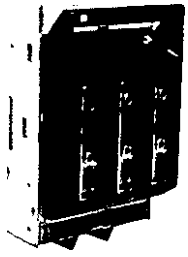
A range of LV Vertical Load Break Fuse Switch Disconnectors to take NH Fuse Links in sizes 00. 1, 2 and 3.
The ordering codes are shown in the table below.

Type	Rating (A)	Fuse Body size
VLB00	160	00
VLB1	250	1
MB2	400	2
"LB3	630	3

Insulated and touch protected.
High Switching capacity
Cable terminal top or bottom entry.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 4169



.BS

IH Fuse Switch Disconnector
gency Approvals:
IEC, VDE, DIN
range of Switch Fuses to take NH
ıse link sizes 00, 1, 2 and 3.
he ordering codes are shown in the
able below.

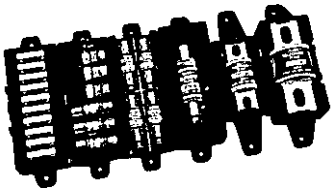
Type	Rating (A)	Fuse Body Size
.BS00	160	00
.BS1	250	1
.BS2	400	2.
.BS3	630	3

RC LV Fuse Switch Disconnectors are available
ır back panel mounting, size 00 can be adapted
ır DIN rail mounting. A range of accessories are
so available.

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

BIF document: 4171

Accessories



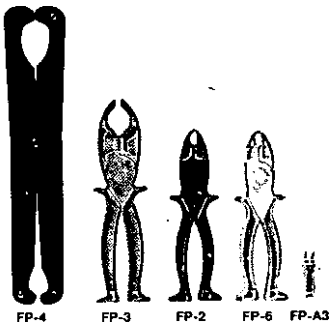
Spare Fuseholders

. Durable construction using black thermoplastic with UL94-VO flammability rating.
• Common mounting using #6 screws or bolts on 5-inch centers.
. Dovetailed interlocking between fuseholders simplifies installation and reduces needed hardware.
. Common footprint allows for any combination of fuseholders to be mounted together.
• Built-in retaining clips secure fuses.

Catalog Numbers	Capacity	For Use With
TPSFH-T	10-position	GMT fuses
TPSFH-AS	6-position	TPA & TPS fuses
TPSFH-N30	4-position	Class R (1-30 Amp) fuses
TPSFH-N60	1-position	Class R (35-60 Amp) fuses
TPSFH-LB	1-position	Class L (70-250 Amp) series fuses
TPSFH-LC	1-position	Class L (300-600 Amp) series fuses
TPSFH-70	12-position	Series 70 fuses (not shown)

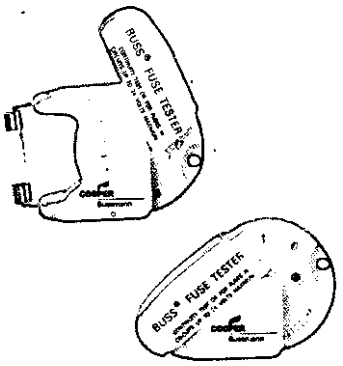
5TPH

Midget Fuse Spare Fuse Holder
Size: 2.96" wide xl .03" high x .63" deep
• 5-position spare fuse holder for midget size fuses (13/32" diameter).
• Constructed of gray thermoplastic.
• Adhesive tape on back for easy mounting on cabinet doors.



Fusepullers

Cat. No.	Application	Carton Qty.	Weight Lbs.	Weight Kg.
FP-2	13/32" to 13/16" dia. fuses	10	1.25	.57
FP-3	1" to 1¾" dia. fuses	10	1.73	.78
FP-4	1¾" to 2½" dia. fuses	1	0.53	.24
FP-6	0-60A T-Tron fuses	1	0.008	.004
FP-A3	Glass Tube & ATC fuses	10	0.08	.04



FT-2

Fuse Tester

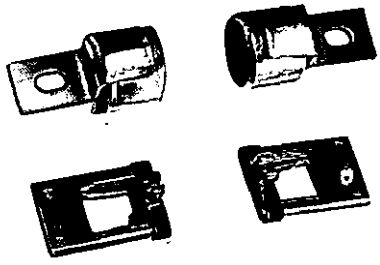
24 Volt Maximum
. Test automotive, glass tube and ferrule fuses up to 1 7/8" length.
• Batteries are included.

WARNING: DO NOT test electrical fuses in the fuse panel.

SFC-FUSE-CAB

Spare Fuse Cabinet
Size: 24" wide x 30" high x 12" deep
• Five cubic feet of storage space.
• Sturdy storage cabinet conveniently holds spare fuses.
• Constructed of .080 heavy gauge aluminum.
. Cabinet door equipped with locking handle.
. Durable baked ASA 61 gray enamel.
• Mounting holes with key slot 16 inches on center.

Accessories



Fuse Reducers for Class J Dimension Fuses-LPJ, JKS

Fuse (Case) Size	Equipment Clip Size	Catalog No. (Pair) Reducer No.	*Carton Weight (Lbs.)
30A	60A	J-63	0.38
30A	100A	J-13	1.73
60A	100A	J-16	1.85
60A	†200A	J-26	2.55
100A	†200A	J-21	1.36
100A	†400A	J-41	4.90
200A	†400A	J-42	2.75
200A	†600A	J-62	1.80
400A	†600A	J-64	3.55

*Carton quantity—10 pair.
†Not for Bolt-on Applications.

Fuse Reducers for Class R Dimension Fuses FRN-R, LPN-RK—FRS-R, LPS-RK

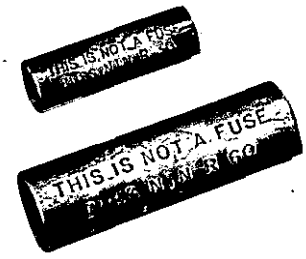
Fuse (Case) Size	Equipment Clip Size	Catalog No. (Pairs) 250V	600V
30A	60A	No. 263-R	No. 663-R
30A	100A	No. 213-R	No. 216-R
60A		No. 216-R	No. 616-R
60A	200A	No. 226-R	No. 626-R
100A		No. 2621-R	No. 2621-R
100A	400A	No. 2641-R	No. 2641-R
200A		No. 242-R	No. 642-R
100A	600A	No. 2661-R	No. 2661-R
200A		No. 2662-R	No. 2662-R
400A		No. 2664-R**	No. 2664-R**

**Single reducer only (pair not required).

Fuse Reducers for Class H & K Dimension Fuses NON, REN—NOS, RES

Fuse (Case) Size	Equipment Clip Size	Catalog No. (Pairs) 250V Reducer No.	*Carton Weight (Lbs.)	600V Reducer No.	*Carton Weight (Lbs.)
30A	60A	No. 263	0.38	No. 663	1.00
30A	100A	No. 213	1.73	No. 216	1.73
60A	100A	No. 216	1.73	No. 616	1.85
60A	200A	No. 226	3.00	No. 626	3.33
100A	200A	No. 2621	1.63	No. 2621	1.63
100A	400A	No. 2641	4.90	No. 2641	4.90
200A	400A	No. 2642	3.50	No. 2642	3.50
100A	600A	No. 2661	8.70	No. 2661	8.70
200A	600A	No. 2662	6.85	No. 2662	6.85
400A	600A	No. 2664	4.45	No. 2664	4.45

*Carton quantity—10 pair.

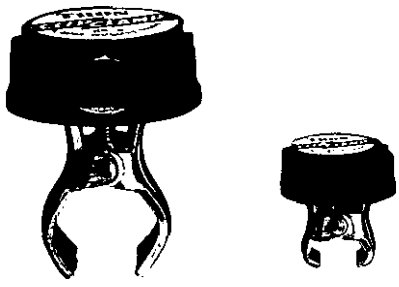


Dummy Fuse "Neutrals" (These are not fuses)

Catalog Numbers	Fuse Equivalent Voltage	Dimension	Amperes	Carton Quantity
NNB	—	13/32" × 1½"	—	10
NNB-R	—	Class CC	—	10
NNC	—	¼" × 1¼"	—	10
NTN-R-30	250V	H	30A	10
NTN-R-60			60A	10
NTN-R-100			100A	5
NTN-R-200			200A	1
NTN-R-400			400A	1
NTS-R-30	600V	H	30A	10
NTS-R-60			60A	10
NTS-R-100			100A	1
NTS-R-200			200A	1
NTS-R-400			400A	1
NTS-R-600			600A	1

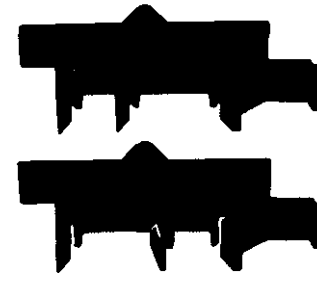
BIF document: 1118

Accessories



TRON Clip-Clamps

Clamp Size			Ctn.	Weight	
Volts	Amps	Cat. No.	Qty.	Lbs.	Kg
250	0-30A	No. 1	12	0.66	.30
	35-60A	No. 2	12	0.96	.44
600	0-30A	No. 2	12	0.96	.44
	35-60A	No. 4	12	1.44	.65
250 or 600	70-100A	No. 5	12	1.20	.54
	110-200A	No. 6	6	1.26	.57
	225-400A	No. 7	6	1.86	.84
	450-600A	No. 8	6	2.52	1.14



Adapters for DIN and American Rails

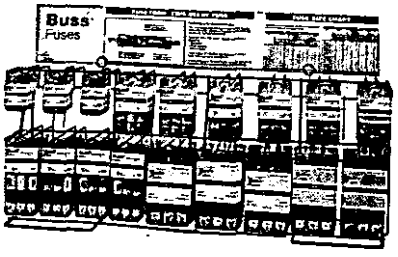
- Buss DIN-Rail Adapters permit secure, positive snap-on mounting of Buss 0 to 30 ampere fuseblocks (one, two, or three pole) on the various size rails. (Rail mounting eliminates costly and time consuming drilling, tapping, and screw mounting.)
- Molded from "Lexan™ 141"...a very high strength but flexible material.
- Adapter mechanically locks into mounting hole of fuseblock in seconds to become an integral part of the block.
- One adapter is required for Buss one and two pole blocks. Two adapters are required for three pole blocks.
- With the exception of the 32mm DIN-rail, all blocks with adapters can be removed from a rail simply by pulling up its release tab.
- Use of rail end-stops on both sides of adapters is recommended.

Adapter Catalog Data (For 0-30 Ampere Fuseblocks)

Fuseblock Class	Rails		Adapter	
	Type	Size	Color	Cat. No.
CC G *H (250V) *R (250) M Type	DIN	15mm (Symm.) 32mm (Asymm.) 35mm (Symm.)	Black	DRA-1
	American	17/64" (Symm.) (also 35mm DIN)	Gray	DRA-2

Package Quantities: standard—10; bulk—100 (Cat. No. BK/DRA-1 or BK/DRA-2.)
*Mounting on 15mm rails is not recommended.
NOTE—New model Buss fuseblocks have elongated block-to-adapter mounting holes (old style fuseblocks will not accept the rail adapters).

Fuse Display Racks



Fusetron® View-Pack

Fuse Display Rack

Catalog Symbol: FR-1000

The FR-1000 is a complete assortment of Fusetron View-Packs with a display rack: When you order a "FR-1000", you receive five each of the View-Packs listed below, plus a heavy-duty wire rack. The rack is designed to hang from a pegboard or stand on a shelf The FR-1000 measures 32" wide, 18" tall and 10" deep.

Fusetron View-Packs

Catalog Number
FRN-R-15-VP
FRN-R-20-VP
FRN-R-25-VP
FRN-R-30-VP
FRN-R-35-VP
FRN-R-40-VP
FRN-R-45-VP
FRN-R-50-VP
FRN-R-60-VP
FRS-R-15-VP
FRS-R-20-VP
FRS-R-25-VP
FRS-R-30-VP
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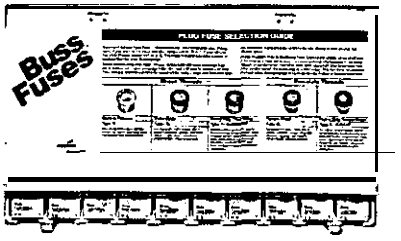
FRS-R-45-VP
FRS-R-50-VP
FRS-R-60-VP



Plug Fuse Display

Catalog Symbol: PFD-946

Sturdy plastic display features complete assortment of plug fuses.

Each display comes with a set of labels that permits customizing the product mix.

Display measures 29" wide x 15" tall x 5" deep.

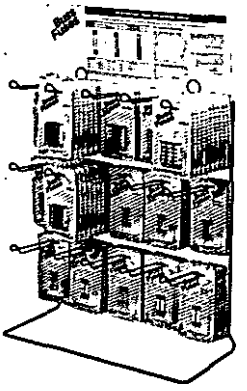
PFD-948 Display

Contents	Boxes*	Fuses
W-15	25	100
W-20	25	100
W-25	12	48
W-30	25	100
TL-15	25	100
TL-20	25	100
TL-30	25	100
SL-15	25	100
SL-20	25	100
SL-30	25	100

*Each box contains 4 fuses.

Displays without fuses are also available. Order EMPTY-PFD to receive the display only

The PFD-948 is packed one per carton. Carton size is 18½" x 13½" x 31 ¼", weight is 75 lbs. The EMPTY-PFD is also packed one per carton. Carton size is 16" x 6" x 31¼", weight is 6 lbs.



Electronic Fuse Display

Catalog Symbol: No.15

A complete assortment of 125 volt and 250 volt fuses for electronic equipment. The No. 15 display contains fifteen of the most popular fuses for electronic equipment, such as microwaves, computers. stereos, CB radios, or office equipment. The sturdy wire rack holds twelve cards of each fuse, and can be hung from a pegboard or stood on a shelf.

- Header card explains fuse types and offers safety precautions.
- Sturdy wire rack can be hung from a pegboard or stood on a shelf. There is no charge for the rack, when purchased with the display.

No. 15 Display and Refills

Contents	Fuses/ Card	Cards/ Display
BP/AGC-½	5	5
BP/AGC-1	5	10
BP/AGC-1½	5	5
BP/AGC-2	5	5
BP/AGC-3	5	10
BP/AGC-4	5	5
BP/AGC-5	5	10
BP/MDL-½	2	5
BP/MDL-1	2	5
BP/MDL-1½	2	5
BP/MDL-2	2	5
BP/MDL-3	2	5
BP/MDL-5	2	5
BP/ABC-10	2	5
BP/ABC-15	2	5
No. 15 (Display)	—	90

Display rack measures: 18¼" x 10½" x 24"

Service Kits

Low-Peak@ Fuse

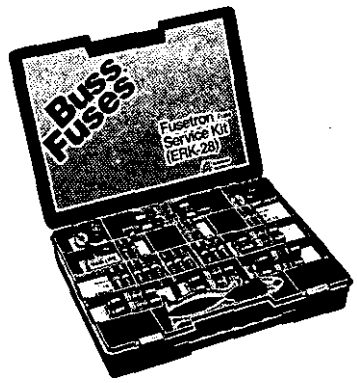
Service Kit

Catalog Symbol: LPRK-28

- Convenient, compact kit to hold spare fuses.
- Sturdy nylon box with handle rugged enough to withstand field use.
- Extra spaces and changeable compartments make it easy to customize for your particular need.

