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170M5463-G

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High speed fuse catalog

BUSSMANN SERIES

Reliable protection for semiconductor devices and sensitive electronic equipment



EATON
Powering Business Worldwide

Bussmann® series high speed fuses

High speed fuses protect sensitive devices and power semiconductors from short-circuits, and are specifically designed to minimize the I^2t, peak let-through current and arc voltage.

Typical applications:

- Protection of AC and DC drives
- DC common bus
- Power converters/rectifiers
- Reduced voltage starters
- UPS
- Capacitor protection
- Switchboard panels
- Control consoles





Our extensive line of high speed fuses offer these styles:



North American
(round body)



IGBT fuses



Ferrule



British Standard BS 88



Square body fuses

Bussmann series high speed fuses also include

Compact high speed fuses that require less space

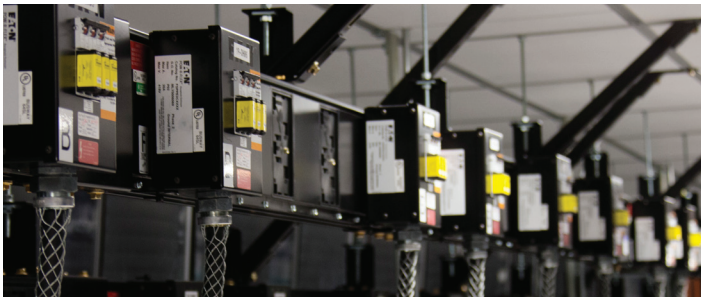


Our new Bussmann series compact high speed fuses protect compact drives, power conversion and UPS equipment. These 50-400 amp fuses require up to 48% less enclosure space when compared with traditional high speed, round body fuses without compromising heat rise performance.

UL® Listed Class J high speed fuses for full range protection

Bussmann series full range DFJ high speed, current-limiting fuses provide overload and short-circuit protection for variable speed drives and electric controllers, and meet NEC® branch circuit protection requirements. The DFJ drive fuse has the lowest I^2t of any UL branch circuit fuse in the industry to protect power semiconductor devices that utilize diodes, GTOs, SCRs and SSRs.





Custom order engineering to meet unique application needs

No matter the space constraints, mounting requirements or rating concerns, our Custom Order Engineering team can quickly modify existing products to meet your application needs. This includes adding microswitch capability for remote indication to ease maintenance and reduce downtime.



QuikShip Made-to-Order Service for faster shipment

21-day or less lead-time is available with QuikShip Made-to-Order service on over 400 of the most popular Bussmann series square body high speed fuses up to 1000 V and 2000 A.





Application engineering support

Technical assistance on questions about your application is available at fusetech@eaton.com or call toll-free 855-BUSSMANN (855-287-7626) during regular business hours.



Field application engineering

Available throughout North America, field application engineers are available to assist with your design and application efforts.

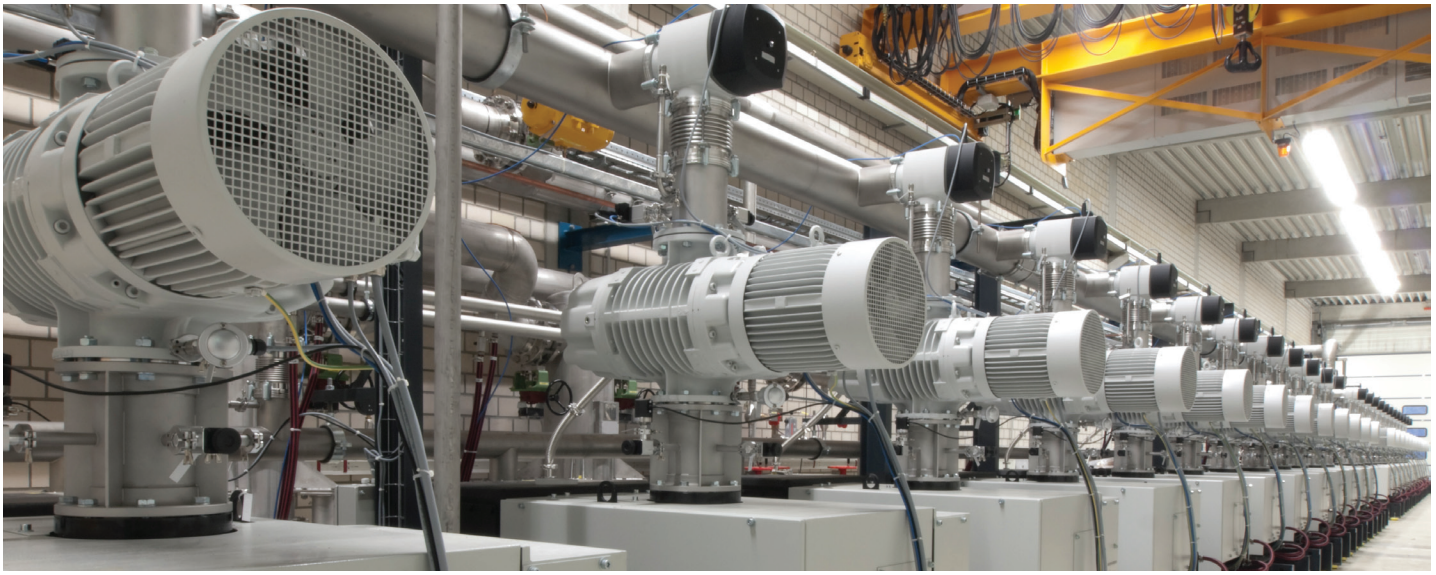


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New high speed fuse application guide

This 36-page application guide helps users understand the dynamics involved in the high speed fuse specification and selection process.

It covers high speed fuse characteristics, performance data, application in AC and DC systems along with worked examples that explore the influence of overloads and cyclic loadings, and safety margins.

Other topics include international standards, Bussmann series high speed fuse reference systems along with installation, service, maintenance tips.

Available online or as a printed document, look for publication no. 10507.



High speed fuses — general applications

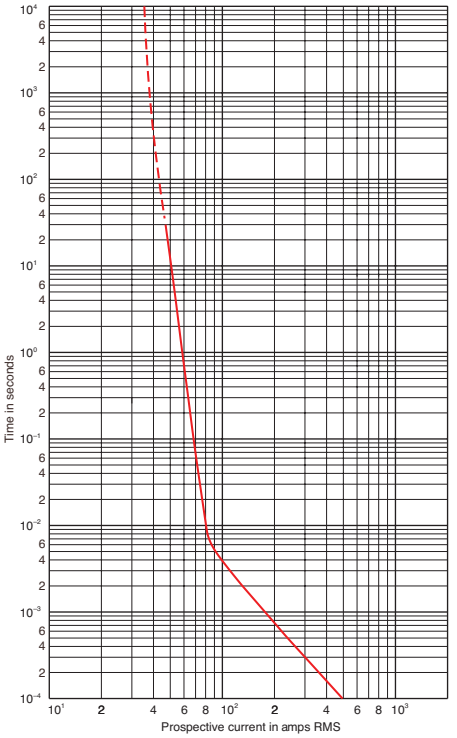
Rated voltage

The AC voltage rating of Eaton's Bussmann series fuses is given in volts RMS. Fuses tested to IEC are tested at 5% above their rated voltage. British Style BS 88 fuses are tested at 10% above its rated voltage. UL recognition tests are performed at the rated voltage.

Rated current

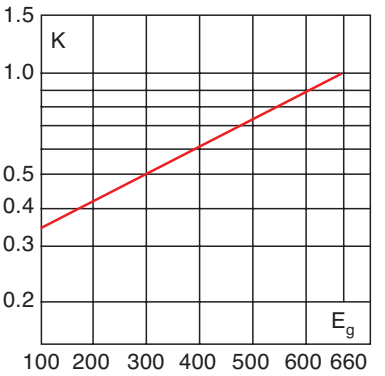
Rated current is given in amps RMS. Bussmann series fuses can continuously carry the rated current.

Melting characteristic



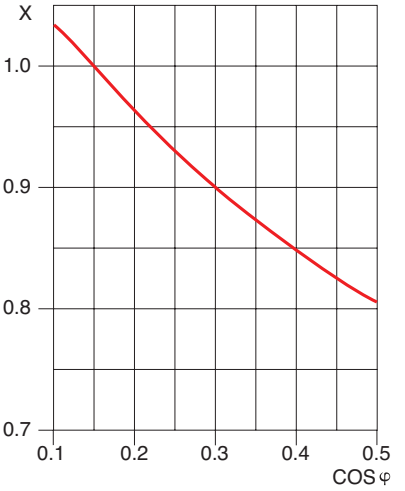
The melting characteristic shows the virtual melting time in seconds as a function of the prospective current in amps RMS. The fuses are specially constructed for short-circuit protection against high level fault currents. Loading and operation of the fuse in the noncontinuous/dashed section of the melt curve must be avoided. The curve can also be read as the real melting time as a function of the RMS value of the pre-arc current.

Clearing integrals



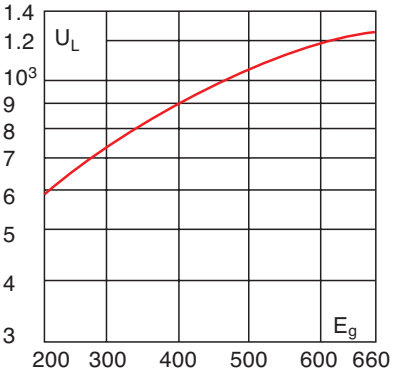
The total clearing I^2t at rated voltage and at power factor of 15% are given in the electrical characteristics. For other voltages, the clearing I^2t is found by multiplying by correction factor, K, given as a function of applied working voltage, E_g, (RMS).

Power factor



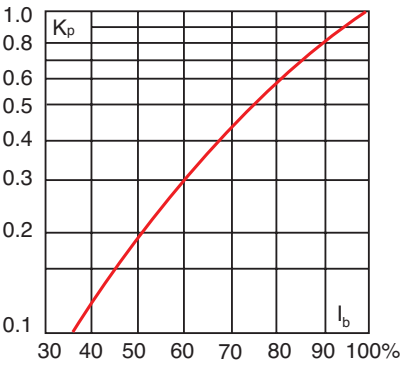
For other power factor values, the total clearing integral can be calculated as a multiple of the clearing integrals, the correction factor K and the correction factor X.

Arc voltage



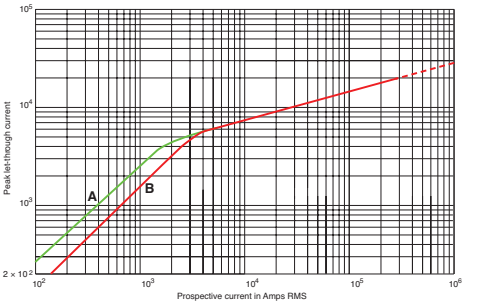
This curve gives the peak arc voltage, U_L, which may appear across the fuse during its operation as a function of the applied working voltage, E_g, (RMS) at a power factor of 15%.

Power losses



Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the power losses at load currents lower than the rated current. The correction factor, K_p, is given as a function of the RMS load current, Ib, in % of the rated current.

Cut-off current



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 1/2 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.

A (asymmetrical current)

B (symmetrical curren)

Parallel connection

When fuses are connected in parallel, it is recommended that the applied voltage does not exceed 0.9 U_N (the rated voltage of the fuse). This is due to the fact that the energy released within the fuses may be unevenly shared between the parallel connected barrels.

When fuses are connected in parallel, one must take into account that the current sharing is not necessarily equal. And it must be checked, that the maximum load current is not exceeded.

High speed fuses — general applications

Series connection

Fuses in series may not equally divide the applied voltage. It is recommended that series connected fuses should only be operated at fault currents that yield melting times less than 10 ms and a recovery voltage per fuse of less than or equal to 0.9 U_N (the rated voltage of the fuse).

Mounting guidance

The recommendations below have to be followed when mounting a Bussmann series fuse with end plate threaded holes.

1. Screw in studs: 5 N•m Max, 3 N•m Min

2. Attachment to a bussbar with a nut and washer:

Thread	Torque (N•m)* max/min
5/16–18, M8	25/20
3/8–16, M10	45/40
3/8–24	45/40
1/2–13, M12	65/50
1/2–20	65/50
*1 N•m = 0.7375 lb-ft	

Overloads

The design of Bussmann series fuses is such that they can be operated under rather severe operating conditions imposed by overloads (any load current in excess of the maximum permissible load current).

In applications, there will be a maximum overload current, I_{max}, which can be imposed on the fuse with a corresponding duration and frequency of occurrence.

Time durations fall into two categories:

1. Overloads longer than one second

2. Overloads less than one second termed "impulse" loads

The following table gives general application guidelines which, in the expression $I_{max} < (\%\ factor) \times I_t$. I_t is the melting current corresponding to the time "t" of the overload duration as read from the time-current curve of the fuse. The guidelines in the table below determine the acceptability of the selected fuses for a given I_{max}.

Frequency of occurrence	Overloads (> 1 sec)	Impulse loads (< 1 sec)
Less than once per month	$I_{max} < 80\% \times I_t$	$Imax < 70\% \times I_t$
Less than twice per week	$I_{max} < 70\% \times I_t$	$Imax < 60\% \times I_t$
Several times per day	$I_{max} < 60\% \times I_t$	—

When impulse loads are an intrinsic/normal parameter of the load current either as single pulse or in trains of pulses or when their level is higher than the melting current at 0.01 seconds (per time-current curve), contact our application engineers for assistance.

In addition to the parameters set forth in the preceding table, the RMS value of the load current as calculated for any period of 10 minutes or more should not exceed the maximum permissible load current.

Furthermore, it is important that a fuse should not be applied in the non-continuous/dashed portion of the associated time-current curve.

Any time-current combination point which falls in the non-continuous/dashed portion of the time-current curve is beyond the capability of the fuse to operate properly.

DC operation

Depending upon the short-circuit time constant and the magnitude of the prospective short-circuit current, the DC voltage at which a fuse can be applied may be less than its AC rating. Long time constants require a lower DC voltage. Conversely, however, higher available prospective short-circuit currents result in faster fuse openings and thus permit a fuse to be operated at a higher DC voltage.

Consult Eaton for additional information and application assistance when fuses have to operate under DC conditions.

Load current versus conductor cross section

Reduction of permissible load current when the conductor cross section is less than that given in IEC Publication 269-1 and 4 valid for Bussmann series high speed fuses.

Application assistance

If you have application problems, please consult our application engineers. Email fusetech@eaton.com or call toll-free 855-BUSSMANN (855-287-7626) Monday through Friday, 7:00 a.m. to 5:00 p.m. Central Time.

Custom Order Engineering

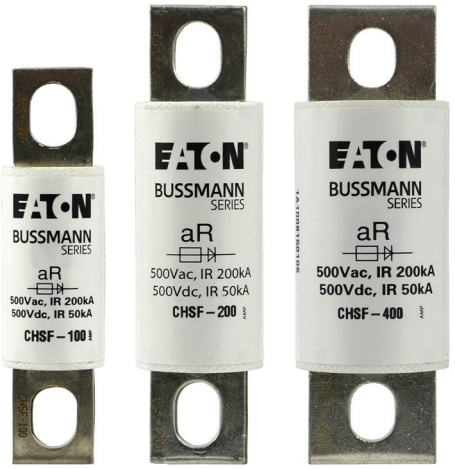
If your application needs a fuse outside our standard product offering, please contact your Bussmann series product representative to see if we can supply you with a custom order engineered product.

Compact high speed fuses

CHSF — UL high speed fuse

500 Vac/dc (UL), 50 to 400 A

RoHS



Description

Eaton's Bussmann® series compact high speed fuses feature space-saving case sizes for protecting semiconductor devices up to 500 Vac/dc in ratings from 50 to 400 amps.

Specifications

Ratings

- Volts:
  - 500 Vac/dc (UL)
- Amps: 50-400 A
- Interrupting rating
  - Max AC – 200 kA
  - Min AC 400%
  - Max DC – 50 kA
  - Min DC 800%

Operating class: aR

Agency information

- UL® Recognized, File E56412, Guide JFHR2
- CSA® Component Acceptance, Class 1422-30, File 53787
- IEC® aR (self certified)
- CE
- RoHS compliant
- REACH declaration available upon request

Features:

- Use up to 48% less enclosure space to help reduce the overall assembly size
- Innovative design allows for a significantly smaller package without compromising heat rise performance, preventing extensive equipment redesign
- Global acceptance with UL, CSA, IEC and RoHS for products sold worldwide
- Bolt-on design provides design flexibility for installation in fuse blocks or direct mounting on busbars
- Meets JASO D622 spec for thermal shock, humidity, and vibration
- Superior current cycling performance helps withstand demanding applications

Recommended fuse blocks

Up to 100 amps

Catalog no.	Wire size	Stud size
BH-0111	#14-2/0 Cu	1/4-20
BH-0112	#14-2/0 Cu	5/16-18
BH-0121	(2) #14-1/0 Cu	1/4-20
BH-0122	(2) #14-1/0 Cu	5/16-18
1BS101	#14-2/0 Cu	1/4-20 x 1/2
See data sheet No. 1200 (BH-01_) and No. 1206 (1BS101) for details.		

Up to 400 amps

Catalog no.	Wire size	Stud size
BH-1131	#6-250 kcmil Cu	1/4-20
BH-1132	#6-250 kcmil Cu	5/16-18
1BS102	#6-250 kcmil Cu	1/4-20 x 1/2
See data sheet No. 1201 (BH-11_) and No. 1207 (1BS102) for details.		

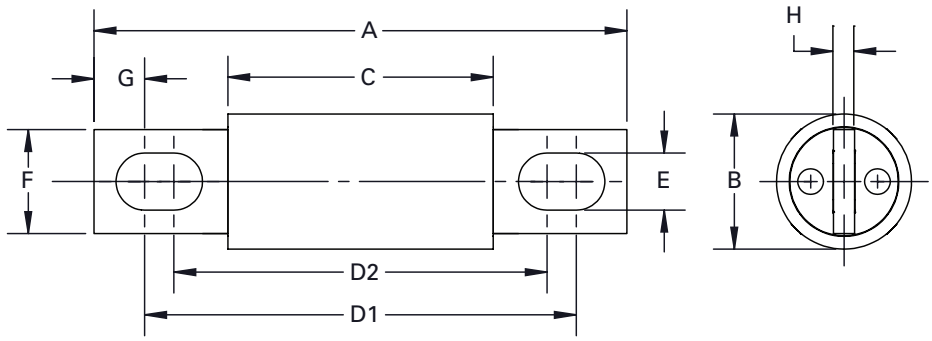
Data sheet: 10414

Catalog numbers:

Catalog number	Amps	AC/DC I^2t (A^2s) pre-arcing	AC* I^2t (A^2s) total clear	DC** I^2t (A^2s) total clear	Watts loss / percent of rated current @ 80%	@ 50%
CHSF-50	50	304	1875	935	3.8	1.3
CHSF-60	60	438	2700	1346	4.5	1.5
CHSF-70	70	596	3675	1833	5.3	1.8
CHSF-80	80	778	4800	2394	6.1	2.0
CHSF-100	100	1216	7500	3740	7.6	2.5
CHSF-125	125	2042	12,721	6465	12.0	3.6
CHSF-150	150	2941	18,318	9309	14.3	4.3
CHSF-175	175	4003	24,933	12,671	16.7	5.1
CHSF-200	200	5228	32,566	16,550	19.1	5.8
CHSF-225	225	6835	48,028	21,278	26.1	7.0
CHSF-250	250	8438	59,293	26,270	29.0	7.8
CHSF-300	300	12,151	85, 382	37,828	34.8	9.4
CHSF-350	350	16,539	116,215	51,488	40.6	10.9
CHSF-400	400	21,603	151,791	67,250	46.4	12.5

* @ 200 kA/500 Vac.
** @ 50 kA/500 Vdc.

Dimensions — mm:



Case size amp range	A	B	C	D1	D2	E	F	G	H
50-100	81	20	40	61	57	8.7	16	7.7	3.2
125-200	92	25	53	77	68	8.7	19	7.8	3.2
225-400	92	30	53	74	68	8.7	25	9.0	4.8

Data sheet: 10414

UL Class J full range high speed drive fuses

DFJ — UL Class J full range high speed fuse

600 Vac/450 Vdc (UL), 1 to 600 A

Description

UL Class J high speed, full range current-limiting fuses provide maximum protection for AC and DC drives and controllers. The UL Class J Bussmann series DFJ fuse has the lowest I^2t of any branch circuit fuse to protect power semiconductor devices that utilize diodes, GTOs, SCRs and SSRs. The DFJ fuse combines the performance of high speed fuses in a full range Class J branch circuit package, allowing the use of readily available Class J fuse blocks, holders and switches.



Specifications

Ratings

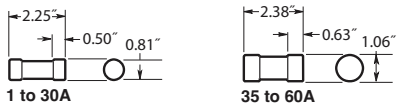
- Volts:
  - 600 Vac (UL)
  - 450 Vdc (UL) (15-600 A)
- Amps: 1-600 A
- Interrupting rating:
  - 200 kA RMS Sym.
  - 100 kA DC

Operating class: aR

Agency information

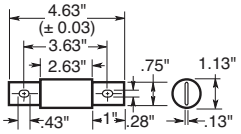
- UL Listed, Std 248-8, Class J, Guide JDDZ, File E4273
- CSA Certified, C22-2 No 248.8, Class 1422-02, File 53787

Dimensions — in

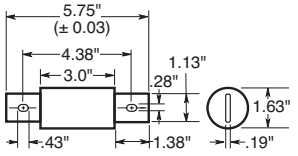


1 to 30A

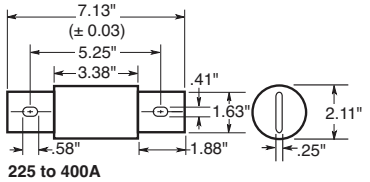
35 to 60A



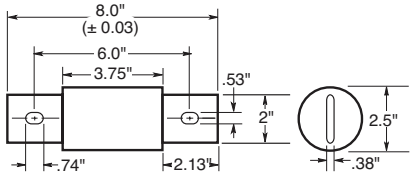
70 to 100A



110 to 200A



225 to 400A



450 to 600A

Catalog no.	Amps	I^2t (A^2Sec) @ 600 Vac/100 kA Pre-arc	I^2t (A^2Sec) @ 600 Vac/100 kA Clearing	Watts loss*
DFJ-1	1	—	—	—
DFJ-2	2	—	—	—
DFJ-3	3	—	—	—
DFJ-4	4	—	—	—
DFJ-5	5	—	—	—
DFJ-6	6	—	—	—
DFJ-8	8	—	—	—
DFJ-10	10	—	—	—
DFJ-12	12	—	—	—
DFJ-15	15	4	110	4.1
DFJ-17.5	17.5	—	—	—
DFJ-20	20	8	365	4.0
DFJ-25	25	12	610	4.9
DFJ-30	30	20	1000	5.5
DFJ-35	35	55	1100	6.8
DFJ-40	40	90	1900	8.6
DFJ-50	50	140	2800	8.7
DFJ-60	60	290	6000	8.5
DFJ-70	70	450	3100	12
DFJ-80	80	650	4600	13
DFJ-90	90	1010	7200	13
DFJ-100	100	1460	10,500	13
DFJ-110	110	1710	9500	17
DFJ-125	125	3580	20,000	15
DFJ-150	150	5080	28,000	19
DFJ-175	175	6310	35,000	23
DFJ-200	200	9850	54,500	24
DFJ-225	225	11,420	51,000	29
DFJ-250	250	17,000	74,500	30
DFJ-300	300	23,500	103,000	36
DFJ-350	350	38,800	170,000	39
DFJ-400	400	62,200	272,000	40
DFJ-450	450	44,600	270,000	56
DFJ-500	500	79,500	480,000	52
DFJ-600	600	138,000	830,000	57

* Watts loss at rated current.

Data sheet: 1048

Recommended fuse blocks

30 and 60 amp block catalog numbers

Fuse amp range	Poles	Terminal type				Optional covers*	
		Box lug/slot screw	Box lug/hex screw	#10-32 Phil-slot screw	Pressure plate	Indicating**	Non-indicating
up to 30	1	JM60030-1CR	JM60030-1CHR	JM60030-1SR	JM60030-1PR	CVRI-J-60030	CVR-J-60030
	2	JM60030-2CR	JM60030-2CHR	JM60030-2SR	JM60030-2PR		
	3	JM60030-3CR	JM60030-3CHR	JM60030-3SR	JM60030-3PR		
35 to 60	1	JM60060-1CR	JM60060-1CHR	—	—	CVRI-J-60060	CVR-J-60060
	2	JM60060-2CR	JM60060-2CHR				
	3	JM60060-3CR	JM60060-3CHR				

* Covers sold separately, one cover per pole.
** Open fuse indication requires 90 volts minimum and closed circuit to operate.

30 and 60 amp block terminals and conductors

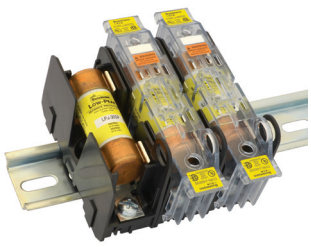
Terminal type	AWG type/range	AWG	Torque N•m (lb-in)
Box lug	75°C Cu 2-14, Al 2-8	2-3	5.6 (50)
		4-6	5.1 (45)
		8	4.5 (40)
		10-14	4.0 (35)
#10-32 Phil-slot screw	75/90°C Cu 10-18	10-18	2.3 (20)
Pressure plate			

Data sheet: 10488

100 to 600 amp knifeblade blocks and covers

Fuse amp range	Poles	Catalog no.	Covers*		Conductors***		
			Indicating**	Non-indicating	Solid and stranded	Fine stranded	Torque N•m (lb-in)
70-100	1	JM60100-1CR	CVR-J-60100	CVRI-J-60100	—	Cu 1-3 AWG	6.2 (55)
					1/0-3 AWG; (2) Cu 4-6 AWG	Cu 4-6 AWG	5.6 (50)
	2	JM60100-2CR			2 4-6 AWG; (2) Cu 8 AWG	Cu 8 AWG	5.1 (45)
					8 AWG; (2) Cu 10-14 AWG	—	4.5 (40)
	3	JM60100-3CR			Cu 10-14 AWG; Al 10-12 AWG	—	4.0 (35)
110-200	1	JM60200-1CR	CVR-J-60200	CVRI-J-60200	250 kcmil-1 AWG	Cu 3/0-1 AWG	42 (375)
	2	JM60200-2CR			2-6 AWG; (2) Cu 2-6 AWG	Cu 2-6 AWG	31 (275)
	3	JM60200-3CR					
225-400	1	JM60400-1CR	CVR-J-60400	CVRI-J-60400	600 kcmil	N/A	57 (500)
	2	JM60400-2CR			500 kcmil-4 AWG		51 (450)
	3	JM60400-3CR			(2) Cu 3/0 - 4 AWG		57 (500)
	1	JM60400-1MW22					
	2	JM60400-2MW22			(2) Al 3/0 - 4 AWG		34 (300)
	3	JM60400-3MW22					
450-600	1	JM60600-1CR	CVR-J-60600	CVRI-RH-60600	2 (2) 500 kcmil-4 AWG	N/A	51 (450)
	2	JM60600-2CR					
	3	JM60600-3CR					

* Covers sold separately.
** Open fuse indication requires 90 volts minimum and closed circuit to operate.
*** Ratings for copper and aluminum conductors except where otherwise noted.



DIN-Rail or panel mount 30 and 60 A modular blocks dovetail together and are available with optional IP20 finger-safe covers.



Panel mount 100 to 600 modular knifeblade blocks dovetail together and are available with optional IP20 finger-safe covers.

Data sheet: 1048

North American fuses



General information

Eaton offers a complete range of Bussmann series North American blade and flush-end style fuses and accessories. Their design and construction are optimized to provide:

- Low energy let-through (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 series fuses.

Features and benefits

- Excellent DC performance
- Low arc voltage and low energy let-through (I^2t)
- Low watts loss
- Superior cycling capability

Typical applications

- DC common bus
- DC drives
- Power converters/rectifiers
- Reduced voltage starters

Voltage rating

All Bussmann series North American style fuses are tested at their rated voltage. Eaton should be consulted for applications exceeding those values.

Accessories

External and internal open fuse indication is available for selected portions of the North American line. Fuse blocks are available for most applications.

North American contents

Fuses

Catalog symbol	Volts	Amp range	Page
FWA	130	1000-4000	13
FWA	150	70-1000	14
FWX	250	35-2500	15
FWH	500	35-1600	16
KAC	600	1-1000	17
KBC	600	35-800	18
FWP	700	5-1200	19-20
FWJ	1000	35-2000	21

Accessories

Modular style fuse blocks	Amp range	Page
Stud type	100-200	22
Connector type	100-700	22

FWA

130 Vac/dc (UL), 1000 to 4000 A



Description

North American style flush-end high speed fuses for the protection of DC common bus, DC drives, power converters/ rectifiers and reduced rated voltage starters.

Specifications

Ratings

- Volts: 130 Vac/dc (UL)
- Amps: 1000-4000 A
- Interrupting rating:
  - 200 kA RMS Sym at 130 Vac
  - 50 kA at 130 Vdc

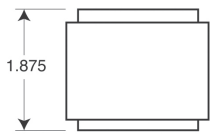
Agency information

- UL Recognized JFHR2, E91958 on 1000-2000 A fuses
- CE

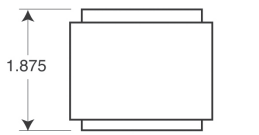
Rated voltage	Rated current (amps)	I²t (A²s) Pre-arcing	I²t (A²s) Clearing at 130 Vac	Watts loss (W)*	Catalog no.
130 Vac/dc (UL)	1000	170,000	460,000	60	FWA-1000AH
	1200	270,000	730,000	70	FWA-1200AH
	1500	520,000	1,400,000	78	FWA-1500AH
	2000	860,000	2,400,000	108	FWA-2000AH
	2500	1,500,000	4,100,000	130	FWA-2500AH
	3000	2,100,000	5,700,000	150	FWA-3000AH
	4000	3,400,000	9,200,000	257	FWA-4000AH

* Watts loss at rated current.

Dimensions — in



1000-3000 A



4000 A

Amps	B	C	D	Thread depth
1000 to 2000	2.0	1.0	—	3/8-24 x 1/2" UNF
2500 to 3000	3.0	1.5	—	1/2-20 x 1/2" UNF
4000	3.5	1.5	1.5	1/2-20 x 1/2" UNF

1" = 25.4 mm

For details on electrical characteristics, contact Application Engineering and ask for data sheets: 720001, 5785301

FWA

150 Vac/dc (UL), 70 to 1000 A



Description

North American style bolted tag high speed fuses used for the protection of DC common bus, DC drives, power converters / rectifiers and reduced rated voltage starters.

Specifications

Ratings

- Volts:
  - 150 Vac/dc (UL)
  - 80 Vdc 1000 A only
- Amps: 70-1000 A
- Interrupting rating:
  - 100 kA RMS Sym. (70-400 A)
  - 200 kA RMS Sym. (450-1000 A)
  - 20 kA at 150 Vac/ Vdc (70-800 A)
  - 100 kA at 80 Vdc (70-1000 A)

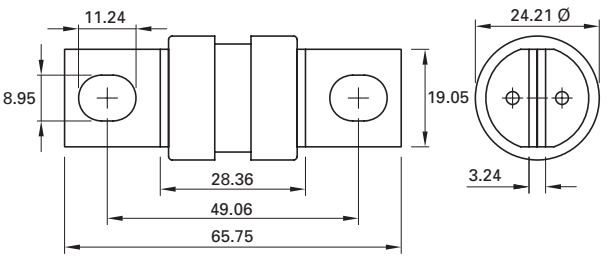
Agency information

- UL Recognized JFHR2, E91958
- CE

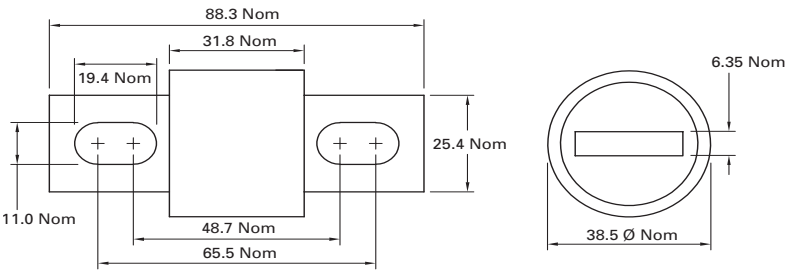
Rated voltage	Rated current (amps)	I^2t (A^2s) Pre-arcing	I^2t (A^2s) Clearing at 150 Vac	Watts loss (W)*	Catalog no.
150 Vac/dc (UL)	70	470	4000	6.9	FWA-70B
	80	670	6000	7.7	FWA-80B
	100	1200	12,000	9.0	FWA-100B
	125	1870	18,000	11.2	FWA-125B
	150	2700	26,000	13.5	FWA-150B
	200	4780	45,000	17.6	FWA-200B
	250	7470	70,000	22.5	FWA-250B
	300	10,760	100,000	27.0	FWA-300B
	350	15,700	140,000	30.6	FWA-350B
	400	20,300	180,000	35.2	FWA-400B
	500	39,000	120,000	35.0	FWA-500A
	600	46,000	140,000	47.0	FWA-600A
	700	75,000	220,000	49.0	FWA-700A
	800	92,000	280,000	58.0	FWA-800A
80 Vdc	1000	170,000	510,000	60.0	FWA-1000A

* Watts loss at rated current.