Contents

(2) LPN-RK-3⁹/₁₀ SP	(2) LPN-RK-40 SP
(2) LPN-RK-6¼ SP	(2) LPN-RK-50 SP
(2) LPN-RK-10 SP	(3) LPN-RK-60 SP
(2) LPN-RK-15 SP	(2) LPN-RK-100 SP
(3) LPN-RK-20 SP	(2) No. 263-R Reducers
(2) LPN-RK-25 SP	(2) No. 1 Clip Clamps
(4) LPN-RK-30 SP	(2) No. 2 Clip Clamps
(2) LPN-RK-35 SP	(1) FP-2 Fusepuller



Fusetron® Fuse

Service Kii

Catalog Symbol: ERK-28

- Convenient, compact kit to hold spare fuses.
- Sturdy nylon box with handle rugged enough to withstand field use.
- Extra spaces and changeable compartments make it easy to customize for your particular need.

Contents

(2) FRN-R-3⁹/₁₀	(2) FRN-R-40
(2) FRN-R-6¼	(2) FRN-R-50
(2) FRN-R-10	(3) FRN-R-60
(2) FRN-R-15	(2) FRN-R-100
(3) FRN-R-20	(2) No. 263-R Reducers
(2) FRN-R-25	(2) No. 1 Clip Clamps
(4) FRN-R-30	(2) No. 2 Clip Clamps
(2) FRN-R-35	

Midget Fuse

Emergency Kit

Quick Service Replacement for 13/32" x 1 ½" fuses

Catalog Symbol: No. 36

- A sturdy nylon box is ideal for factory or service truck use.
- Cross reference makes it easy to install correct fuse in any application.
- Free fuse puller enclosed in box.

Contents

(2) FNQ-R-½	(2) KTK-R-1
(2) FNQ-R-1	(2) KTK-R-2
(2) FNQ-R-2	(2) KTK-R-3
(2) FNQ-R-3	(2) KTK-R-5
(2) FNQ-R-4	(2) KTK-R-6
(2) FNQ-R-5	(2) KTK-R-10
(2) FNQ-10	(2) KTK-R-15
(2) FNQ-15	(2) KTK-R-20
(2) FNQ-20	(2) KTK-R-30
(1) FP-2	

Kit size: 10⅞" × 6⅝" × 1¾".

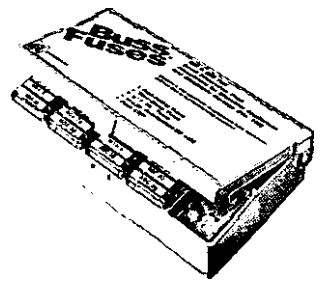
Service Kits

Small Dimension **Fuse**

Assortment Kit
Catalog Symbol: No. 270
Voltage Rating: 125V and 250V
Contains 270 assorted fuses plus fuseholders. fuseblocks and fuse clips to fit most electronic equipment.

Electronic Fuse Assortment

(5) MDL-⅛	(5) ABC-10
(5) MDL-¼	(5) ABC-15
(5) MDL-½	(5) ABC-20
(5) MDL-¾	(5) ABC-30
(5) MDL-1	(5) GMA-250mA
(5) MDL-1½	(5) GMA-500mA
(5) MDL-2	(5) GMA-1A
(5) MDL-3	(5) GMA-2A
(5) MDL-4	(5) GMA-3A
(5) MDL-5	(5) GMA-4A
(5) MDL-6	(5) GMA-6A
(5) MDA-8	(5) GMC-1A
(5) MDA-10	(5) GMC-2A
(5) MDA-15	(5) GMC-3A
(5) MDA-20	(5) GMC-4A
(5) MDA-30	(5) GMC-6A
(5) AGC-⅛	(5) AGC-V-½
(5) AGC-¼	(5) AGC-V-1
(5) AGC-½	(5) AGC-V-2
(5) AGC-¾	(5) AGC-V-3
(5) AGC-1	(5) MDL-V-½
(5) AGC-1½	(5) MDL-V-1
(5) AGC-2	(5) MDL-V-2
(5) AGC-2½	(5) MDL-V-3
(5) AGC-3	(1) S-8202-2
(5) AGC-4	(1) HTB-26I
(5) AGC-5	(1) HTB-28M
(5) AGC-6	(2) Pr. 4121 Fuseclips
(5) AGC-7	(2) HHB
(5) AGC-8	



Small Dimension Fuse

Assortment Kit
Catalog Symbol: No. 140
Voltage Rating: 125V 8 250V
Contains 140 assorted fuses plus fuseholders, fuseblocks and fuse clips to fit most electronic equipment.

Electronic Fuse Assortment

(5) MDL-½	(5) AGC-1½
(5) MDL-1	(5) AGC-2
(5) MDL-1½	(5) AGC-3
(5) MDQ-2	(5) MTH-4
(5) MDQ-3	(5) MTH-5
(5) MDQ-4	(5) MTH-6
(5) MDQ-5	(5) MTH-7
(5) MDQ-6	(5) MTH-8
(5) MDA-8	(5) ABC-10
(5) MDA-10	(5) ABC-15
(5) MDA-15	(5) ABC-20
(5) MDA-20	(5) ABC-30
(5) MDA-30	(2) Pr. #4121 Fuseclips
(5) AGC-¼	(2) HHB
(5) AGC-½	(1) FP-A3
(5) AGC-1	

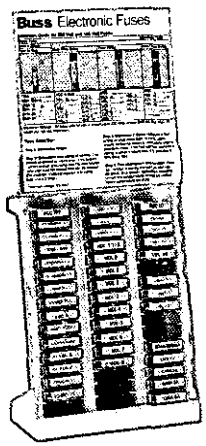
5mm x 20mm Fuse

Assortment Kit
Catalog **Symbol:** No. 220
Voltage Rating: 125V & 250V
A complete assortment of 125V and 250V 5mm x 20mm size fuses for the repair of both electrical and electronic devices.

Contents

Product Type	Ampere Ratings Contains 5 each
GMA	250ma, 500ma, 1, 1.5, 2, 2.5, 3, 4, 5, 10
GDA	630ma, 1, 2, 3.15, 5, 6.3
GDB	630ma, 2, 3.15, 4
GMC	500ma, 750ma, 1, 2, 2.5, 3, 3.15, 4, 5, 6.3
GMD	200ma, 500ma, 1, 1.6, 2, 3
GDC	250ma, 500ma, 1, 1.6, 2, 3.15, 4, 5
HTB-28m, FP-A3	

Fuse Display Racks



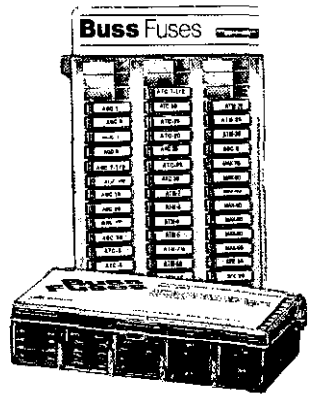
Electronic Fuse Display

Catalog Symbol: No. 205

Compact display of 125 Volt and 250 Volt fuses.

Size: 6¾" W x 16" H x 4" D

Fuse	Quantity	Fuse	Quantity
AGC-½	5	MDL-1	10
AGC-1	10	MDL-1½	5
AGC-1½	5	MDL-2	10
AGC-2	10	MDL-3	10
AGC-3	10	MDL-4	5
AGC-4	5	MDL-5	5
AGC-5	10	MDL-6	5
AGC-6	5	MDL-7	5
AGC-7	5	MDL-8	5
AGC-8	5	GLH-7	15
AGC-10	5	GMA-500mA	5
ABC-10	5	GMA-1A	5
ABC-15	15	GMA-2A	5
ABC-20	5	GMA-3A	5
MDL½	5	GMA-5A	5



No. 200 & No. 201

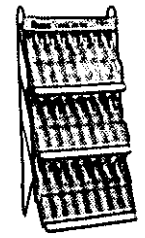
Glass Tube and Blade-Type Automotive Fuses

The "200"—40 boxes (172 fuses).

Size: 4" × 6¾" x 10" (270 cu. in.)

Fuse	Quantity	Fuse	Quantity
AGC-1	5	ATM-2	5
AGC-2	5	ATM-3	5
AGC-3	5	ATM-4	5
AGC-5	5	ATM-6	5
AGC-7½	5	ATM-7½	5
AGC-10	5	ATM-10	5
AGC-15	5	ATM-15	5
AGC-20	5	ATM-20	5
AGC-25	5	ATM-25	5
AGC-30	5	ATM-30	5
ATC-3	5	GBC-8	5
ATC-4	5	MAX-20	5
ATC-5	5	MAX-30	5
ATC-7½	5	MAX-40	2
ATC-10	5	MAX-50	1
ATC-15	5	MAX-60	2
ATC-20	10	SFE-14	5
ATC-25	5	SFE-20	5
ATC-30	5		

The "201"—40 boxes (172 fuses).
Comes in handy, clear plastic service kit.
Fuse assortment same as the "200".
3" × 4" x 10" (142.5 cu. in.)



No. 2880

Empty Counter or Wall Stock Display Rack

- Holds 2880 fuses (574 boxes of 5 each).
- Six removable sections with four channels. Units may be interlocked without screws.

Christmas Light Fuses and Displays

Bussmann offers a comprehensive line of replacement fuses for all Christmas tree lights and decorative light products.

Display Cartons

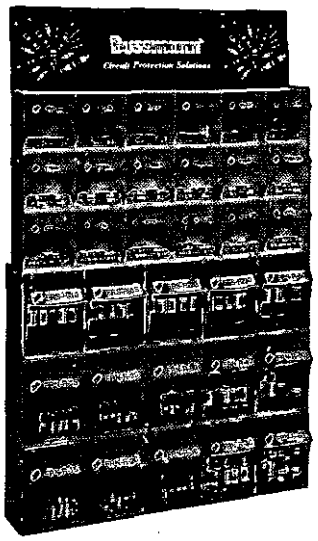
Part No.	Description	Carton Quantity
BP/AGX-7X5	5 AGX-7 Amp, 125V Fuses ¼" × 1" Glass Tube	20 Cards
BP/GLH-7X5	5 GLH-7 Amp, 125V Fuses ¼" × 1¼" Glass Tube	20 Cards
BP/MAS-3X5	5 MAS-3 Amp, 125V Fuses 3.6mm x 10mm Glass Tube	20 Cards
BP/XMAS-6F	Assortment: 6 Fuses (2 ea. AGX-7, GLH-7, MAS-3)	20 Cards
Clip Strip		
CS/XMAS-6F	Assortment: 6 Fuses (2 ea. AGX-7, GLH-7, MAS-3)	20 Cards

Note: Order by the card (each in multiples of 20).

Package Specifications

	Card Size		Display Carton			
Part No.	H	W	D	H	W	Weight
BP/AGX-7X5	4¾"	2¾"	7¼"	6¼"	5¾"	1 lb. 10 oz.
BP/GLH-7X5	4¾"	2¾"	7¼"	6¼"	5¾"	1 lb. 10 oz.
BP/MAS-3X5	4¾"	2¾"	7¼"	6¼"	5¾"	1 lb. 10 oz.
BP/XMAS-6F	4¾"	2¾"	7¼"	6¼"	5¾"	1 lb. 10 oz.
CS/XMAS-6F	4¾"	2¾"	6½"	2⅞"	6¼"	1 lb. 4 oz.

Fuse Display Racks



FDM-1

Fuse Display Merchandiser

- Bussmann tilt-bin display maximizes your space and stimulates impulse purchases.
- Interlocking bins can be stacked or mounted on peg board.
- Header card easily attaches with plastic push pegs.
- Provides a flexible system to best fit your needs and space requirements.
- The tilt bins are available in five and six bin models.

Fuse Display Merchandiser will consist of any number of either size bins; header card push pegs to attach and part number labels.

Part Number		Description
1A9721	5 Bin Display	23⅝" long x 6½" tall x 5½" deep
1A9722	6 Bin Display	23⅝" long x 4½" tall x 3⅝" deep
1A9716-01	9 Bin Display	23⅝" long x 3½" tall x 3⅝" deep

Circuit Pmtection

Electrical distribution systems are often quite complicated. They cannot be absolutely fail-safe. Circuits are subject to destructive overcurrants. Harsh environments, general deterioration, accidental damage, damage from natural causes, excessive expansion, and/or overloading of the electrical distribution system are factors which contribute to the occurrence of such overcurrents. Reliable protective devices prevent or minimize costly damage to transformers. conductors, motors, and the other many components and loads that make up the complete distribution system. Reliable circuit protection is essential to avoid the severe monetary losses which can result from power blackouts and prolonged downtime of facilities. It is the need for reliable protection, safety, and freedom from fire hazards that has made the fuse a widely used protective device.

Overcurrents

An overcurrent is either an overload current or a short-circuit current. The overload current is an excessive current relative to normal operating current, but one which is confined to the normal conductive paths provided by the conductors and other components and loads of the distribution system. As the name implies, a short-circuit current is one which flows outside the normal conducting paths.

Overloads

Overloads are most often between one and six times the normal current level. Usually, they are caused by harmless temporary surge currents that occur when motors are started-up or transformers are energized. Such overload currants, or transients, are normal occurrences. Since they are of brief duration, any' temperature rise is trivial and has no harmful effect on the circuit components. (It is important that protective devices do not react to them.)

Continuous overloads can result from defective motors (such as worn motor bearings), overloaded equipment, or too many loads on one circuit. Such sustained overloads are destructive and must be cut off by protective devices before they damage the distribution system or system loads. However, since they are of relatively low magnitude compared to short-circuit currents, removal of the overload current within minutes will generally prevent equipment damage. A sustained overload current results in overheating of conductors and other components and will cause deterioration of insulation, which may eventually result in severe damage *and short-circuits* if not *interrupted.*

Short-Circuits

Whereas overload currents occur at rather modest levels, the short-circuit or fault current can be many hundred times larger than the normal operating current. A high level fault may be 50,000 amperes (or larger). If not cut off within a matter of a few thousandths of a second. damage and destruction can become rampant-there can be severe insulation damage, melting of conductors, vaporization of metal, ionization of gases, arcing, and fires. Simultaneously, high level short-circuit currents can develop huge magnetic-field stresses. The magnetic forces between bus bars and other conductors can be many hundreds of pounds par linear foot; even heavy bracing may not be adequate to keep them from being warped or distorted beyond repair.

Fuses

The fuse is a reliable overcurrent protective device. A "fusible" link or links encapsulated in a tube and connected to contact terminals comprise the fundamental elements of the basic fuse. Electrical resistance of the link is so low that it simply acts as a conductor. However, when destructive currents occur, the link vary quickly melts and opens the circuit to protect conductors and other circuit components and loads. Fuse characteristics are stable. Fuses do not require periodic maintenance or testing. Fuses have three unique performance characteristics:

1. **Modern fuses have an extremely** "high **interrupting rating"-can withstand very high fault currents without rupturing.**
2. **Properly applied, fuses prevent "blackouts." Only the fuse nearest a fault opens without upstream fuses (feeders or mains) being *affected—fuses thus* provide "selective coordination." (These terms are precisely defined in subsequent pages.)**
3. **Fuses provide optimum component protection by keeping fault currents to a low value...They are said to be "current limiting."**

Voltage Rating

The voltage rating of a fuse must be at least equal to or greater than the circuit voltage. It can be higher but never lower. For instance, a 600 volt fuse can be used in a 208 volt circuit

The voltage rating of a fuse is a function of its capability to open a circuit under an overcurrent condition. Specifically, the voltage rating determines the ability of the fuse to suppress the internal arcing that occurs after a fuse link melts and an arc is produced. If a fuse is used with a voltage rating lower than the circuit voltage, arc suppression will be impaired and, under some fault current conditions, the fuse may not clear the overcurrent safely. Special consideration is **necessary** for semiconductor fuse and medium voltage fuse applications, where a fuse of a certain voltage rating is used on a lower voltage circuit.

Ampere Rating

Every fuse has a specific ampere rating. In selecting the ampere rating of a fuse, consideration must be given to the type of load and code requirements. The ampere rating of a fuse normally should not exceed the current carrying capacity of the circuit. For

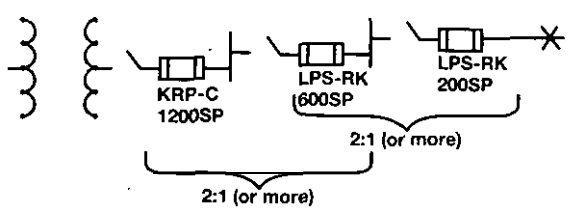
instance, if a conductor is rated to carry 20 amperes, a 20 ampere fuse is the largest that should be used. However, there are some specific circumstances in which the ampere rating is permitted to be greater than the current carrying capacity of the circuit. A typical example is the motor circuit; dual-element fuses generally are permitted to be sized up to 175% and non-time-delay fuses up to 300% of the motor full-load amperes. As a rule, the ampere rating of a fuse and switch combination should be selected at 125% of the continuous load current (this usually corresponds to the circuit capacity, which is also selected at 125% of the load current). There are exceptions, such as when the fuse-switch combination is approved for continuous operation at 100% of its rating.

Interrupting Rating

A protective device must be able to withstand the destructive energy of short-circuit currents. If a fault current exceeds the capability of the protective device, the device may actually rupture, causing additional damage. Thus, it is important when applying a fuse or circuit breaker to use one which can sustain the largest potential short-circuit currents. The rating which defines the capacity of a protective device to maintain its integrity when reacting to fault currants is termed its "interrupting rating". The interrupting rating of most branch-circuit, molded case. circuit breakers typically used in residential service entrance panels is 10,000 amperes. (Please note that a molded case circuit breaker's intermpting capacity will typically be lower than its interrupting rating.) Larger, more expensive circuit breakers may have interrupting ratings of 14,000 amperes or higher. In contrast, most modern, current-limiting fuses have an interrupting rating of 200,000 or 300,000 amperes and are commonly used to protect the lower rated circuit breakers. The National Electrical Code, Section 110-9, requires equipment intended to break current at fault levels to have an intermpting rating sufficient for the current that must be interrupted.

Selective Coordination – Prevention of Blackouts

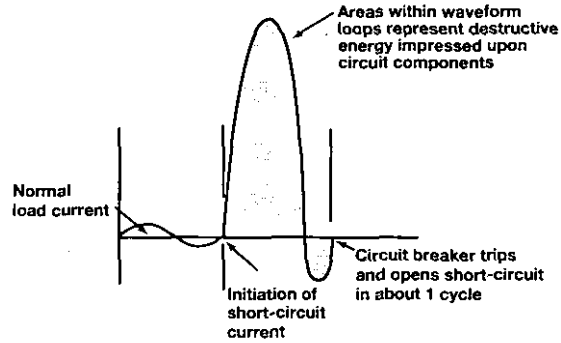
The coordination of protective devices prevents system power outages or blackouts caused by overcurrent conditions. When only the protective device nearest a faulted circuit opens and larger upstream fuses remain closed, the protective devices are "selectively" coordinated (they discriminate). The word "selective" is used to denote total coordination.. .isolation of a faulted circuit by the opening of only the localized protective device.



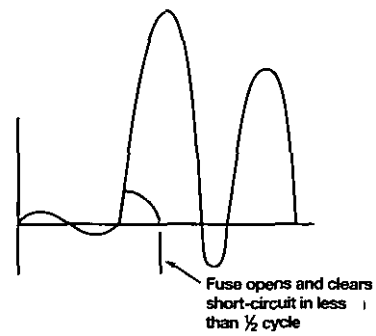
This diagram shows the minimum ratios of ampere ratings of LOW-PEAK YELLOW fuses that are required to provide "selective coordination" (discrimination) of upstream and downstream fuses.

Unlike electro-mechanical inertial devices (circuit breakers), it is a simple matter to selectively coordinate fuses of modern design. By maintaining a minimum ratio of fuse-ampere ratings between an upstream and downstream fuse, selective coordination is assured.

Current Limitation – Component Protection



A non-current-limiting protective device, by permitting a short-circuit current to build up to its full value, can let an immense amount of destructive short-circuit heat energy through before opening the circuit.



A current-limiting fuse has such a high speed of response that it cuts off a short-circuit long before it can build up to its full peak value.

If a protective device cuts off a short-circuit current in less than one-quarter cycle, before it reaches its total available (and highly destructive) value, the device is a "current-limiting" device. Most modern fuses are ,current-limiting. They restrict fault currents to such low values that a high degree of protection is given to circuit components against even very high short-circuit currents. hey permit breakers with lower intermpting ratings to be used. They can reduce bracing of bus structures. They minimize the need of other components to have high short-circuit current "withstand" ratings. If not limited, short-circuit currents can reach levels of 30,000 or 40,000 amperes or higher in the first half cycle (.008 seconds. 60 hz) after the start of a short-circuit. The heat that can be produced in circuit components by the immense energy of short-circuit currents can cause severe insulation damage or even explosion. At the same time, huge magnetic forces developed between conductors can crack insulators and distort and· destroy bracing structures. Thus, it is important that a protective device limit fault currents before they reach their full potential level.

Operating **Principles** of **Bussmann®** Fuses

The principles of operation of the modern, current-limiting Buss fuses are covered in the following paragraphs.

Non-Time-Delay Fuses

The basic component of a fuse is the link. Depending upon the ampere rating of the fuse, the single-element fuse may have one or more links. They are electrically connected to the end blades (or ferrules) (see Figure 1) and enclosed in a tube or cartridge surrounded by an arc quenching filler material. BUSS' LIMITRON' and T-TRON' fuses are both single-element fuses.

Under normal operation, when the fuse is operating at or near its ampere rating, it simply functions as a conductor. However, as illustrated in Figure 2, if an overload current occurs and persists for more than a short interval of time, the temperature of the link eventually reaches a level which causes a restricted segment of the link to melt. As a result, a gap is formed and an electric arc established. However, as the arc causes the link metal to burn back, the gap becomes progressively larger. Electrical resistance of the arc eventually reaches such a high level that the arc cannot be sustained and is extinguished. The fuse till have then completely cut off all current flow in the circuit Suppression or quenching of the arc is accelerated by the filler material. (See Figure 3.)

Single-element fuses of present day design have a very high speed of response to overcurrents. They provide excellent short-circuit component protection. However, temporary, harmless overloads or surge currents may cause nuisance openings unless these fuses are oversized. They are best used, therefore, in circuits not subject to heavy transient surge currents and the temporary over-load of circuits with inductive loads such as motors, transformer;, solenoids, etc. Because single-element, fast-acting fuses such as LIMITRON and T-TRON fuses have a high speed of response to short-circuit currents, they are particularly suited for the protection of circuit breakers with low interrupting ratings.

Whereas an overload current normally fails between one and six times normal current, short-circuit currents are quite high. The fuse may be subjected to short-circuit currents of 30,000 or 40,000 amperes or higher. Response of current limiting fuses to such currents is extremely fast. The restricted sections of the fuse link will simultaneously melt (within a matter of two or three thousandths of a second in the event of a high-level fault current).

The high total resistance of the multiple arcs. together with the quenching effects of the filler particles, results in rapid arc suppression and clearing of the circuit. (Refer to figures 4 & 5) Short-circuit current is cut off in less than a half-cycle, long before the short-circuit current can reach its full value (fuse operating in its current limiting range).

Figure 1. Cutaway view of typical single-element fuse.

Figure 2. Under sustained overload, a section of the link melts and an arc is established.

Figure 3. The "open" single-element fuse after opening a circuit overload.

Figure 4. When subjected to a short-circuit current, several sections of the fuse link melt almost instantly.

Figure 5. The "open" single-element fuse after opening a short circuit.

Dual-Element, Time-Delay Fuses as Manufactured by **Bussmann**

Unlike single-element fuses. the dual-element, time-delay fuse can be applied in circuits subject to temporary motor overloads and surge currents to provide both high performance short-circuit and overload protection. Oversizing in order to prevent nuisance openings is not necessary. The dual-element. time-delay fuse contains two distinctly separate types of elements (Figure 6). Electrically, the two elements are series connected. The fuse links similar to those used in the non-time-delay fuse perform the short-circuit protection function; the overload element provides protection against low-level overcurrents or overloads and will hold an overload which is five times greater than the ampere rating of the fuse for a minimum time of 10 seconds.

As shown in Figure 6, the overload section consists of a copper heat absorber and a spring operated trigger assembly. The heat absorber bar is permanently connected to the heat absorber extension (left end of illustration) and to the short-circuit link on the opposite end of the fuse by the "S"-shaped connector of the trigger assembly. The connector electrically joins the short-circuit link to the heat absorber in the overload section of the fuse. These elements are joined by a "calibrated' fusing alloy. As depicted in Figure 7, an overload current causes heating of the short-circuit link connected to the trigger assembly. Transfer of heat from the short-circuit link to the heat absorbing bar in the mid-s&ion of the fuse begins to raise the temperature of the heat absorber. If the overload is sustained, the temperature of the heat absorber eventually reaches a level which permits the trigger spring to "fracture" the calibrated fusing alloy and pull the connector free of the short-circuit link and the heat absorber. As a result. the short-circuit link is electrically disconnected from the heat absorber, the conducting path through the fuse is opened, and overload current is interrupted (See Figure 6.). A critical aspect of the fusing alloy is that it retains its original characteristic after repeated temporary overloads without degradation. When subjected to a short circuit current, the restricted sections of the short-circuit link will simultaneously melt (within a matter of two or three-thousandths of a second in the event of a high-level fault current). The high total resistance of the multiple arcs, together with the quenching effects of the filler particles, results in rapid arc suppression and clearing of the circuit. (Refer to Figures 9 & 10.)

BUSS dual-element fuses, typically LOW-PEAK YELLOW™ and FUSETRON® fuses, utilize the spring-loaded design in the overload element.

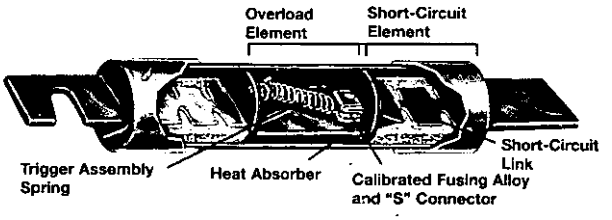


Figure 6. The true dual-element fuse has distinct and separate overload and short-circuit elements.

Figure 7. Under sustained overload conditions, the trigger spring fractures the calibrated fusing alloy and releases the "connector".

Figure 8. The "open" dual-element fuse after opening under an overload condition.

Figure 9. Like the single element fuse, a short-circuit current causes the restricted portions of the short-circuit elements to melt. Arcing to burn back the resulting gaps occurs until the arcs are suppressed by the arc quenching material and the increased arc resistance.

Figure 10. The "open" dual-element fuse after opening under a short-circuit condition.

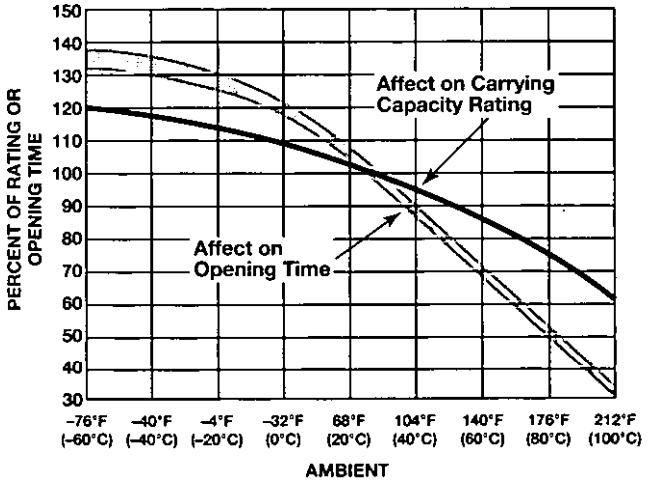
Fuse Time-Current **Curves**

When a low level overcurrent occurs, a long interval of time will be required for a fuse to open (melt) and clear the fault. On the other hand, if the overcurrent is large, the fuse will open vary quickly. The opening time is a function of the magnitude of the level of overcurrent. Overcurrent levels and the corresponding intervals of opening times are logarithmically plotted in graph form as shown to the right. Levels of overcurrent are scaled on the horizontal axis; time intervals on the vertical axis. The curve is thus called a "time-current" curve.