Dimensions — mm



70-400 A



500-1000 A

For details on electrical characteristics, contact Application Engineering and ask for data sheets: 720002, 5785310

FWX

250 Vac/dc (UL), 35 to 2500 A



Description

North American style bolted tags and flush-end high speed fuses for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters.

Specifications

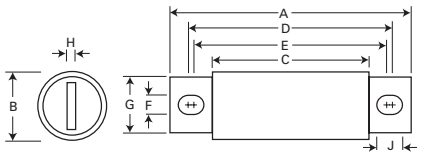
Ratings

- Volts: 250 Vac/dc (UL)
- Amps: 35-2500 A
- Interrupting rating:
  - 200 kA RMS Sym.
  - 20 kA at 250 Vdc (35-800 A)

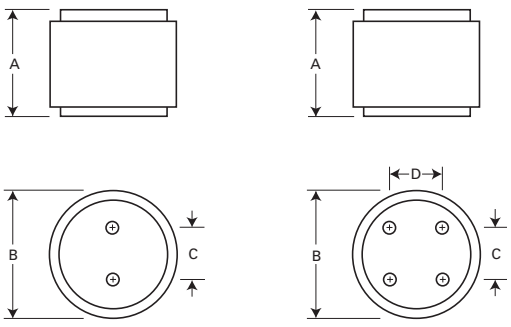
Agency information

- UL Recognized JFHR2, E56412
- CSA Class 1422-30, (53787) on 35-800 A fuses (20 kA IR at 250 Vdc)
- CE

Dimensions — in



35-800 A



1000-1200 A **1500-2500 A**

Rated voltage	Rated current (amps)	I²t (A²s) Pre-arcing	I²t (A²s) Clearing at 250 Vac	Watts loss (W)*	Catalog no.
250 Vac/dc (UL)	35	50	230	4.2	FWX-35A
	40	60	310	5.2	FWX-40A
	45	80	390	5.7	FWX-45A
	50	100	520	6.0	FWX-50A
	60	140	740	8.1	FWX-60A
	70	330	1400	7.2	FWX-70A
	80	430	1850	8.1	FWX-80A
	90	570	2450	9.0	FWX-90A
	100	740	3150	10.0	FWX-100A
	125	1130	4850	12.5	FWX-125A
	150	1620	6950	15.7	FWX-150A
	175	2170	9300	18.5	FWX-175A
	200	2790	12,000	22.0	FWX-200A
	225	3210	14,700	24.0	FWX-225A
	250	3960	18,100	27.0	FWX-250A
	275	4720	21,600	31.0	FWX-275A
	300	6000	27,300	32.0	FWX-300A
	350	10,600	48,600	39.0	FWX-350A
	400	14,500	66,100	44.0	FWX-400A
	450	22,100	101,000	49.0	FWX-450A
	500	28,000	128,000	54.0	FWX-500A
	600	41,100	188,000	62.0	FWX-600A
	700	48,800	190,000	72.0	FWX-700A
	800	59,000	230,000	84.0	FWX-800A
	1000	44,000	360,000	100.0	FWX-1000AH
	1200	92,000	750,000	103.0	FWX-1200AH
	1500	120,000	880,000	140.0	FWX-1500AH
	1600	160,000	1,200,000	140.0	FWX-1600AH
	2000	320,000	2,300,000	151.0	FWX-2000AH
	2500	670,000	4,700,000	163.0	FWX-2500AH

* Watts loss at rated current.

Amp range	A	B	C	D	E	F	G	H	J	Thread depth
35-60	3.19	0.81	1.59	2.59	2.25	0.34	0.63	0.13	0.52	—
70-200	3.13	1.22	1.59	2.44	2.19	0.34	1.00	0.19	0.47	—
225-600	3.84	1.50	1.59	2.94	2.25	0.41	1.00	0.25	0.75	—
700-800	3.84	2.00	1.59	3.03	2.28	0.41	1.50	0.25	0.78	—
1000-1200	2.59	3.00	1.50	—	—	—	—	—	—	3/8-24 x 1/2" UNF
1500-2500	2.59	3.50	1.50	1.50	—	—	—	—	—	

1" = 25.4 mm

For details on electrical characteristics, contact Application Engineering and ask for data sheets:720005, 359 (35-800 A), 5785299 (100-2500 A)

FWH

500 Vac/dc (UL), 35 to 1600 A



Description

North American style bolted tags high speed fuses, for the protection of DC common bus, power converters/rectifiers and reduced rated voltage starters.

Specifications

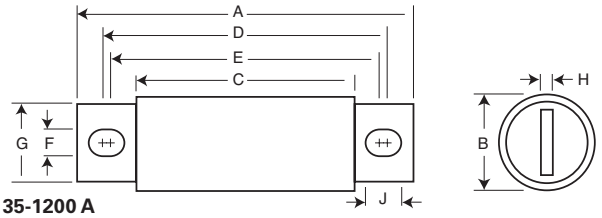
Ratings

- Volts:
  - 500 Vac (UL)
  - 500 Vdc (35-800 A only)
- Amps: 35-1600 A
- Interrupting rating:
  - 200 kA RMS Sym.
  - 50 kA at 500 Vdc

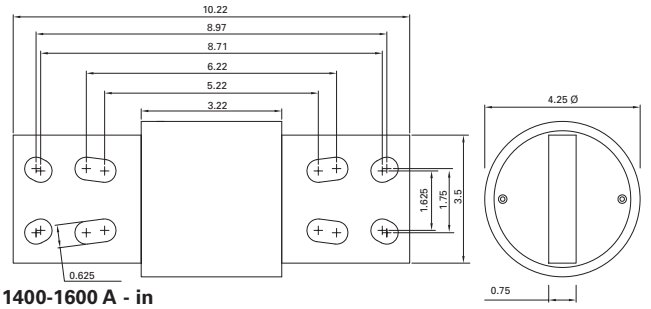
Agency information

- UL Recognized JFHR2, E91958, FWH-_B (35-200 A) and FWH-_A (1000 and 1200 A), JFHR2, E56412 FWH-_A (225-800 A)
- CSA Class 1422-30, File 53787 (35-1600 A)
- CE

Dimensions — in



35-1200 A



1400-1600 A - in

Amp range	A	B	C	D	E	F	G	H	J
35-60	3.19	0.81	1.59	2.54	2.19	0.34	0.72	0.13	0.52
70-100	3.62	0.95	1.74	2.85	2.81	0.35	0.75	0.13	0.38
125-200	3.62	1.16	1.84	2.89	2.77	0.34	1.00	0.19	0.41
225-400	4.34	1.50	2.09	3.44	2.75	0.41	1.00	0.25	0.75
450-600	4.34	2.00	2.09	3.53	2.78	0.41	1.50	0.25	0.78
700-800	6.34	2.50	2.09	4.97	3.44	0.53	2.00	0.38	1.30
1000-1200	6.97	3.00	3.22	5.47	4.48	0.62	2.38	0.44	1.12
1400-1600	Refer to drawing								

1 ” = 25.4 mm

Rated voltage	Rated current (amps)	I²t (A²s) Pre-arcing	I²t (A²s) Clearing at 250 Vac	Watts loss (W)*	Catalog no.
500 Vac/ dc (UL)	35	34	150	8.0	FWH-35B
	40	76	320	7.5	FWH-40B
	45	105	450	7.5	FWH-45B
	50	135	670	7.5	FWH-50B
	60	210	900	9.9	FWH-60B
	70	210	900	10.6	FWH-70B
	80	305	1400	12.7	FWH-80B
	90	360	1600	15.0	FWH-90B
	100	475	2000	17.0	FWH-100B
	125	800	3500	25.0	FWH-125B
	150	1100	4600	30.0	FWH-150B
	175	1450	6200	35.0	FWH-175B
	200	1900	8500	40.0	FWH-200B
500 Vac/ dc (UL)	225	4600	23,300	39.0	FWH-225A
	250	6300	32,200	41.0	FWH-250A
	275	7900	40,300	46.0	FWH-275A
	300	9800	49,800	51.0	FWH-300A
	325	13,700	63,800	53.0	FWH-325A
	350	14,500	72,900	58.0	FWH-350A
	400	19,200	96,700	65.0	FWH-400A
	450	24,700	127,000	74.0	FWH-450A
	500	29,200	149,000	84.0	FWH-500A
	600	41,300	206,000	108.0	FWH-600A
	700	55,000	298,000	120.0	FWH-700A
	800	76,200	409,000	129.0	FWH-800A
500 Vac (UL)	1000	92,000	450,000	145.0	FWH-1000A
	1200	122,000	600,000	180.0	FWH-1200A
	1400	200,000	1,000,000	210.0	FWH-1400A
	1600	290,000	1,400,000	230.0	FWH-1600A

* Watts loss at rated current.

For details on electrical characteristics, contact Application Engineering and ask for data sheets: 720007, 360 (225-800 A), 5785304 (35-200 A, 1000-1600 A)

KAC

600 Vac (UL), 1 to 1000 A



Description

North American style bolted tags high speed fuses. These fuses are supplied as replacements only. For new installations, Eaton recommends the 700 V FWP see page 19.

Specifications

Ratings

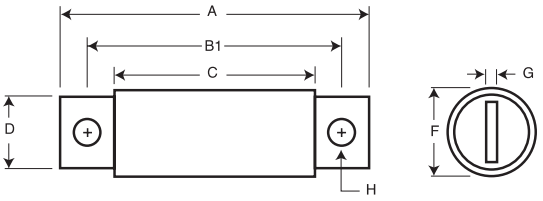
- Volts: 600 Vac (UL)
- Amps: 1-1000 A
- Interrupting rating: 200 kA RMS Sym.

Agency information

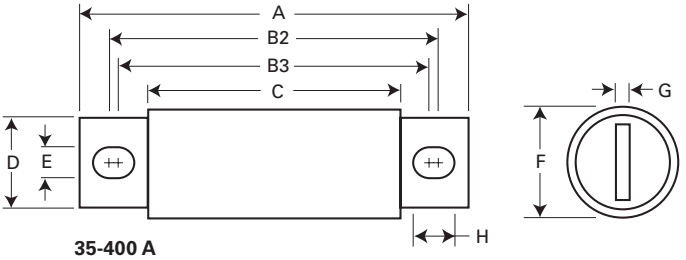
- UL Recognized JFHR2, E56413 (1-600 A only)
- CE

Rated voltage	Rated current (amps)	Catalog no.
600 Vac (UL)	1	KAC-1
	2	KAC-2
	3	KAC-3
	4	KAC-4
	5	KAC-5
	6	KAC-6
	7	KAC-7
	8	KAC-8
	9	KAC-9
	10	KAC-10
	12	KAC-12
	15	KAC-15
	17.5	KAC-17.5
	20	KAC-20
	25	KAC-25
	30	KAC-30
	35	KAC-35
	40	KAC-40
	45	KAC-45
	50	KAC-50
	60	KAC-60
	70	KAC-70
	80	KAC-80
	90	KAC-90
	100	KAC-100
	110	KAC-110
	125	KAC-125
	150	KAC-150
	175	KAC-175
	200	KAC-200
	225	KAC-225
	250	KAC-250
	300	KAC-300
	350	KAC-350
	400	KAC-400
	450	KAC-450
	500	KAC-500
	600	KAC-600
	700	KAC-700
	800	KAC-800
	1000	KAC-1000

Dimensions — in



1-30 A and 450-1000 A



35-400 A

Rated current (amps)	A	B1	B2	B3	C	D	E	F	G	H
1-30	2.88	2.50	—	—	1.88	0.41	—	0.56	0.06	0.26
35-60	4.38	—	3.75	3.50	2.75	0.63	0.34	0.81	0.09	0.47
70-100	5.00	—	4.06	3.66	2.75	0.75	0.41	1.00	0.13	0.61
110-200	5.14	—	4.39	3.77	2.91	1.00	0.41	1.50	0.19	0.72
225-400	6.18	—	4.82	4.57	3.00	1.63	0.56	2.00	0.25	0.69
450-800	6.25	4.75	—		3.06	2.00	—	2.50	0.25	0.56
1000	7.25	4.75	—		3.06	2.75	—	3.50	0.38	0.56

1″ = 25.4 mm

Data sheet: 720009

KBC

600 Vac (UL), 35 to 800 A



Description

North American style bolted tags and flush-end high speed fuses. These fuses are supplied as replacements only. For new installations, Eaton recommends the 700 V FWP fuses, see page 19.

Specifications

Ratings

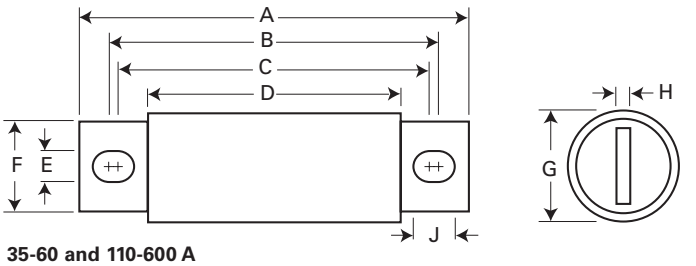
- Volts: 600 Vac (UL)
- Amps: 35-800 A
- Interrupting rating: 200 kA RMS Sym.

Agency information

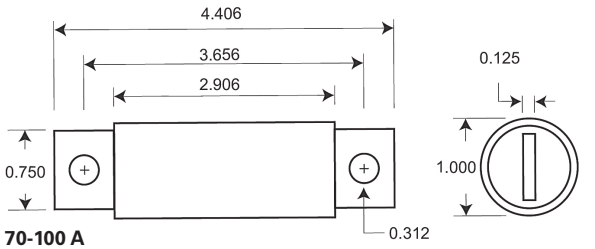
- UL Recognized JFHR2, E56412 (35-600 A only)
- CE

Rated voltage	Rated current (amps)	Catalog no.
	35	KBC-35
	40	KBC-40
	45	KBC-45
	50	KBC-50
	60	KBC-60
	70	KBC-70
	80	KBC-80
	90	KBC-90
	100	KBC-100
	110	KBC-110
	125	KBC-125
600 Vac (UL)	150	KBC-150
	175	KBC-175
	200	KBC-200
	225	KBC-225
	250	KBC-250
	300	KBC-300
	350	KBC-350
	400	KBC-400
	450	KBC-450
	500	KBC-500
	600	KBC-600
	800	KBC-800

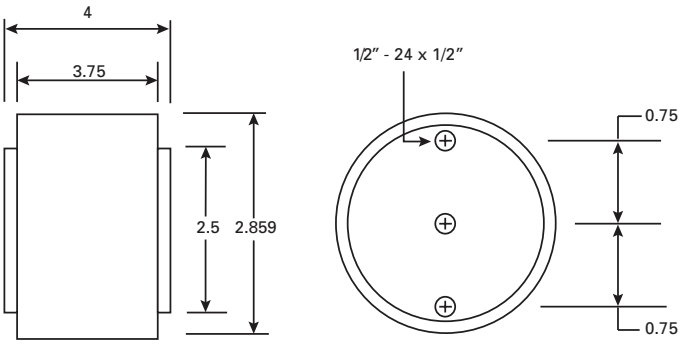
Dimensions — in



35-60 and 110-600 A



70-100 A



800 A

Rated current (amps)	A	B	C	D	E	F	G	H	J
35-60	4.38	3.75	3.50	2.75	0.34	0.63	0.81	0.09	0.47
70-100	Refer to drawing								
110-200	4.41	3.72	3.59	2.91	0.31	0.88	1.22	0.19	0.38
225-400	5.13	4.19	3.56	2.91	0.41	1.00	1.50	0.25	0.72
450-600	5.13	4.39	3.69	2.88	0.41	1.50	2.00	0.25	0.76
800	Refer to drawing								

1" = 25.4 mm

Data sheet: 720010

FWP

700 Vac/dc (UL), 5 to 1200 A



Description

North American style bolted tags high speed fuses for the protection of DC common bus, DC drives, power converters/ rectifiers, reduced rated voltage starters.

Specifications

Ratings

- Volts: 700 Vac/dc (UL)
- Amps: 5-1200 A
- Interrupting rating:
  - 200 kA RMS Sym.
  - 50 kA at 700 Vdc (Type A)
  - 50 kA at 500 Vdc (Type B)

Agency information

- UL Recognized JFHR2, E91958 FWP-_B (5-100 A, 700-1200 A), JFHR2, E56412 FWP-_A (125-600 A)
- CSA Class 1422-30, (53787) on 5-800 A
- CE

Rated voltage	Rated current (amps)	I^2t (A^2s) Pre-arcing	I^2t (A^2s) Clearing at 700 Vac	Watts loss (W)*	Catalog no.
	5	1.6	11	1.5	FWP-5B
	10	3.6	22	4.0	FWP-10B
	15	10.0	70	5.5	FWP-15B
	20	26.0	180	6.0	FWP-20B
	25	44.0	320	7.0	FWP-25B
	30	58.0	450	9.0	FWP-30B
	35	34.0	160	12.0	FWP-35B
	40	76.0	320	12.0	FWP-40B
	50	135.0	600	12.0	FWP-50B
	60	210.0	950	15.5	FWP-60B
	70	305.0	2000	18.0	FWP-70B
	80	360.0	2400	21.0	FWP-80B
	90	415.0	2700	25.0	FWP-90B
	100	540.0	3500	27.0	FWP-100B
	125	1800.0	7300	28.0	FWP-125A
700 Vac/dc (UL)	150	2900.0	11,700	32.0	FWP-150A
	175	4200.0	16,700	35.0	FWP-175A
	200	5500.0	22,000	43.0	FWP-200A
	225	7700.0	31,300	45.0	FWP-225A
	250	10,500.0	42,500	48.0	FWP-250A
	300	17,600.0	71,200	58.0	FWP-300A
	350	23,700.0	95,600	65.0	FWP-350A
	400	31,000.0	125,000	78.0	FWP-400A
	450	36,400.0	137,000	94.0	FWP-450A
	500	45,200.0	170,000	107.0	FWP-500A
	600	66,700.0	250,000	122.0	FWP-600A
	700	54,000.0	300,000	125.0	FWP-700A
	800	78,000.0	450,000	140.0	FWP-800A
	900	91,500.0	530,000	150.0	FWP-900A
	1000	120,000.0	600,000	170.0	FWP-1000A
	1200	195,000.0	1,100,000	190.0	FWP-1200A

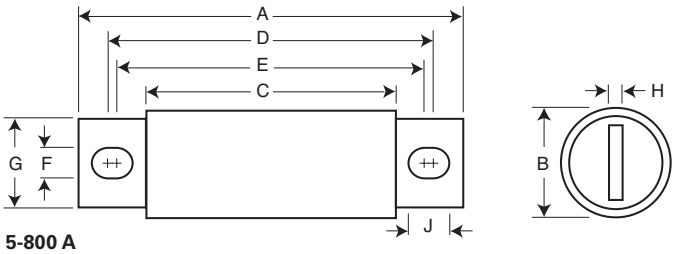
* Watts loss at rated current.

For details on electrical characteristics, contact Application Engineering and ask for data sheets: 720012, 5785316 (5-30 A), 361 (125-600 A), 5785308 (35-100 A, 700-1200 A)

FWP

700 Vac/dc (UL), 5 to 1200 A

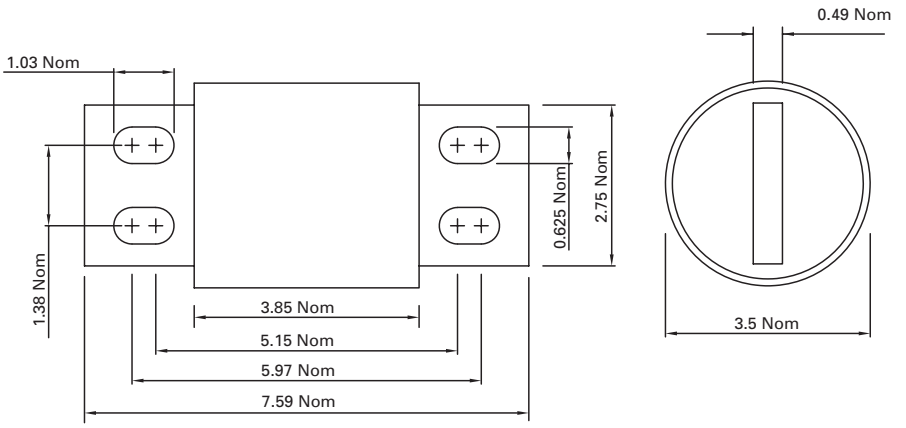
Dimensions — in



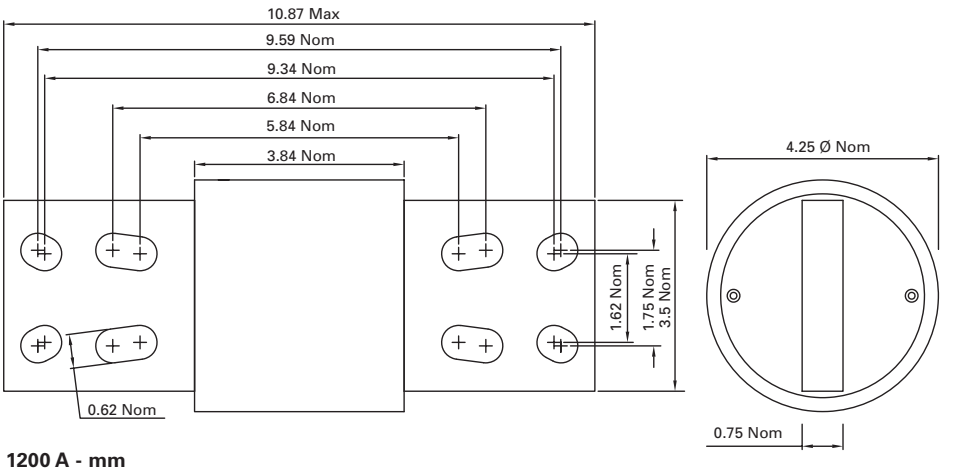
5-800 A

Amp range	A	B	C	D	E	F	G	H	J
5-30	2.87	0.56	1.86	2.48	2.48	0.25	0.41	0.06	0.25
35-60	4.38	0.81	2.75	3.71	3.31	0.34	0.73	0.13	0.54
70-100	4.41	0.95	2.59	3.63	3.56	0.34	0.75	0.13	0.38
125-200	5.09	1.50	2.84	4.19	3.5	0.41	1.00	0.25	0.75
225-400	5.09	2.00	2.84	4.28	3.53	0.41	1.50	0.25	0.78
450-600	7.09	2.50	2.84	5.72	4.19	0.53	2.00	0.38	1.30
700-800	6.63	2.00	2.76	5.56	5.06	0.63	1.50	0.25	0.88
900-1000	Refer to drawing								
1200									

1" = 25.4 mm



900-1000 A - mm



1200 A - mm

For details on electrical characteristics, contact Application Engineering and ask for data sheets: 720012, 5785316 (5-30 A), 361 (125-600 A), 5785308 (35-100 A, 700-1200 A)

FWJ

1000 Vac /800 Vdc (UL), 35 to 2000 A



Description

North American style bolted tags high speed fuses for the protection of DC common bus, DC drives power converters/ rectifiers, reduced rated voltage starters.

Specifications

Ratings

- Volts:
  - 1000 Vac (UL)
  - 800 Vdc (UL)
- Amps: 35-2000 A
- Interrupting rating:
  - 25 kA RMS Sym. (35-200 A)
  - 100 kA RMS Sym. (250-2000 A)
  - 50 kA at 800 Vdc (35-200 A and 450-600 A)

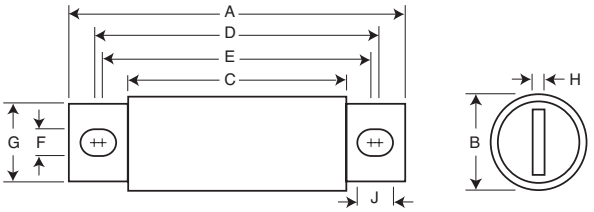
Agency information

- UL Recognized JFHR8, E91958 on 50-600 A only
- CE

Rated voltage	Rated current (amps)	I^2t (A^2s) Pre-arcing	I^2t (A^2s) Clearing at 1000 Vac	Watts loss (W)*	Catalog no.
1000 Vac/ 800 Vdc (UL)	35	210	2000	7	FWJ-35A
	40	300	2500	8	FWJ-40A
	50	470	3500	10	FWJ-50A
	60	670	5000	11	FWJ-60A
	70	1100	6900	12	FWJ-70A
	80	1550	9700	13	FWJ-80A
	90	1900	12,000	14	FWJ-90A
	100	2800	17,500	15	FWJ-100A
	125	4800	35,000	16	FWJ-125A
	150	6300	45,000	25	FWJ-150A
	175	7500	65,000	30	FWJ-175A
	200	11,700	80,000	32	FWJ-200A
	250	16,000	112,000	50	FWJ-250A
	300	23,500	164,000	56	FWJ-300A
	350	33,000	231,000	62	FWJ-350A
	400	47,000	330,000	67	FWJ-400A
	500	39,500	329,000	95	FWJ-500A
	600	61,000	520,000	105	FWJ-600A
	800	87,000	500,000	182	FWJ-800A
	1000	190,000	1,100,000	206	FWJ-1000A
	1200	370,000	2,100,000	240	FWJ-1200A
	1400	470,000	2,700,000	248	FWJ-1400A
	1600	700,000	4,000,000	267	FWJ-1600A
	1800	925,000	5,300,000	239	FWJ-1800A
	2000	1,330,000	7,600,000	244	FWJ-2000A

* Watts loss at rated current.

Dimensions — in



Amp range	A	B	C	D	E	F	G	H	J
35-60	5.00	0.94	3.11	4.24	4.18	0.35	0.75	0.13	0.38
70-100	4.93	1.13	3.09	4.27	4.16	0.35	1.00	0.19	0.41
125-200	5.69	1.53	3.26	4.80	4.06	0.45	1.00	0.25	0.82
250-400	5.77	2.00	3.50	4.81	4.15	0.43	1.50	0.25	0.76
500-600	7.20	2.50	3.47	5.98	4.71	0.56	2.00	0.38	1.20
800-2000	6.81	3.50	3.31	5.47	4.96	0.63	2.75	0.50	0.88

1″ = 25.4 mm

For details on electrical characteristics, contact Application Engineering and ask for data sheets: 720027, 5785303 (35-600 A), 5785309 (800-2000 A),

Accessories

Modular fuse blocks

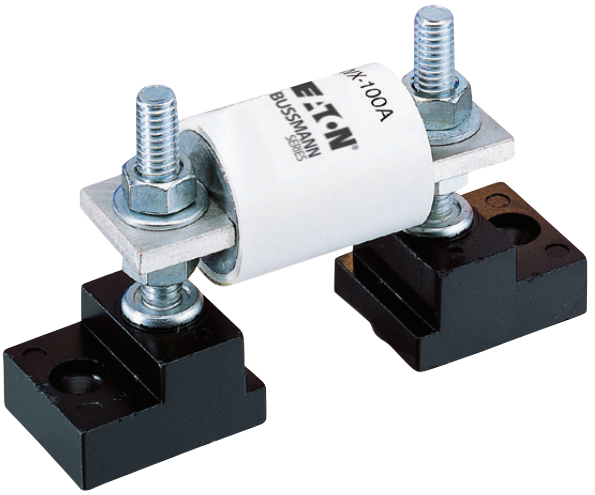
Description

Eaton's Bussmann series offer a comprehensive line of fuse blocks that provide the user with design and manufacturing flexibility. Two identical half blocks make up a Bussmann series modular fuse block. These 'split' units can be panel mounted any distance apart to accommodate any length fuse.

Stud type

The simpler design is the C5268 modular fuse block. With this design, the fuse terminal and cable (with termination) are mounted on the same stud, minimizing labor needed for installation.The stud type block is available in the configurations shown in the table below.

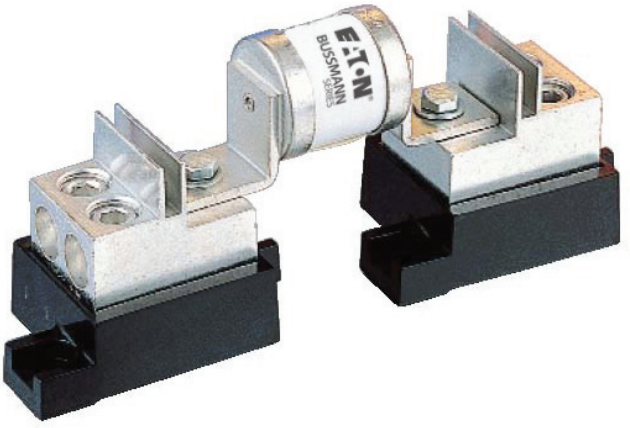
Catalog no.	Max fuse amp rating	Stud
C5268-1	200	5/16-18 x 1"
C5268-2	200	5/16-18 x 1-3/4"
C5268-3	200	5/16-18 x 3/4"
C5268-4	100	1/4-20 x 1"
C5268-5	100	1/4-20 x 1-3/4"



Connector Type

Eaton's Bussmann series also offer a modular style fuse block that utilizes a tin-plated connector for wire termination and heat dissipation), and a plated-steel stud for fuse mounting. The connector type fuse block is available in the configurations shown below. Consult your Bussmann series product representative for additional product details.

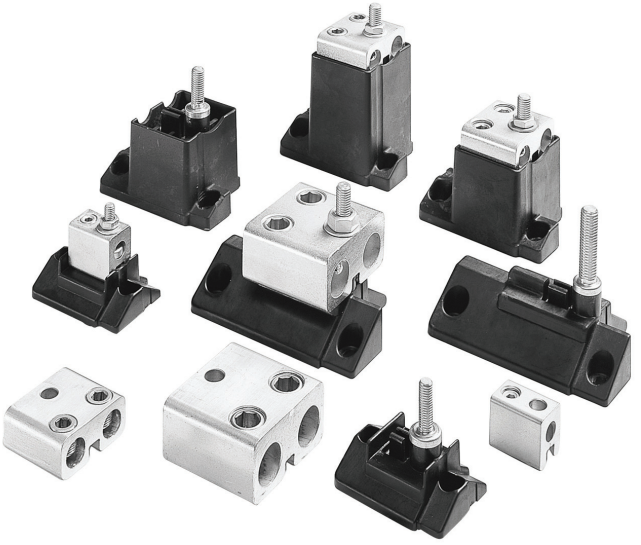
Catalog no.	Max rated voltage	Max fuse amp rating
1BS101	600	100
1BS102	600	400
1BS103	600	400
1BS104	600	600



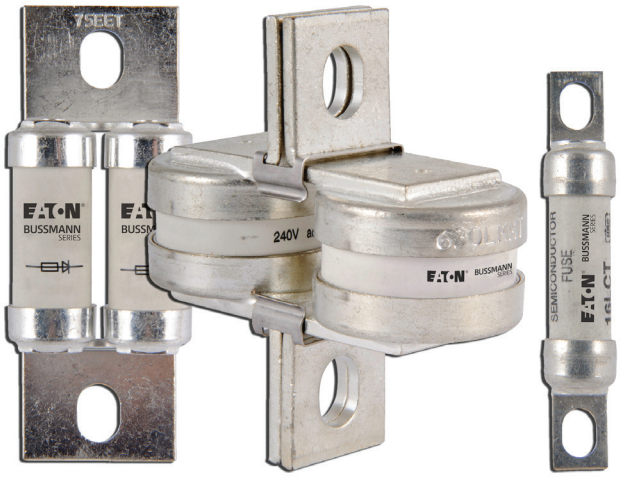
BH

BH fuse blocks provide a wide range of mounting configurations for Bussmann series high speed semiconductors fuses. BH fuse blocks have a short-circuit current rating up to 200 kA RMS Sym.

Catalog no.	Max rated voltage	Max fuse amp rating
BH-0	700	100
BH-1	2500	400
BH-2	5000	600
BH-3	1250	700



Data sheets: 1200 (BH-0), 1201 (BH-1), 1202 (BH-2), 1203 (BH-3), 1206 (1BS101), 1207 (1BS102), 1208 (1BS103), 1209 (1BS104)



General information

Eaton's Bussmann series wide range of British style high speed fuses and accessories designed and tested to:

- BS 88: Part 4
- IEC 269 Part 4
- UL Recognized

Eaton's Bussmann series British style products use innovative arc quenching techniques and high grade materials to provide:

- Minimal energy let-through (I^2t)
- Excellent DC performance
- Good surge withstand profile

British style fuses are typically found in equipment manufactured in the United Kingdom or British Commonwealth countries. However, North American manufacturers have begun to specify British style fuses — particularly in UPS applications at 240 V or less — to take advantage of their size, performance and cost benefits.

Voltage rating

All Bussmann series British style fuses are tested to IEC 269 Part 4. This standard requires a test voltage which is 5% higher than the rated voltage. In North America, fuses are required to clear only their rated voltage.

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 adapter and microswitch attachment are available, to provide remote indication. Fuse blocks are also available for most applications.

Features and benefits

- Excellent cycling capability
- Excellent DC performance
- Low arc voltage and low energy let-through (I^2t)

Typical applications

- DC common bus
- AC and DC drives
- Power converters/rectifiers
- Reduced voltage starters

British Standard contents

Fuses

Catalog symbol	Amp range	Page
LCT	6-20	24
LET	28-180	24
LMT	160-450	25
LMMT	400-900	25
CT	6-20	26-27
ET	25-80	26-27
FE	35-100	26-27
EET	90-160	26-27
FEE	100-200	26-27
FM	180-350	38-29
FMM	400-700	38-29
MT	160-355	38-29
MMT	180-710	38-29

Accessories

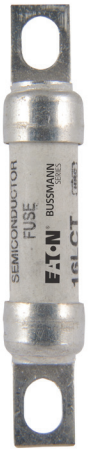
Description	Page
Indicator systems	30
Microswitch adapters	30

British Standard BS88 fuses

LCT, LET

240 Vac/150 Vdc (IEC),

250-280 Vac/150 Vdc (UL), 6 to 180 A



Description

BS88 style bolted tag high speed fuses for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters. Low watts loss in a compact size.

Specifications

Ratings

- Volts:
  - LCT 240 Vac/150 Vdc (IEC), 250 Vac/150 Vdc (UL)
  - LET 280 Vac/150 Vdc (UL, 25-160 A), 250 Vac/150 Vdc (UL 180 A)
- Amps: 6-180 A
- Interrupting rating:
  - 200 kA RMS Sym.
  - 50 kA DC at 125 Vdc
  - 100 kA at 80 Vdc (70-1000 A)

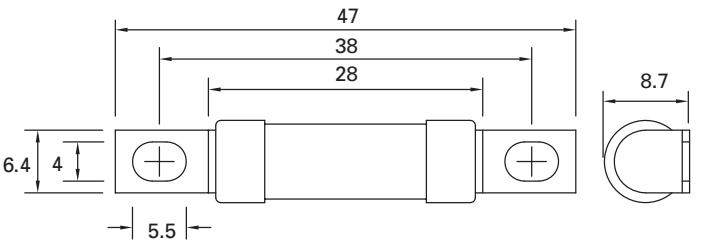
Operating Class: aR.

Agency information

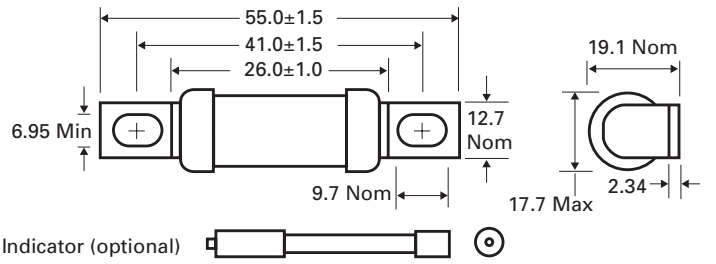
- Designed and tested to BS88 Part 4 and IEC 60269 Part 4
- UL Recognized*
- CCC (LCT only)
- CE

* All fuses have been tested at 318 Vac. Consult Bussmann series product representative for UL Recognized status.

Dimensions — mm



LCT



Indicator (optional)

LET — indicator optional

Fuse symbol	Rated voltage	Rated current(amps)	I²t (A²s) Pre-arcing	I²t (A²s) Clearing at 240 Vac	Watts loss (W)*	Catalog no.
LCT	240 Vac/150 Vdc (IEC) 250 Vac/150 Vdc (UL)	6	2.0	9	1.0	6LCT
		10	3.8	22	2.5	10LCT
		12	7.0	32	2.5	12LCT
		16	20.0	100	2.5	16LCT
		20	25.0	160	4.0	20LCT
LET	280 Vac/150 Vdc (UL)	25	18.0	250	4.0	25LET
		32	32.0	450	5.0	32LET
		35	50.0	600	5.0	35LET
		50	100.0	1400	7.0	50LET
		63	180.0	2200	9.0	63LET
		80	300.0	3800	10.0	80LET
		100	600.0	7500	10.0	100LET
		125	600.0	7500	16.0	125LET
		160	1100.0	16,000	20.0	160LET
	250 Vac/150 Vdc (UL)	180	1600.0	29,000	21.0	180LET

* Watts loss at rated current.
Note: 7LET, 10LET, 12LET and 16LET are available for replacement purposes on existing equipment.

For details on electrical characteristics, contact Application Engineering and ask for data sheets: 720004, 5785296 (LCT), 5785293 (LET)

LMT, LMMT

240 Vac/150 Vdc (IEC), 250 Vac/150 Vdc (UL), 160 to 900 A



Description

BS88 style bolted tags high speed fuses for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters. Low watts loss in a compact size.

Specifications

Ratings

- Volts:
  - 240 Vac/150 Vdc (IEC)
  - 250 Vac/150 Vdc (UL)
- Amps: 160-900 A
- Interrupting rating:
  - 200 kA RMS Sym., 40 kA at 150 Vdc (IEC)
  - 200 kA RMS Sym., 50 kA at 150 Vdc (UL)

Operating Class: aR.

Agency information

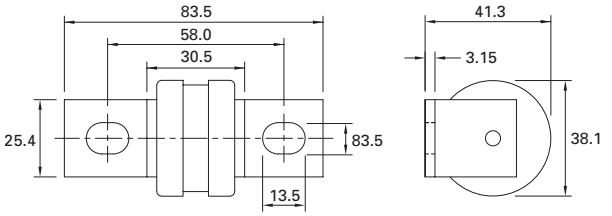
- Designed and tested to BS88 Part 4 and IEC 60269 Part 4
- UL Recognized*
- CCC
- CE

* All fuses have been tested at 318 Vac. Consult Bussmann series product representative for UL Recognized status.

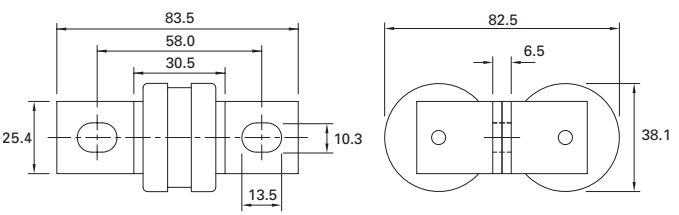
Fuse symbol	Rated voltage	Rated current (amps)	I²t (A²s) Pre-arcing	I²t (A²s) Clearing at 120 Vac	I²t (A²s) Clearing at 240 Vac	Watts loss (W)*	Catalog no.
LMT	240 Vac /150 Vdc (IEC) 250 Vac /150 Vdc (UL)	160	1100	7000	16,000	17	160LMT
		200	1500	10,000	20,000	28	200LMT
		250	3200	20,000	40,000	28	250LMT
		315	6000	35,000	75,000	35	315LMT
		355	8000	50,000	100,000	35	355LMT
		400	14,000	70,000	160,000	40	400LMT
		450	18,000	100,000	220,000	42	450LMT
LMMT	240 Vac /150 Vdc (IEC) 250 Vac /150 Vdc (UL)	400	6000	35,000	80,000	60	400LMMT
		500	14,000	80,000	170,000	64	500LMMT
		630	24,000	150,000	300,000	75	630LMMT
		710	32,000	200,000	460,000	77	710LMMT
		800	52,000	300,000	600,000	82	800LMMT
		900	75,000	400,000	800,000	97	900LMMT

* Watts loss at rated current.

Dimensions — mm



LMT — indicator optional



LMMT — indicator optional

For details on electrical characteristics, contact Application Engineering and ask for data sheets: 720004, 5785294 (LMT), 5785295 (LMMT)

British Standard BS88 fuses

CT, ET, FE, EET, FEE

690 Vac/500 Vdc (IEC), 700 Vac/500 Vdc (UL), 6 to 200 A



Description

BS88 style bolted tags high speed fuses for the protection of DC common bus, DC drives, power converters /rectifiers and reduced rated voltage starters.

Specifications

Ratings

- Volts:
  - 690 Vac/500 Vdc (IEC)
  - 700 Vac/500 Vdc (UL)
- Amps: 6-200 A
- Interrupting rating:
  - CT: 90 kA RMS Sym., 40 kA at 500 Vdc (IEC)
  - 200 kA RMS Sym., 50 kA at 500 Vdc (UL)
  - ET, EET, FE and FEE: 200 kA RMS Sym.,50 kA at 500 Vdc

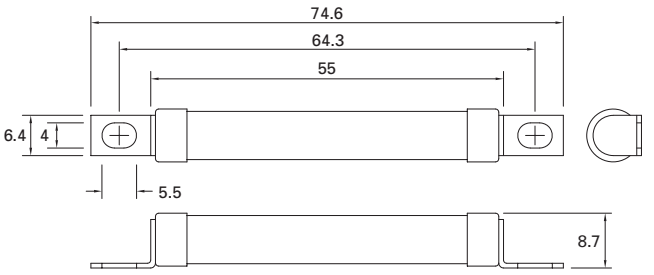
Operating Class: aR

Agency information

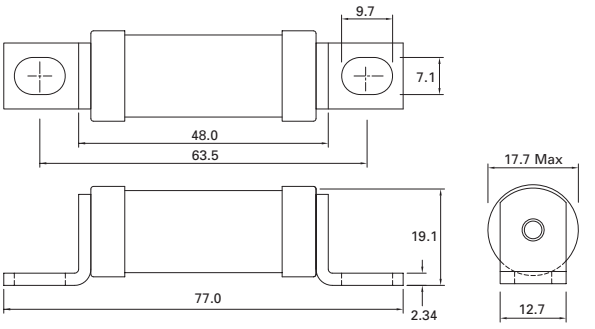
- Designed and tested to BS88 part 4 and IEC 60269 Part 4
- UL Recognized*
- CCC for ET, FE, EET, FEE
- CE

* Consult your Bussmann series product representative for UL Recognized status.

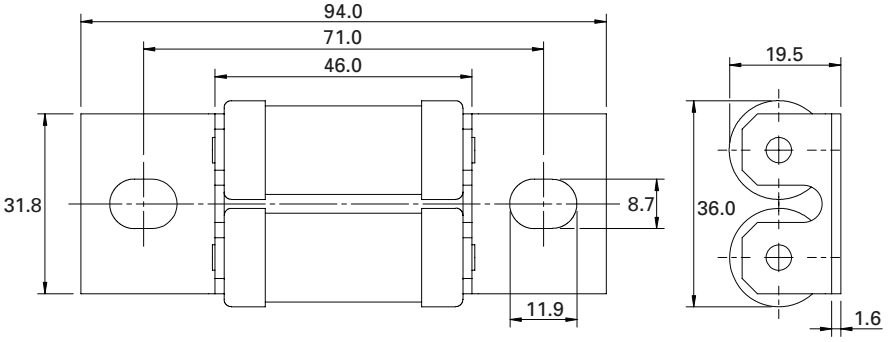
Dimensions — mm



CT



ET, FE — indicator optional



EET, FEE — indicator optional

For details on electrical characteristics, contact Application Engineering and ask for data sheets: 5785312 (CT, ET), 5785314 (FE), 5785313 (EET), 5785292 (FEE)

CT, ET, FE, EET, FEE

690 Vac/500 Vdc (IEC), 700 Vac/500 Vdc (UL), 6 to 200 A

Fuse symbol	Rated voltage	Rated current (amps)	I²t (A²s) Pre-arcing	I²t (A²s) Clearing at 415 Vac	I²t (A²s) Clearing at 660 Vac	Watts loss (W)*	Catalog no.
CT	690 Vac/500 Vdc (IEC) 700 Vac/500 Vdc (UL)	6	1.8	8.5	12	2	6CT
		10	7.0	30.0	48	3	10CT
		12	10.0	40.0	65	3	12CT
		16	16.0	66.0	110	7	16CT
		20	32.0	150.0	220	7	20CT
ET	690 Vac/500 Vdc (IEC) 700 Vac/500 Vdc (UL)	25	25.0	150.0	250	7	25ET
		32	32.0	190.0	350	11	32ET
		35	52.0	310.0	500	11	35ET
		40	103.0	600.0	900	9	40ET
		45	103.0	680.0	1100	11	45ET
		56	135.0	950.0	1500	14	56ET
		63	171.0	1200.0	2000	16	63ET
		80	360.0	2500.0	4000	18	80ET
FE	690 Vac/500 Vdc (IEC) 700 Vac/500 Vdc (UL)	35	33.0	130.0	200	9	35FE
		40	52.0	180.0	300	9	40FE
		45	76.0	270.0	450	11	45FE
		50	103.0	380.0	600	11	50FE
		63	135.0	480.0	750	12	63FE
		71	210.0	600.0	950	17	71FE
		80	250.0	900.0	1500	20	80FE
		90	360.0	1300.0	2100	20	90FE
		100	470.0	1800.0	2800	23	100FE
EET	690 Vac/500 Vdc (IEC) 700 Vac/500 Vdc (UL)	90	490.0	300.0	4500	19	90EET
		110	600.0	4000.0	6500	27	110EET
		140	1050.0	7000.0	12,000	35	140EET
		160	1500.0	10,000.0	17,000	39	160EET
FEE	690 Vac/500 Vdc (IEC) 700 Vac/500 Vdc (UL)	100	400.0	1600.0	2400	24	100FEE
		120	540.0	1900.0	3100	32	120FEE
		140	850.0	2500.0	3800	36	140FEE
		160	1000.0	3700.0	5700	46	160FEE
		180	1400.0	5300.0	8400	46	180FEE
		200	1900.0	7100.0	11,400	52	200FEE

* Watts loss at rated current.

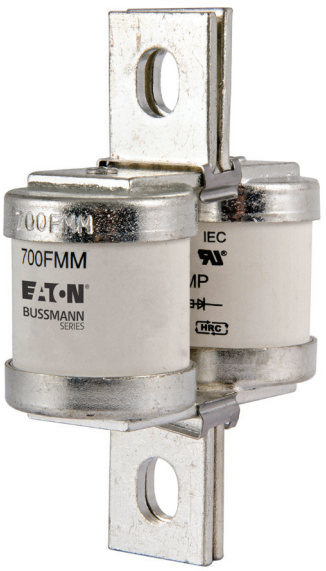
Note: FC, 8ET, 12ET, 15ET, 20ET, 65EET and 75EET are available for replacement purposes on existing equipment.

For details on electrical characteristics, contact Application Engineering and ask for data sheets: 5785312 (CT, ET), 5785314 (FE), 5785313 (EET), 5785292 (FEE)

British Standard BS88 fuses

FM, FMM, MT, MMT

690 Vac/350-450 Vdc (IEC),700 Vac/500 Vdc (UL), 160 to 710 A



Description

BS88 style bolted tags high speed fuses for the protection of DC common bus, DC drives, power converters /rectifiers and reduced rated voltage starters.

Specifications

Ratings

- Volts:
  - FM: 690 Vac/450 Vdc (IEC); 700 Vac/500 Vdc (UL)
  - FMM: 690 Vac/450 Vdc (IEC); 700 Vac (UL)
  - MT and MMT: 690 Vac/350 Vdc (IEC); 700 Vac (UL)
- Amps: 160-710 A
- Interrupting rating:
  - FM: 200 kA RMS Sym. (IEC/UL), 40 kA at 450 Vdc (IEC), 50 kA at 500 Vdc (UL)
  - FMM: 200 kA RMS Sym. (IEC/UL), 40 kA at 450 Vdc (IEC).
  - MT and MMT: 200 kA RMS Sym. (IEC/UL), 40 kA at 350 Vdc (IEC).

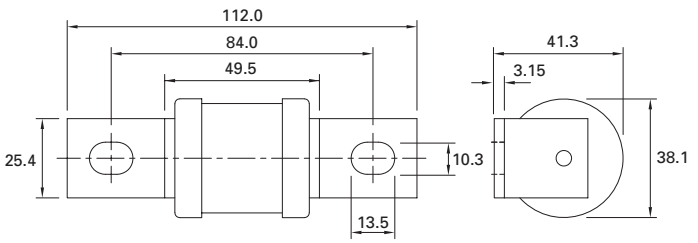
Operating Class: aR

Agency information

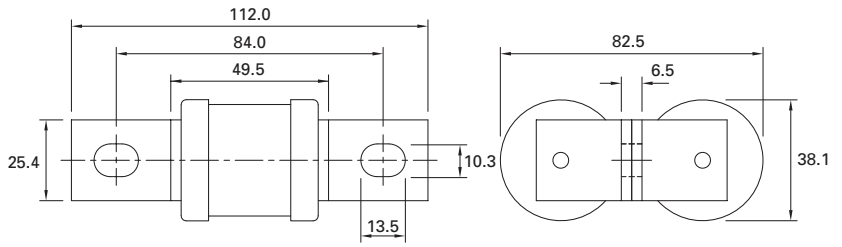
- Designed and tested to BS88 Part 4 and IEC 60269 Part 4
- UL Recognized MT and MMT 350 Vdc (IEC) rating*
- CCC for FM and FMM
- CE

Consult your Bussmann series product representative for UL Recognized status.

Dimensions — mm



FM, MT — indicator optional



FMM, MMT — indicator optional

For details on electrical characteristics, contact Application Engineering and ask for data sheets: 5785314 (FM), 5785313 (MT), 5785292 (FMM), 5785311 (MMT)

FM, FMM, MT, MMT

690 Vac/350-450 Vdc (IEC), 700 Vac/500 Vdc (UL), 160 to 710 A

Fuse symbol	Rated voltage	Rated current (amps)	I^2t (A^2s)			Watts loss (W)*	Catalog no.
			Pre-arcing	Clearing at 415 Vac	Clearing at 660 Vac		
FM	690 Vac/450 Vdc (IEC) 700 Vac/500 Vdc (UL)	180	1400	7500	13,500	40	180FM
		200	2600	10,500	18,500	40	200FM
		225	3700	14,500	26,500	44	225FM
		250	5200	20,500	37,500	48	250FM
		280	7000	30,500	55,000	48	280FM
		315	10,000	40,000	77,000	55	315FM
		350	15,000	60,000	105,000	55	350FM
FMM	690 Vac/450 Vdc (IEC) 700 Vac (UL)	400	10,000	40,000	72,500	85	400FMM
		450	15,000	60,000	105,000	90	450FMM
		500	20,000	82,000	150,000	100	500FMM
		550	30,000	120,000	215,000	100	550FMM
		630	45,000	180,000	310,000	100	630FMM
		700	60,000	245,000	420,000	120	700FMM
MT	690 Vac/350 Vdc (IEC) 700 Vac (UL)	160	2400	15,000	25,000	26	160MT
		180	3800	25,000	38,000	26	180MT
		200	6000	40,000	58,000	27	200MT
		250	11,500	80,000	110,000	32	250MT
		280	16,500	100,000	150,000	35	280MT
		315	19,000	125,000	180,000	42	315MT
		355	22,000	160,000	200,000	51	355MT
MMT	690 Vac/350 Vdc (IEC) 700 Vac (UL)	180	1650	12,000	18,000	42	180MMT
		200	2200	16,000	23,000	42	200MMT
		225	3700	26,000	40,000	42	225MMT
		280	6600	47,000	70,000	47	280MMT
		315	8600	62,000	91,000	51	315MMT
		355	13,500	97,000	140,000	54	355MMT
		400	21,000	150,000	220,000	60	400MMT
		450	30,000	220,000	320,000	57	450MMT
		500	42,000	300,000	450,000	64	500MMT
		560	60,000	430,000	640,000	64	560MMT
		630	68,500	500,000	720,000	86	630MMT
		710	78,000	600,000	850,000	105	710MMT

* Watts loss at rated current.

For details on electrical characteristics, contact Application Engineering and ask for data sheets: 5785314 (FM), 5785313 (MT), 5785292 (FMM), 5785311 (MMT)

Accessories

Trip indicator

Trip-indicator fuses are available for use in parallel with the main BS88-4 fuses. They can either be attached to the associated fuse or mounted separately in panel mounted fuse clips. Push-on adapters with microswitch (catalog numbers MAI and MBI) are available for use with the trip indicator to provide a means for remote indication.

Fuse ratings of 20 A and below cannot usually accommodate a trip fuse in parallel.

When a trip-indicator is to be attached to the main fuse, an accessory pack comprising a pair of mounting clips and an appropriate trip indicator is required. The clips are snapped onto the fuse and the indicator is pressed into clips as shown below.

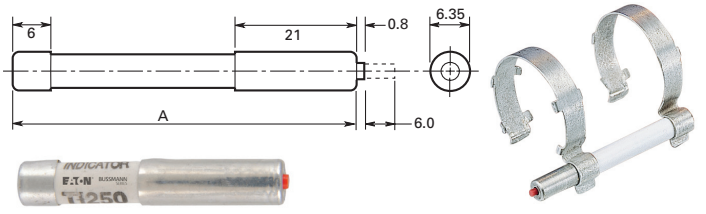
Trip indicator kit catalog numbers (indicator + clips)

For fuse symbol	Catalog no.
ET	EC-600
EET	EC-600
FE	EC-600
FEE	EC-600
LET	EC-250
FM	MC-600
FMM	MC-600
LMT	MC-250
LMMT	MC-250

Indicator only

Catalog number	Rated current	Dim. 'A' (mm)
TI250	250	37.6
TI500	500	47.5
TI600	600	55.7
TI700	700	61.8
TI1100	1100	98.4
TI1500	1500	120.8
TI2000	2000	147.5
TI2500	2500	198.3

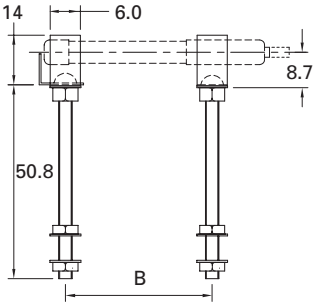
Indicator dimensions — mm



CL1 panel mount clips

CL1 panel mount fuse clips are available for mounting a trip-indicator when mounting directly on the fuse is impractical. Order catalog number CL1.

CL1 clips dimensions — mm



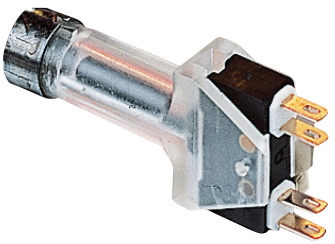
Microswitches

Microswitch/adapter: MAI and MBI

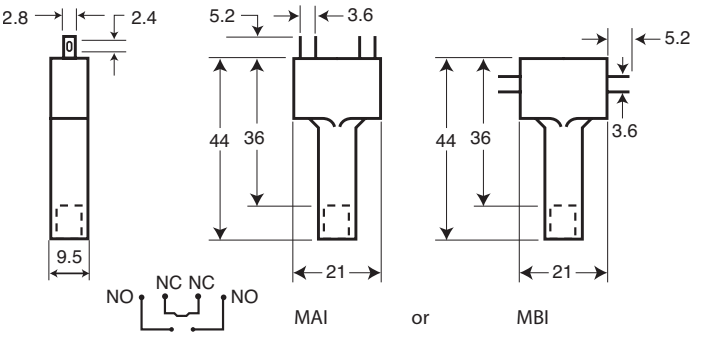
To provide a means of remote indication with the trip indicators, we offer two microswitch/adapters. The microswitches are provided with double pole, single throw contacts, having both a normally open (NO) and a normally closed (NC) position. A special material is used in the construction of the adapter to provide reliable operation in the temperatures ranges associated with standard operating conditions and during fuse operation.

Catalog no.	Description	Terminal orientation
MAI	Trip indicator adapter and microswitch	Back
MBI	Trip indicator adapter and microswitch	Side

Microswitch ratings (MAI and MBI)	
Terminals	**Quick connect**
Current rating	
AC 50/60Hz resistive load	4 A @ 250 V RMS
	6 A @ 127 V RMS
DC, resistive load	0.7 A @ 110 Vdc
	2 A @ 30 Vdc
Maximum working voltage	
Contact-to-contact (RMS)	1000 V
	1500 V
Maximum DC volts	110 Vdc



Microswitch/adapter dimensions — mm





General information

Eaton offers a full line of Bussmann series ferrule style (cylindrical 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-through (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.

Voltage rating

All Bussmann series ferrule fuses (except 690 V) have been tested at their rated voltage. The 690 V ferrule fuse has been tested to the IEC 60269 standard, which requires clearing at the rated voltage +5%.

Accessories

Ferrule fuses may be mounted in fuseclips, fuse holders, fuse blocks or fused switches. A variety of products are available. Please consult our application engineers to discuss your requirement.

Features and benefits

- Excellent cycling capability and DC performance
- Low arc voltage and low energy let-through (I^2t)
- Low watts loss in a compact size
- Used with finger-safe holders and blocks

Typical applications

- DC common bus
- DC drives
- Power converters/rectifiers
- Reduced voltage starters

Ferrule fuse contents

Fuses

Catalog symbol	Size (mm)	Volts	Amp range	Page
FWA-_A10F	10x38	150 AC/DC	5-30	32
FWA-_A21F	21x51	150 AC/DC	35-60	32
FWX-_A14F	14x51	250 AC/DC	1-50	33
FWH-_A6F/FR	6x32	500 AC	0.25-30	34
FWH-_A14F	14x51	500 AC/DC	1-30	35
FWC-_A10F	10x38	600/700 AC, 600/700 DC	1-32	36
FWP-_A14F/FI	14x51	690/700 AC, 600-700 DC	1-50	37
FWP-_A22F/FI	22x58	700 AC/DC	20-100	38
FWK-_A20F	20x127	750 DC	5-30	39
FWK-_A25F	25x146	750 DC	35-60	39
FWJ-_A14F	14x67	1000 AC, 800 DC	20-30	40
FWL-_A20F/FI	20x127	1200 AC, 1000 DC	20-30	41
FWS-_A20F/FI	20x127	1400/2000 AC, 1000 DC	2-15	42

Accessories

Description	Fuse size	Page
DIN-Rail/panel mount modular fuse block	22x58	43
Modular DIN-Rail fuse holders	10x38	44
	14x51	45
	22x58	46

Ferrule fuse ranges

Volts	Amps	AC	DC
150	5-60	X	X
250	1-50	X	X
500	0.25-30	X	X
600	6-32	X	X
700 (22x58 mm)	20-100	X	—
700 (14x51 mm)	1-50	X	X
750	5-60	X	X
1000	20-30	X	X (800 Vdc)
1250	20-30	X	X (1000 Vdc)
1500	8-15	X	X (1000 Vdc)
2000	2-6	X	X (1000 Vdc)

Ferrule fuses

FWA

150 Vac/dc (UL), 10x38 mm and 21x51 mm, 5 to 60 A



Description

Ferrule style high speed fuses for the protection of DC common bus, DC drives, power converters /rectifiers and reduced rated voltage starters.

Specifications

Ratings

- Volts: 150 Vac/dc (UL)
- Amps: 5-60 A
- Interrupting rating:
  - 200 kA RMS Sym.
  - 50 kA DC at 150 Vdc

Operating class: aR

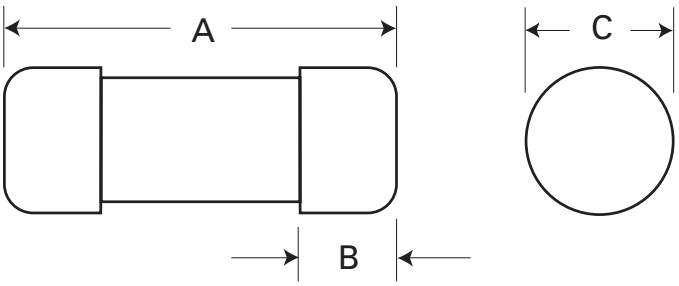
Agency information

- UL Recognized JFHR2, E91958
- CE

Fuse size	Rated voltage	Rated current (amps)	I²t (A²s) Pre-arcing	I²t (A²s) Clearing at 150 Vac	Watts loss (W)*	Catalog no.
10x38 mm (13/32"x1-1/2")	150 Vac/dc (UL)	5	1.6	8	2	FWA-5A10F
		10	3.6	16	2.7	FWA-10A10F
		15	14.0	50	3.3	FWA-15A10F
		20	33.0	130	3.8	FWA-20A10F
		25	58.0	220	4.9	FWA-25A10F
		30	100.0	400	4.9	FWA-30A10F
21x51 mm (13/16"x2")	150 Vac/dc (UL)	35	75.0	800	4.5	FWA-35A21F
		40	100.0	1000	5.1	FWA-40A21F
		45	130.0	1300	6	FWA-45A21F
		50	170.0	1600	7.3	FWA-50A21F
		60	250.0	2400	8	FWA-60A21F

* Watts loss at rated current.

Dimensions — in (mm)



Amp range	A	B	C
5-30	1.5 (38.1)	0.38 (9.5)	0.41 (10.3)
35-60	2.0 (50.8)	0.63 (15.9)	0.81 (20.6)

For details on electrical characteristics, contact Application Engineering and ask for data sheets: 720003,5785317 (5-30 A), 5785305 (35-60 A)

FWX

250 Vac/dc (UL), 14x51 mm, 1 to 50 A



Description

Ferrule style high speed fuses for the protection of DC common bus, DC drives, power converters/rectifiers rated voltage starters.

Specifications

Ratings

- Volts:
  - 250 Vac (UL, all ratings)
  - 250 Vdc (UL, 5-50 A only)
- Amps: 1-50 A
- Interrupting rating:
  - 200 kA RMS Sym. (UL, all ratings)
  - 50 kA at 250 Vdc (UL, 5-30 A only)

Operating class: aR

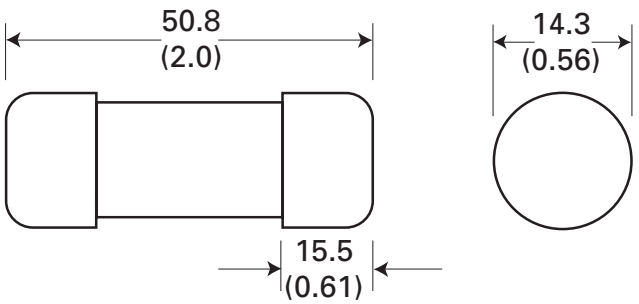
Agency information

- CE
- UL Recognized JFHR2, E91958 1-50 A
- CSA Class 1422-30, 1422-90 (53787) 5-30 A

Fuse size	Rated voltage	Rated current(amps)	I²t (A²s) Pre-arcing	I²t (A²s) Clearing at 250 Vac	Watts loss(W)*	Catalog no.
14x51 mm (9/16"x2")	250 Vac (UL)	1	0.03	0.40	5.7	FWX-1A14F
		2	0.08	0.10	8.6	FWX-2A14F
		3	0.11	0.26	2.8	FWX-3A14F
		4	0.1	0.23	3.0	FWX-4A14F
	250 Vac/dc (UL)	5	1.6	13.00	1.3	FWX-5A14F
		10	3.6	24.00	3.4	FWX-10A14F
		15	14.0	83.00	3.8	FWX-15A14F
		20	33.0	200.00	4.6	FWX-20A14F
		25	58.0	300.00	5.3	FWX-25A14F
		30	100.0	500.00	5.9	FWX-30A14F
		50	200.0	1800.00	5.7	FWX-50A14F

* Watts loss at rated current.

Dimensions — mm (in)



For details on electrical characteristics, contact Application Engineering and ask for data sheets: 720006, 5785302

Ferrule fuses

FWH

500 Vac (UL), 6x32 mm, 0.25 to 30 A

RoHS



Description

Ferrule style high speed fuses for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters.

Specifications

Ratings

- Volts:
  - 500 Vac (UL — 0.25-1 A and 3.15-30 A)
  - 1000 Vac (UL — 2 A)
  - 600 Vdc (UL — 1-5 A)
- Amps: 0.25-30 A
- Interrupting rating:
  - 50 kA AC (0.25-1 A and 3.15-20 A)
  - 30 kA AC (2 A)
  - 20 kA AC (25-30 A)[1]
  - 50 kA DC (1-5 A))

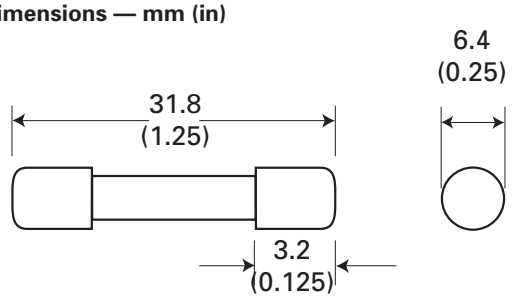
Operating class: aR

Agency information

- UL Recognized JFHR2, E91958 (0.25-7 A) and JFHR2, E19180 (10-30 A)
- CSA Class 1422-30, 1422-90 (53787) 0.25-7 A
- RoHS compliant
- CE

[1] Tested at PF = 76%.

Dimensions — mm (in)



Opening times

Amp range	150%	200%	300%
0.25-7	>30 min	>30 min	≤ 10 sec
10-30	>30 min	>30 min	≤ 10 sec

0.25-70 A 300% minimum opening current at rated voltage.
10-30 A 200% minimum opening current at rated voltage.