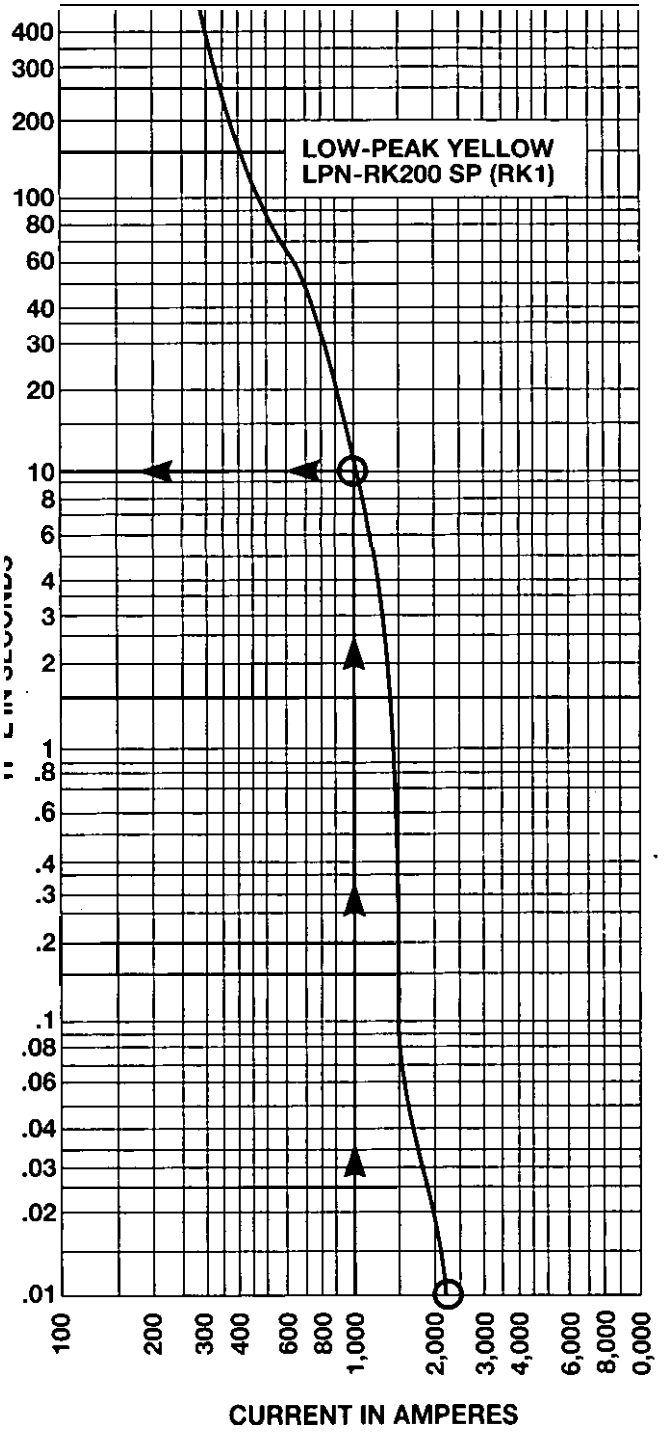
This particular plot reflects the characteristics of a 200 ampere, 250 volt, LOW-PEAK YELLOW dual-element fuse. Note that at the 1,000 ampere overload level, the time interval which is required for the fuse to open is 10 seconds. Yet, at approximately the 2,200 ampere overcurrent level, the opening (melt) time of a fuse is only 0.01 seconds. It is apparent that the time intervals become shorter as the overcurrent levels become larger. This relationship is termed an inverse time-to-current characteristic. Time-current curves are published or are available on most commonly used fuses showing "minimum melt," "average melt" and/or "total clear" characteristics. Although upstream and downstream fuses are easily coordinated by adhering to simple ampere ratios, these time-current curves permit close or critical analysis of coordination.

Better Motor Protection in Elevated **Ambients**

The derating of dual-element fuses based on increased ambient temperatures closely parallels the derating curve of motors in elevated ambient. This unique feature allows for optimum protection of motors, even in high temperatures.



Affect of ambient temperature on operating characteristics of FUSETRON and LOW-PEAK YELLOW Dual-Element Fuses.



Better Protection Against Motor Single Phasing

When secondary single-phasing occurs, the current in the remaining phases increases to approximately 200% rated full load current. (Theoretically 173%. but change in efficiency and power factor make it about ZOO%.) When primary single-phasing occurs, unbalanced voltages occur on the motor circuit causing currents to rise to 115%. and 230% of normal running currents in delta-wye systems.

Dual-element fuses sized for motor running overload protection will help to protect motors against the possible damages of single-phasing.

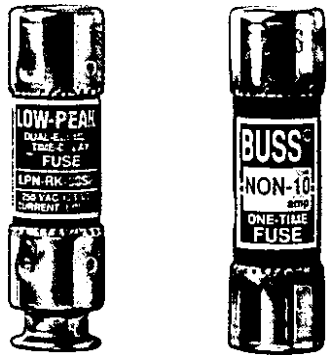
Classes of Fuses

Safety is the industry mandate. However, proper selection, overall functional performance and reliability of a product are factors which are not within the basic scope of listing agency activities. In order to develop its safety test procedures, listing agencies develop basic performance and physical specifications or standards for a product. In the case of fuses, these standards have culminated in the establishment of distinct classes of low-voltage (600 volts or less) fuses: classes RK1, RK5, G, L, T, J, H and CC being the more important.

The fact that a particular type of fuse has, for instance, a classification of RK1 does not signify that it has the identical function or performance characteristics as other RK1 fuses. In fact, the LIMITRON® non-time-delay fuse and the LOW-PEAK YELLOW™ dual-element. time-delay fuse are both classified as RK1. Substantial differences in these two AK1 fuses usually requires considerable difference in sizing. Dimensional specifications of each class of fuse does serve as a uniform standard.

Class R Fuses

Class R ("R" for rejection) fuses are high performance, 1/10 to 600 ampere units, 250 volt and 600 volt, having a high degree of current limitation and a short-circuit interrupting rating of up to 300,000 amperes (rms symmetrical). BUSS Class R's include Classes RK1 LOW-PEAK YELLOW™ and LIMITRON® fuses, and RK5 FUSETRON® fuses. They have replaced BUSS K1 LOW-PEAK and LIMITRON fuses and K5 FUSETRON fuses. These fuses are identical. with the exception of a modification in the mounting configuration called a "rejection feature". This feature permits Class R fuses to be mounted in rejection type fuseclips. "R" type fuseclips prevent older type Class H, ONE-TIME and RENEWABLE fuses from being installed. The use of Class R fuseholders is thus an important safeguard. The application of Class R fuses in such equipment as disconnect switches permits the equipment to have a high intermpting rating. NEC Articles 110-9 and 230-65 require that protective devices have adequate capacity to interrupt short-circuit currents. Article 240-60(b) requires fuseholders for current-limiting fuses to reject non-current-limiting type fuses.



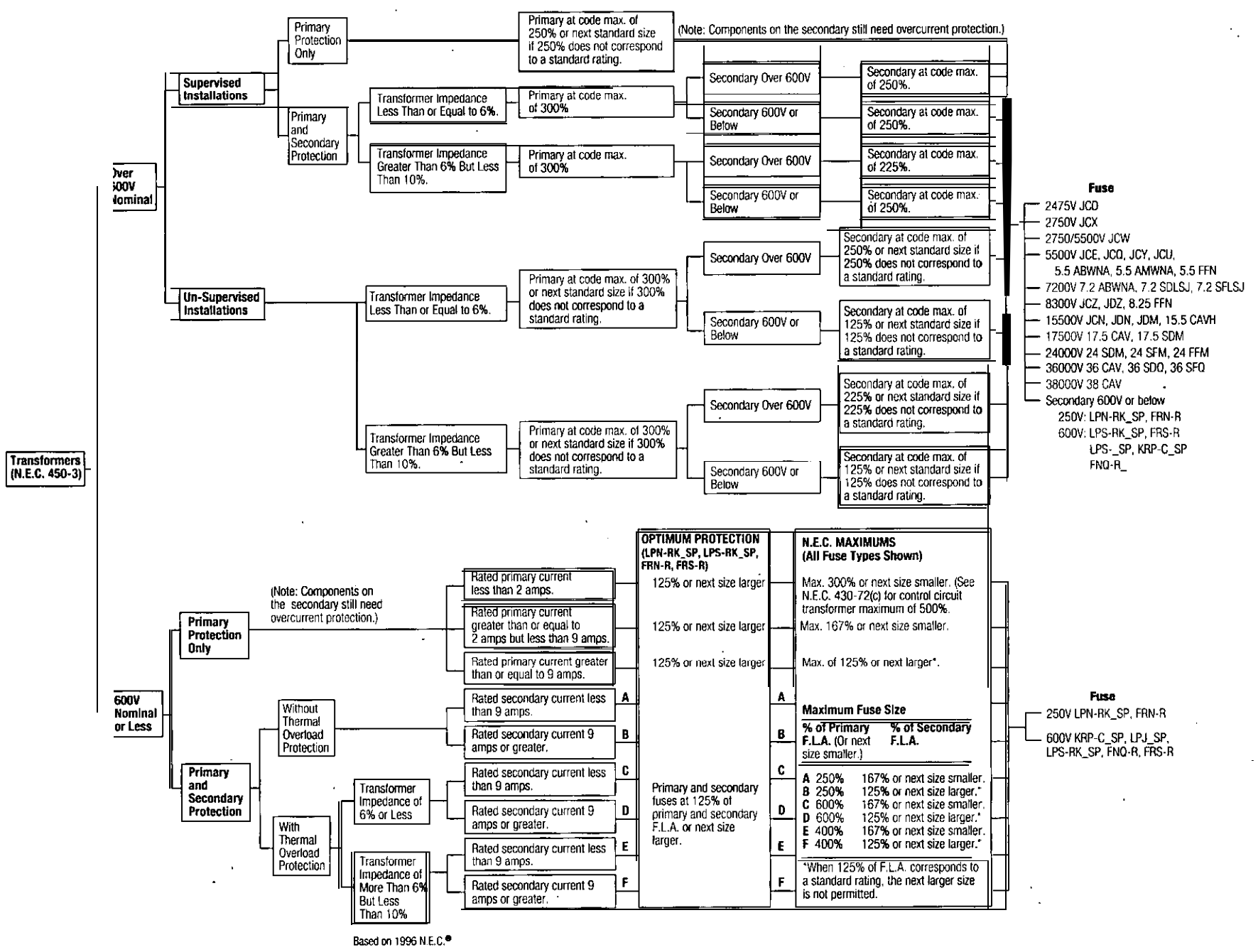
In the above illustration. a grooved ring in one ferrule provides the rejection feature of the Class R fuse in contrast to the lower intermpting rating, non-rejection type

Branch-Circuit Listed Fuses

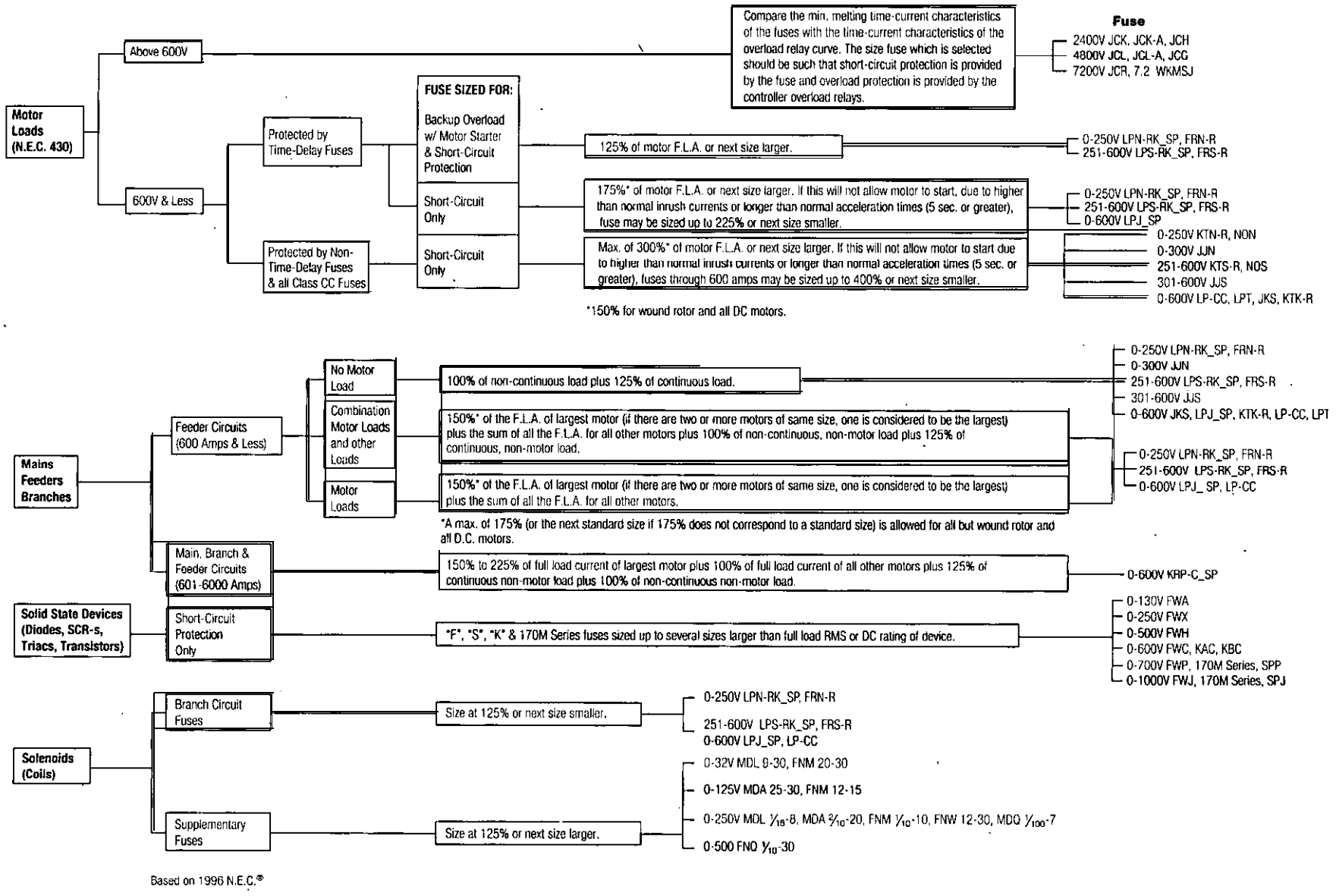
Branch-circuit listed fuses are designed to prevent the installation of fuses that cannot provide a comparable level of protection to equipment.

The characteristics of Branch-circuit fuses are:

1. They 'must have a minimum intermpting rating of 10,000 amps.
2. They must have a minimum voltage rating of 125 volts.
3. They must be size rejecting such that a fuse of a lower voltage rating cannot be installed in the circuit.
4. They must be size rejecting such that a fuse with a current rating higher than the fuseholder rating cannot be installed.