Fuse size	Rated voltage	Rated current (amps)	I²t (A²s) Pre-arcing	I²t (A²s) Clearing at 500 Vac	Watts loss (W)*	Catalog no. Standard	Catalog no. RoHS compliant
6x32 mm (1/4"x1-1/4")	500 Vac/600 Vdc (UL)	0.25	0.01	0.05	2.70	FWH-250A6F	FWH-250A6FR
		0.50	0.05	0.25	1.20	FWH-500A6F	FWH-500A6FR
		1.00	0.40	2.00	1.70	FWH-001A6F	FWH-001A6FR
	1000 Vac/600 Vdc (UL)	2.00	1.30	3.50	3.20	FWH-002A6F	FWH-002A6FR
		3.15	3.10	7.70	2.90	FWH-3-15A6F	FWH-3-15A6FR
	500 Vac/600 Vdc (UL)	4.00	—	—	—	FWH-004A6F	FWH-004A6FR
		5.00	15.00	40.00	2.10	FWH-005A6F	FWH-005A6FR
	500 Vac (UL)	6.30	36.00	90.00	2.30	FWH-6-30A6F	FWH-6-30A6FR
		7.00	50.00	125.00	2.50	FWH-007A6F	FWH-007A6FR
		10.00	9.90	139.00	2.86	FWH-010A6F	FWH-010A6FR
		12.50	20.00	60.00	3.53	FWH-12-5A6F	FWH-12-5A6FR
		15.00	44.00	146.00	3.08	FWH-015A6F	FWH-015A6FR
		16.00	48.00	177.00	4.48	FWH-016A6F	FWH-016A6FR
		20.00	75.00	259.00	4.26	FWH-020A6F	FWH-020A6FR
		25.00	126.00	345.00	—	FWH-025A6F	FWH-025A6FR
		30.00	145.00	430.00	—	FWH-030A6F	FWH-030A6FR

* Watts loss at rated current.

For details on electrical characteristics, contact Application Engineering and ask for data sheets:720038, 5785256 (0.25-7 A), 50955 (10-30 A)

FWH

500 Vac/ Vdc (UL), 14x51 mm, 1 to 30 A



Description

Ferrule style high speed fuses for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters.

Specifications

Ratings

- Volts:
  - 500 Vac (UL, all ratings)
  - 500 Vdc (UL, 5-30 A only)
- Amps: 1-30 A
- Interrupting rating:
  - 200 kA RMS Sym. all ratings
  - 50 kA at 500 Vdc 5-30 A only

Operating class: aR

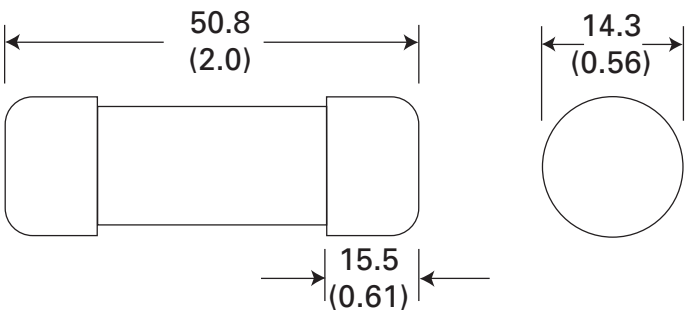
Agency information

- UL Recognized 1-30 A
- CSA Class 1422-30, (53787) 5-30 A
- CE

Fuse size	Rated voltage	Rated current (amps)	I^2t (A^2s) Pre-arcing	I^2t (A^2s) Clearing at 500 Vac	Watts loss (W)*	Catalog no.
14x51 mm (9/16"x2")	500 Vac (UL)	1	0.04	0.2	5.7	FWH-1A14F
		2	0.08	0.1	8.7	FWH-2A14F
		3	0.11	0.2	2.8	FWH-3A14F
		4	0.10	0.2	3.0	FWH-4A14F
	500 Vac/dc (UL)	5	2.00	7.0	1.5	FWH-5A14F
		6	2.00	7.0	1.5	FWH-6A14F
		10	4.00	15.0	4.0	FWH-10A14F
		12	7.00	25.0	4.3	FWH-12A14F
		15	10.00	40.0	5.5	FWH-15A14F
		20	26.00	100.0	6.5	FWH-20A14F
		25	49.00	200.0	7.0	FWH-25A14F
		30	58.00	240.0	9.0	FWH-30A14F

* Watts loss at rated current.

Dimensions — mm (in)



For details on electrical characteristics, contact Application Engineering and ask for data sheets:720008, 5785298

Ferrule fuses

FWC

600-700 Vac/700 Vdc (UL), 10x38 mm, 1 to 32 A



Description

Ferrule style high speed fuses for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters.

Specifications:

Ratings

- Volts:
  - 700 Vac/dc (UL, 1-4 A)
  - 600 Vac (UL, 6-32 A), 700 Vdc (UL, 6-25 A)
- Amps: 1-32 A
- Interrupting rating:
  - 200 kA RMS Sym. at 600 Vac (6-32 A)
  - 200 kA RMS Sym. at 700 Vac (1-4 A)
  - 10 kA DC at 700 Vdc (1-25 A)

Operating class: aR

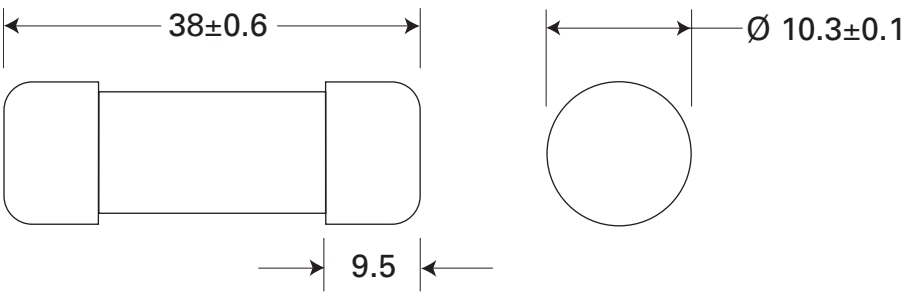
Agency information

- UL Recognized JFHR8, E91958 6-32 A
- CSA Class 1422-30, (53787) 6-32 A
- CE

Fuse size	Rated voltage	Rated current (amps)	I^2t (A^2s) Pre-arcing	I^2t (A^2s) Clearing at 600 Vac	Watts loss (W)*	Catalog no.
10x38 mm (13/32"x1-1/2")	700 Vac/dc (UL)	1	0.2	1.2	0.5	FWC-1A10F
		2	0.5	3.0	1.2	FWC-2A10F
		3	1.6	11.0	1.5	FWC-3A10F
		4	5.2	32.0	1.5	FWC-4A10F
	600 Vac/700 Vdc (UL)	6	4.0	30.0	1.5	FWC-6A10F
		8	6.0	50.0	2.0	FWC-8A10F
		10	9.0	70.0	2.5	FWC-10A10F
		12	15.0	120.0	3.0	FWC-12A10F
		16	25.0	150.0	3.5	FWC-16A10F
		20	34.0	260.0	4.8	FWC-20A10F
		25	60.0	390.0	6.0	FWC-25A10F
	600 Vac (UL)	32	95.0	600.0	7.5	FWC-32A10F

* Watts loss at rated current.

Dimensions — mm



For details on electrical characteristics, contact Application Engineering and ask for data sheets:720011, 5785306

FWP

690 Vac (IEC), 700 Vac (UL), 600 - 700 Vdc (UL), 14x51 mm, 1 to 50 A



Description

Ferrule style high speed fuses for the protection of DC common bus, DC drives, power converters/ rectifiers and reduced rated voltage starters. Available with or without striker.

Specifications

Ratings

- Volts: 690 Vac (IEC), 700 Vac/600 Vdc (UL) with striker (see table for striker version)
- Amps: 1-50 A
- Interrupting rating:
  - 200 kA RMS Sym.
  - 50 kA at 800 Vdc (5-50 A non striker version)
  - 600 Vdc for striker version

Operating class: aR

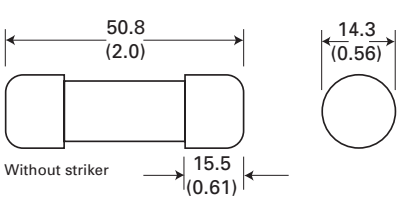
Agency information

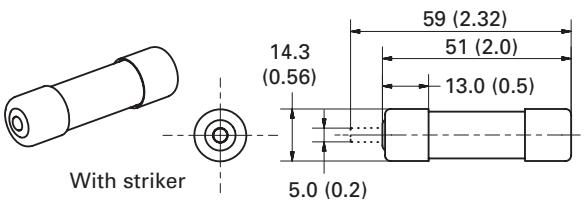
- UL Recognized (without striker only) JFHR2, E91958
- CSA (without striker only) Class 1422-30, 1422-90 (53787)
- Designed and tested to IEC 60269, Part 4
- CE

Fuse type	Fuse size	Rated voltage	Rated current (amps)	I^2t (A^2s) Pre-arcing	I^2t (A^2s) Clearing at 700 Vac	Watts loss (W)*	Catalog no.
Without striker	14x51 mm (9/16"x2")	700 Vac (UL)	1	0.04	0.41	5.7	FWP-1A14F
			2	0.08	0.11	8.7	FWP-2A14F
			3	0.11	0.26	2.8	FWP-3A14F
			4	0.10	0.23	3.0	FWP-4A14F
		690 Vac (IEC) 700 Vac/dc (UL)	5	2.00	11.00	1.5	FWP-5A14F
			10	4.00	22.00	4.0	FWP-10A14F
			15	10.00	70.00	5.5	FWP-15A14F
			20	26.00	180.00	6.5	FWP-20A14F
			25	49.00	320.00	7.0	FWP-25A14F
			30	58.00	400.00	9.0	FWP-30A14F
			32	68.00	600.00	8.0	FWP-32A14F
			40	84.00	750.00	8.0	FWP-40A14F
			50	200.00	1800.00	9.0	FWP-50A14F
With striker	14x51 mm (9/16"x2")	700 Vac/600 Vdc (UL)	10	4.00	32.00	2.0	FWP-10A14FI
			15	7.00	63.00	4.0	FWP-15A14FI
			20	26.00	234.00	4.0	FWP-20A14FI
			25	42.00	378.00	4.0	FWP-25A14FI
			30	52.00	468.00	6.0	FWP-30A14FI
			32	68.00	600.00	8.0	FWP-32A14FI
			40	84.00	750.00	8.0	FWP-40A14FI
			50	200.00	1800.00	9.0	FWP-50A14FI

* Watts loss at rated current.

Dimensions — mm (in)





For details on electrical characteristics, contact Application Engineering and ask for data sheets: 720025, 5781724 fuses without striker; 5785566 fuses with striker

Ferrule fuses

FWP

700 Vac/dc (UL), 22x58 mm, 20 to 100 A



Description

Ferrule style high speed fuses for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters. Available with or without striker.

Specifications

Ratings

- Volts: 700 Vac/dc (UL)
- Amps: 20-100 A
- Interrupting rating:
  - 200 kA RMS Sym.
  - 50 kA at 700 Vdc, L/R 5 ms

Operating Class: aR

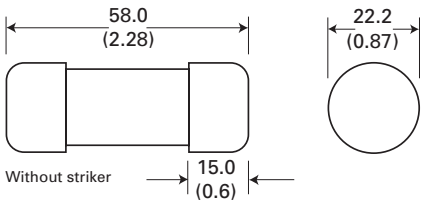
Agency information

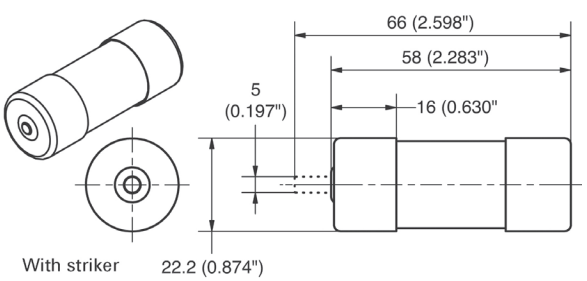
- UL Recognized (without striker only) JFHR2, E91958
- CSA (without striker only) Class 1422-30, 1422-90 (53787)
- CE

Fuse type	Fuse size	Rated voltage	Rated current (amps)	I^2t (A^2s) Pre-arcing	I^2t (A^2s) Clearing at 700 Vac	Watts loss (W)*	Catalog no.
Without striker	22x58 mm (7/8"x2-9/32")	700 Vac/dc (UL)	20	23.0	330	5.0	FWP-20A22F
			25	37.0	530	6.0	FWP-25A22F
			32	55.0	780	8.0	FWP-32A22F
			40	68.0	960	12.0	FWP-40A22F
			50	155.0	2200	12.5	FWP-50A22F
			63	280.0	4000	15.0	FWP-63A22F
			80	550.0	7800	15.0	FWP-80A22F
			100	1100.0	15,600	16.5	FWP-100A22F
With striker	22x58 mm (7/8"x2-9/32")	700 Vac/dc (UL)	20	19.0	260	5.0	FWP-20A22FI
			25	34.0	410	6.0	FWP-25A22FI
			32	53.5	605	8.0	FWP-32A22FI
			40	68.0	750	9.0	FWP-40A22FI
			50	135.0	1600	9.5	FWP-50A22FI
			63	280.0	3080	11.0	FWP-63A22FI
			80	600.0	6600	13.5	FWP-80A22FI
			100	1100.0	12,500	16.0	FWP-100A22FI

* Watts loss at rated current.

Dimensions — mm (in)





For details on electrical characteristics, contact Application Engineering and ask for data sheets:720026, 5781723

FWK

750 Vdc (IEC), 20x127 mm and 25x146 mm, 5 to 60 A



Description

Ferrule style high speed fuses for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters.

Specifications

Ratings

- Volts: 750 Vdc (IEC)
- Amps:
  - 5-30 A (20x127 mm)
  - 35-60 A (25x146 mm)
- Interrupting rating: 50 kA at 750 Vdc, L/R 10-15 ms

Operating class: gG

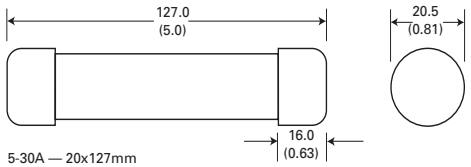
Agency information

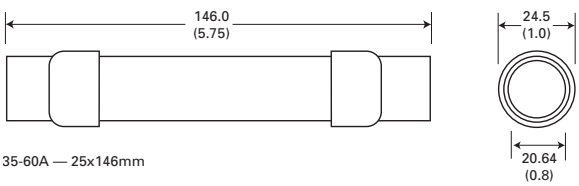
- CE

Fuse size	Rated voltage	Rated current (amps)	I^2t (A^2s) Pre-arcing	I^2t (A^2s) Clearing at 750 Vac	Watts loss (W)*	Catalog no.
20x127 mm (13/32"x5")	750 Vdc (IEC)	5	8.5	16	6.7	FWK-5A20F
		8	50	100	8.8	FWK-8A20F
		10	95	200	8.5	FWK-10A20F
		15	100	240	5.0	FWK-15A20F
		20	125	315	7.8	FWK-20A20F
		25	400	1100	6.5	FWK-25A20F
		30	800	2600	6.5	FWK-30A20F
25x146 mm (1"x5-3/4")	750 Vdc (IEC)	35	1300	4600	6.0	FWK-35A25F
		40	1600	5300	6.8	FWK-40A25F
		50	3100	12,000	7.3	FWK-50A25F
		60	5900	24,000	7.7	FWK-60A25F

* Watts loss at rated current.

Dimensions — mm (in)





For details on electrical characteristics, contact Application Engineering and ask for data sheets:720039, 5785031

Ferrule fuses

FWJ

1000 Vac/800 Vdc (UL), 14x67 mm, 20 to 30 A



Description

Ferrule style high speed fuses for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters. Available with or without striker for remote indication.

Specifications

Ratings

- Volts: 1000 Vac/800 Vdc
- Amps: 20-30 A
- Interrupting rating:
  - 25 kA RMS Sym.
  - 50 kA at 800 Vdc

Operating class: aR

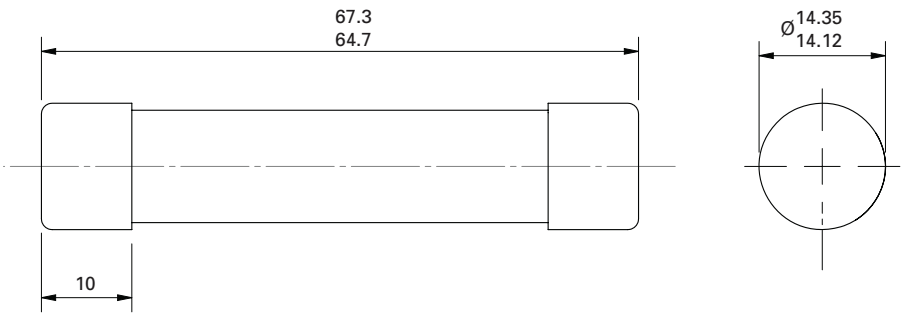
Agency information

- UL Recognized JFHR2, E91958
- CE

Fuse size	Rated voltage	Rated current (amps)	I^2t (A^2s) Pre-arcing	I^2t (A^2s) Clearing at 1000 Vac	Watts loss (W)*	Catalog no.
14x67 mm (9/16"x2-5/8")	1000 Vac/ 800 Vdc (UL)	20	25	220	9	FWJ-20A14F
		25	33	350	11	FWJ-25A14F
		30	52	450	14	FWJ-30A14F

* Watts loss at rated current.

Dimensions — mm



For details on electrical characteristics, contact Application Engineering and ask for data sheets:720028, 5785315

FWL

1200 Vac/1000 Vdc (IEC), 20x127 mm, 20 to 30 A



Description

Ferrule style high speed fuses for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters. Available with indicator.

Specifications

Ratings

- Volts:
  - 1200 Vac (IEC)
  - 1000 Vdc (IEC)
- Amps: 20-30 A
- Interrupting rating:
  - 50 kA RMS Sym.
  - 50 kA at 1000 Vdc

Operating Class: gR

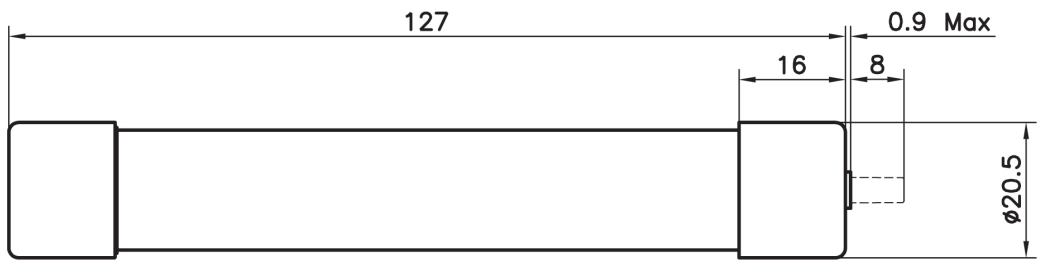
Agency information

- IEC 60077
- CE

Fuse type	Fuse size	Rated voltage	Rated current (amps)	I^2t (A^2s) Pre-arcing	I^2t (A^2s) Clearing at 1000 Vac	Watts loss (W)*	Catalog no.
Without indicator	20x127 mm (13/16"x5")	1200 Vac/1000 Vdc (IEC)	20	675	1550	5.9	FWL-20A20F
			25	1200	2760	6.5	FWL-25A20F
			30	1850	4300	7.5	FWL-30A20F
With indicator	20x127 mm (13/16"x5")	1200 Vac/1000 Vdc (IEC)	20	675	1550	5.9	FWL-20A20FI
			25	1200	2760	6.5	FWL-25A20FI
			30	1850	4300	7.5	FWL-30A20FI

* Watts loss at rated current.

Dimensions — mm

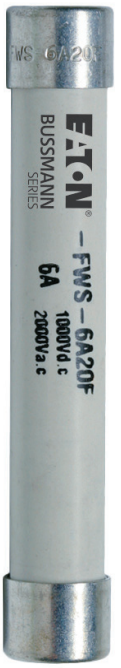


For details on electrical characteristics, contact Application Engineering and ask for data sheets:720040, 5785455

Ferrule fuses

FWS

1400 - 2000 Vac/1000 Vdc (IEC), 20x127 mm, 2 to 15 A



Description

Ferrule style high speed fuses for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters. Available with indicator.

Specifications

Ratings

- Volts:
  - 2000 Vac/1000 Vdc (IEC, 2-8 A)
  - 1400 Vac/1000 Vdc (IEC, 10-15 A)
- Amps: 2-15 A
- Interrupting rating:
  - 50 kA RMS Sym.
  - 50 kA at 1000 Vdc (2-10 A only)

Operating class: gG

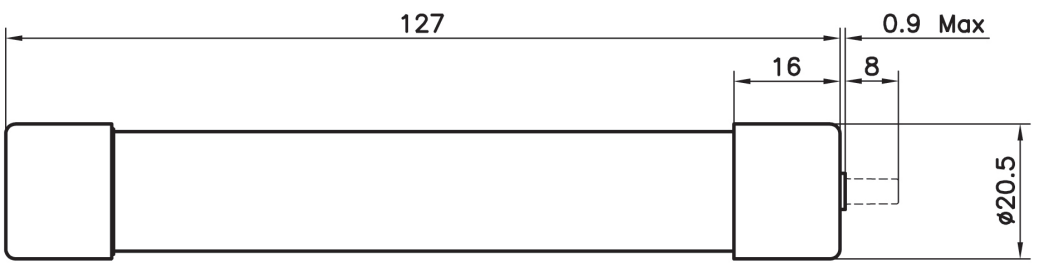
Agency information

- IEC 60077
- CE

Fuse type	Fuse size	Rated voltage	Rated current (amps)	I²t (A²s) Pre-arcing	I²t (A²s) Clearing at 1000 Vac	Watts loss (W)*	Catalog no.
Without indicator	20x127 mm (13/16"x5")	2000 Vac/1000 Vdc (IEC)	2	0.8	2.4	4.4	FWS-2A20F
			6	27.0	81.0	6.7	FWS-6A20F
			8	64.0	192.0	7.6	FWS-8A20F
		1400 Vac/1000 Vdc (IEC)	10	118.0	277.0	3.0	FWS-10A20F
			12	170.0	380.0	3.4	FWS-12A20F
			15	209.0	500.0	5.0	FWS-15A20F
With indicator	20x127 mm (13/16"x5")	2000 Vac/1000 Vdc (IEC)	2	0.8	2.4	4.4	FWS-2A20FI
			6	27.0	81.0	6.7	FWS-6A20FI
			8	64.0	192.0	7.6	FWS-8A20FI
		1400 Vac/1000 Vdc (IEC)	10	118.0	277.0	3.0	FWS-10A20FI
			12	170.0	380.0	3.4	FWS-12A20FI
			15	209.0	500.0	5.0	FWS-15A20FI

* Watts loss at rated current.

Dimensions — mm



For details on electrical characteristics, contact Application Engineering and ask for data sheets:720040, 5785109

Accessories

JM70100 DIN-Rail/panel mount fuse block for 22x58 mm fuses



Description

Bussmann series modular, open-style fuse blocks for 22x58 mm cylindrical fuses. Versatile 35 mm DIN-Rail or screw-to-panel mounting. Available optional IP20 finger-safe covers with lockout/tagout capability come in indicating and non-indicating versions. Order covers separately, one cover per pole.

Specifications

Ratings

- Volts: 700 Vac (UL)
- Amps: 100 A
- Withstand rating: 200 kA

Compatible Bussmann series fuses

- FWP see page 38

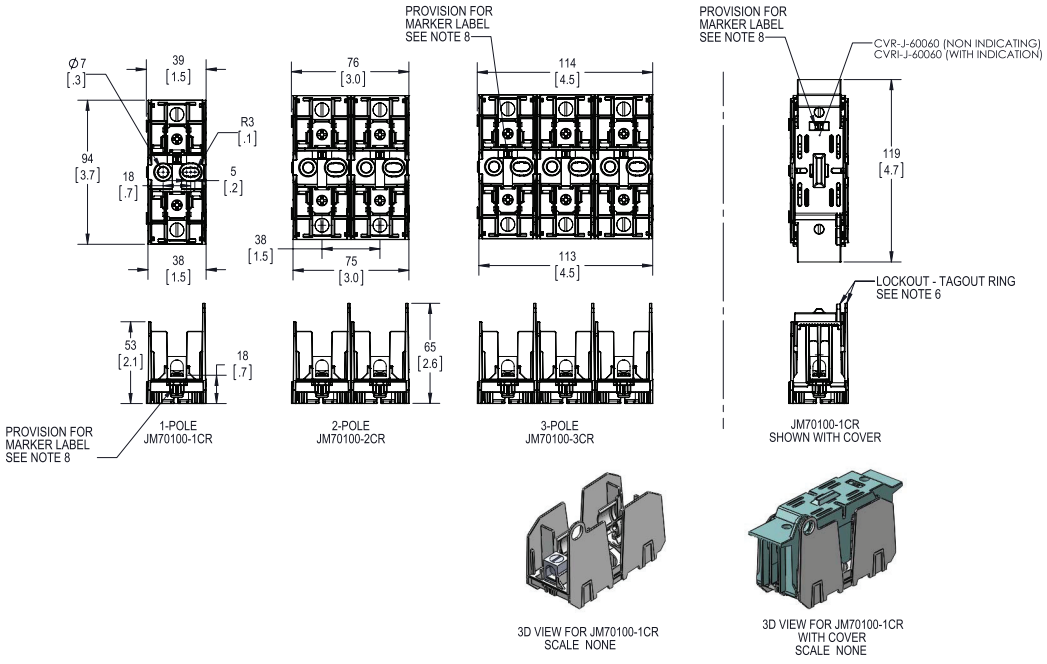
Agency information

- UL Recognized, Guide IZTL2, File 14853

				IP20 cover catalog numbers*	
Catalog no.	**Poles**	**Terminal type**	**Fuse size**	**Indicating****	**Non-indicating**
JM70100-1CR	1	Box lug	22x58 mm	CVRI-J-60060	CVR-J-60060
JM70100-2CR	2				
JM70100-3CR	3				

* Order separately, one cover per pole.
** Indication requiers 90 V minimum and energized, closed circuit.

Dimensions — mm (in)



Data sheet: 10496

Accessories

CHM modular DIN-Rail mount holders for 10x38 mm fuses



Description

Bussmann series compact IP20 finger-safe modular DIN-Rail mount fuse holders for 10x38 mm cylindrical fuses.

Specifications and agency information

Rated voltage and current: see table below

Compatible Bussmann series fuses

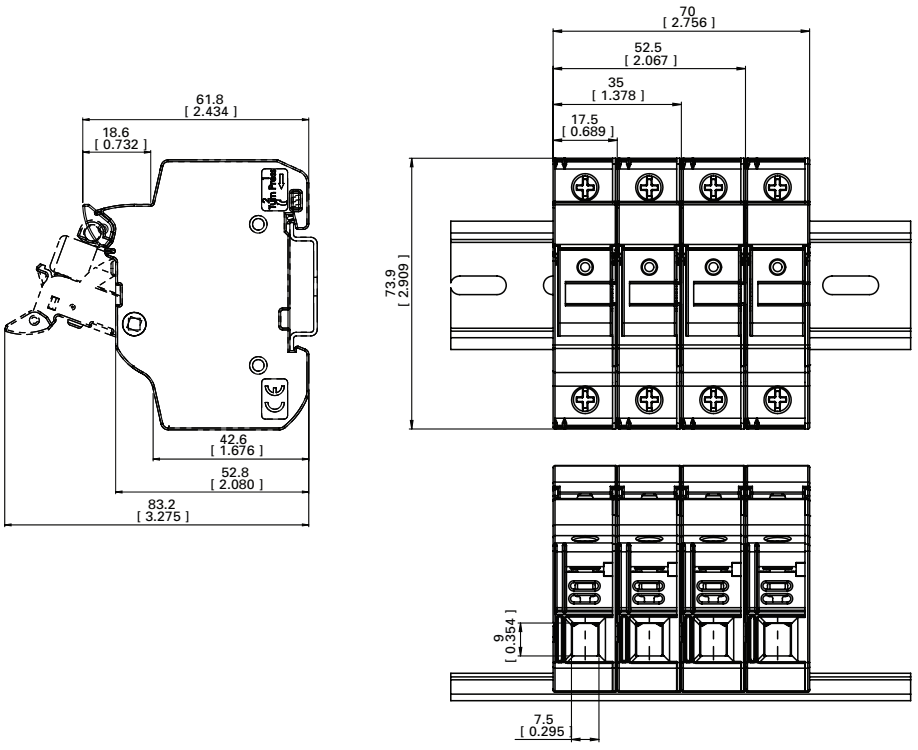
- See table below

Compatible Bussmann series fuses

- FWA (page 32), FWC (page 36)

Size	Catalog no.		Rated voltage and rated current	Agency markings	Number of poles	Terminal rating	Rated withstand capactiy	Compatible Bussmann series fuses
	With indicator	Without indicator						
10x38	CHM1DIU	CHM1DU	IEC 690 Vac/32 A UL 600 Vac/30 A;	IEC 60269-2 UR; CSA; CCC	1	IEC: 1 to 25 mm² 70°C PVC/copper cable, solid, stranded, fine stranded, fork lug, comb busbar; single and dual	IEC 120 kA rms sym UL 200 kA rms sym CCC 100 kA rms sym	FWA, FWC.
	CHM2DIU	CHM2DU			2			
	CHM3DIU	CHM3DU			3			
	CHM4DIU	CHM4DU			4			
	CHM1DNIU	CHM1DNU		IEC 60269-2	1-pole + 1 neutral			
	CHM3DNIU	CHM3DNU			3-pole + 1 neutral			
	N/A	CHM1DNXU	IEC 690 Vac/32 A	IEC 60269-2	1 neutral		N/A	N/A

Dimensions — mm (in)



Data sheet: 10430

Accessories

CH14 modular DIN-Rail mount holders for 14x51 mm fuses



Description

Bussmann series compact DIN-Rail mount fuse holders for 14 x 51mm cylindrical fuses. Available in different versions with neutral and microswitch.

Specifications and agency information

Rated voltage and current: see table below

Mounting

- 35 mm DIN Rail
- Panel mount (2xM4 screws)

Compatible Bussmann series fuses

- FWH (page 35), FWX (page 33), FWP (page 37)

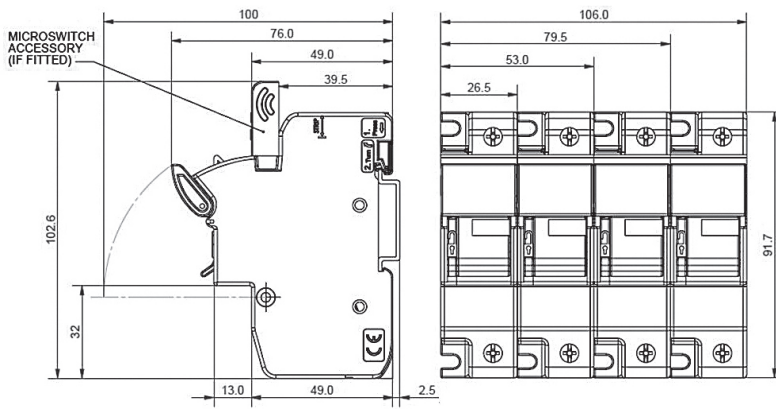
Size	Catalog no. Without indicator	Catalog no. With indicator	Description	Rated voltage and current	Agency markings	Terminal rating	Rated withstand capactiy	Compatible Bussmann series fuses
15x41	CH141DNXU	—	Neutral only	690 Vac/50 A 750 Vdc/50 A	IEC 60269-1 IEC 60269-2	Size: 2.5-50 mm² Torque: 3 N•m max	120 kA AC	FWX-A14F[1] FWH-A14F[1] FWP-A14F[1, 2]
	CH141DU	CH141DIU	1 pole					
	CH142DU	CH142DIU	2 pole					
	CH143DU	CH143DIU	3 pole					
	CH144DU	CH144DIU	4 pole					
	CH141DNU	CH141DNIU	1 pole + neutral					
	CH143DNU	CH143DNIU	3 pole + neutral					
	CH141DMSU-F	—	1 pole with microswitch					
	CH143DMSU-F	—	3 pole with microswitch					
	CH143DNMSU-F	—	3 pole +neutral with microswitch					

[1] Maximum allowed continuous current applies. Please refer to data sheet for details.
[2] Please consult our application engineers if you wish to use a FWP fuse with a striker option.

Accessories

Catalog no.	Description	Unit packing
AL-D	Multi-pole ganging clips, one kit will gang up to 4-poles together	12
CH14-P	Multi-pole handle pins, one kit will gang up to 12 handles together	12
CH14-L	Lockout padlock support, it will accept up to 5 mm diameter padlock shank	5
CH14-IP20	IP20 protection accessory, provides IP20 protection to terminals with 10 mm² or less cable	12
CH14-MS1	1-pole microswitch accessory, provides detection of a blown fuse	5
CH14-MS3	3-pole microswitch accessory, provides detection of a blown fuse	3

Dimensions — mm



Data sheet: 10080

Accessories

CH22 modular DIN-Rail mount holders for 22x58 mm fuses



Description

CBussmann series compact DIN-Rail mount fuse holders for 22x58 mm cylindrical fuses. Available in different versions with neutral and microswitch.

Specifications and agency information

- See catalog numbers table below

Mounting

- 35 mm DIN Rail
- Panel mount (2xM4 screws)

Compatible Bussmann series fuses

- FWP (page 38)

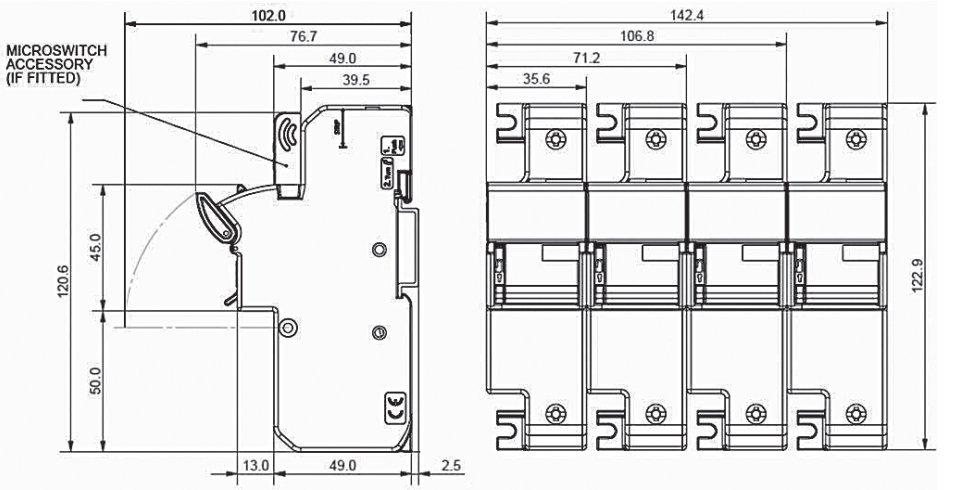
Size	Catalog no.		Description	Rated voltage and current	Agency markings	Terminal rating	Rated withstand capactiy	Compatible Bussmann series fuses
	Without indicator	With indicator						
22x58	CH221DNXU	-	Neutral holder	690 Vac/125 A 1000 Vdc/125 A	IEC 60269-1 IEC 60269-2	Size: 4 - 50 mm^2 Torque: 4 N•m max	120 kA AC 50 kA DC	FWP ferrule[1, 2]
	CH221DU	CH221DIU	1 pole fuse holder					
	CH222DU	CH222DIU	2 pole fuse holder					
	CH223DU	CH223DIU	3 pole fuse holder					
	CH224DU	CH224DIU	4 pole fuse holder					
	CH221DNU	CH221DNIU	1 pole + neutral					
	CH223DNU	CH223DNIU	3 pole + neutral					
	—	CH221DMSU-F	1 pole with microswitch					
	—	CH223DMSU-F	3 pole with microswitch					
	—	CH223DNMSU-F	3 pole with microswitch + neutral					

[1] Maximum allowed continuous current applies. Please refer to data sheet for details.
[2] Please consult our application engineers if you wish to use a FWP fuse with a striker option.

Accessories

Catalog no.	Description	Unit packing
AL-D	Multi-pole ganging clips, one kit will gang up to 4-poles together	12
CH14-P	Multi-pole handle pins, one kit will gang up to 12 handles together	12
CH22-L	Lockout padlock support, it will accept up to 5 mm diameter padlock shank	5
CH22-IP20	IP20 protection accessory, provides IP20 protection to terminals with 10 mm^2 or less cable	12
CH22-MS1	1-pole microswitch accessory, for blown fuse monitoring	5
CH22-MS3	3-pole microswitch accessory, for blown fuse monitoring	3

Dimensions — mm



Data sheet: 10115



General information

Eaton's Bussmann series complete range of square body fuses and accessories are designed and tested to:

- IEC 60269 Part 4
- UL Recognized

Their unique design and construction provide:

- Minimal energy let-through (I^2t)
- Low operating temperature
- Low watts loss

Square body fuses are a very attractive solution for high power applications which require a compact design with superior performance. The construction and design of square body fuses make it easy for Eaton to manufacture custom products to meet your high speed fuse needs. Our standard catalog numbers provide only a sample of the wide variety of possible products.

Each square body fuse is available with a number of different end fittings, including:

- DIN 43653
- DIN 43620
- Flush-end (metric/US)
- French style
- US style

Voltage rating

All Bussmann series square body fuses are tested to IEC 60269 Part 4. This standard requires a test voltage which is 5% higher than the rated voltage. In North America, fuses are required to clear only their rated voltage.

Accessories

Bussmann series square body style fuses are available with three different open fuse indicator systems. Options include visual indication and indication utilizing a microswitch. Fuse blocks are also available for most applications.

Features and benefits

- Excellent DC performance
- Low arc voltage and low energy let-through (I^2t)
- Low watts loss
- Superior cycling capability

Typical applications

- DC common bus
- DC drives
- Power converters/rectifiers
- Reduced voltage starters

Square body contents

Fuses

Volts (IEC/UL)	Size	Class	Fuse style
690/700	000, 00, 1, 2, 3	aR	DIN 43653
		aR/gR	DIN 43620
	00, 1*, 1, 2, 3	aR	DIN 43653
		aR	Flush-end contact
		aR	US style
		aR	French style
	4	aR	Flush-end contact
	23, 24	aR	Flush-end contact
	00, 1, 2, 3	gR	DIN 43620
1000	00	aR	DIN 43653
		aR	DIN 43620
	1*, 1, 2, 3	aR	DIN 43653
		aR	Flush-end contact
		aR	US style
	4	aR	Flush-end contact
	24	aR	Flush-end contact
1250/1300	1*, 1, 2, 3	aR	DIN 43653
		aR	Flush-end contact
		aR	US style
	4	aR	Flush-end contact
	23	aR	Flush-end contact
1100-2000	5	aR	Flush-end contact

Accessories

Description	Page
Fuse blocks	89-90
Indicator systems	91
Microswitches	91-92

Square body fuse amps and volts ranges

Amps	Volts	AC	DC
10-7500	690	X	—
50-1400	1250	X	—

Square body fuses

170M — size 000 and 00, DIN 43653

690 Vac (IEC), 700 Vac/dc (UL), 10 to 400 A



Description

Square body DIN 43653 bolted tags high speed fuses, for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters. Available with and without visual indicator, and Type T indicator for a microswitch.

Specifications

Ratings

- Volts:
  - 690 Vac (IEC, size 000 and 00)
  - 700 Vac (UL, size 000; size 00 100-400 A only)
  - 700 Vdc (UL, size 000)
- Amps: 10-400 A
- Interrupting rating:
  - 200 kA RMS Sym.
  - 50 kA at 700 Vdc (size 000 only)

Operating class

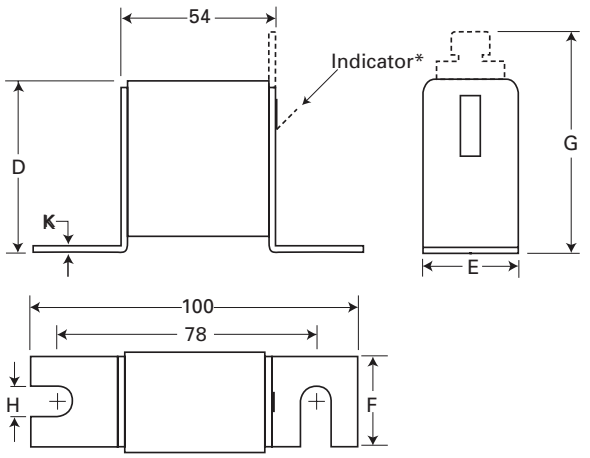
- gR - size 000 (10-63 A), size 00 (25-80 A)
- aR - size 000 (>63 A), size 00 (>80 A)

Agency Information

- Designed and tested to IEC 60269 Part 4
- UL Recognized, E125085, JFHR2
- CSA Class 53787, File 1422-30 on size 000
- CCC approved
- CE

Dimensions — mm

The dotted line illustrates the Type T indicator fuse.
* Indicatior for size 00 fuses is a red pin.



Type -U/80, -/80, -TN/80

Size	D	E	F	G	H	K
000	40	21	20	51	8	2
00	51	30	28	67	10	2

For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K6310 (Size 000), 170K6312 (Size 00)

170M — size 000 and 00, DIN 43653

690 Vac (IEC), 700 Vac/dc (UL), 10 to 400 A

Fuse size	Rated voltage	Rated current (amps)	I²t (A²s) Pre-Arcing	I²t (A²s) Clearing at 660 Vac	Watts loss (W)*	Catalog no. -U/80 without indicator	Catalog no. -/80 with indicator	Catalog no. -TN/80 Type T indicator for microswitch
000	690 Vac (IEC) 700 Vac/dc (UL)	10	3.8	25.5	3.0	170M1308	170M1358	170M1408
		16	7.2	48.0	5.5	170M1309	170M1359	170M1409
		20	11.5	78.0	7.0	170M1310	170M1360	170M1410
		25	19.0	130.0	9.0	170M1311	170M1361	170M1411
		32	40.0	270.0	10.0	170M1312	170M1362	170M1412
		40	69.0	460.0	12.0	170M1313	170M1363	170M1413
		50	115.0	770.0	15.0	170M1314	170M1364	170M1414
		63	215.0	1450.0	16.0	170M1315	170M1365	170M1415
		80	380.0	2550.0	19.0	170M1316	170M1366	170M1416
		100	695.0	4650.0	24.0	170M1317	170M1367	170M1417
		125	1250.0	8500.0	28.0	170M1318	170M1368	170M1418
		160	2350.0	16,000.0	32.0	170M1319	170M1369	170M1419
		200	4200.0	28,000.0	37.0	170M1320	170M1370	170M1420
		250	7750.0	51,500.0	42.0	170M1321	170M1371	170M1421
		315	12,000.0	80,500.0	53.0	170M1322	170M1372	170M1422
00	690 Vac (IEC)	25	19.0	130.0	6.0		170M2608	170M2658
		32	28.5	195.0	7.0		170M2609	170M2659
		40	50.0	360.0	9.0		170M2610	170M2660
		50	95.0	640.0	10.0		170M2611	170M2661
		63	170.0	1200.0	12.0		170M2612	170M2662
		80	310.0	2100.0	15.0		170M2613	170M2663
00	690 Vac (IEC) 700 Vac (UL)	100	620.0	4150.0	20.0		170M2614	170M2664
		125	1000.0	6950.0	25.0		170M2615	170M2665
		160	1900.0	13,000.0	30.0		170M2616	170M2666
		200	3400.0	23,000.0	35.0		170M2617	170M2667
		250	6250.0	42,000.0	45.0		170M2618	170M2668
		315	10,000.0	68,500.0	55.0		170M2619	170M2669
		350	13,500.0	91,500.0	60.0		170M2620	170M2670
		400	18,000.0	125,000.0	70.0		170M2621	170M2671

* Watts loss at rated current.

For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K6310 (Size 000), 170K6312 (Size 00)

Square body fuses

170M — size 1* to 3, DIN 43653

690 Vac (IEC), 700 Vac (UL), 40 to 2000 A



Description

Square body DIN 43653 bolted tags high speed fuses, for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters. Available with visual indicator, and Type K and T indicator for a microswitch.

Specifications

Ratings

- Volts: 690 Vac (IEC)/700 Vac (UL)
- Amps: 40-2000 A
- Interrupting rating: 200 kA RMS Sym.

Operating class: aR

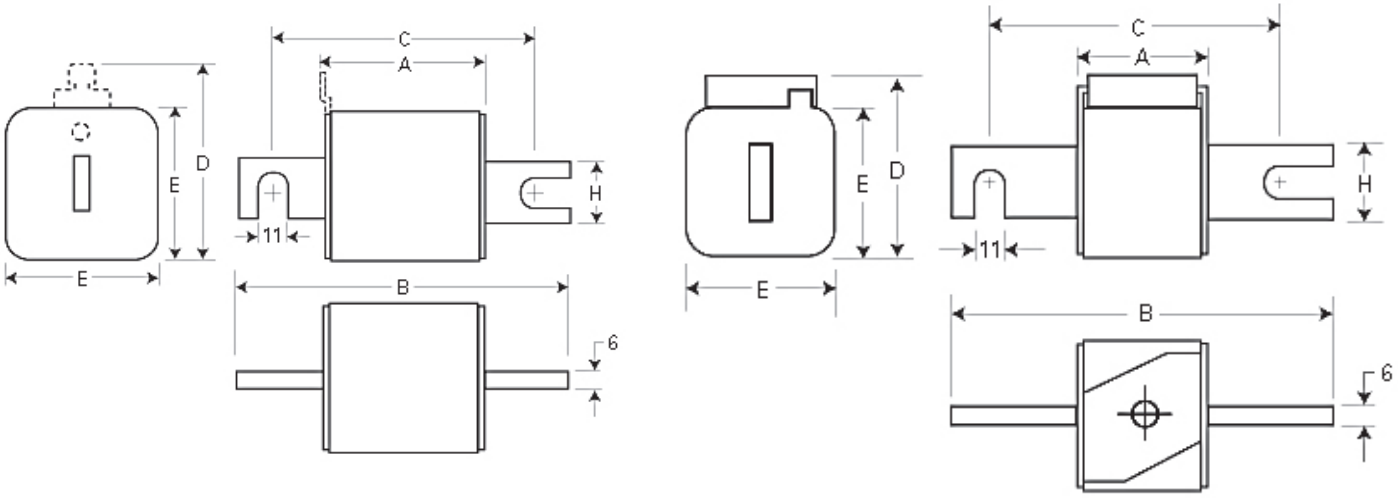
Agency information

- Designed and tested to IEC 60269 Part 4
- UL Recognized, E125085, JFHR2*
- CSA Class 53787, File 1422-30*
- CCC except where noted
- CE

* Consult your Bussmann series product representative for status.

Dimensions — mm

1 mm = 0.0394”



Type -/80, -TN/80, -/110, -TN/110

Size	A	B	B[1]	C	C[1]	D[2]	E	H
1*	50	104	134	78	108	58	45	22
1	50	108	138	78	108	66	53	25
2	50	108	138	78	108	75	61	25
3	51	109	139	78	108	90	76	30

[1] Valid for fuse Types -/110 and -TN/110.
[2] Valid for fuse Types -TN/80 and -TN/110.

Type -KN/80, -KN/110

Size	A	B	B[3]	C	C[3]	D	E	H
1*	50	104	134	78	108	59	45	22
1	50	108	138	78	108	69	53	25
2	50	108	138	78	108	77	61	25
3	51	109	139	78	108	92	76	30

[3] Valid for fuse Type -KN/110.

For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

170M — size 1* to 3, DIN 43653

690 Vac (IEC), 700 Vac (UL), 40 to 2000 A

Fuse size	Rated voltage	Rated current (amps)	I²t (A²s) Pre-arcing	I²t (A²s) Clearing at 660 Vac	Watts loss (W)*	Catalog no. -/80 with indicator	-TN/80 Type T indicator for micro	-KN/80 Type K indicator for micro	-/110 with indicator	-TN/110 Type T indicator for micro	-KN/110 Type K indicator for micro
1*	690 Vac (IEC) 700 Vac (UL)	40	40	270	9	170M3008	170M3058	170M3108	170M3158	170M3208	170M3258
		50	77	515	11	170M3009	170M3059	170M3109	170M3159	170M3209	170M3259
		63	115	770	14	170M3010	170M3060	170M3110	170M3160	170M3210	170M3260
		80	185	1250	18	170M3011	170M3061	170M3111	170M3161	170M3211	170M3261
		100	360	2450	21	170M3012	170M3062	170M3112	170M3162	170M3212	170M3262
		125	550	3700	26	170M3013	170M3063	170M3113	170M3163	170M3213	170M3263
		160	1100	7500	30	170M3014	170M3064	170M3114	170M3164	170M3214	170M3264
		200	2200	15,000	35	170M3015	170M3065	170M3115	170M3165	170M3215	170M3265
		250	4200	28,500	40	170M3016	170M3066	170M3116	170M3166	170M3216	170M3266
		315	7000	46,500	50	170M3017	170M3067	170M3117	170M3167	170M3217	170M3267
		350	10,000	68,500	55	170M3018	170M3068	170M3118	170M3168	170M3218	170M3268
		400	15,000	105,000	60	170M3019	170M3069	170M3119	170M3169	170M3219	170M3269
		450	21,000	140,000	65	170M3020	170M3070	170M3120	170M3170	170M3220	170M3270
		500	27,000	180,000	70	170M3021	170M3071	170M3121	170M3171	170M3221	170M3271
		550	34,000	230,000	75	170M3022	170M3072	170M3122	170M3172	170M3222	170M3272
		630	48,500	325,000	80	170M3023	170M3073	170M3123	170M3173	170M3223	170M3273
1	690 Vac (IEC) 700 Vac (UL)	200	1650	11,500	45	170M4008	170M4058	170M4108	170M4158	170M4208	170M4258
		250	3100	21,000	55	170M4009	170M4059	170M4109	170M4159	170M4209	170M4259
		315	6200	42,000	58	170M4010	170M4060	170M4110	170M4160	170M4210	170M4260
		350	8500	59,000	60	170M4011	170M4061	170M4111	170M4161	170M4211	170M4261
		400	13,500	91,500	65	170M4012	170M4062	170M4112	170M4162	170M4212	170M4262
		450	17,000	120,000	70	170M4013	170M4063	170M4113	170M4163	170M4213	170M4263
		500	25,000	170,000	72	170M4014	170M4064	170M4114	170M4164	170M4214	170M4264
		550	34,000	230,000	75	170M4015	170M4065	170M4115	170M4165	170M4215	170M4265
		630	52,000	350,000	80	170M4016	170M4066	170M4116	170M4166	170M4216	170M4266
		700	69,500	465,000	85	170M4017	170M4067	170M4117	170M4167	170M4217	170M4267
		800	105,000	725,000	95	170M4018	170M4068	170M4118	170M4168	170M4218	170M4268
		900[2]	155,000	850,000[2]	100	170M4019[1]	170M4069[1]	170M4119[1]	170M4169[1]	170M4219[1]	170M4269[1]
2	690 Vac (IEC) 700 Vac (UL)	400	11,000	74,000	65	170M5008	170M5058	170M5108	170M5158	170M5208	170M5258
		450	15,500	105,000	70	170M5009	170M5059	170M5109	170M5159	170M5209	170M5259
		500	21,500	145,000	75	170M5010	170M5060	170M5110	170M5160	170M5210	170M5260
		550	28,000	190,000	80	170M5011	170M5061	170M5111	170M5161	170M5211	170M5261
		630	41,000	275,000	90	170M5012	170M5062	170M5112	170M5162	170M5212	170M5262
		700	60,500	405,000	95	170M5013	170M5063	170M5113	170M5163	170M5213	170M5263
		800	86,000	575,000	105	170M5014	170M5064	170M5114	170M5164	170M5214	170M5264
		900	125,000	840,000	110	170M5015	170M5065	170M5115	170M5165	170M5215	170M5265
		1000	180,000	1,250,000	115	170M5016	170M5066	170M5116	170M5166	170M5216	170M5266
		1100[3]	245,000	1,600,000	120	170M5017	170M5067	170M5117	170M5167	170M5217	170M5267
		1250[3]	365,000	2,400,000	130	170M5018	170M5068	170M5118	170M5168	170M5218	170M5268
3	690 Vac (IEC) 700 Vac (UL)	500	14,000	95,000	95	170M6008	170M6058	170M6108	170M6158	170M6208	170M6258
		550	19,500	135,000	100	170M6009	170M6059	170M6109	170M6159	170M6209	170M6259
		630	31,000	210,000	105	170M6010	170M6060	170M6110	170M6160	170M6210	170M6260
		700	44,500	300,000	110	170M6011	170M6061	170M6111	170M6161	170M6211	170M6261
		800	69,500	465,000	115	170M6012	170M6062	170M6112	170M6162	170M6212	170M6262
		900	100,000	670,000	120	170M6013	170M6063	170M6113	170M6163	170M6213	170M6263
		1000	140,000	945,000	125	170M6014	170M6064	170M6114	170M6164	170M6214	170M6264
		1100	190,000	1,300,000	130	170M6015	170M6065	170M6115	170M6165	170M6215	170M6265
		1250	290,000	1,950,000	140	170M6016	170M6066	170M6116	170M6166	170M6216	170M6266
		1400	370,000	2,450,000	155	170M6017	170M6067	170M6117	170M6167	170M6217	170M6267
		1500	460,000	3,100,000	160	170M6018	170M6068	170M6118	170M6168	170M6218	170M6268
		1600	580,000	3,900,000	160	170M6019	170M6069	170M6119	170M6169	170M6219	170M6269
		1800[4]	880,000	5,250,000[4]	165	170M6020	170M6070	170M6120	170M6170	170M6220	170M6270
		2000[5]	1,150,000	6,350,000[5]	175	170M6021	170M6071	170M6121	170M6171	170M6221	170M6271

* Watts loss at rated current.

[1] Not UL Approved [2] Rated voltage: 550 Vac IEC [3] Rated voltage: 600 Vac IEC, 700 Vac UL [4] Rated voltage: 600 Vac IEC, 500 Vac UL [5] Rated voltage: 550 Vac IEC, 500 Vac UL.

For details on electrical characteristics, contact Application Engineering and ask for data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

Square body fuses

170M — size 00, DIN 43653

1000 Vac (IEC and UL), 20 to 315 A



Description

Square body DIN 43653 bolted tags high speed fuses, for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters. Available with indicator or Type T indicator for a microswitch.

Specifications

Ratings

- Volts:
  - 1000 Vac (IEC and UL 20-250 A)
  - 900 Vac (IEC, 315 A)
- Amps: 20-315 A
- Interrupting rating: 125 kA RMS Sym.

Operating class: aR

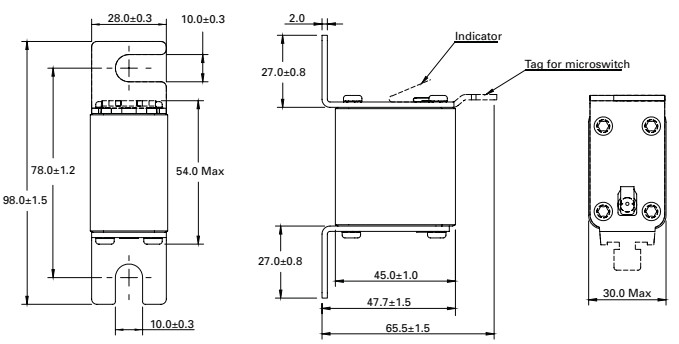
Agency information

- CE
- Designed and tested to IEC 60269 Part 4
- UL Recognized E125085, JFHR2 (20-250 A)
- CSA Class 53787, File 1422-30 (20-250 A) with the exception of catalog numbers. 170M4815 and 170M4835

			I^2t (A^2s)			Catalog no.	
Fuse size	Rated voltage	Rated current (amps)	Pre-arcing	Clearing at rated voltage	Watts loss (W)*	00/80 with indicator	00TN/80 Type T indicator for micro
00	1000 Vac (IEC/UL)	20	20	140	5	170M4802	170M4822
		25	30	210	7	170M4803	170M4823
		32	55	390	9	170M4804	170M4824
		35	69	500	10	170M4805	170M4825
		40	100	690	11	170M4806	170M4826
		50	170	1200	13	170M4807	170M4827
		63	280	2000	18	170M4808	170M4828
		80	500	3500	22	170M4809	170M4829
		100	950	6850	25	170M4810	170M4830
		125	1500	11,500	33	170M4811	170M4831
		160	3000	22,000	37	170M4812	170M4832
		200	5600	40,500	40	170M4813	170M4833
		250	10,000	74,000	48	170M4814	170M4834
	900 Vac (IEC)	315	18,000	115,000	58	170M4815	170M4835

* Watts loss at rated current.

Dimensions — mm



For details on electrical characteristics, contact Application Engineering and ask for data sheet: 170K8504

170M — size 1* to 3, DIN 43653

1000 Vac (IEC and UL), 50 to 1400 A



Description

Square body DIN 43653 bolted tags high speed fuses, for the protection of DC common bus, DC drives, power converters/ rectifiers and reduced rated voltage starters. Available with a Type T or K indicator for a microswitch.

Specifications

Ratings

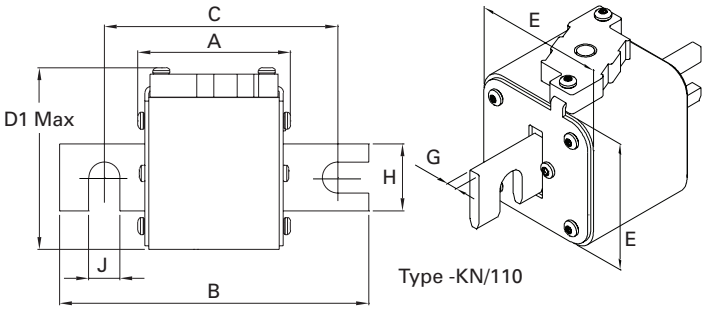
- Volts:
  - 1000 Vac (IEC, 50-1250 A), 900 Vac (IEC, 1400 A)
  - 1000 Vac (UL size 2, size 3, 315-1100 A only)
- Amps: 50-1400 A
- Interrupting rating: 125 kA RMS Sym.

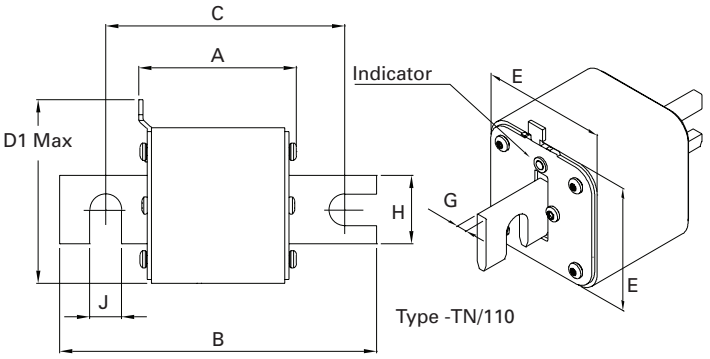
Operating class: aR

Agency Information

- Designed and tested to IEC 60269 Part 4
- UL Recognized E125085, JFHR2 (only sizes 2 and 3)
- CCC (only size 3, 315-1100 A)
- CE

Dimensions — mm





Type -KN/110

Size	A	B	C	D1 (max)	E	G	H	J
1*KN/110	80	138	108	61	43	6	22	11
1KN/110	80	138	108	69	51	6	25	11
2KN/110	80	138	108	77	59	6	25	11
3KN/110	81	139	108	92	74	6	30	11

Type -TN/110

Size	A	B	C	D1 (max)	E	G	H	J
1*TN/110	80	138	108	61	43	6	22	11
1TN/110	80	138	108	69	51	6	25	11
2TN/110	80	138	108	75	59	6	25	11
3TN/110	81	139	108	90	74	6	30	11

For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

Square body fuses

170M — size 1* to 3, DIN 43653

1000 Vac (IEC and UL), 50 to 1400 A

Fuse size	Rated voltage	Rated current (amps)	I^2t (A^2s)		Watts loss (W)*	Catalog no.	
			Pre-arcing	Clearing at rated voltage		-KN/110 Type K indicator for microswitch	-TN/110 Type T indicator for microswitch
1*	1000 Vac (IEC)	50	135	815	20	170M3965	170M3981
		63	215	1300	25	170M3966	170M3982
		80	460	2750	30	170M3967	170M3983
		100	860	5100	35	170M3968	170M3984
		125	1450	8600	40	170M3969	170M3985
		160	2850	17,500	45	170M3970	170M3986
		200	4950	29,500	50	170M3971	170M3987
		250	9550	57,000	55	170M3972	170M3988
		315	21,500	130,000	65	170M3973	170M3989
		350	29,000	175,000	70	170M3974	170M3990
		400	42,000	250,000	75	170M3975	170M3991
1	1000 Vac (IEC)	160	2200	13,500	40	170M4965	170M4980
		200	4150	24,500	45	170M4966	170M4981
		250	7750	46,000	52	170M4967	170M4982
		315	16,500	98,500	60	170M4968	170M4983
		350	21,500	130,000	65	170M4969	170M4984
		400	31,000	185,000	70	170M4970	170M4985
		450	44,500	265,000	80	170M4971	170M4986
		500	63,000	375,000	85	170M4972	170M4987
		550	84,500	500,000	90	170M4973	170M4988
		630	125,000	755,000	98	170M4974	170M4989
2	1000 Vac (IEC and UL)	250	6750	40,000	65	170M5966	170M5981
		315	13,500	81,500	75	170M5967	170M5982
		350	16,500	99,000	80	170M5968	170M5983
		400	26,000	155,000	85	170M5969	170M5984
		450	35,500	210,000	90	170M5970	170M5985
		500	49,500	295,000	95	170M5971	170M5986
		550	66,000	390,000	100	170M5972	170M5987
		630	93,500	555,000	110	170M5973	170M5988
		700	130,000	770,000	115	170M5974	170M5989
		800	195,000	1,200,000	125	170M5975	170M5990
3	1000 Vac (IEC and UL)	315	9200	54,500	90	170M8614	170M8629
		350	13,000	77,500	95	170M8615	170M8630
		400	19,000	115,000	105	170M8616	170M8631
		450	27,000	160,000	107	170M8617	170M8632
		500	37,500	225,000	110	170M8618	170M8633
		550	52,000	310,000	115	170M8619	170M8634
		630	82,500	490,000	120	170M8620	170M8635
		700	115,000	700,000	125	170M8621	170M8636
		800	170,000	1,050,000	135	170M8622	170M8637
		900	250,000	1,500,000	145	170M8623	170M8638
		1000	340,000	2,050,000	150	170M8624	170M8639
		1100	460,000	2,750,000	155	170M8625	170M8640
	1000 Vac (IEC)	1250	575,000	3,400,000	175	170M8626	170M8641
	900 Vac (IEC)	1400	795,000	4,200,000	185	170M8627	170M8642

* Watts loss at rated current.

For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

170M — Size 1* to 3, DIN 43653

1250 Vac (IEC), 1300 Vac (UL), 50 to 1400 A



Description

Square body DIN 43653 bolted tags high speed fuses, for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters.

Specifications

Ratings

- Volts: see catalog number table
- Amps: 50-1400 A
- Interrupting rating: 100 kA RMS Sym.

Operating class: aR

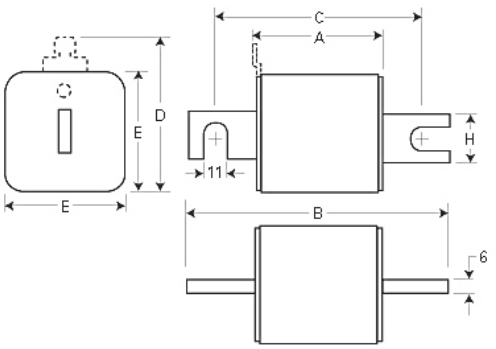
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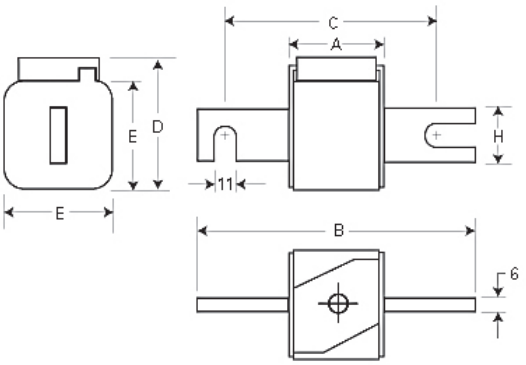
- Designed and tested to IEC 60269 Part 4
- UL Recognized, E125085, JFHR2*
- CSA Class 53787, File 1422-30*
- CE

*Consult your Bussmann series product representative for status.

Dimensions — mm

1 mm = 0.0394"





Type-/110-TN/110

Size	A	B	C	D[1]	E	H	K
1*	80	138	108	58	45	20	11
1	80	138	108	66	53	25	11
2	80	138	108	75	61	25	11
3	81	139	108	90	76	30	11

[1] Clip on microswitch valid for -TN/110 fuses.