Based on 1996 N.E.C.®



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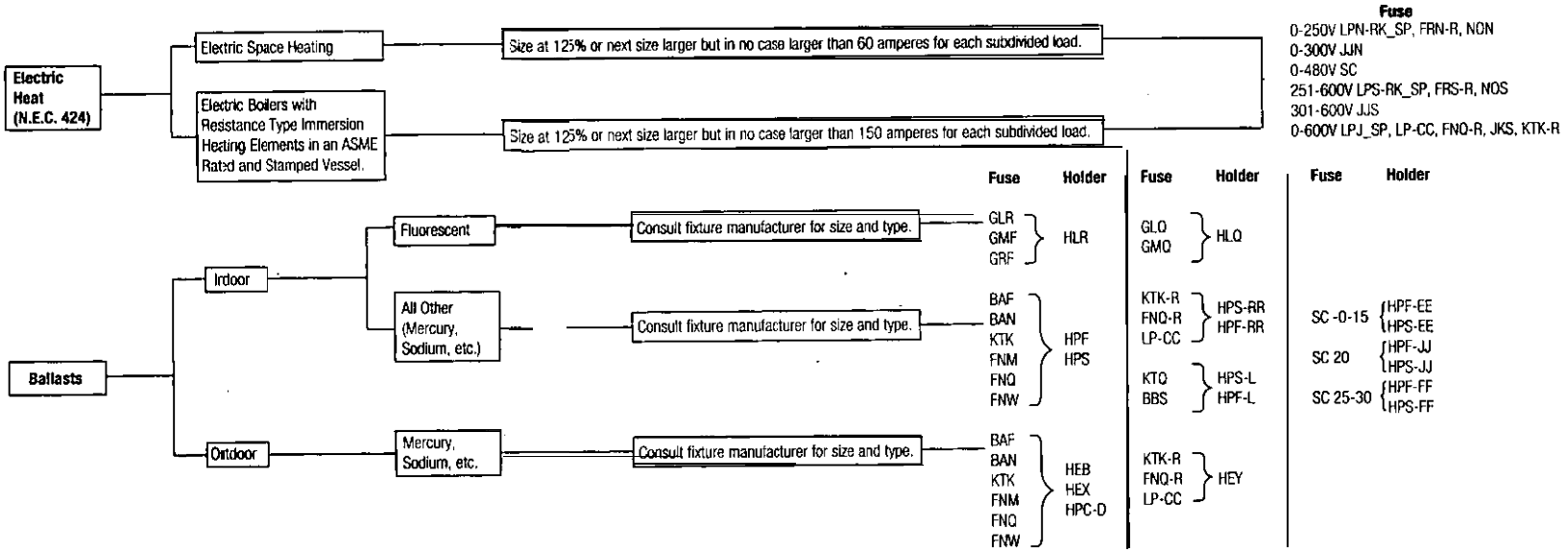
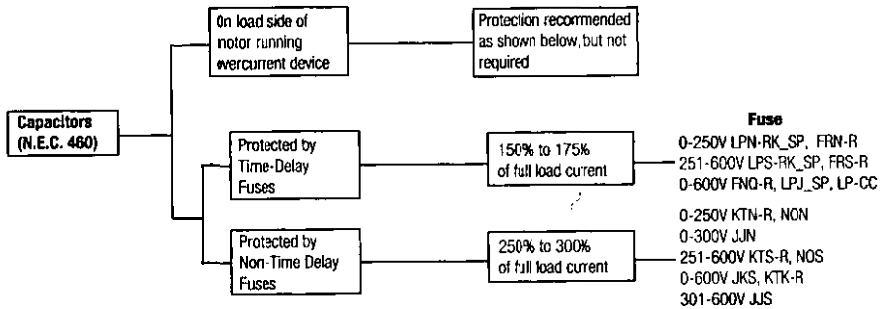
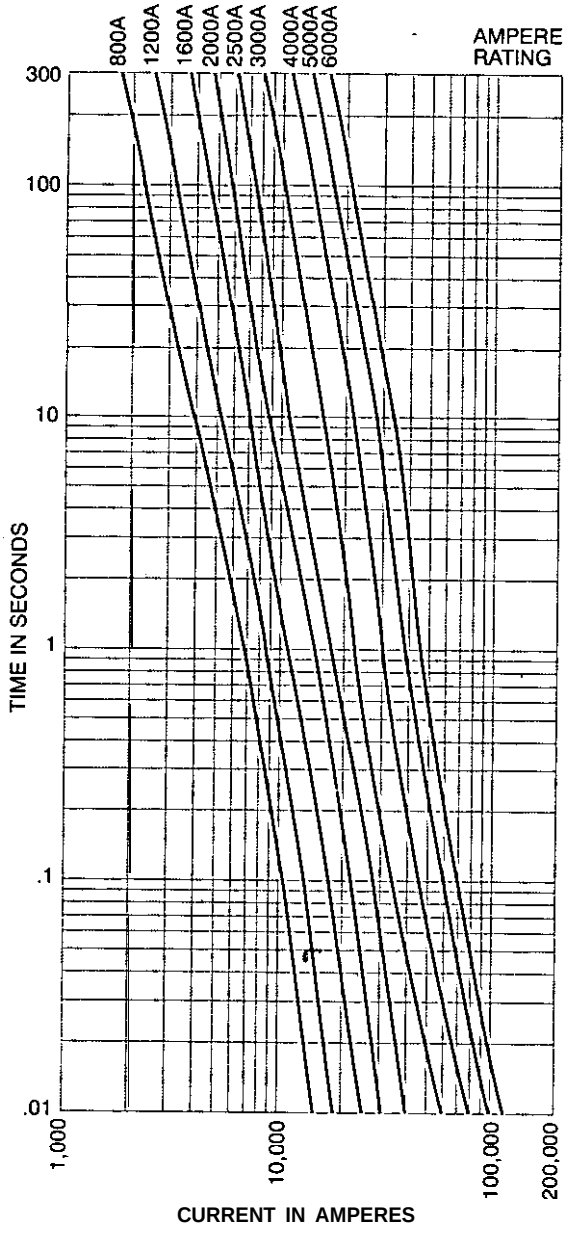




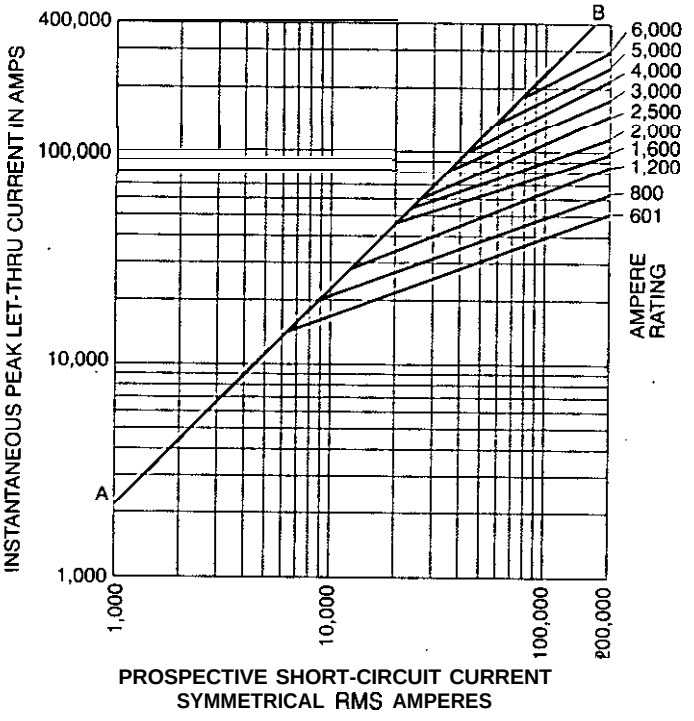
Based on 1996 N.E.C.®

KRP-C, Class L Fuses

KRP-C Time-Current Characteristic Curves-Average Melt

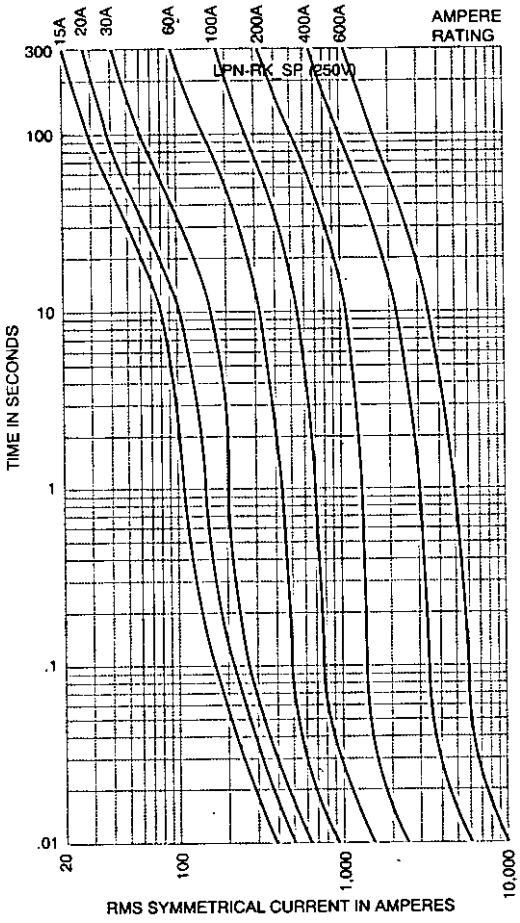


KRP-C Current Limitation Curves

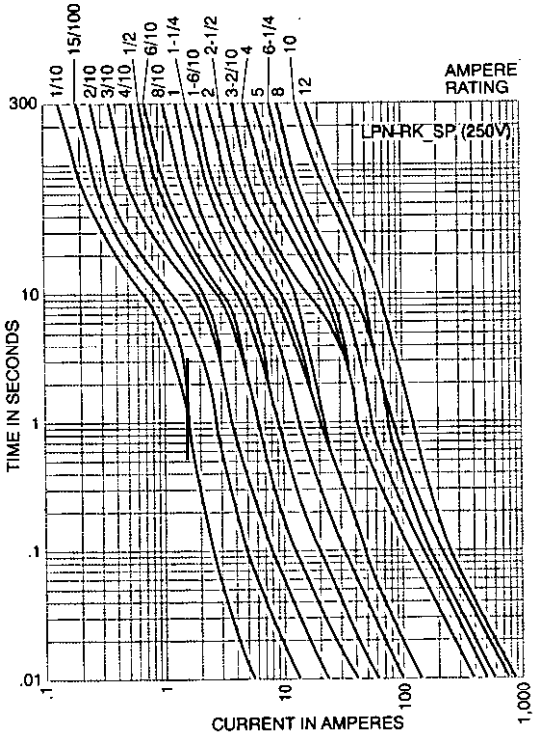


LPN-RK **(250V)** Class **RK1** Fuses

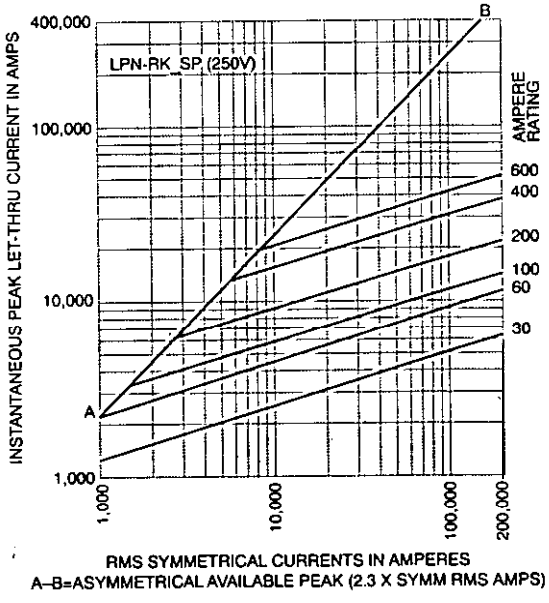
Time-Current Characteristic Curves-Average Melt



Time-Current Characteristic Curves-Average Melt

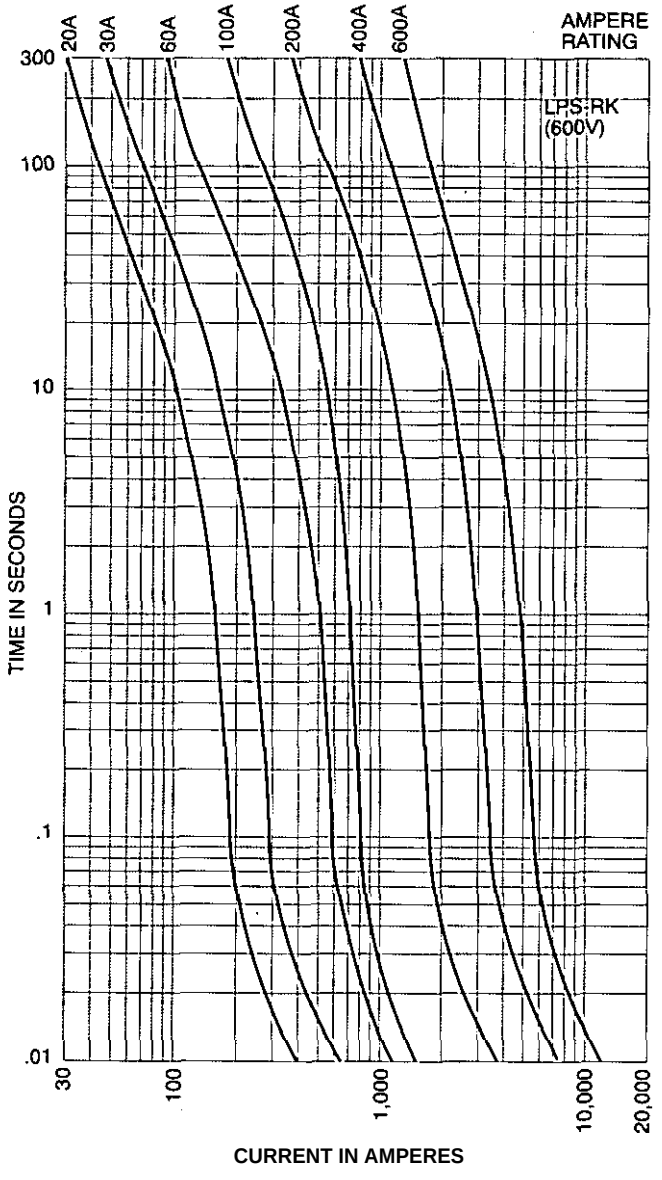


Current Limitation Curves

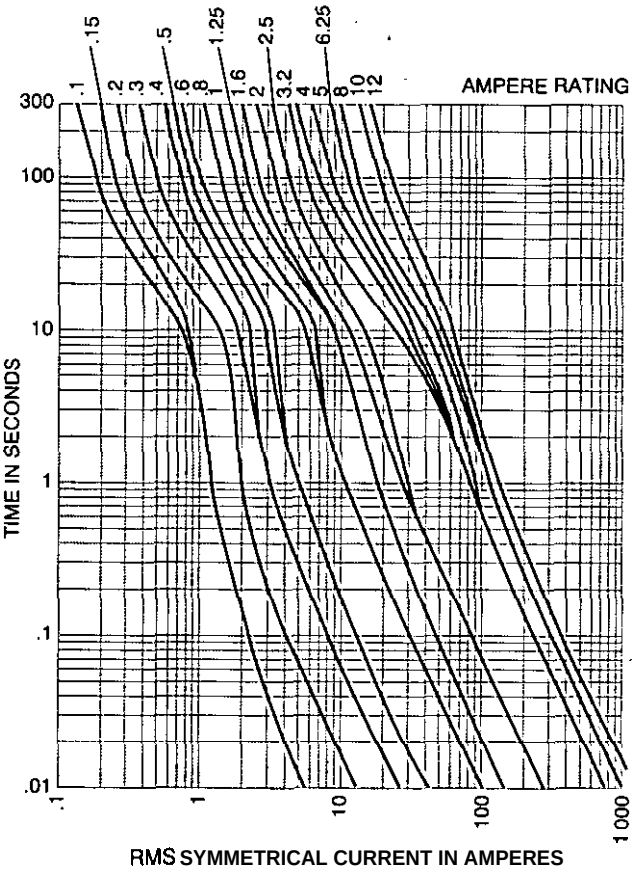


LPS-RK (600V) Class RK1 Fuses

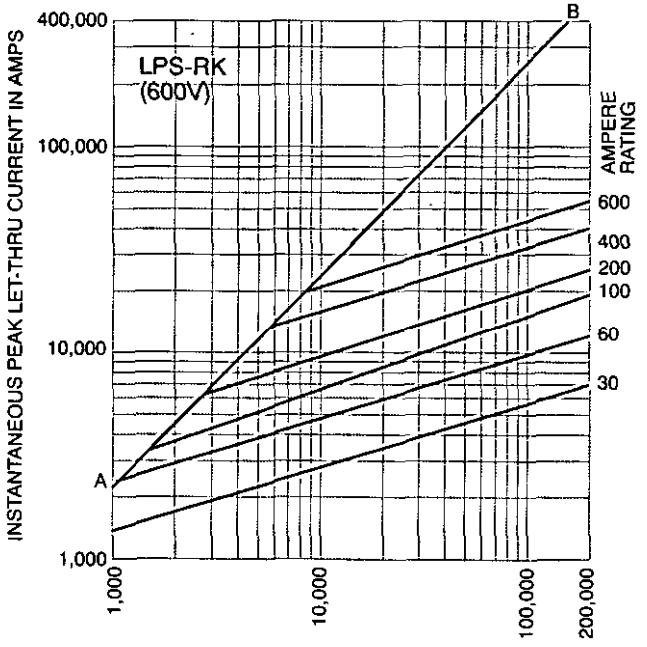
Time-Current Characteristic Curves--Average Melt