Type-KN/110

Size	A	B	C	D	E	H	K
1*	80	138	108	60	45	20	11
1	80	138	108	69	53	25	11
2	80	138	108	77	61	25	11
3	81	139	108	92	76	30	11

For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

Square body fuses

170M — size 1* to 3, DIN 43653, 170M

1250 Vac (IEC), 1300 Vac (UL), 50 to 1400 A

Fuse size	Rated voltage	Rated current (amps)	I²t (A²s) Pre-arcing	I²t (A²s) Clearing at 1000 Vac	I²t (A²s) Clearing at 1250 Vac	Watts loss (W)*	Catalog no. -/110 with indicator	Catalog no. -TN/110 Type T indicator for microswitch	Catalog no. -KN/110 Type K indicator for microswitch
1*	1250 Vac (IEC) 1300 Vac (UL)	50	135	815	1100	15	170M3138	170M3188	170M3238
		63	215	1300	1750	20	170M3139	170M3189	170M3239
		80	420	2500	3350	25	170M3140	170M3190	170M3240
		100	750	4450	5950	30	170M3141	170M3191	170M3241
		125	1450	9000	11,500	35	170M3142	170M3192	170M3242
		160	2600	16,000	21,000	40	170M3143	170M3193	170M3243
		200	5150	31,000	41,000	45	170M3144	170M3194	170M3244
		250	9200	54,500	73,000	55	170M3145	170M3195	170M3245
		315	18,500	115,000	150,000	60	170M3146	170M3196	170M3246
		350	27,000	165,000	220,000	65	170M3147	170M3197	170M3247
		400	53,000	265,000	335,000	70	170M3148	170M3198	170M3248
1	1250 Vac (IEC) 1300 Vac (UL)	160	1900	11,500	15,500	45	170M4138	170M4188	170M4238
		200	3800	22,500	30,000	50	170M4139	170M4189	170M4239
		250	7750	46,000	61,500	60	170M4140	170M4190	170M4240
		315	15,000	90,000	120,000	65	170M4141	170M4191	170M4241
		350	20,000	125,000	165,000	70	170M4142	170M4192	170M4242
		400	29,500	175,000	235,000	75	170M4143	170M4193	170M4243
		450	42,000	250,000	335,000	80	170M4144	170M4194	170M4244
		500	69,500	340,000	435,000	85	170M4145	170M4195	170M4245
		550	95,000	465,000	590,000	95	170M4146	170M4196	170M4246
	1100 Vac (IEC)	630	130,000	660,000	N/A	100	170M4147[1]	170M4197[1]	170M4247[1]
2	1250 Vac (IEC) 1300 Vac (UL)	250	6500	38,500	51,500	65	170M5138	170M5188	170M5238
		280	9350	55,500	74,500	70	170M5139	170M5189	170M5239
		315	13,000	77,500	105,000	75	170M5140	170M5190	170M5240
		350	16,500	97,500	135,000	80	170M5141	170M5191	170M5241
		400	23,000	140,000	180,000	85	170M5142	170M5192	170M5242
		450	34,000	205,000	270,000	90	170M5143	170M5193	170M5243
		500	48,000	285,000	380,000	95	170M5144	170M5194	170M5244
		550	62,000	370,000	495,000	100	170M5145	170M5195	170M5245
		630	115,000	575,000	730,000	120	170M5146	170M5196	170M5246
		700	160,000	795,000	1,050,000	125	170M5147	170M5197	170M5247
		800	245,000	1,200,000	1,550,000	130	170M5148	170M5198	170M5248
	1100 Vac (IEC/UL)	900	360,000	1,750,000	N/A	135	170M5149	170M5199	170M5249
		1000	480,000	2,350,000	N/A	145	170M5150	170M5200	170M5250
3	1300 Vac (UL)	315	9500	58,000	77,500	85	170M6138	170M6188	170M6238
		350	13,500	81,500	110,000	90	170M6139	170M6189	170M6239
		400	19,500	120,000	160,000	95	170M6140	170M6190	170M6240
		450	31,000	185,000	245,000	100	170M6141	170M6191	170M6241
		500	39,000	235,000	310,000	105	170M6142	170M6192	170M6242
		550	55,000	325,000	435,000	110	170M6143	170M6193	170M6243
		630	83,500	495,000	665,000	115	170M6144	170M6194	170M6244
		700	115,000	705,000	940,000	120	170M6145	170M6195	170M6245
		800	205,000	995,000	1,300,000	125	170M6146	170M6196	170M6246[1]
		900	305,000	1,500,000	1,900,000	130	170M6147	170M6197	170M6247[1]
		1000	450,000	2,150,000	2,750,000	135	170M6148	170M6198	170M6248[1]
		1100	575,000	2,800,000	3,600,000	160	170M6149	170M6199	170M6249[1]
	1100 Vac (IEC)	1250	810,000	3,950,000	N/A	170	170M6150[1]	170M6200[1]	170M6250[1]
		1400	1,250,000	6,000,000	N/A	175	170M6151[1]	170M6201[1]	170M6251[1]

* Watts loss at rated current.

[1] Not UL Recognized.

For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

170M — size 00 to 3, DIN 43620, full range (gR)

690 Vac (IEC), 10 to 800 A



Description

Square body DIN 43653 blade high speed fuses. Full range protection fuses provide both overload and short-circuit protection. Fuses come with Type T indicator for a microswitch.

Specifications

Ratings

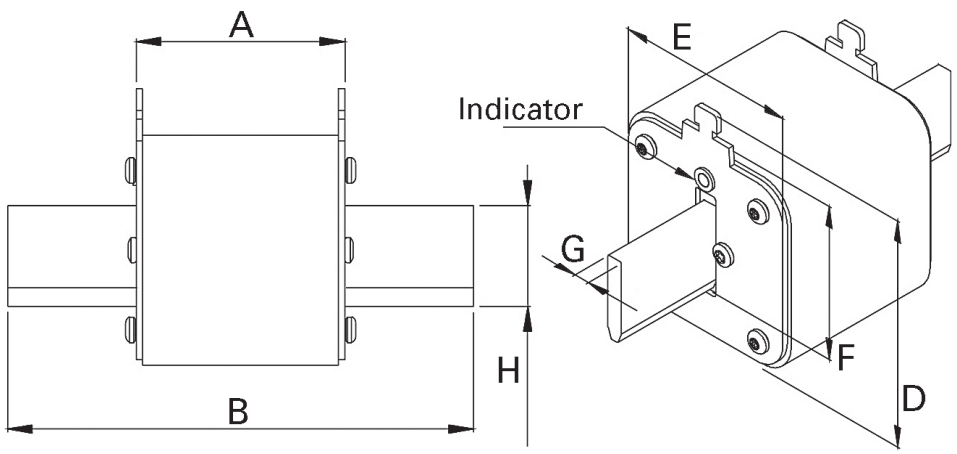
- Volts: 690 Vac (IEC)
- Amps: 10-800 A
- Interrupting rating: 200 kA RMS Sym.

Operating class: gR

Agency information

- Designed and tested to IEC 60269 Part 4
- CE

Dimensions — mm



Size	A	B	D (max)	E (max)	F	G	H (min)
00	49	78.5	60	30	35	6	15
1	68	135	66	52	40	6	20
2	68	150	74	60	48	6	25
3	68	150	89	75	60	6	32

For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K6412 (Size 00), 170K6416 (Size 1), 170K6418 (Size 2), 170K6420 (Size 3)

Square body fuses

170M — size 00 to 3, DIN 43620, full range (gR)

690 Vac (IEC), 10 to 800 A

Fuse size	Rated voltage	Rated current (amps)[1]	I²t (A²s) Pre-arcing	I²t (A²s) Clearing at 690 Vac	Watts loss (W)*	Catalog no. with Type T indicator for microswitch
00	690 Vac (IEC)	10	3.8	20	3.5	170M2691
		16	7.2	38	5.5	170M2692
		20	13.0	70	6.0	170M2693
		25	24.0	125	8.0	170M2694
		32	53.0	275	9.0	170M2695
		40	95.0	490	10.0	170M2696
		50	185.0	1000	11.0	170M2697
		63	345.0	1800	14.0	170M2698
		80	695.0	3600	16.0	170M2699
		100	1250.0	6650	19.0	170M2700
		125	2300.0	12,000	23.0	170M2701
		160	4350.0	22,500	29.0	170M2702
1	690 Vac (IEC)	50	135.0	705	12.0	170M4176
		63	245.0	1300	15.0	170M4177
		80	500.0	2600	17.0	170M4178
		100	950.0	4850	20.0	170M4179
		125	1850.0	9500	23.0	170M4180
		160	3450.0	18,000	28.0	170M4181
		200	6750.0	34,500	31.0	170M4182
		250	13,500.0	70,500	35.0	170M4183
		315	26,000.0	135,000	41.0	170M4184
		350	34,000.0	175,000	45.0	170M4185
		400	48,500.0	250,000	48.0	170M4186
2	690 Vac (IEC)	200	5650.0	29,000	33.0	170M5881
		250	10,000.0	52,500	40.0	170M5882
		315	19,500.0	105,000	46.0	170M5883
		350	26,000.0	135,000	50.0	170M5884
		400	39,500.0	205,000	53.0	170M5885
		450	55,500.0	290,000	59.0	170M5886
		500	73,000.0	375,000	66.0	170M5887
		550	100,000.0	515,000	70.0	170M5888
		630	150,000.0	770,000	79.0	170M5889
3	690 Vac (IEC)	350	23,000.0	120,000	55.0	170M6080
		400	34,000.0	175,000	59.0	170M6081
		450	48,500.0	250,000	62.0	170M6082
		500	64,000.0	330,000	67.0	170M6083
		550	84,500.0	435,000	70.0	170M6084
		630	125,000.0	645,000	85.0	170M6085
		700	160,000.0	840,000	93.0	170M6086
		800	245,000.0	1,300,000	99.0	170M6087

* Watts loss at rated current.

[1] The RMS Amp rating of this fuses range is given with open fuse blocks connected to copper conductors according to IEC 60269, Part 1, table 10. When used in enclosed fuse blocks/disconnects, derating factors have to be observed. Please contact Eaton's Bussmann Division for application assistance bulehighspeedtechnical@eaton.com.

For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K6412 (Size 00), 170K6416 (Size 1), 170K6418 (Size 2), 170K6420 (Size 3)

170M — size 000 to 3, DIN 43620, dual indicator fuses

690 Vac (IEC), 700 Vac (UL), 10 to 1600 A



Description

Square body DIN 43620 blade high speed fuses with dual indicator system: one indicator in the fuse body and another one in the metallic end plate. Interchangeable with existing high speed DIN 43620 fuses for the protection of UPS, soft starters, solid state relays, variable speed drives, rectifiers and inverters.

Specifications

Ratings

- Volts:
  - 690 Vac (IEC)
  - 700 Vac (UL)
- Amps: 10-1600 A
- Interrupting rating: 200 kA RMS Sym.

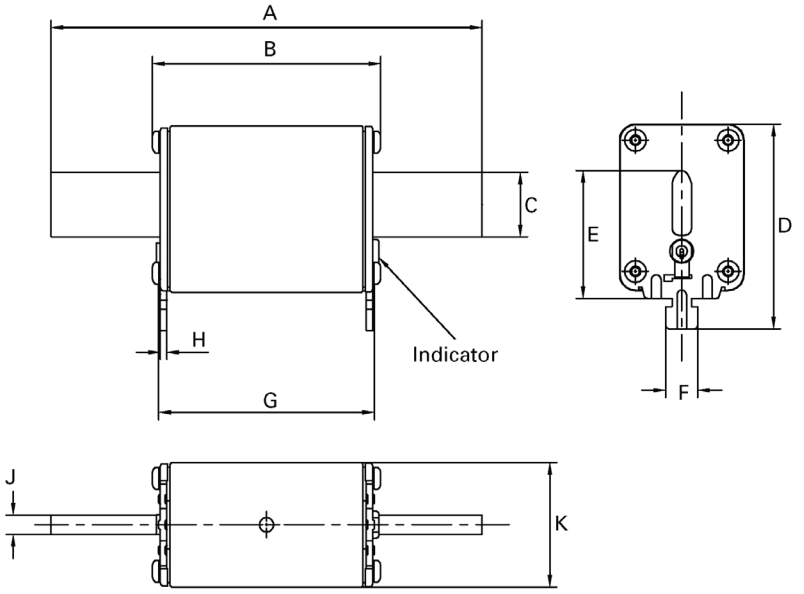
Operating class

- gR (size 000, 10-63 A)
- aR (others)

Agency information

- Designed and tested to IEC 60269 Part 4
- UL Recognized, E125085, JFHR2
- CSA Class 1422-30, (53787) with the exception of catalog number 170M4867D
- CE

Dimensions — mm



Size	A	B	C	D	E	F	G	H	J	K
000	78.5	53.0	15.0	52	35	10	49.7	1.5	6	20.5
00	78.5	53.0	15.0	59	35	10	49.7	2.0	6	30.0
1	135.0	71.4	20.0	64	40	10	67.5	2.0	6	40.0
2	150.0	71.4	25.1	72	48	10	67.5	2.0	6	54.0
3	150.0	72.4	32.0	87	60	10	68.5	2.5	6	71.0

For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K6386 (Size 000 and 00), 170K6388 (Size 1), 170K6390 (Size 2), 170K6392 (Size 3)

Square body fuses

170M — size 000 to 3, DIN 43620, dual indicator fuses

690 Vac (IEC), 700 Vac (UL), 10 to 1600 A

Fuse size	Rated voltage	Rated current (amps)	Max permissible load current	I^2t (A^2s) Pre-arcing	I^2t (A^2s) Clearing at 690 Vac	Watts loss (W)[3]	Catalog no.
000	690 Vac (IEC) 700 Vac (UL)	10	10	4	27	2.5	170M1558D
		16	16	7	51	4	170M1559D
		20	20	11.5	82.5	5	170M1560D
		25	25	19	140	6	170M1561D
		32	32	40	285	7	170M1562D
		40	40	65	490	8.5	170M1563D
		50	50	115	815	9.5	170M1564D
		63	63	215	1550	11.5	170M1565D
		80	80	380	2700	15	170M1566D
		100	100	695	4950	16.5	170M1567D
		125	125	1180	8250	21.5	170M1568D
		160	160	2300	16,500	25	170M1569D
		200	200	4350	31,000	29.5	170M1570D
		250	250	7900	56,000	35.5	170M1571D
00	690 Vac (IEC) /700 Vac (UL)	315	315	12,000	84,500	45	170M1572D
1	690 Vac (IEC) 700 Vac (UL)	40	25	40	285	4	170M3808D
		50	30	78	550	4.5	170M3809D
		63	38	120	850	6.5	170M3810D
		80	50	185	1350	8.5	170M3811D
		100	60	360	2600	10	170M3812D
		125	75	550	3900	11	170M3813D
		160	95	1150	8250	12	170M3814D
		200	120	2300	16,500	12.5	170M3815D
		250	150	4350	31,000	16	170M3816D
		315	190	7300	52,000	20	170M3817D
		350	210	10,000	73,000	21.5	170M3818D
		400	240	16,000	115,000	23	170M3819D
		450	270	21,500	155,000	26.5	170M4863D
		500	300	27,000	190,000	28.5	170M4864D
		550	330	33,500	240,000	33	170M4865D
		630	380	48,500	345,000	37.5	170M4866D
		700	420	69,500	495,000	39	170M4867D[1]
2	690 Vac (IEC) 700 Vac (UL)	400	240	11,000	79,000	29	170M5808D
		450	270	16,000	115,000	32	170M5809D
		500	300	21,500	155,000	34	170M5810D
		550	330	29,000	215,000	36	170M5811D
		630	380	41,000	295,000	42	170M5812D
		700	420	60,500	430,000	43	170M5813D
		800	480	86,000	610,000	48	170M5814D
		900	540	125,000	895,000	52	170M5820D
		1000	600	180,000	1,300,000	53	170M5816D
		1100	660	245,000	1,750,000	56	170M5817D
3	690 Vac (IEC) 700 Vac (UL)	500	300	14,000	99,500	43	170M6808D
		550	330	19,500	140,000	44	170M6809D
		630	380	31,000	220,000	45	170M6810D
		700	420	45,000	320,000	46	170M6811D
		800	480	69,500	490,000	48	170M6812D
		900	540	100,000	720,000	50	170M6813D
		1000	600	140,000	985,000	56	170M6814D
		1100	660	190,000	1,400,000	57	170M6892D
		1250	750	300,000	2,150,000	61	170M8554D
		1400	840	380,000	2,700,000	70	170M8555D
		1500	900	470,000	3,350,000	72	170M8556D
		1600	960	585,000	4,150,000	74	170M8557D

[1] 170M4867D is not UL Recognized.

[3] Given at maximum load rated current, please refer to data sheets for further details.

For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K6386 (Size 000 and 00), 170K6388 (Size 1), 170K6390 (Size 2), 170K6392 (Size 3)

Square body fuses

170M — size 00, DIN 43620

1000 Vac (IEC and UL), 20 to 225 A



Description

Square body DIN 43620 blade style high speed fuses for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters. Fuses come with Type T indicator for microswitches.

Specifications

Ratings

- Volts:
  - 1000 Vac (IEC and UL)
  - 900 Vac (200 and 225 A)
- Amps: 20-225 A
- Interrupting rating: 125 kA RMS Sym.

Operating class: aR

Agency information

Designed and tested to IEC 60269 Part 4

UL Recognized (20-160 A)

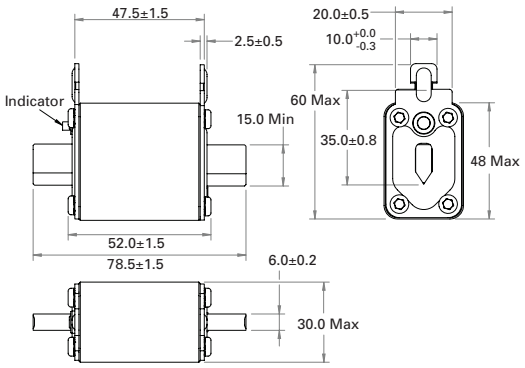
CSA (20-160 A)

CE

Fuse size	Rated voltage	Rated current (amps)	I^2t (A^2s) Pre-arcing	I^2t (A^2s) Clearing at 1000 Vac	Watts loss (W)*	Catalog no. with Type T indicator for microswitch
00	1000 Vac (IEC/UL)	20	15	110	8.5	170M2673
		25	28.5	210	9.5	170M2674
		32	53	390	11	170M2675
		35	69	500	12	170M2676
		40	105	760	13	170M2677
		50	215	1550	14	170M2678
		63	380	2750	16	170M2679
		80	815	5900	18	170M2680
		100	1550	11,500	21	170M2681
		125	3000	22,000	23	170M2682
		160	6250	45,000	26	170M2683
00	900 Vac (IEC)	200	12,000	86,500	31	170M2684
		225	18,000	115,000	33	170M2685

* Watts loss at rated current.

Dimensions — mm



For details on electrical characteristics, contact Application Engineering and ask for data sheet: 170K8506

Square body fuses

170M — size 1* to 3, French style

690 Vac (IEC), 700 Vac (UL), 40 to 1600 A



Description

Square body French style high speed fuses for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters. Available with Type T or K indicators for microswitches.

Specifications

Ratings

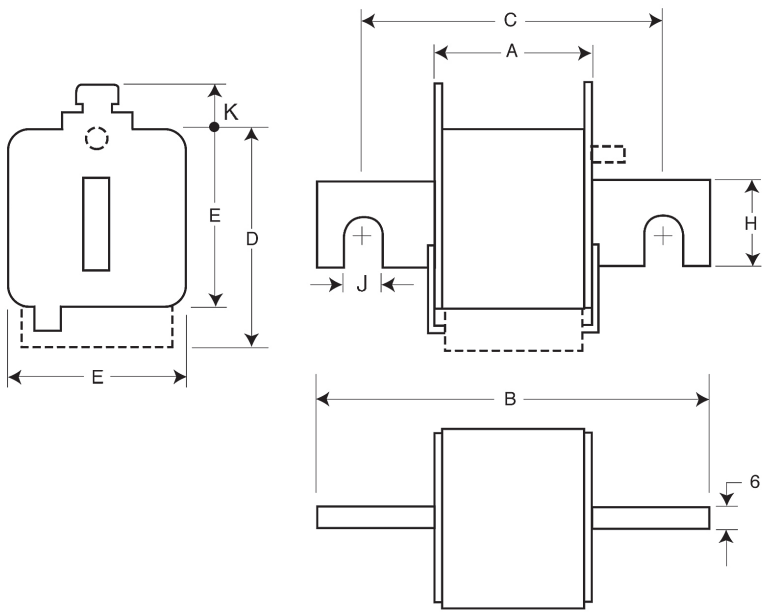
- Volts:
  - 690 Vac (IEC)
  - 700 Vac (UL)
- Amps: 40-1600 A
- Interrupting rating: 200 kA RMS Sym.

Operating class: aR

Agency information

- Designed and tested to IEC 60269 Part 4
- UL Recognized, E125085, JFHR2
- CSA Class 1422-30, (53787) on sizes (1, 2, 3) only
- CCC (please consult bulehighspeedtechnical@eaton.com for status)
- CE

Dimensions — mm



Type -E/-, -EKN/-

Size	A	B	C	D	E	H	J	K
1*	50	102	76	59	45	18	9	13
1	50	111	86	69	53	25	11	11
2	50	126	91	77	61	30	13	12
3	51	126	91	92	76	36	13	13

For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

Size 1* to 3, French style, 170M

690 Vac (IEC), 700 Vac (UL), 40 to 1600 A

Fuse size	Rated voltage	Rated current (amps)	I^2t (A^2s)		Watts loss (W)*	Catalog no.	
			Pre-arcing	Clearing at 660 Vac		-E/- Type T indicator for microswitch	-EKN/- Type K indicator for microswitch
1*	690 Vac (IEC) 700 Vac (UL)	40	40	270	9	170M3308	170M3358
		50	77	515	11	170M3309	170M3359
		63	115	770	14	170M3310	170M3360
		80	185	1250	18	170M3311	170M3361
		100	360	2450	21	170M3312	170M3362
		125	550	3700	26	170M3313	170M3363
		160	1100	7500	30	170M3314	170M3364
		200	2200	15,000	35	170M3315	170M3365
		250	4200	28,500	40	170M3316	170M3366
		315	7000	46,500	50	170M3317	170M3367
		350	10,000	68,500	55	170M3318	170M3368
		400	15,000	105,000	60	170M3319	170M3369
		450	21,000	140,000	65	170M3320	170M3370
		500	27,000	180,000	70	170M3321	170M3371
1	690 Vac (IEC) 700 Vac (UL)	200	1650	11,500	45	170M4308	170M4358
		250	3100	21,000	55	170M4309	170M4359
		315	6200	42,000	58	170M4310	170M4360
		350	8500	59,000	60	170M4311	170M4361
		400	13,500	91,500	65	170M4312	170M4362
		450	17,000	120,000	70	170M4313	170M4363
		500	25,000	170,000	72	170M4314	170M4364
		550	34,000	230,000	75	170M4315	170M4365
		630	52,000	350,000	80	170M4316	170M4366
		700	69,500	465,000	85	170M4317	170M4367
		800	105,000	725,000	95	170M4318	170M4368
2	690 Vac (IEC) 700 Vac (UL)	400	11,000	74,000	65	170M5308	170M5358
		450	15,500	105,000	70	170M5309	170M5359
		500	21,500	145,000	75	170M5310	170M5360
		550	28,000	190,000	80	170M5311	170M5361
		630	41,000	275,000	90	170M5312	170M5362
		700	60,500	405,000	95	170M5313	170M5363
		800	86,000	575,000	105	170M5314	170M5364
		900	125,000	840,000	110	170M5315	170M5365
		1000	180,000	1,250,000	115	170M5316	170M5366
3	690 Vac (IEC) 700 Vac (UL)	500	14,000	95,000	95	170M6308	170M6358
		550	19,500	135,000	100	170M6309	170M6359
		630	31,000	210,000	105	170M6310	170M6360
		700	44,500	300,000	110	170M6311	170M6361
		800	69,500	465,000	115	170M6312	170M6362
		900	100,000	670,000	120	170M6313	170M6363
		1000	140,000	945,000	125	170M6314	170M6364
		1100	190,000	1,300,000	130	170M6315	170M6365
		1250	290,000	1,950,000	140	170M6316	170M6366
		1400	370,000	2,450,000	155	170M6317	170M6367
		1500	460,000	3,100,000	160	170M6318	170M6368
		1600	580,000	3,900,000	160	170M6319	170M6369

* Watts loss at rated current.

For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

Square body fuses

170M — size 1* to 3, US style

690 Vac (IEC), 700 Vac (UL), 40 to 2000 A



Description

Square body US style bolted tags high speed fuses for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters. Available with Type K indicator for a microswitch.

Specifications

Ratings

- Volts: see catalog numbers table
- Amps: 40-2000 A
- Interrupting rating: 200 kA RMS Sym.

Operating class: aR

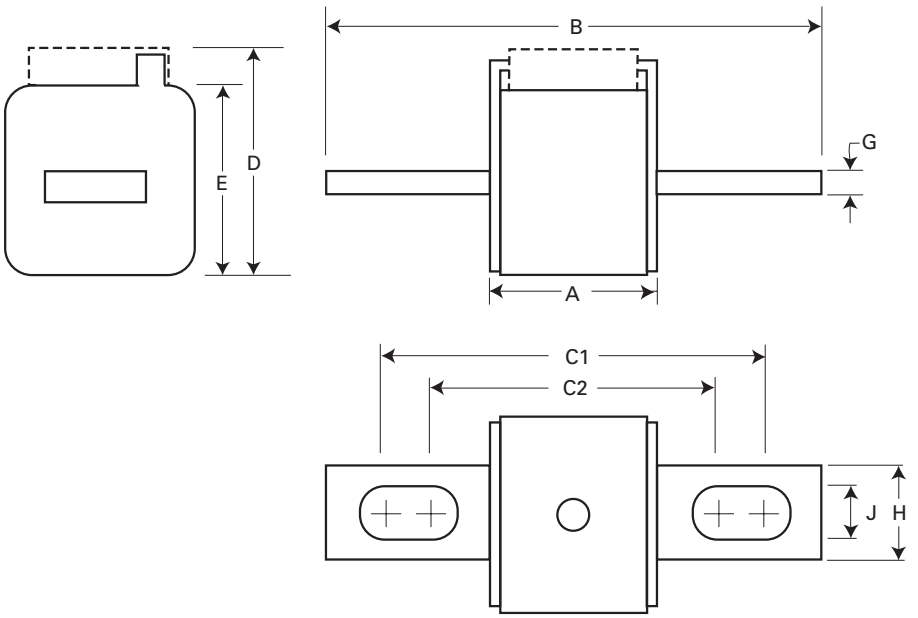
Agency information

- Designed and tested to IEC 60269 Part 4
- UL Recognized, E125085, JFHR2*
- CSA Class 53787, File 1422-30*
- CCC*
- CE

* Consult your Bussmann series product representative for status.

Dimensions — mm

1 mm = 0.0394”



Type -FU/- , -FKE/- , FU/115- , -FKE/115

Size	A	B	B1	C1	C1[1]	C2	C2[1]	D	E	G	H	J
1*	50	110	148	85	123	72	110	59	45	6	20	10
1	50	136	157	104	126	78	100	69	53	6	25	14
2	50	135	159	105	125	78	99	77	61	6	25	14
3	51	135	155	106	125	77	97	92	76	6	36	16

[1] Valid for fuss types -FU/115 and -FKE/115.

For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

170M — size 1* to 3, US style

690 Vac (IEC), 700 Vac (UL), 40 to 2000 A

Fuse size	Rated voltage	Rated current (amps)	I²t (A²s) Pre-arcing	I²t (A²s) Clearing at 660 Vac	Watts loss (W)*	Catalog no. -FU/- without indicator	Catalog no. -FKE/- Type K indicator for microswitch	Catalog no. -FU/115 without indicator	Catalog no. -FKE/115 Type K indicator for microswitch
1*	690 Vac (IEC) 700 Vac (UL)	40	40	270	9	170M3608	170M3658	170M3708	170M3758
		50	70	515	11	170M3609	170M3659	170M3709	170M3759
		63	115	770	14	170M3610	170M3660	170M3710	170M3760
		80	185	1250	18	170M3611	170M3661	170M3711	170M3761
		100	360	2450	21	170M3612	170M3662	170M3712	170M3762
		125	550	3700	26	170M3613	170M3663	170M3713	170M3763
		160	1100	7500	30	170M3614	170M3664	170M3714	170M3764
		200	2200	15,000	35	170M3615	170M3665	170M3715	170M3765
		250	4200	28,500	40	170M3616	170M3666	170M3716	170M3766
		315	7000	46,500	50	170M3617	170M3667	170M3717	170M3767
		350	10,000	68,500	55	170M3618	170M3668	170M3718	170M3768
		400	15,000	105,000	60	170M3619	170M3669	170M3719	170M3769
		450	21,000	140,000	65	170M3620	170M3670	170M3720	170M3770
		500	27,000	180,000	70	170M3621	170M3671	170M3721	170M3771
		550	34,000	230,000	75	170M3622	170M3672	170M3722	170M3772
		630	48,500	325,000	80	170M3623	170M3673	170M3723	170M3773
1	690 Vac (IEC) 700 Vac (UL)	200	1650	11,500	45	170M4608	170M4658	170M4708	170M4758
		250	3100	21,000	55	170M4609	170M4659	170M4709	170M4759
		315	6200	42,000	58	170M4610	170M4660	170M4710	170M4760
		350	8500	59,000	60	170M4611	170M4661	170M4711	170M4761
		400	13,500	91,500	65	170M4612	170M4662	170M4712	170M4762
		450	17,000	120,000	70	170M4613	170M4663	170M4713	170M4763
		500	25,000	170,000	72	170M4614	170M4664	170M4714	170M4764
		550	34,000	230,000	75	170M4615	170M4665	170M4715	170M4765
		630	52,000	350,000	80	170M4616	170M4666	170M4716	170M4766
		700	69,500	465,000	85	170M4617	170M4667	170M4717	170M4767
		800	105,000	725,000	95	170M4618	170M4668	170M4718	170M4768
	550 Vac (IEC)	900	155,000	850,000	100	170M4619	170M4669	170M4719	170M4769
2	690 Vac (IEC) 700 Vac (UL)	400	11,000	74,000	65	170M5608	170M5658	170M5708	170M5758
		450	15,500	105,000	70	170M5609	170M5659	170M5709	170M5759
		500	21,500	145,000	75	170M5610	170M5660	170M5710	170M5760
		550	28,000	190,000	80	170M5611	170M5661	170M5711	170M5761
		630	41,000	275,000	90	170M5612	170M5662	170M5712	170M5762
		700	60,500	405,000	95	170M5613	170M5663	170M5713	170M5763
		800	86,000	575,000	105	170M5614	170M5664	170M5714	170M5764
		900	125,000	840,000	110	170M5615	170M5665	170M5715	170M5765
		1000	180,000	1,250,000	115	170M5616	170M5666	170M5716	170M5766
	600 Vac (IEC) 700 Vac (UL)	1100	245,000	1,600,000	120	170M5617	170M5667	170M5717	170M5767
		1250	365,000	2,400,000	130	170M5618	170M5668	170M5718	170M5768
3	690 Vac (IEC) 700 Vac (UL)	500	14,000	95,000	95	170M6608	170M6658	170M6708	170M6758
		550	19,500	135,000	100	170M6609	170M6659	170M6709	170M6759
		630	31,000	210,000	105	170M6610	170M6660	170M6710	170M6760
		700	44,500	300,000	110	170M6611	170M6661	170M6711	170M6761
		800	69,500	465,000	115	170M6612	170M6662	170M6712	170M6762
		900	100,000	670,000	120	170M6613	170M6663	170M6713	170M6763
		1000	140,000	945,000	125	170M6614	170M6664	170M6714	170M6764
		1100	190,000	1,300,000	130	170M6615	170M6665	170M6715	170M6765
		1250	290,000	1,950,000	140	170M6616	170M6666	170M6716	170M6766
		1400	370,000	2,450,000	155	170M6617	170M6667	170M6717	170M6767
		1500	460,000	3,100,000	160	170M6618	170M6668	170M6718	170M6768
		1600	580,000	3,900,000	160	170M6619	170M6669	170M6719	170M6769
	600 Vac (IEC) 500 Vac (UL)	1800	880,000	5,250,000	165	170M6620	170M6670[1]	170M6720	170M6770
	550 Vac (IEC) 500 Vac (UL)	2000	1,150,000	6,350,000	175	170M6621	170M6671[2]	170M6721	170M6771

* Watts loss at rated current.
[1] 170M6670 600 Vac (IEC)/550 Vac.
[2] 170M6671 550 Vac (IEC and UL).

For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

Square body fuses

170M — size 1* to 3, US style

1000 Vac (IEC), 50 to 1400 A



Description

Square body US style bolted tags high speed fuses for the protection of DC common bus, DC drives, power converters/ rectifiers and reduced rated voltage starters. Fuses come with Type K indicator for microswitches.

Specifications

Ratings

- Volts: 1000 Vac (IEC) (1400 A 900 Vac)
- Amps: 50-1400 A
- Interrupting rating: 125 kA RMS Sym.

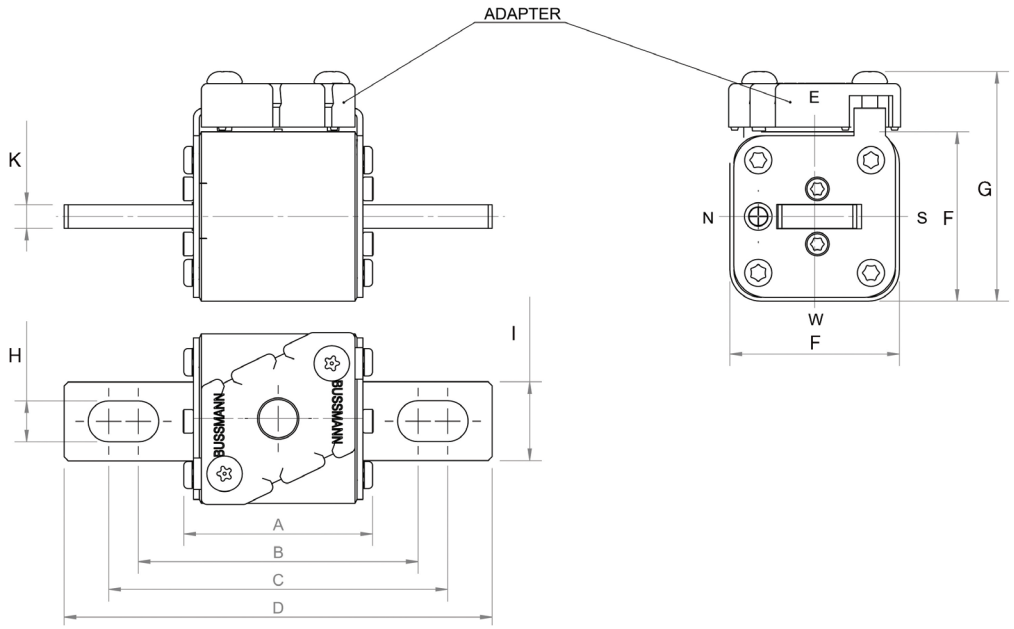
Operating class: aR

Agency information

- Designed and tested to IEC 60269 Part 4
- UL Recognized, E125085, JFHR2 for size 2 and 3 (315-1100 A)
- CSA Class 53787, File 1422-30 for size 2 and 3 (315-1100 A)
- CCC approval for size 2 only
- CE

Dimensions — mm

1 mm = 0.0394”



Size	A	B	C	D	F	G	H	I	K
1*FKE/115	74	101.0	130.0	156	43	60	10.4	20	6
1FKE/115	76	102.0	128.0	160	51	68	14.3	25	6
2FKE/115	76	101.1	127.5	160	59	76	14.4	25	6
3FKE/115	76	101.1	127.5	158	74	91	16.0	36	6

For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

170M — size 1* to 3, US style, 170M

1000 Vac (IEC), 50 to 1400 A

Fuse size	Rated voltage	Rated current (amps)	I²t (A²s) Pre-arcing	I²t (A²s) Clearing at 1000 Vac	Watts loss (W)*	Catalog no. for -FKE/115 Type K indicator for microswitch
1*	1000 Vac (IEC)	50	135	815	20	170M3531
		63	215	1300	25	170M3532
		80	460	2750	30	170M3533
		100	860	5100	35	170M3534
		125	1450	8600	40	170M3535
		160	2850	17,500	45	170M3536
		200	4950	29,500	50	170M3537
		250	9550	57,000	55	170M3538
		315	21,500	130,000	65	170M3539
		350	29,000	175,000	70	170M3540
		400	42,000	250,000	75	170M3541
1	1000 Vac (IEC)	160	2200	13,500	40	170M4531
		200	4150	24,500	50	170M4532
		250	7750	46,000	55	170M4533
		315	16,500	98,500	65	170M4534
		350	21,500	130,000	70	170M4535
		400	31,000	185,000	75	170M4536
		450	44,500	265,000	80	170M4537
		500	63,000	375,000	85	170M4538
		550	84,500	500,000	90	170M4539
		630	125,000	755,000	98	170M4540
2	1000 Vac (IEC/ UL)	250	6750	40,000	65	170M5531
		315	13,500	81,500	75	170M5532
		350	16,500	99,000	80	170M5533
		400	26,000	155,000	85	170M5534
		450	35,500	210,000	90	170M5535
		500	49,500	295,000	95	170M5536
		550	66,000	390,000	100	170M5337
		630	93,500	555,000	110	170M5538
		700	130,000	770,000	115	170M5539
		800	195,000	1,200,000	125	170M5540
3	1000 Vac (IEC/ UL)	315	9200	54,500	90	170M8531
		350	13,000	77,500	95	170M8532
		400	19,000	115,000	105	170M8533
		450	27,000	160,000	107	170M8534
		500	37,500	225,000	110	170M8535
		550	52,000	310,000	115	170M8536
		630	82,500	490,000	120	170M8537
		700	115,000	700,000	125	170M8538
		800	170,000	1,050,000	135	170M8539
		900	250,000	1,500,000	145	170M8540
		1000	340,000	2,050,000	150	170M8541
		1100	460,000	2,750,000	155	170M8542
	1000 Vac (IEC)	1250	575,000	3,400,000	175	170M8543
	900 Vac (IEC)	1400	795,000	4,200,000	185	170M8544

* Watts loss at rated current.

For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

Square body fuses

170M — size 1* to 3, US style

1250 Vac (IEC), 1300 Vac (UL), 50 to 1400 A



Description

Square body US style bolted tags high speed fuses for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters. Available with Type K indicator for microswitches.

Specifications

Ratings

- Volts:
  - 1250 Vac (IEC)
  - 1300 Vac (UL)
- Amps: 50-1400 A
- Interrupting rating: 100 kA RMS Sym.

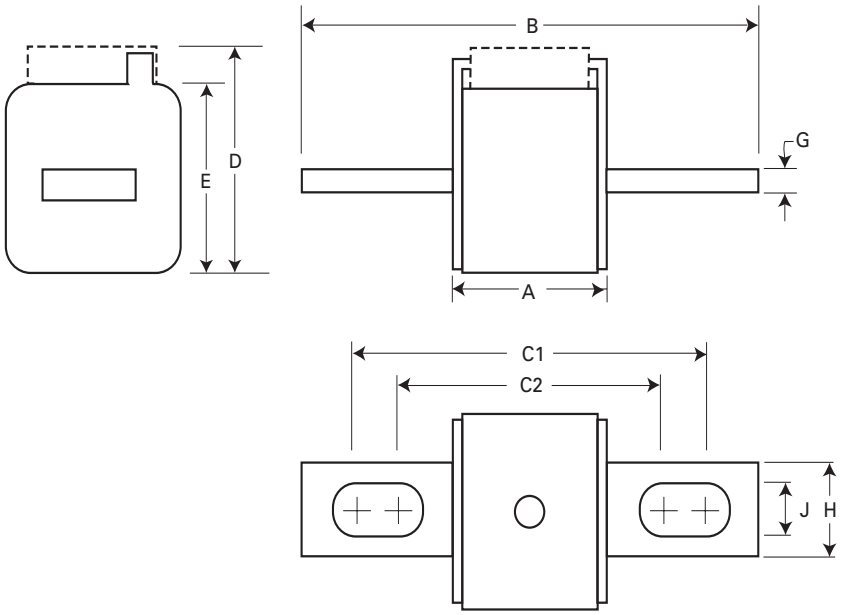
Operating class: aR

Agency information

- CE
- Designed and tested to IEC 60269 Part 4
- UL Recognized*
- CSA*
- CCC*

* Consult your Bussmann series product representative for status.

Dimensions — mm



Type-FU/115,-FKE/115

Size	A	B	C1	C2	D	E	G	H	J
1*	74	156	130	101	59	45	6	20	10
1	76	160	127	102	69	53	6	25	14
2	76	160	127	102	77	61	6	25	14
3	76	159	128	101	92	76	6	36	16

For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

170M — size 1* to 3, US style

1250 Vac (IEC), 1300 Vac (UL), 50 to 1400 A

Fuse size	Rated voltage	Rated current (amps)	I²t (A²s) Pre-arcing	I²t (A²s) Clearing at 1000 Vac	I²t (A²s) Clearing at 1250 Vac	Watts loss (W)*	Catalog no. -FU/115 without indicator	Catalog no. -FKE/115 Type K indicator for microswitch
1*	1250 Vac (IEC) 1300 Vac (UL)	50	135	815	1100	15	170M3688	170M3738
		63	215	1300	1750	20	170M3689	170M3739
		80	420	2500	3350	25	170M3690	170M3740
		100	750	4450	5950	30	170M3691	170M3741
		125	1450	9000	11,500	35	170M3692	170M3742
		160	2600	16,000	21,000	40	170M3693	170M3743
		200	5150	31,000	41,000	45	170M3694	170M3744
		250	9200	54,500	73,000	55	170M3695	170M3745
		315	18,500	115,000	150,000	60	170M3696	170M3746
		350	27,000	165,000	220,000	65	170M3697	170M3747
1	1250 Vac (IEC) 1300 Vac (UL)	160	1900	11,500	15,500	45	170M4688	170M4738
		200	3800	22,500	30,000	50	170M4689	170M4739
		250	7750	46,000	61,500	60	170M4690	170M4740
		315	15,000	90,000	120,000	65	170M4691	170M4741
		350	20,000	125,000	165,000	70	170M4692	170M4742
		400	29,500	175,000	235,000	75	170M4693	170M4743
		450	42,000	250,000	335,000	80	170M4694	170M4744
	1100 Vac IEC	500	69,500	340,000	N/A	85	170M4695	170M4745
		550	95,000	465,000	N/A	95	170M4696	170M4746
	1000 Vac IEC	630	130,000	660,000	N/A	100	170M4697	170M4747
2	1250 Vac (IEC) 1300 Vac (UL)	250	6500	38,500	51,500	65	170M5688	170M5738
		280	9350	55,500	74,500	70	170M5689	170M5739
		315	13,000	77,500	105,000	75	170M5690	170M5740
		350	16,500	97,500	135,000	80	170M5691	170M5741
		400	23,000	140,000	180,000	85	170M5692	170M5742
		450	34,000	205,000	270,000	90	170M5693	170M5743
		500	48,000	285,000	380,000	95	170M5694	170M5744
		550	62,000	370,000	495,000	100	170M5695	170M5745
		630	115,000	575,000	730,000	120	170M5696	170M5746
	1100 Vac IEC	700	160,000	795,000	N/A	125	170M5697	170M5747
		800	245,000	1,200,000	N/A	130	170M5698	170M5748
	1000 Vac IEC	900	360,000	1,750,000	N/A	135	170M5699	170M5749
		1000	480,000	2,350,000	N/A	145	170M5700	170M5750
3	1250 Vac (IEC) 1300 Vac (UL)	315	9500	58,000	77,500	85	170M6688	170M6738
		350	13,500	81,500	110,000	90	170M6689	170M6739
		400	19,000	120,000	160,000	95	170M6690	170M6740
		450	31,000	185,000	245,000	100	170M6691	170M6741
		500	39,000	235,000	310,000	105	170M6692	170M6742
		550	55,000	325,000	435,000	110	170M6693	170M6743
		630	83,500	495,000	665,000	115	170M6694	170M6744
		700	115,000	705,000	940,000	120	170M6695	170M6745
	1250 Vac (IEC)	800	205,000	995,000	1,300,000	125	170M6696	170M6746
		900	305,000	1,500,000	1,900,000	130	170M6697	170M6747
	1100 Vac (IEC) 1000 Vac (UL)	1000	450,000	2,150,000	N/A	135	170M6698	170M6748
		1100	575,000	2,800,000	N/A	160	170M6699	170M6749
	1000 Vac (IEC/UL)	1250	810,000	3,950,000	N/A	170	170M6700	170M6750
		1400	1,250,000	6,000,000	N/A	175	170M6701	170M6751

* Watts loss at rated current.

For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

Square body fuses

170M — size 00, flush-end contact

690 Vac, 25 to 400 A



Description

Square body flush-end contact high speed fuses, for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters. Catalog numbers available with visual indicator and Type T indicator for a microswitch.

Specifications

Ratings

- Volts: 690 Vac (IEC)
- Amps: 25-400 A
- Interrupting rating: 200 kA RMS Sym.

Operating class:

- gR (25-80 A)
- aR (100-400 A)

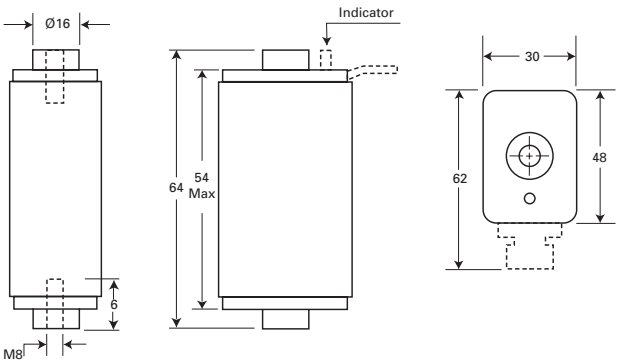
Agency information

- Designed and tested to IEC 60269 Part 4
- UL Recognized, E125085, JFHR2
- CSA Class 53787, File 1422-30 on size 000
- CE

Fuse size	Rated voltage	Rated current (amps)	I^2t (A^2s) Pre-arcing	I^2t (A^2s) Clearing at 660 Vac	Watts loss (W)*	Catalog no. 00B/60 visual indicator	Catalog no. 00BTN/60 Type T indicator for microswitch
00	690 Vac (IEC)	25	19.0	130	6	170M2708	170M2758
		32	28.5	195	7	170M2709	170M2759
		40	50.0	360	9	170M2710	170M2760
		50	95.0	640	10	170M2711	170M2761
		63	170.0	1200	12	170M2712	170M2762
		80	310.0	2100	15	170M2713	170M2763
		100	620.0	4150	20	170M2714	170M2764
		125	1000.0	6950	25	170M2715	170M2765
		160	1900.0	13,000	30	170M2716	170M2766
		200	3400.0	23,000	35	170M2717	170M2767
		250	6250.0	42,000	45	170M2718	170M2768
		315	10,000.0	68,500	55	170M2719	170M2769
		350	13,500.0	91,500	60	170M2720	170M2770
		400	18,000.0	125,000	70	170M2721	170M2771

* Watts loss at rated current.

Dimensions — mm



For details on electrical characteristics, contact Application Engineering and ask for data sheet: 170K6312

170M — size 1* to 3, flush-end contact

690 Vac (IEC), 700 Vac (UL), 40 to 2000 A



Description

Square body flush-end contact high speed fuses, for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters. Catalog numbers available with visual indicator and Type K indicator for a microswitch.

Specifications

Ratings

- Volts: see catalog number table
- Amps: 40-2000 A
- Interrupting rating: 200 kA RMS Sym.

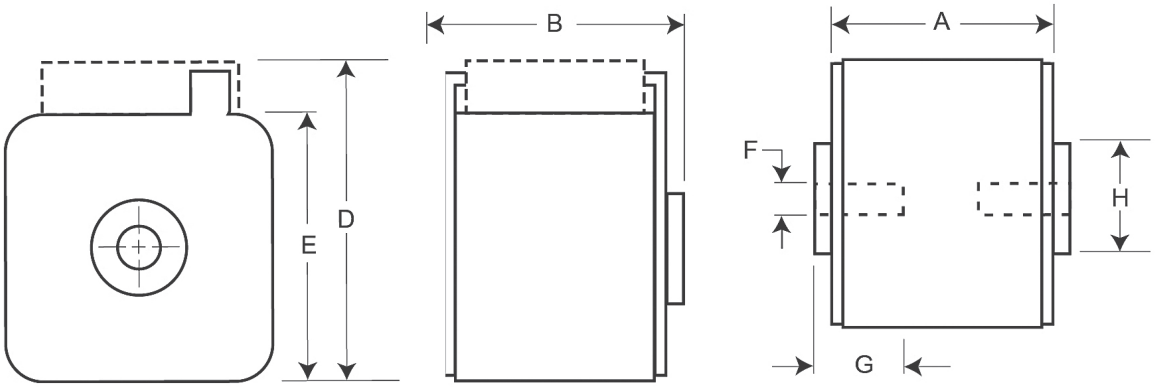
Operating class: aR

Agency information

- Designed and tested to IEC 60269 Part 4
- UL Recognized, E125085, JFHR2*
- CSA Class 53787, File 1422-30*
- CCC*
- CE

* Consult your Bussmann series product representative for status.

Dimensions — mm



Type -B/- , -BKN/- , -G/- , -GKN/-

Size	A	B	D[1]	E	F	F[2] (in)	G	H
1*	50	51	59	45	M8	5/16-18 UNC-2B	5	N17
1	50	51	69	53	M8	5/16-18 UNC-2B	8	N20
2	50	51 (400 - 1000 A) 65 (1100 and 1250 A)	77	61	M10	3/8-16 UNC-2B	10	N24
3	51	53 (500 - 1500 A) 65 (1600 - 2000 A)	92	76	M12	1/2-13 UNC-2B	10	N30

[1] Valid for fuse Types -BKN/ and -GKN/.
[2] Valid for fuse Types -G- and -GKN/.

For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

Square body fuses

170M — size 1* to 3, flush-end contact

690 Vac (IEC), 700 Vac (UL), 40 to 2000 A

Fuse size	Rated voltage	Rated current (amps)	I²t (A²s) Pre-arcing	I²t (A²s) Clearing at 660 Vac	Watts loss (W)*	Catalog no. -B/- visual indicator	Catalog no. -BKN/- Type K indicator for microswitch	Catalog no. -G/- visual indicator	Catalog no. -GKN/- Type K indicator for microswitch
1*	690 Vac (IEC) 700 Vac (UL)	40	40	270	9	170M3408	170M3458	170M3508	170M3558
		50	77	515	11	170M3409	170M3459	170M3509	170M3559
		63	115	770	14	170M3410	170M3460	170M3510	170M3560
		80	185	1250	18	170M3411	170M3461	170M3511	170M3561
		100	360	2450	21	170M3412	170M3462	170M3512	170M3562
		125	550	3700	26	170M3413	170M3463	170M3513	170M3563
		160	1100	7500	30	170M3414	170M3464	170M3514	170M3564
		200	2200	15,000	35	170M3415	170M3465	170M3515	170M3565
		250	4200	28,500	40	170M3416	170M3466	170M3516	170M3566
		315	7000	46,500	50	170M3417	170M3467	170M3517	170M3567
		350	10,000	68,500	55	170M3418	170M3468	170M3518	170M3568
		400	15,000	105,000	60	170M3419	170M3469	170M3519	170M3569
		450	21,000	140,000	65	170M3420	170M3470	170M3520	170M3570
		500	27,000	180,000	70	170M3421	170M3471	170M3521	170M3571
		550	34,000	230,000	75	170M3422	170M3472	170M3522	170M3572
		630	48,500	325,000	80	170M3423	170M3473	170M3523	170M3573
1	690 Vac (IEC) 700 Vac (UL)	200	1650	11,500	45	170M4408	170M4458	170M4508	170M4558
		250	3100	21,000	55	170M4409	170M4459	170M4509	170M4559
		315	6200	42,000	58	170M4410	170M4460	170M4510	170M4560
		350	8500	59,000	60	170M4411	170M4461	170M4511	170M4561
		400	13,500	91,500	65	170M4412	170M4462	170M4512	170M4562
		450	17,000	120,000	70	170M4413	170M4463	170M4513	170M4563
		500	25,000	170,000	72	170M4414	170M4464	170M4514	170M4564
		550	34,000	230,000	75	170M4415	170M4465	170M4515	170M4565
		630	52,000	350,000	80	170M4416	170M4466	170M4516	170M4566
		700	69,500	465,000	85	170M4417	170M4467	170M4517	170M4567
		800	105,000	725,000	95	170M4418	170M4468	170M4518	170M4568
	550 Vac (IEC)	900	155,000	850,000	100	170M4419	170M4469	170M4519	170M4569
2	690 Vac (IEC) 700 Vac (UL)	400	11,000	74,000	65	170M5408	170M5458	170M5508	170M5558
		450	15,500	105,000	70	170M5409	170M5459	170M5509	170M5559
		500	21,500	145,000	75	170M5410	170M5460	170M5510	170M5560
		550	28,000	190,000	80	170M5411	170M5461	170M5511	170M5561
		630	41,000	275,000	90	170M5412	170M5462	170M5512	170M5562
		700	60,500	405,000	95	170M5413	170M5463	170M5513	170M5563
		800	86,000	575,000	105	170M5414	170M5464	170M5514	170M5564
		900	125,000	840,000	110	170M5415	170M5465	170M5515	170M5565
		1000	180,000	1,250,000	115	170M5416	170M5466	170M5516	170M5566
	600 Vac (IEC) 700 Vac (UL)	1100	245,000	1,600,000	120	170M5417	170M5467	170M5517	170M5567
		1250	365,000	2,400,000	130	170M5418	170M5468	170M5518	170M5568
3	690 Vac (IEC) 700 Vac (UL)	500	14,000	95,000	95	170M6408	170M6458	170M6508	170M6558
		550	19,500	135,000	100	170M6409	170M6459	170M6509	170M6559
		630	31,000	210,000	105	170M6410	170M6460	170M6510	170M6560
		700	44,500	300,000	110	170M6411	170M6461	170M6511	170M6561
		800	69,500	465,000	115	170M6412	170M6462	170M6512	170M6562
		900	100,000	670,000	120	170M6413	170M6463	170M6513	170M6563
		1000	140,000	945,000	125	170M6414	170M6464	170M6514	170M6564
		1100	190,000	1,300,000	130	170M6415	170M6465	170M6515	170M6565
		1250	290,000	1,950,000	140	170M6416	170M6466	170M6516	170M6566
		1400	370,000	2,450,000	155	170M6417	170M6467	170M6517	170M6567
		1500	460,000	3,100,000	160	170M6418	170M6468	170M6518	170M6568
		1600	580,000	3,900,000	160	170M6419	170M6469	170M6519	170M6569
	600 Vac (IEC) 500 Vac (UL)	1800	880,000	5,250,000	165	170M6420	170M6470	170M6520	170M6570
	550 Vac (IEC) 500 Vac (UL)	2000	1,150,000	6,350,000	175	170M6421	170M6471	170M6521	170M6571

* Watts loss at rated current.

For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

170M — size 1* to 3, flush-end contact

1000 Vac (IEC and UL), 50 to 1400 A



Description

Square body flush-end contact high speed fuses, for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters. Catalog numbers come with Type K indicator for use with microswitches.

Specifications

Ratings

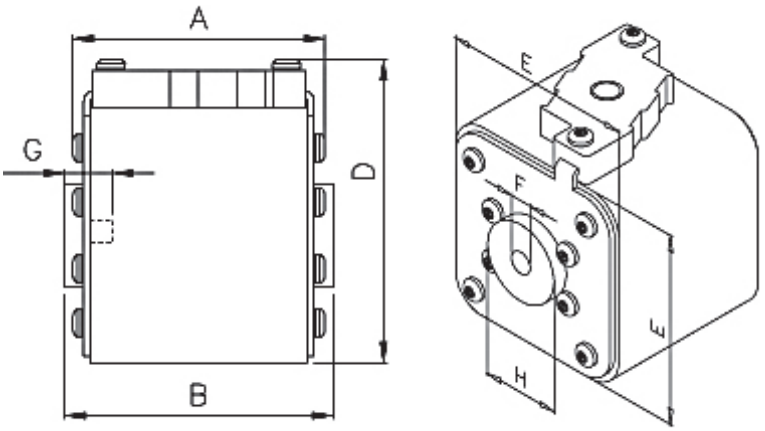
- Volts:
  - 1000 Vac (IEC, 50-1250 A)
  - 1000 Vac (UL, 250-1100 A)
  - 900 Vac (IEC, 1400 A
- Amps: 50-1400 A
- Interrupting rating: 125 kA RMS Sym.

Operating class: aR

Agency information

- Designed and tested to IEC 60269 Part 4
- UL Recognized, E125085, JFHR2 (only sizes 2 and 3 up to 1100 A)
- CE

Dimensions — mm



Type -BKN/- and -GKN/-

Size	Type	A	B	D (max)	E	F	F[1] (in)	G (min)	H
1*	BKN/75 + GKN/75	72.5	74.0	61	43	M8	5/16-18 UNC-2B	5	17.5
1	BKN/75 + GKN/75	73.2	74.0	69	52	M8	5/16-18 UNC-2B	8	20.0
2	BKN/75 + GKN/75	73.2	74.4	77	59	M10	3/8-16 UNC-2B	10	24.5
3	BKN/75 + GKN/75	73.3	75.4	92	74	M12	1/2-13 UNC-2B	10	30.0
3	BKN/90 + GKN/90	80.3	91.4	92	74	M12	1/2-13 UNC-2B	10	30.0

[1] Valid for fuse Types -GKN/-.

For details on electrical characteristics, contact Application Engineering and ask for data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

Square body fuses

170M — size 1* to 3, flush-end contact

1000 Vac (IEC and UL), 50 to 1400 A

Fuse size	Rated voltage	Rated current (amps)	I^2t (A^2s) Pre-arcing	I^2t (A^2s) Clearing at rated voltage	Watts loss (W)*	Catalog no. -BKN/- Type K indicator for microswitch	Catalog no. -GKN/- Type K indicator for microswitch
1*	1000 Vac (IEC)	50	135	815	20	170M3951	170M3921
		63	215	1300	25	170M3952	170M3922
		80	460	2750	30	170M3953	170M3923
		100	860	5100	35	170M3954	170M3924
		125	1450	8600	40	170M3955	170M3925
		160	2850	17,500	45	170M3956	170M3926
		200	4950	29,500	50	170M3957	170M3927
		250	9550	57,000	55	170M3958	170M3928
		315	21,500	130,000	65	170M3959	170M3929
		350	29,000	175,000	70	170M3960	170M3930
		400	42,000	250,000	75	170M3961	170M3931
1	1000 Vac IEC)	160	2200	13,500	40	170M4951	170M4921
		200	4150	24,500	45	170M4952	170M4922
		250	7750	46,000	52	170M4953	170M4923
		315	16,500	98,500	60	170M4954	170M4924
		350	21,500	130,000	65	170M4955	170M4925
		400	31,000	185,000	70	170M4956	170M4926
		450	44,500	265,000	80	170M4957	170M4927
		500	63,000	375,000	85	170M4958	170M4928
		550	84,500	500,000	90	170M4959	170M4929
		630	125,000	755,000	98	170M4960	170M4930
2	1000 Vac (IEC/UL)	250	6750	40,000	65	170M5952	170M5922
		315	13,500	81,500	75	170M5953	170M5923
		350	16,500	99,000	80	170M5954	170M5924
		400	26,000	155,000	85	170M5955	170M5925
		450	35,500	210,000	90	170M5956	170M5926
		500	49,500	295,000	95	170M5957	170M5927
		550	66,000	390,000	100	170M5958	170M5928
		630	93,500	555,000	110	170M5959	170M5929
		700	130,000	770,000	115	170M5960	170M5930
		800	195,000	1,200,000	125	170M5961	170M5931
3	1000 Vac (IEC/UL)	315	9200	54,500	90	170M8600	170M8500
		350	13,000	77,500	95	170M8601	170M8501
		400	19,000	115,000	105	170M8602	170M8502
		450	27,000	160,000	107	170M8603	170M8503
		500	37,500	225,000	110	170M8604	170M8504
		550	52,000	310,000	115	170M8605	170M8505
		630	82,500	490,000	120	170M8606	170M8506
		700	115,000	700,000	125	170M8607	170M8507
		800	170,000	1,050,000	135	170M8608	170M8508
		900	250,000	1,500,000	145	170M8609	170M8509
		1000	340,000	2,050,000	150	170M8610	170M8510
		1100	460,000	2,750,000	155	170M8611	170M8511
	1000 Vac (IEC)	1250	575,000	3,400,000	175	170M8612[1]	170M8512[1]
	900 Vac (IEC)	1400	795,000	4,200,000	185	170M8613[1]	170M8513[1]

* Watts loss at rated current.

[1] Overall length is 90 mm, for all other fuses the overall length is 75 mm.

For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

170M — size 1* to 3, flush-end contact

1250 Vac (IEC), 1300 Vac (UL), 50 to 1400 A



Description

Square body flush-end contact high speed fuses, for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters. Catalog numbers come with Type K indicator for use with microswitches.

Specifications

Ratings

- Volts:
  - 1250 Vac (IEC)
  - 1300 Vac (UL)
- Amps: 50-1400 A
- Interrupting rating: 100 kA RMS Sym.

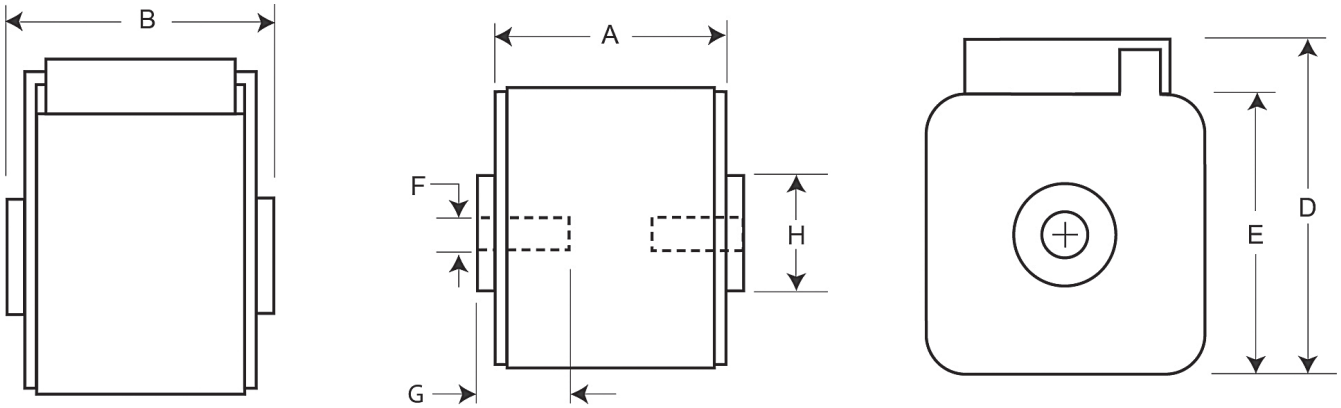
Operating class: aR

Agency information

- Designed and tested to IEC 60269 Part 4
- UL Recognized, E125085, JFHR2*
- CSA Class 53787, File 1422-30*
- CE

* Consult your Bussmann series product representative status.

Dimensions — mm



Type -BKN/- and -GKN/-

Size	Type	A	B	D	E	F	F[1] (in)	Min G	HØ
1*	BKN + GKN/75	74	75	59	45	M8	5/16-18 UNC-2B	5	17
1*	BKN/80	80	81	59	45	M8		5	17
1	BKN + GKN/75	74	75	69	53	M8		8	20
1	BKN/80	80	81	69	53	M8		8	20
2	BKN + GKN/75	74	75	77	61	M10	3/8-16 UNC-2B	10	24
2	BKN/80	80	81	77	61	M10		10	24
2	BKN + GKN/90	80	91	77	61	M10		10	24
3	BKN + GKN/75	74	76	92	76	M12	1/2-13 UNC-2B	10	30
3	BKN/80	81	83	92	76	M12		10	30
3	BKN + GKN/90	81	91	92	76	M12		10	30

[1] Valid for fuse Types -GKN/-.

For details on electrical characteristics, contact Application Engineering and ask for data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

Square body fuses

170M —size 1* to 3, flush-end contact

1250 Vac (IEC), 1300 Vac (UL), 50 to 1400 A

Fuse size	Rated voltage	Rated current (amps)	I²t (A²s) Pre-arcing	I²t (A²s) Clearing at 1000 Vac	I²t (A²s) Clearing at 1250 Vac	Watts loss (W)*	Catalog no. -BKN/75 Type K indicator for micro	Catalog no. -BKN/80 Type K indicator for micro	Catalog no. -BKN/90 Type K indicator for micro	Catalog no. -GKN/75 Type K indicator for micro	Catalog no. -GKN/90 Type K indicator for micro
1*	1250 Vac (IEC) 1300 Vac (UL)	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	11,500	35	170M3392	170M3442	—	170M3492	—
		160	2600	16,000	21,000	40	170M3393	170M3443	—	170M3493	—
		200	5150	31,000	41,000	45	170M3394	170M3444	—	170M3494	—
		250	9200	54,500	73,000	55	170M3395	170M3445	—	170M3495	—
		315	18,500	115,000	150,000	60	170M3396	170M3446	—	170M3496	—
		350	27,000	165,000	220,000	65	170M3397	170M3447	—	170M3497	—
		400	53,000	265,000	335,000	70	—	170M3448	—	—	—
1	1250 Vac (IEC) 1300 Vac (UL)	160	1900	11,500	15,500	45	170M4388	170M4438	—	170M4488	—
		200	3800	22,500	30,000	50	170M4389	170M4439	—	170M4489	—
		250	7750	46,000	61,500	60	170M4390	170M4440	—	170M4490	—
		315	15,000	90,000	120,000	65	170M4391	170M4441	—	170M4491	—
		350	20,000	125,000	165,000	70	170M4392	170M4442	—	170M4492	—
		400	29,500	175,000	235,000	75	170M4393	170M4443	—	170M4493	—
		450	42,000	250,000	335,000	80	170M4394	170M4444	—	170M4494	—
		500	69,500	340,000	435,000	85	170M4395[4]	170M4445	—	170M4495[4]	—
		550	95,000	465,000	590,000	95	170M4396[5]	170M4446	—	170M4496[5]	—
		630	130,000	660,000	N/A	110	170M4397[5]	170M4447[4]	—	170M4497[5]	—
2	1250 Vac (IEC) 1300 Vac (UL)	250	6500	38,500	51,500	65	170M5388	170M5438	—	170M5588	—
		280	9350	55,500	74,500	70	170M5389	170M5439	—	170M5589	—
		315	13,000	77,500	105,000	75	170M5390	170M5440	—	170M5590	—
		350	16,500	97,500	135,000	80	170M5391	170M5441	—	170M5591	—
		400	23,000	140,000	180,000	85	170M5392	170M5442	—	170M5592	—
		450	34,000	205,000	270,000	90	170M5393	170M5443	—	170M5593	—
		500	48,000	285,000	380,000	95	170M5394	170M5444	170M5494	170M5594	170M5644
		550	62,000	370,000	495,000	100	170M5395	170M5445	170M5495	170M5595	170M5645
		630	115,000	575,000	730,000	120	170M5396[4]	170M5446	170M5496	170M5596[4]	170M5646
		700	160,000	795,000	1,050,000	125	170M5397[5]	170M5447[1]	170M5497	170M5597[5]	170M5647
		800	245,000	1,200,000	1,550,000	130	170M5398[5]	170M5448[2]	170M5498	170M5598[5]	170M5648
		900	360,000	1,750,000	N/A	135	—	—	170M5499[3]	—	170M5649[3]
		1000	480,000	2,350,000	N/A	145	—	—	170M5500[3]	—	170M5650[3]
3	1250 Vac (IEC) 1300 Vac (UL)	315	9500	58,000	77,500	85	170M6338	170M6538	—	170M6588	—
		350	13,500	81,500	110,000	90	170M6339	170M6539	—	170M6589	—
		400	19,500	120,000	160,000	95	170M6340	170M6540	—	170M6590	—
		450	31,000	185,000	245,000	100	170M6341	170M6541	—	170M6591	—
		500	39,000	235,000	310,000	105	170M6342	170M6542	—	170M6592	—
		550	55,000	325,000	435,000	110	170M6343	170M6543	—	170M6593	—
		630	83,500	495,000	665,000	115	170M6344	170M6544	170M6494	170M6594	170M6644
		700	115,000	705,000	940,000	120	170M6345	170M6545	170M6495	170M6595	170M6645
		800	205,000	995,000	1,300,000	125	170M6346[4]	170M6546	170M6496	170M6596[4]	170M6646
		900	305,000	1,500,000	1,900,000	130	170M6347[5]	170M6547[1]	170M6497	170M6597[5]	170M6647
		1000	450,000	2,150,000	2,750,000	135	170M6348[5]	170M6548[1]	170M6498	170M6598[5]	170M6648
		1100	575,000	2,800,000	3,600,000	160	170M6349[5]	170M6549[2]	170M6499	170M6599[5]	170M6649
		1250	810,000	3,950,000	N/A	170	—	—	170M6500[3]	—	170M6650[4]
		1400	1,250,000	6,000,000	N/A	175	—	—	170M6501[3]	—	170M6651[4]

* Watts loss at rated current.
[1] Rated voltage 1100 Vac (IEC), 1000 Vac (UL).
[2] Rated voltage 1000 Vac (IEC and UL).
[3] Rated voltage 1100 Vac (IEC and UL).
[4] Rated voltage (IEC) 1100 Vac.
[5] Rated voltage (IEC) 1000 Vac.