Time-Current Characteristic Curves-Average Melt

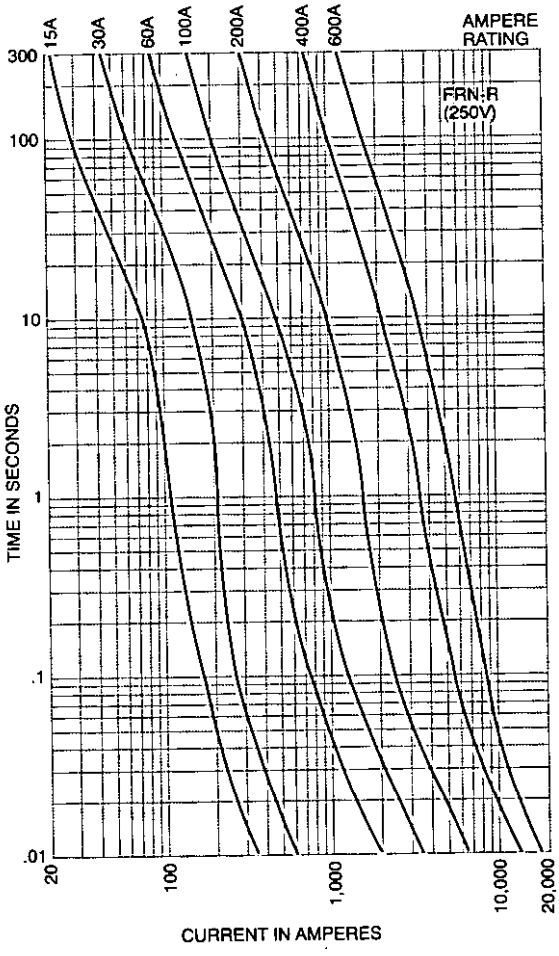


Current Limitation Curves

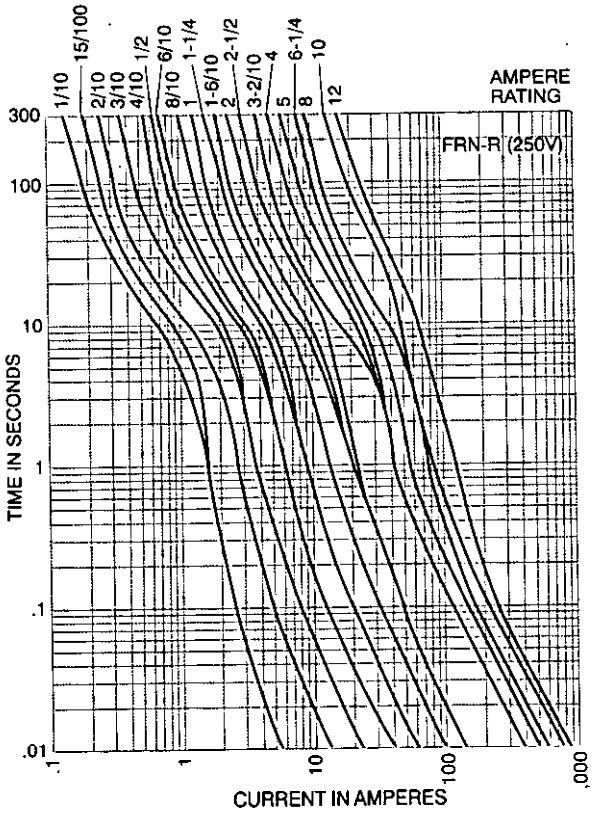


FRN-R **(250V)** Class RK5 Fuses

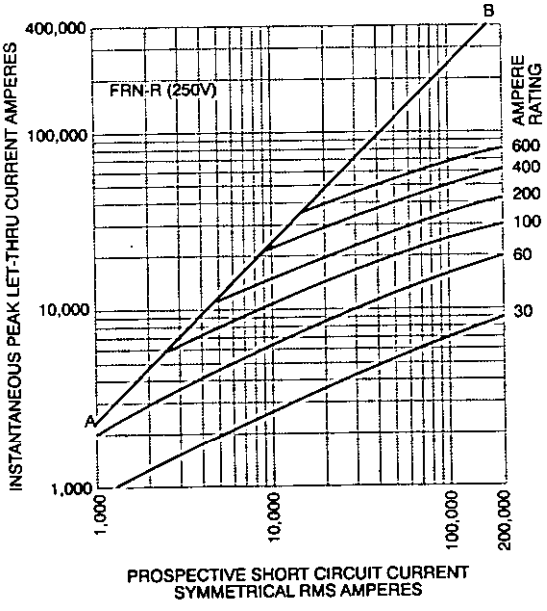
Time-Current Characteristic Curves--Average Melt



Time-Current Characteristic Curves--Average Melt

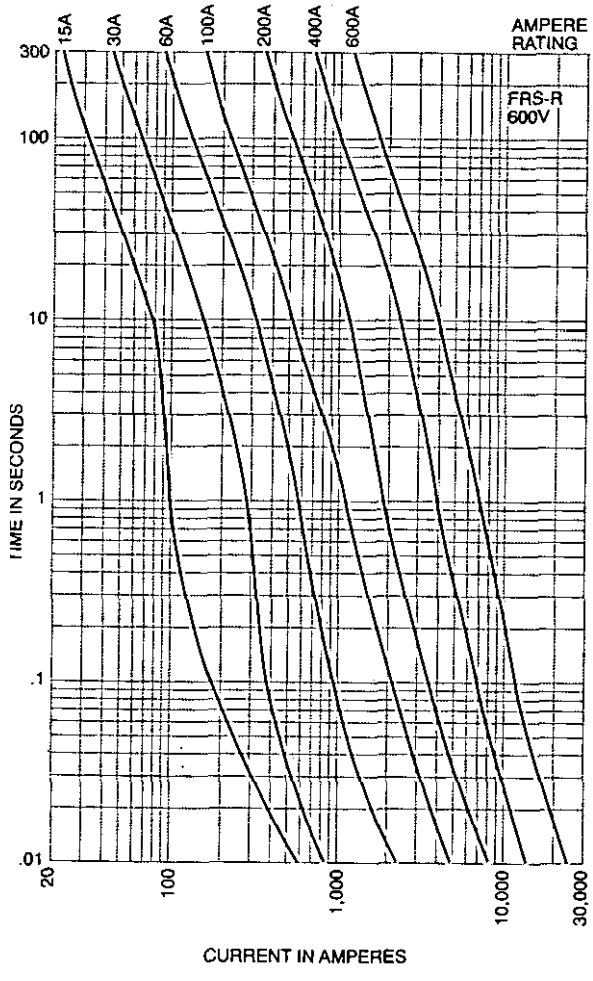


Current Limitation Curves

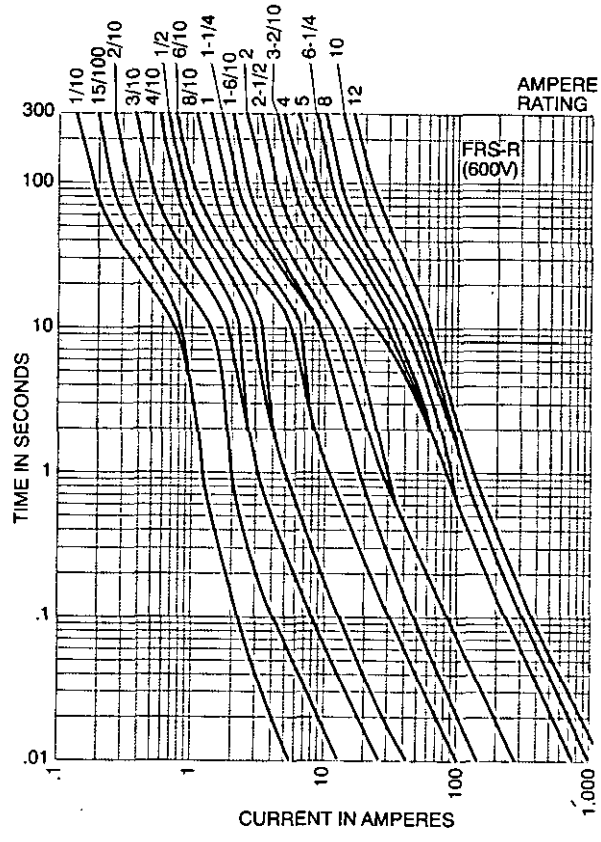


FRS-R (600V) Class RK5 Fuses

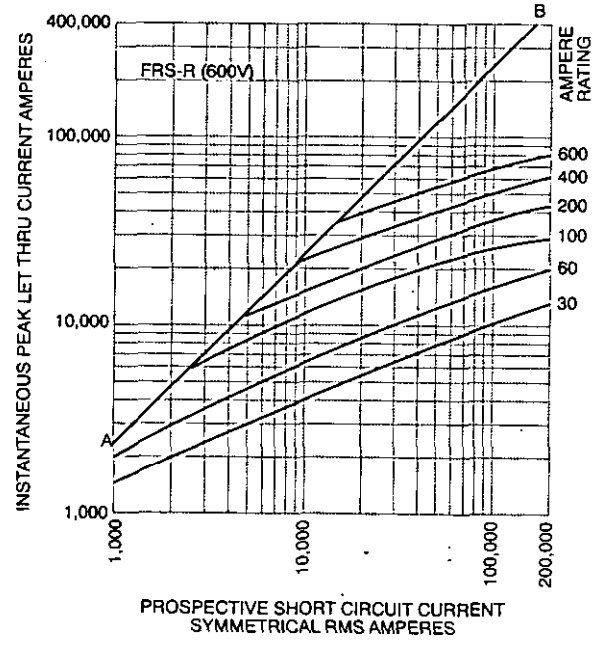
Time-Current Characteristic Curves-Average Melt



Time-Current Characteristic Curves-Average Melt

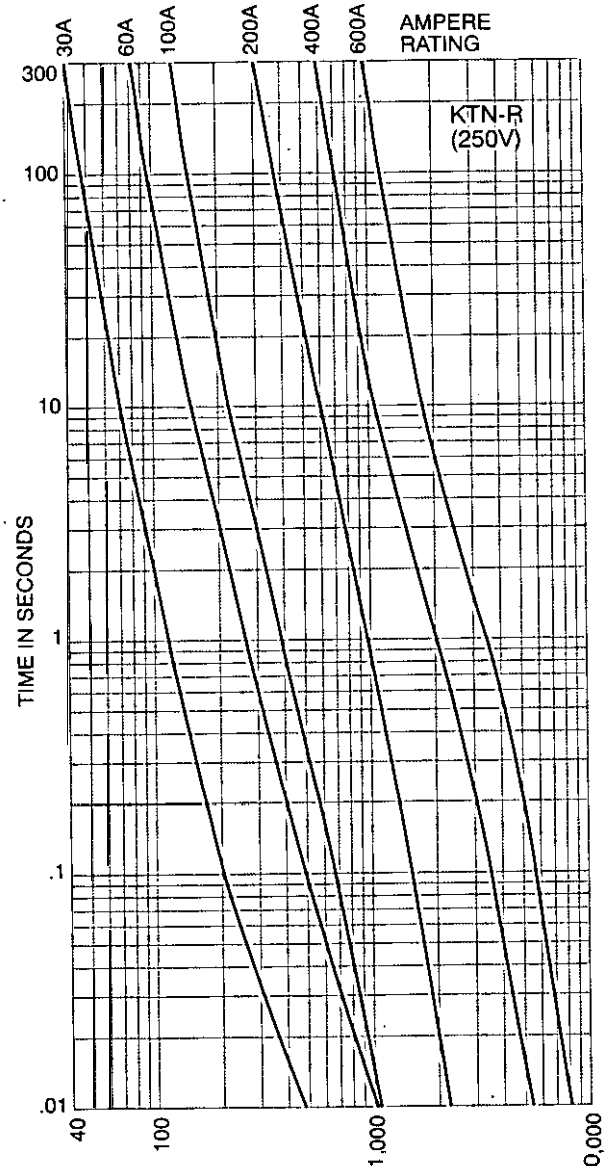


Current Limitation Curves

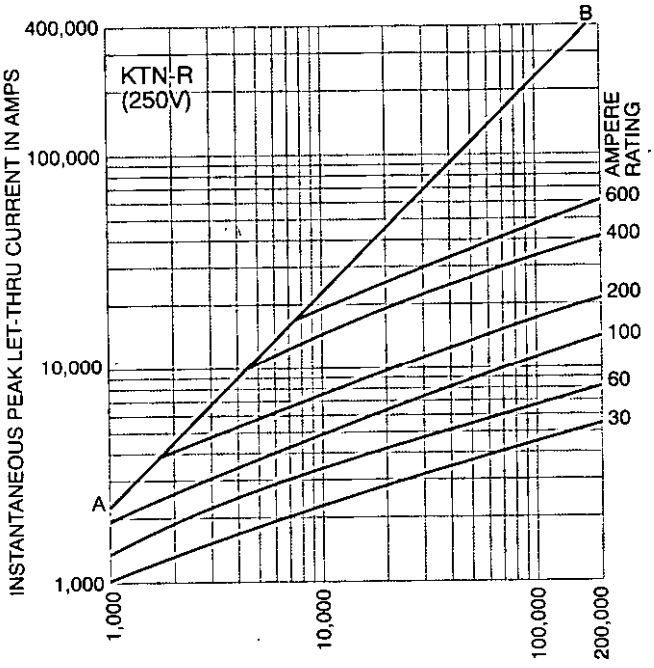


KTN-R (250V) Class RK1 Fuses

Time-Current Characteristic Curves-Average Melt

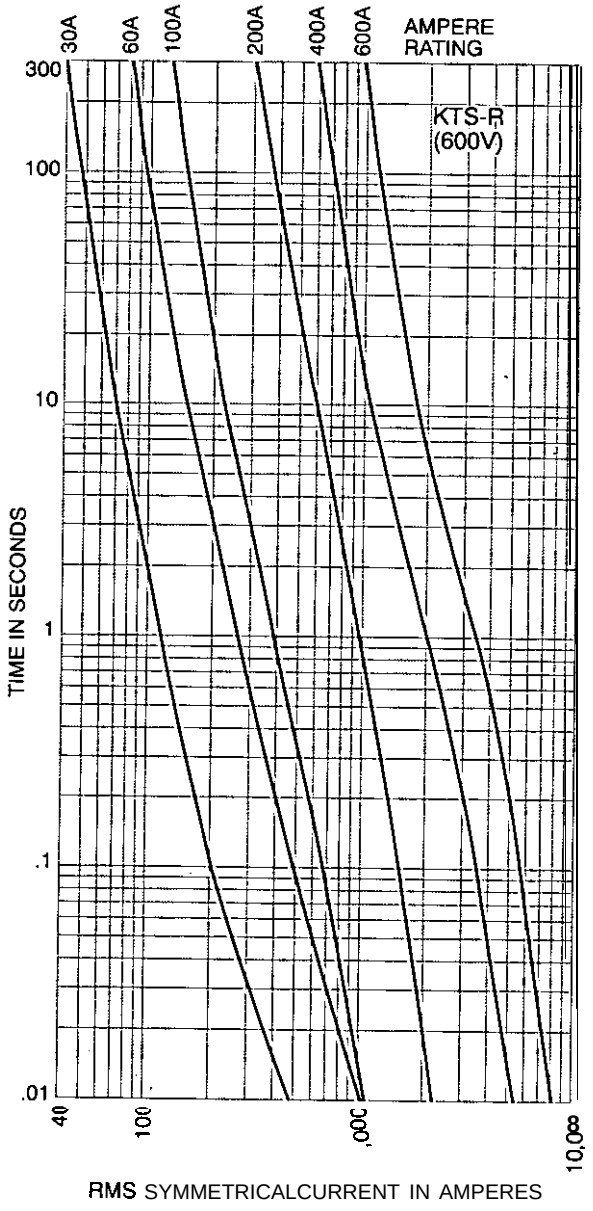


Current Limitation Curves

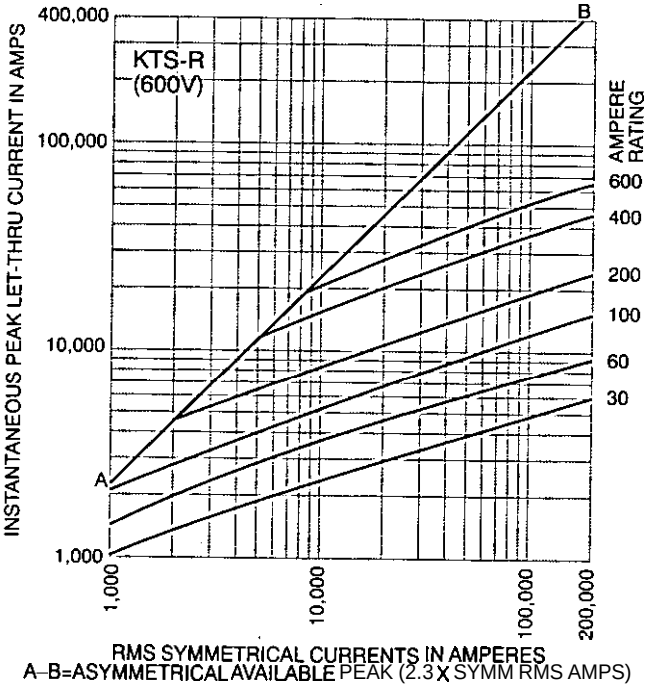


KTS-R **(600V)** Class **RK1** Fuses

Time-Current Characteristic Curves-Average Melt



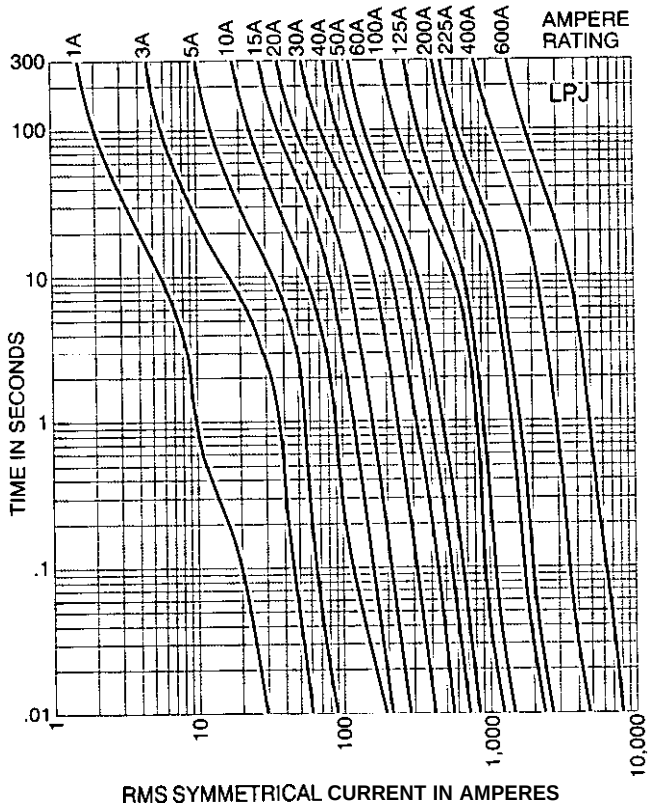
Current Limitation Curves



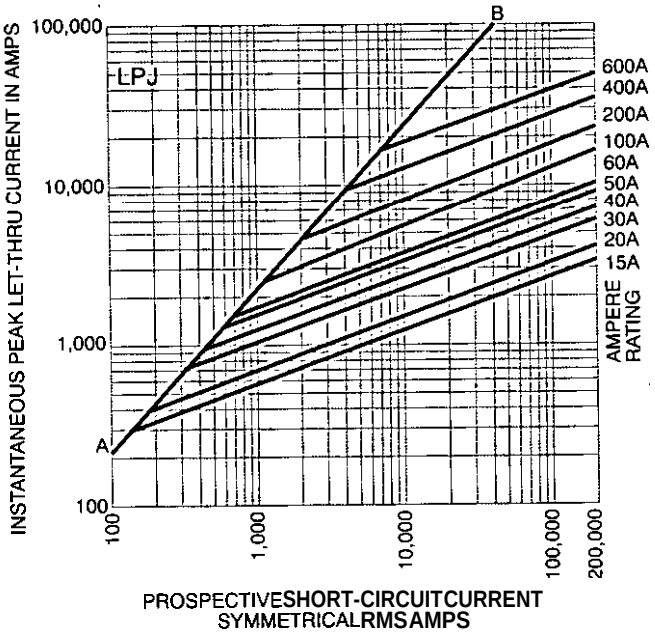
A–B=ASYMMETRICAL AVAILABLE PEAK (2.3 X SYMM RMS AMPS)

LPJ **(600V),** Class J Fuses

Time-Current Characteristic Curves— Average Melt

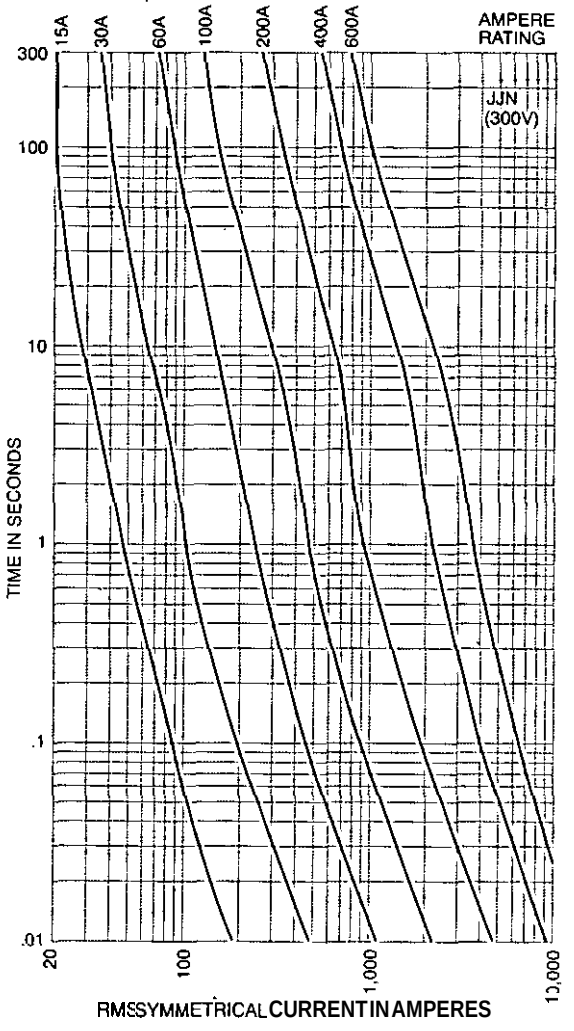


Current Limitation Curves

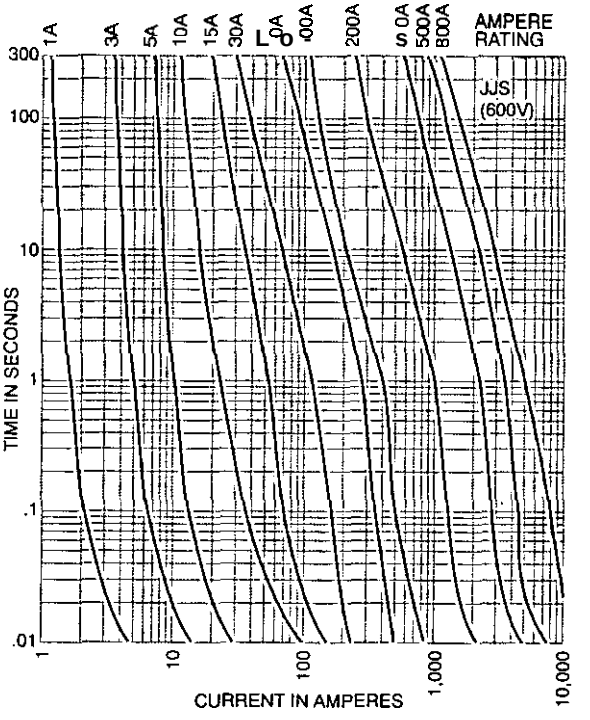


JJN & JJS, Class T Fuses

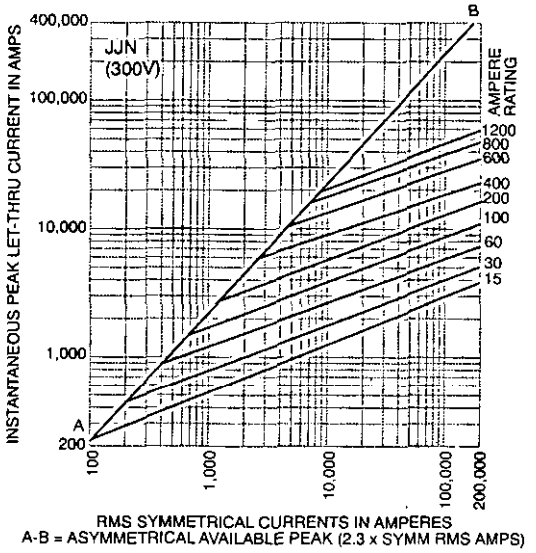
Time-Current Characteristic Curves-Average Melt



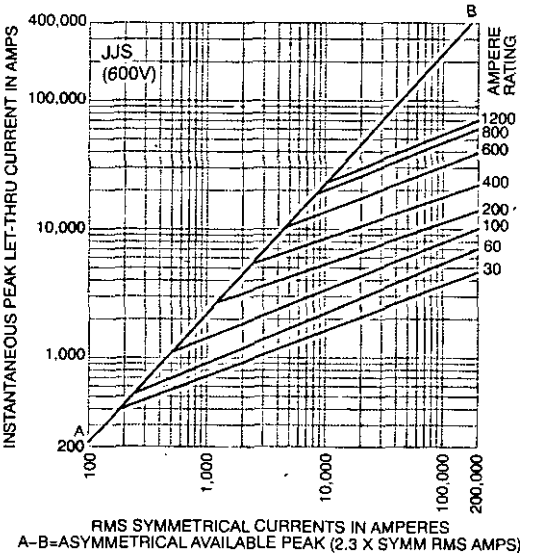
Time,-Current Characteristic Curves-Average Melt



Current Limitation Curves

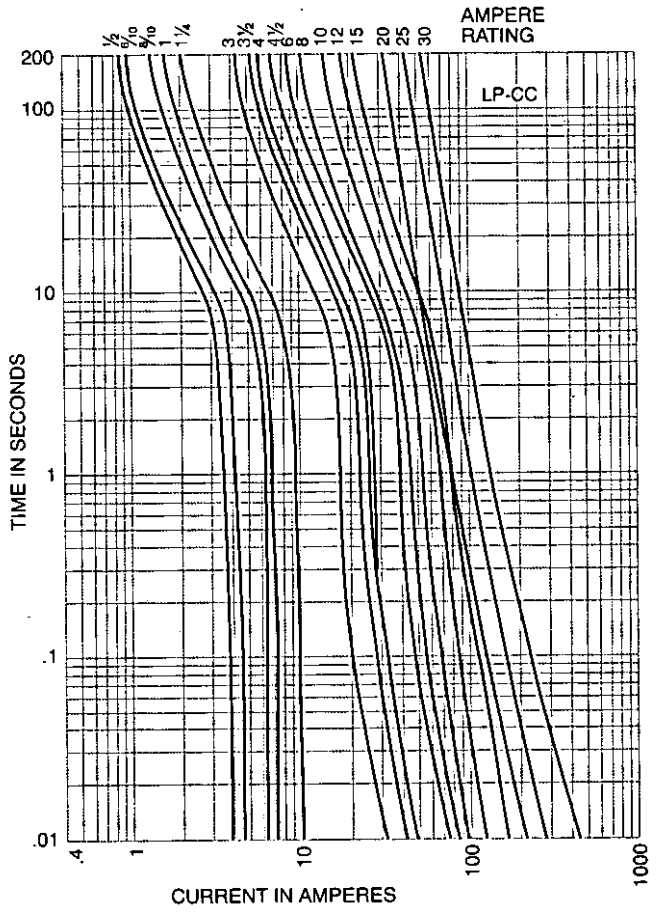


Current Limitation Curves

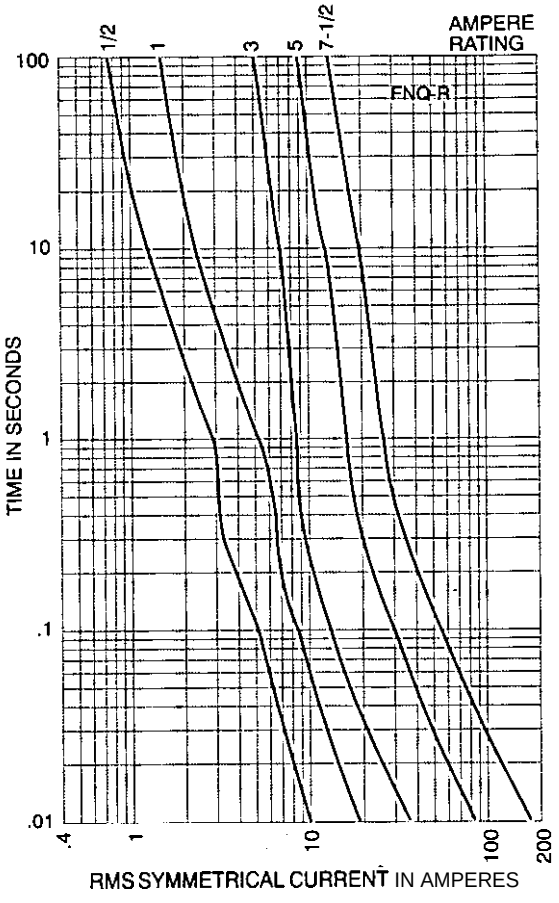


LP-CC & FNQ-R Class CC Fuses

Time-Current Characteristic Curves-Average Melt

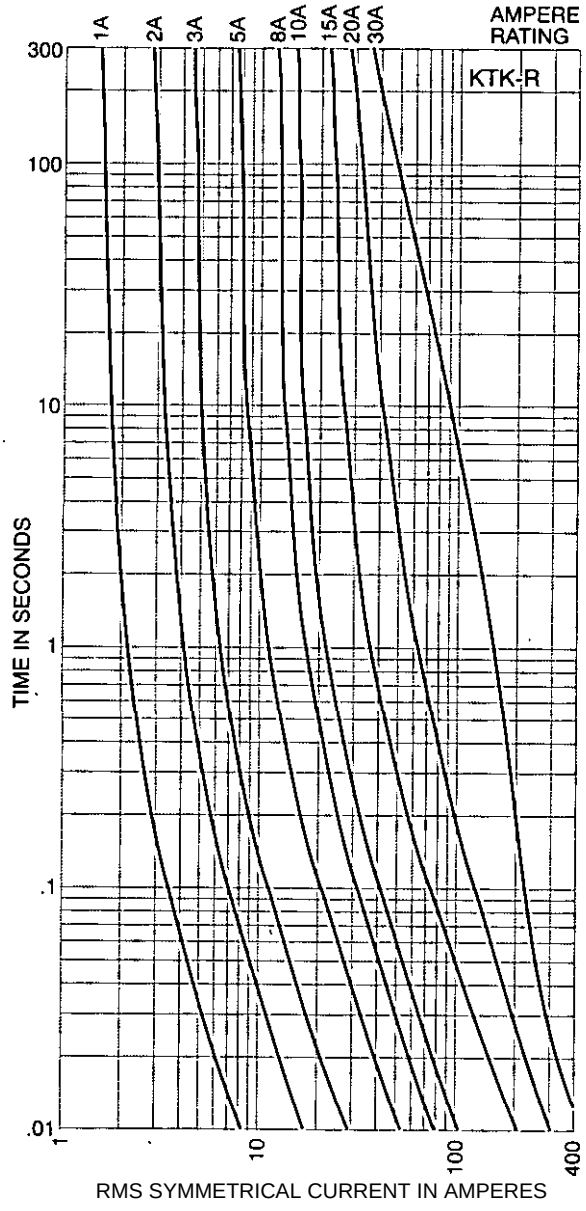


Time-Current Characteristic Curves-Average Melt



KTK-R, Class CC Fuses

Time-Current Characteristic Curves—Average Melt



Ampere
The measurement of intensity of rate of flow of electrons in an electric circuit. An ampere is the amount of current that will flow through a resistance of one ohm under a pressure of one volt.

Ampere Rating
The current-carrying capacity of a fuse. When a fuse is subjected to a current above its ampere rating. it will "pen the circuit after a predetermined period of time.

Ampere Squared **Seconds, I^2t**
The measure of heat energy developed within a circuit during the fuse's clearing. It can be expressed as "melting I^2t", "arcing I^2t" or the sum of them as "Clearing I^2t". "I" stands for effective let-through current (RMS), which is squared, and "t" stands for time of opening, in seconds.

Arcing Time
The amount of time from the instant the fuse link has melted until the overcurrent is interrupted, or cleared.

Breaking Capacity
(See Interrupting Rating)

Cartridge **Fuse**
A fuse consisting of a current responsive element inside a fuse tube with terminals on both ends.

Class CC Fuses
600V, 200,000 ampere interrupting rating. branch circuit fuses with overall dimensions of 13/32" x 1½". Their design incorporates a rejection feature that allows them to be inserted into rejection fuse holders and fuse blocks that reject all lower voltage, lower interrupting rating 13/32" x 1½" fuses. They are available from 1/10 amp through 30 amps.

Class **G** Fuses
480V, 100,000 ampere interrupting rating branch circuit fuses that are size rejecting to eliminate overfusing. The fuse diameter is 13/32" while the length varies from 15/16" to 2¼". These are available in ratings from 1 amp thmugh 60 amps.

Class **H** Fuses
250V and 600V, 10,000 ampere interrupting rating branch circuit fuses that may be renewable or ""n-renewable. These are available in ampere ratings of 1 amp through 600 amps.

Class J Fuses
These fuses are rated to interrupt a minimum of 200,000 amperes AC. They are labelled as "Current-limiting', are rated for 600 volts AC. and are not interchangeable with other classes.

Class **K Fuses**
These are fuses listed as K-l, K-5. or K-g fuses. Each subclass has designated I^2t and I_p maximums. These are dimensionally the same as Class H fuses, and they can have interrupting ratings of 50,000, 100,000, or 200,000 amps. These fuses are current-limiting. However, they are not marked "current-limiting' on their label since they do not have a rejectionfeature.

Class **L** Fuses
These fuses are rated for 601 through 6000 amperes, and are rated to interrupt a minimum of 200,000 amperes AC. They are labelled "Current-Limiting" and are rated for 600 volts AC. They are intended to be bolted into their mountings and are not normally used in clips. Some Class L fuses have designed in time-delay features for all purpose use.

Class **R Fuses**
These are high performance fuses rated x0-600 amps in 250 volt and 600 volt ratings. All are marked "Current Limiting" on their label and all have a minimum of 200,000 amp interrupting rating. They have identical outline dimensions with the Class H fuses but have a rejection feature which prevents the user fmm mounting a fuse of lesser capabilities (lower intermpting capacity) when used with special Class R Clips. Class R fuses will fit into either rejection or non-rejection clips.

Class T Fuses
An industry class of fuses in 300 volt and 600 volt ratings from 1 amp through 1200 amps. They are physically very small and can be applied where space is at a premium. They are fast acting and time-lag fuses, with an interrupting rating of 200,000 amps RMS.

Classes of Fuses
The industry has developed basic physical specifications and electrical performance requirements for fuses with voltage ratings of 600 volts or less. These are known as standards. If a type of fuse meets the requirements of a standard, it can fall into that class. Typical classes are K. RK1, RK5, G, L, H, T, CC, and J.

Clearing rime
The total time between the beginning of the overcurrent and the final opening of the circuit at rated voltage by an overcurrent protective device. Clearing time is the total of the melting time and the arcing time.

Current Limitation
A fuse operation relating to short circuits only. When a fuse operates in its current-limiting range. it will clear a short circuit in less than ½ cycle. Also, it will limit the instantaneous peak let-through current to a value substantially less than that obtainable in the same circuit if that fuse were replaced with a solid conductor of equal impedance.

Dual Element Fuse
Fuse with a special design 'that utilizes two ndividual elements in series inside the fuse tube. One element, the spring actuated trigger assembly, operates on overloads up to 5-6 times the fuse current rating. The other element, the short circuit section, operates on short circuits up to their intermpting rating.

Electrical Load
That part of the electrical system which actually uses the energy or does the work required.

Fast Acting Fuse
A fuse which "pens on overload and short circuits very quickly. This type of fuse is not designed to withstand temporary overload currents associated with some electrical loads.

Fuse
An overcurrent protective device with a fusible link that operates and "pens the circuit on an overcurrent condition.

High Speed Fuses
Fuses with no intentional time-delay in the overload range and designed to "pen as quickly as possible in the short-circuit range. These fuses are often used to protect solid-state devices.

Inductive Load
An electrical load which pulls a large amount of current-an inrush current-when first energized After a few cycles or seconds the current "settles down" to the full-load running current.

Interrupting capacity
See Interrupting Rating

Interrupting Rating
(Breaking Capacity)
The rating which defines a fuse's ability t" *safely* interrupt and clear short circuits. This rating is much greater than the ampere rating of a fuse. The NEC® defines Interrupting Rating as "The highest current at rated voltage that an overcurrent protective device is intended to interrupt under standard test conditions."

Melting Time
The amount of time required to melt the fuse link during a specified overcurrent. (See Arcing Time and Clearing Time.)

"NEC" Dimensions
These are dimensions once referenced in the National Electrical Code. They are common to Class H and K fuses and provide interchangeability between manufacturers for fuses and fusible equipment of given ampere and voltage ratings.

Ohm
The unit of measure for electric resistance. An ohm is the amount of resistance that will allow one ampere to flow under a pressure of one volt.

Ohm's Law
The relationship between voltage, current, and resistance. expressed by the equation E = IR, where E is the voltage in volts. I is the current in amperes, and R is the resistance in ohms.

One Time Fuses
Generic term used to describe a Class H nonrenewable cartridge fuse, with a single element.

Overcurrent
A condition which exists on an electrical circuit when the normal load current is exceeded. Overcurrents take on two separate characteristics—overloads and Short circuits.

Overload
Can be classified as an overcurrent which exceeds the normal full load current of a circuit. Also characteristic of this type of overcurrent is that it does not leave the normal current carrying path of the circuit—that is, it flows from the source, through the conductors, through the load, back through the conductors. to the source again.

Peak Let-Through Current, **Ip**
The instantaneous value of peak current let-through by a current-limiting fuse. when if operates in its current-limiting range.

Renewable Fuse **(600V &** below)
A fuse in which the element. typically a zinc link. may be replaced after the fuse has opened, and then reused. Renewable fuses are made to Class H standards.

Resistive Load
An electrical load which is characteristic of not having any significant inrush current. When a resistive load is energized, the current rises instantly to its steady-state value, without first rising to a higher value.

R.M.S. **Current**
The R.M.S. (root-mean-square) value of any periodic current is equal to the value of the direct current which, flowing through a resistance, produces the same heating effect in the resistance as the periodic current does.

Semiconductor Fuses
Fuses used to protect solid-slate devices. See "High Speed Fuses".

Short **Circuit**
Can be classified as an overcurrent which exceeds the normal full load current of a circuit by a factor many times (tens, hundreds or thousands greater). Also characteristic of this type of overcurrent is that it leaves the normal current carrying path of the circuit-it takes a 'short cut" around the load and back to the source.

Short-Circuit Rating
The maximum short-circuit current an electrical component can sustain without the occurrence of excessive damage when protected with an overcurrent protective device.

Short-Circuit Withstand Rating
Same definition as short-circuit rating.

Single **Phasing**
That condition which occurs when one phase of a three phase system opens, either in a low voltage (secondary) or high voltage (primary) distribution system. Primary or secondary single phasing can be caused by any number of events. This condition results in unbalanced currents in polyphase motors and unless protective measures are taken, causes overheating and failure.

Threshold Current
The symmetrical RMS available current at the threshold of the current-limiting range, where the fuse becomes current-limiting when tested to the industry standard. This value can be read off of a peak let-through chart where the fuse curve intersects the A-B line. A threshold ratio is the relationship of the threshold current to the fuse's continuous current rating.

Time-Delay Fuse
A fuse with a built-in delay that allows temporary and harmless inrush currents to pass without opening, but is so designed to open on sustained overloads and short circuits.

Voltage Rating
The maximum open circuit voltage in which a fuse can be used, yet safely interrupt an overcurrent. Exceeding the voltage rating of a fuse impairs its ability to clear an overload or Short circuit safely.

Withstand Rating
The maximum current that an unprotected electrical component can sustain for a specified period of time without the occurrence of extensive damage.

Index by Part Number

Index by Part Number

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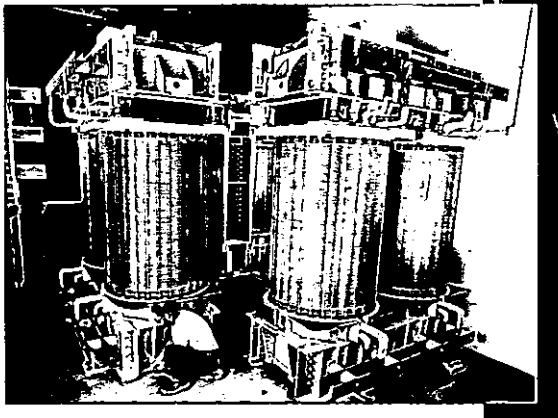
The Paul **P. Gubany** Center

For High Power Technology

Setting A New Standard For Product Performance Evaluation

- The Gubany Center provides the industry's most advanced staging area for observing circuit protection devices under high current or short circuit conditions.
- The Center is capable of generating 300,000 amperes of current at 600 volts under carefully controlled conditions, offering a wider range of current, voltage and frequency configurations than any other center of its kind in the world.
- Built to exceed the short-circuit capacity of today's high power electrical distribution systems, the Gubany Center makes it possible for Bussmann to evaluate the reliability and performance of our products under the most extreme fault conditions. The Center provides a real-world proving ground for the industry's most advanced circuit protection technology.
- Bussmann understands the crucial role its circuit protection products play in industrial applications. Our customers need performance—not promises—when it comes to protecting electrical equipment from the damaging effects of short circuits.



Bussmann®

The recognized leader in circuit protection technology

Bussmann®

Worldwide Circuit Protection Solutions

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