For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

170M — size 4, flush-end contact

690 Vac (IEC), 700 Vac (UL), 1000 to 4000 A



Description

Square body, flush-end contact, high speed fuses, for the protection of power rectifiers. Catalog numbers come with visual indicator or Type K indicator for use with microswitches.

Specifications

Ratings

- Volts:
  - 690 Vac (IEC)/700 Vac (UL) 1000-3500 A
  - 600 Vac (IEC and UL, 4000 A)
- Amps: 1000-4000 A
- Interrupting rating: 200 kA RMS Sym.

Operating class: aR

Agency information

- Designed and tested to IEC 60269 Part 4
- UL Recognized, E125085, JFHR2
- CE

Fuse size	Rated voltage	Rated current (amps)	I^2t (A^2s)		Watts loss (W)*	Catalog no.			
			Pre-arcing	Clearing at 660 Vac		-B/65 visual indicator	-BKN/65 Type K indicator	-G/65 visual indicator	-GKN/65 Type K indicator
4	690 Vac (IEC) 700 Vac (UL)	1000	76,000	505,000	175	170M7058	170M7078	170M7098	170M7118
		1250	145,000	965,000	195	170M7059	170M7079	170M7099	170M7119
		1400	205,000	1,400,000	205	170M7060	170M7080	170M7100	170M7120
		1600	305,000	2,050,000	220	170M7061	170M7081	170M7101	170M7121
		2000	600,000	3,950,000	245	170M7062	170M7082	170M7102	170M7122
		2500	1,200,000	7,800,000	275	170M7063	170M7083	170M7103	170M7123
		3000	2,000,000	13,500,000	305	170M7064	170M7084	170M7104	170M7124
		3500	3,250,000	22,000,000	325	170M7065	170M7085	170M7105	170M7125
	600 Vac (IEC/UL)	4000	4,700,000	28,000,000[1]	355	170M7066	170M7086	170M7106	170M7126

* Watts loss at rated current.

[1] Clearing at 600 Vac.

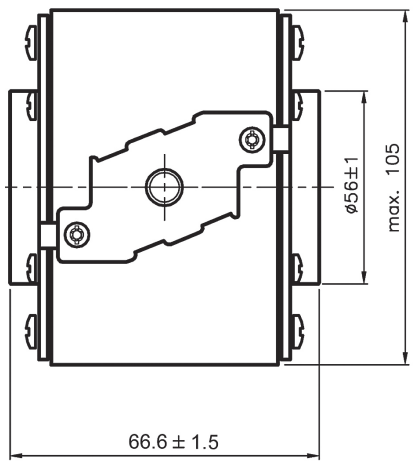
For details on electrical characteristics, contact Application Engineering and ask for data sheet: 170K6328

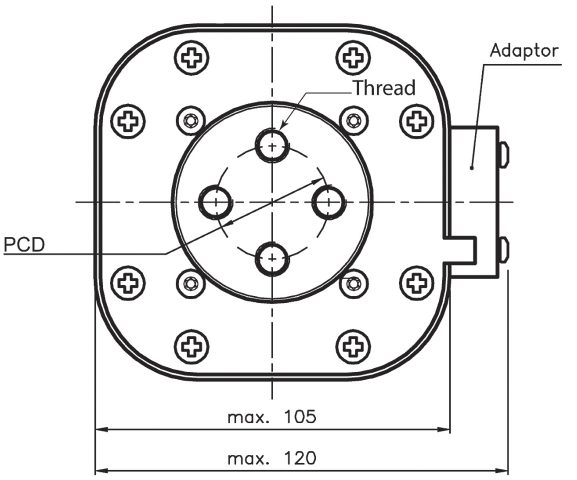
Square body fuses

170M — size 4, flush-end contact

690 Vac (IEC), 700 Vac (UL), 1000 to 4000 A

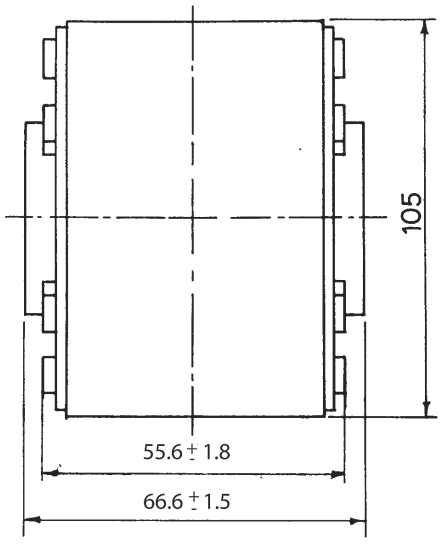
Dimensions — mm

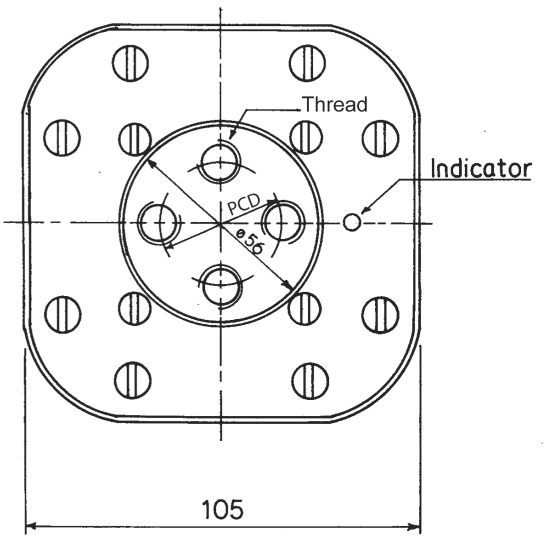




Type -BKN/65, -GKN/65

Type	PCD	Thread
-GKN/65	Ø 38.1	1/2-13 UNC
-BKN/65	Ø 33.0	M-10





Type -B/65, -G/65

Type	PCDØ	Thread
-G/65	38.1	1/2-13 UNC
-B/65	33.0	M-10

For details on electrical characteristics, contact Application Engineering and ask for data sheet:170K6328

170M — size 4, flush-end contact

1000 Vac (IEC), 1000 to 3000 A



Description

Square body, flush-end contact, high speed fuses, for the protection of power rectifiers. Catalog numbers come with visual indicator or Type K indicator for use with microswitches.

Specifications

Ratings

- Volts: 1000 Vac (IEC)
- Amps: 1000-3000 A
- Interrupting rating: 200 kA RMS Sym.

Operating class: aR

Agency information

- Designed and tested to IEC 60269 Part 4
- UL Recognized, E125085, JFHR2
- CE

Fuse size	Rated voltage	Rated current (amps)	I²t (A²s) Pre-arcing	I²t (A²s) Clearing at 1000 Vac	Watts loss (W)*	Catalog no. -BKN/95 Type K indicator	Catalog no. -SBKN/90 Type K indicator
4	1000 Vac	1000	180,000	1,100,000	195	—	170M7542
		1100	250,000	1,500,000	200	—	170M7031
		1500	600,000	3,600,000	250	170M7636	170M7548
		1700	850,000	5,000,000	260	170M7639	170M7034
		1800	1,000,000	5,950,000	265	170M7661	170M7053
		2000	1,450,000	8,600,000	270	170M7963	170M7544
		2200	2,000,000	12,000,000	280	170M7090	170M7035
		2500	3,000,000	18,000,000	295	170M7640	170M7036
		2700	3,700,000	22,000,000	310	170M7658	170M7037
		3000	4,700,000	28,000,000	380	170M7962	170M7156

* Watts loss at rated current.

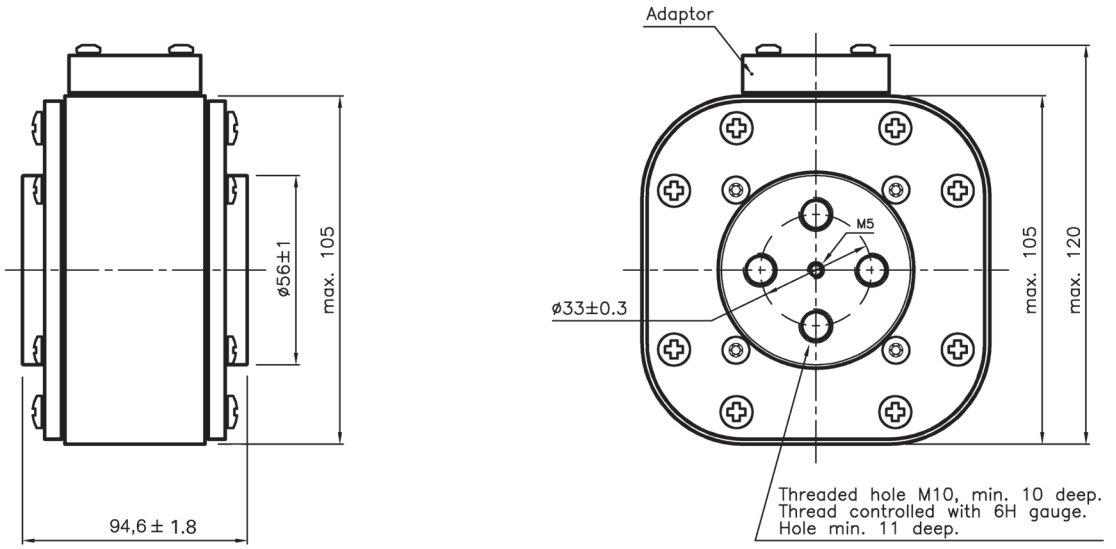
For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K8520, 170K8520-R

Square body fuses

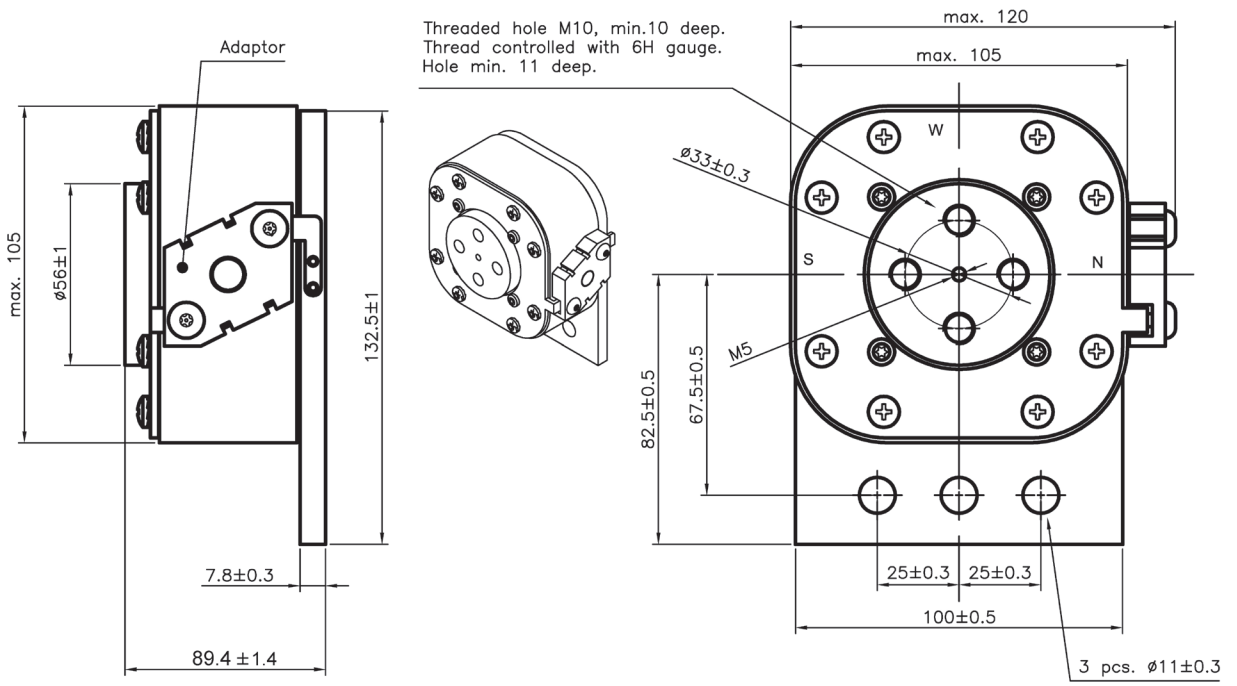
170M — size 4, flush-end contact

1000 Vac (IEC), 1000 to 3000 A

Dimensions — mm



Type 4BKN/95



Type 4SBKN/90

For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K8520, 170K8520-R

170M — size 4, flush-end contact

1250 Vac (IEC), 800 to 2500 A



Description

Square body, flush-end contact, high speed fuses, for the protection of power rectifiers. Catalog numbers come with visual indicator or Type K indicator for use with microswitches.

Specifications

Ratings

- Volts:
  - 1250 Vac (IEC)
  - 1200 Vdc (UL)
- Amps: 800-2500 A
- Interrupting rating:
  - 200 kA RMS Sym.
  - 85 kA DC (L/R 2 ms)

Operating class: aR

Agency information

- Designed and tested to IEC 60269 Part 4
- UL Recognized, E125085, JFHR2
- CSA E125085, JFHR2
- CE

Fuse size	Rated voltage	Rated current (amps)	I²t (A²s) Pre-arcing	I²t (A²s) Clearing at 1250 Vac	Watts loss (W)*	Catalog no. -BKN/105 Type K indicator	Catalog no. -SBKN/105 Type K indicator
4	1250 Vac (IEC) 1200 Vdc (UL)	800	145,000	905,000	195	170M7802	—
		1000	275,000	1,750,000	220	170M7803	—
		1200	495,000	3,100,000	240	170M7804	—
		1400	800,000	5,000,000	250	170M7217	170M7512
		1500	1,000,000	6,200,000	260	170M7597	170M7510
		1700	1,400,000	8,700,000	275	170M7676	170M7511
		1800	1,700,000	11,000,000	280	170M7532	170M7976
		2000	2,300,000	14,500,000	305	170M7633	170M7513
		2200	3,100,000	19,500,000	315	170M7592	170M7546
		2400	4,000,000	25,000,000	330	170M7107	170M7516
		2500	4,500,000	28,000,000	340	170M7595	170M7978

* Watts loss at rated current.

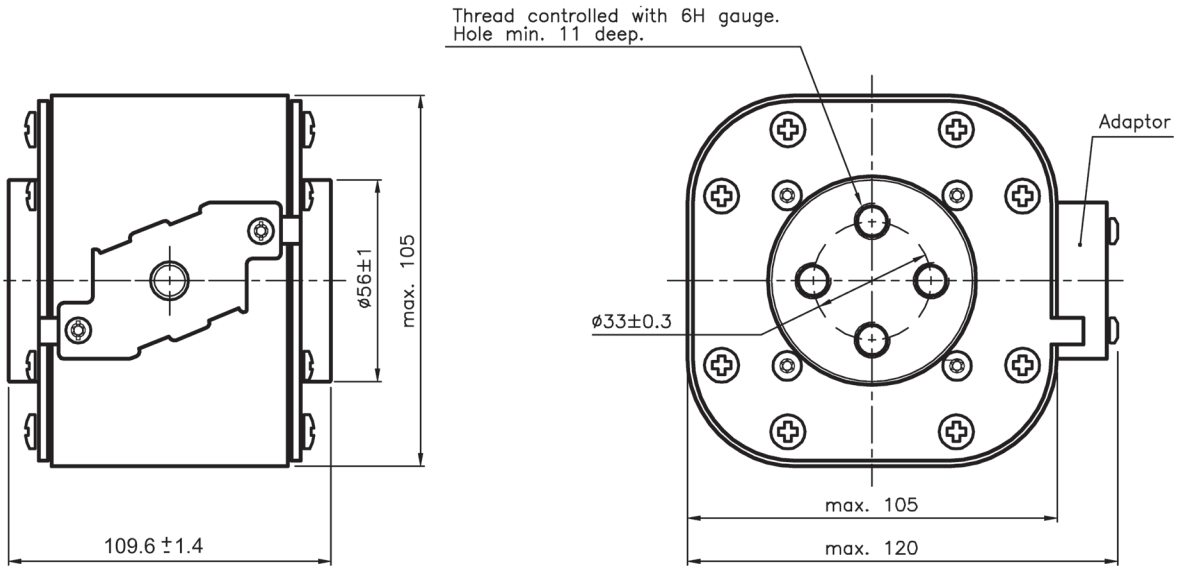
For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K6640 (1400-2400 A), 170K6642 (800-1200, 2500 A)

Square body fuses

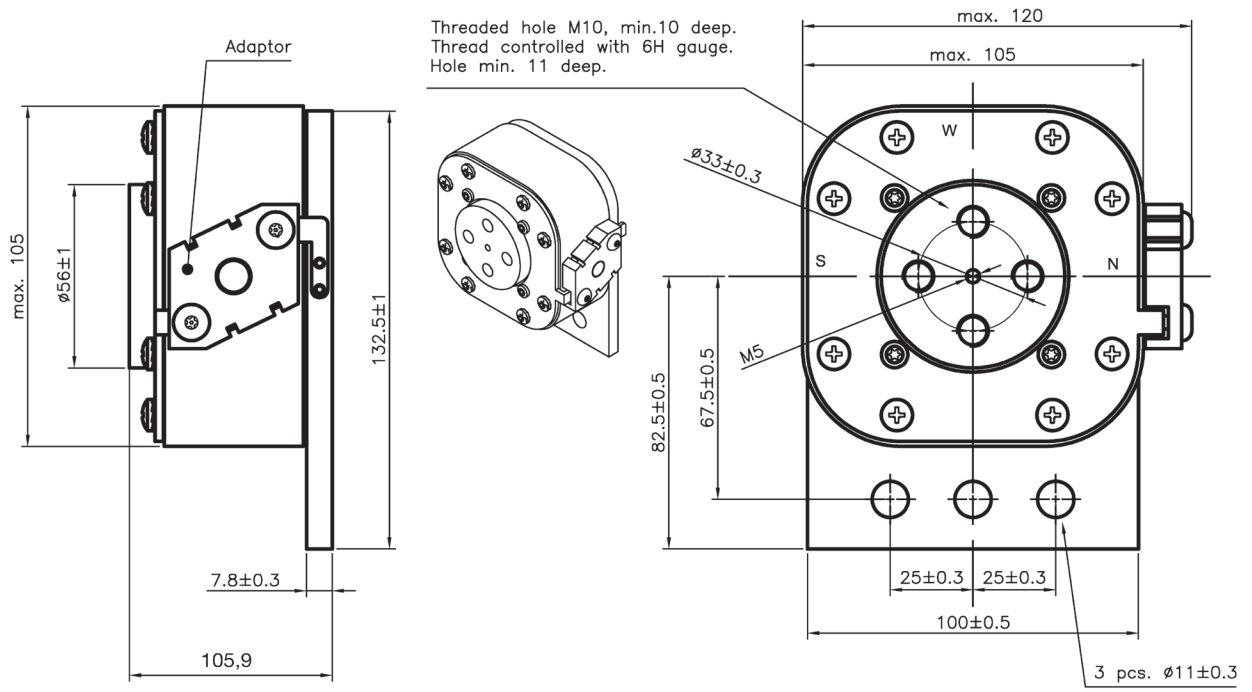
170M — size 4, flush-end contact

1250 Vac (IEC), 800 to 2500 A

Dimensions — mm



Type 4BKN/105



Type 4SBKN/105

For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K6640 (1400-2400 A), 170K6642 (800-1200, 2500 A)

170M — size 23, flush-end contact

660 Vac (IEC), 1000 to 4000 A



Description

Square body, flush-end contact, high speed fuses, for the protection of power rectifiers. Catalog numbers available with Type K indicator for use with microswitches.

Specifications

Ratings

- Volts:
  - 660 Vac (IEC, 1000-3000 A)
  - 600 Vac (IEC, 3500 A)
  - 550 Vac (IEC, 4000 A)
- Amps: 1000-4000 A
- Interrupting rating: 100 kA RMS Sym.

Operating class: aR

Agency information

- Designed and tested to IEC 60269 Part 4
- UL Recognized, E125085, JFHR2
- CE

Fuse size	Rated voltage	Rated current (amps)	I^2t (A^2s) Pre-arcing	I^2t (A^2s) Clearing at 660 Vac	Watts loss (W)*	Catalog no. -BU/55	-BKE/55 Type K indicator	-BKN/55 Type K indicator	-GU/55	-GKE/55 Type K indicator	-GKN/55 Type K indicator
23	660 Vac (IEC)	1000	79,000	530,000	170	170M6858	170M6898	170M6878	170M6918	170M6958	170M6938
		1100	95,000	635,000	185	170M6859	170M6899	170M6879	170M6919	170M6959	170M6939
		1250	155,000	1,050,000	190	170M6860	170M6900	170M6880	170M6920	170M6960	170M6940
		1400	200,000	1,350,000	210	170M6861	170M6901	170M6881	170M6921	170M6961	170M6941
		1500	240,000	1,650,000	215	170M6862	170M6902	170M6882	170M6922	170M6962	170M6942
		1600	315,000	2,150,000	220	170M6863	170M6903	170M6883	170M6923	170M6963	170M6943
		1800	450,000	3,050,000	230	170M6864	170M6904	170M6884	170M6924	170M6964	170M6944
		2000	625,000	4,200,000	240	170M6865	170M6905	170M6885	170M6925	170M6965	170M6945
		2200	805,000	5,400,000	255	170M6866	170M6906	170M6886	170M6926	170M6966	170M6946
		2500	1,250,000	8,350,000	265	170M6867	170M6907	170M6887	170M6927	170M6967	170M6947
		3000	2,250,000	15,500,000	285	170M6868	170M6908	170M6888	170M6928	170M6968	170M6948
	600 Vac (IEC)	3500	3,450,000	21,000,000[1]	315	170M6869	170M6909	170M6889	170M6929	170M6969	170M6949
	550 Vac (IEC)	4000	5,000,000	27,500,000[2]	340	170M6870	170M6910	170M6890	170M6930	170M6970	170M6950

* Watts loss at rated current.

[1] Clearing at 600 Vac.

[2] Clearing at 550 Vac.

When using these fuses, please consult our application engineers.

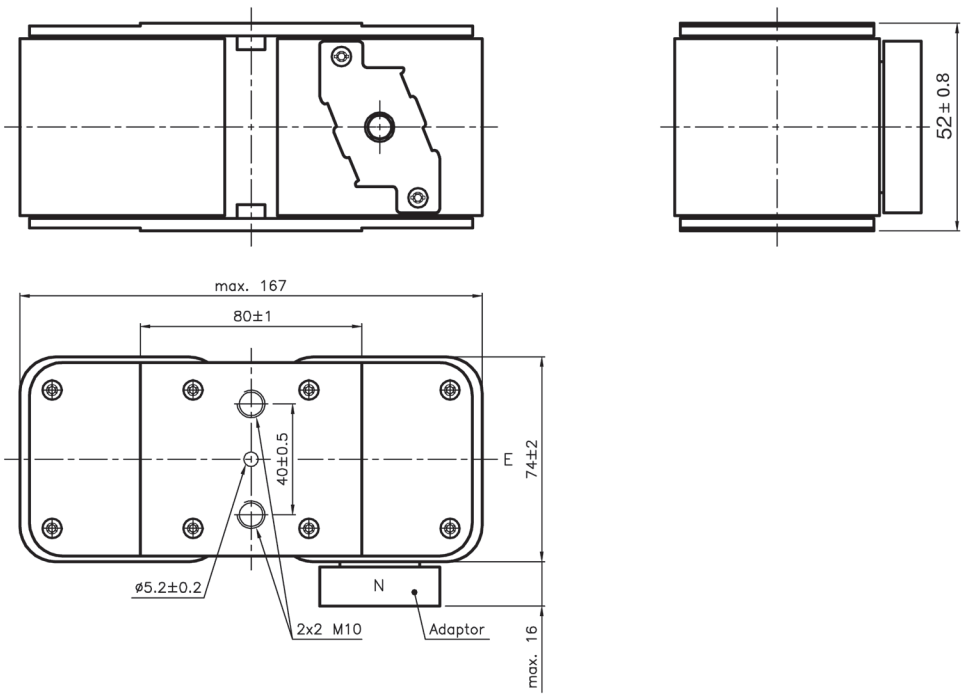
For details on electrical characteristics, contact Application Engineering and ask for data sheet: 170K6326

Square body fuses

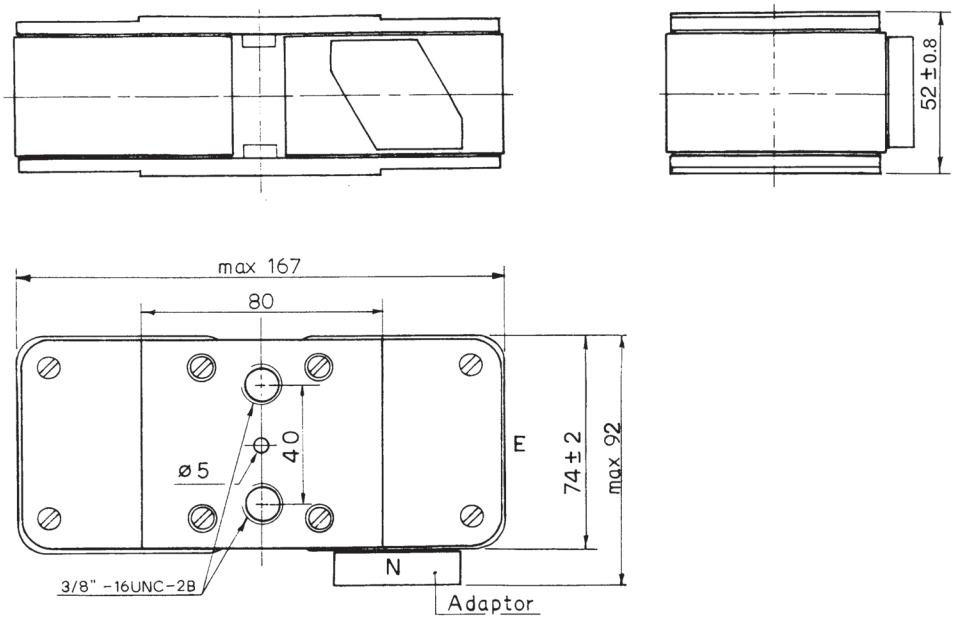
170M — size 23, flush-end contact

660 Vac (IEC), 1000 to 4000 A

Dimensions — mm



Type -BU/55, -BKE/55, -BKN/55



Type -GU/55, -GKE/55, -GKN/55

When using these fuses, please consult our application engineers.

For details on electrical characteristics, contact Application Engineering and ask for data sheet:170K6326

170M — size 23, flush-end contact

1250 Vac (IEC), 630 to 2800 A



Description

Square body, flush-end contact, high speed fuses, for the protection of power rectifiers. Catalog numbers available with visual indicator or Type K indicator for use with microswitches.

Specifications

Ratings

- Volts:
  - 1250 Vac (IEC 630 to 2200 A)
  - 1100 Vac (IEC 2500 and 2800 A)
- Amps: 630-2800 A
- Interrupting rating: 125 kA RMS Sym.

Operating class: aR

Agency information

- Designed and tested to IEC 60269 Part 4
- UL Recognized
- CE

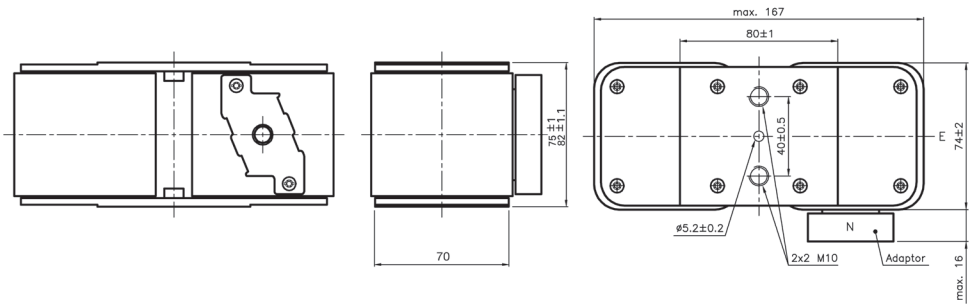
Fuse size	Rated voltage	Rated current (amps)	I²t (A²s) Pre-arcing	I²t (A²s) Clearing at 1250 Vac	Watts loss (W)*	Catalog no. -BU/75 visual indicator	-BKE/75 Type K indicator	-BKN/75 Type K indicator	-BU/80 visual indicator	-BKE/80 Type K indicator	-BKN/80 Type K indicator
23	1250 Vac (IEC)	630	38,000	310,000	170	170M6775	170M6795	170M6785	—	—	—
		700	54,000	440,000	180	170M6776	170M6796	170M6786	—	—	—
		800	78,000	640,000	190	170M6777	170M6797	170M6787	—	—	—
		900	120,000	980,000	200	170M6805	170M6807	170M6806	—	—	—
		1000	155,000	1,250,000	210	170M6778	170M6798	170M6788	—	—	—
		1100	220,000	1,750,000	220	170M6779	170M6799	170M6789	—	—	—
		1250	330,000	2,700,000	230	170M6780	170M6800	170M6790	—	—	—
		1400	460,000	3,800,000	240	170M6781	170M6801	170M6791	—	—	—
		1600	820,000	5,200,000	250	170M6782	170M6802	170M6792	—	—	—
		1800	1,200,000	7,600,000	260	170M6783	170M6803	170M6793	—	—	—
		2000	1,800,000	11,000,000	270	—	—	—	170M6784	170M6804	170M6794
		2200	2,300,000	14,500,000	280	—	—	—	170M6815	170M6833	170M6827
	1100 Vac (IEC)	2500	3,200,000	16,000,000[1]	290	—	—	—	170M6816	170M6834	170M6828
		2800	5,000,000	24,000,000[1]	300	—	—	—	170M6817	170M6835	170M6829

* Watts loss at rated current.

[1] Clearing at 1000 V.

When using these fuses, please consult our application engineers.

Dimensions — mm



For details on electrical characteristics, contact Application Engineering and ask for data sheet:170K6638

Square body fuses

170M — size 24, flush-end contact

690 Vac (IEC), 2000 to 7500 A



Description

Square body, flush-end contact, high speed fuses, for the protection of power rectifiers. Catalog numbers available with Type K indicator for use with microswitches.

Specifications

Ratings

- Volts:
  - 690 Vac (IEC 2000 to 7000 A)
  - 500 Vac (IEC 7500 A)
- Amps: 2000-7500 A
- Interrupting rating: 200 kA RMS Sym.

Operating class: aR

Agency information

- Designed and tested to IEC 60269 Part 4
- UL Recognized, E125085, JFHR2
- CE

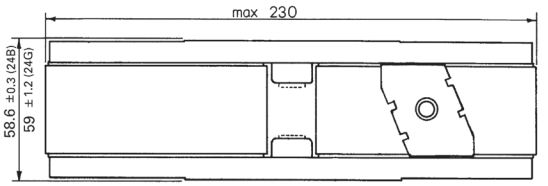
Fuse size	Rated voltage	Rated current (amps)	I²t (A²s) Pre-arcing	I²t (A²s) Clearing at 660 Vac	Watts loss (W)*	Catalog no. -BU/60 without indicator	Catalog no. -BKN/60 Type K indicator	Catalog no. -GU/60 without indicator	Catalog no. -GKN/60 Type K indicator
24	690 Vac (IEC)	2000	340,000	2,300,000	340	170M7138	170M7158	170M7198	170M7218
		2500	650,000	4,350,000	390	170M7139	170M7159	170M7199	170M7219
		3000	1,100,000	7,300,000	430	170M7140	170M7160	170M7200	170M7220
		3500	1,800,000	12,000,000	460	170M7141	170M7161	170M7201	170M7221
		4000	2,700,000	18,000,000	490	170M7142	170M7162	170M7202	170M7222
		4500	3,800,000	25,500,000	520	170M7143	170M7163	170M7203	170M7223
		5000	5,450,000	36,500,000	540	170M7144	170M7164	170M7204	170M7224
		5500	7,400,000	49,500,000	560	170M7145	170M7165	170M7205	170M7225
		6000	9,600,000	64,000,000	580	170M7146	170M7166	170M7206	170M7226
		6500	12,500,000	83,000,000	600	170M7147	170M7167	170M7207	170M7227
		7000	15,000,000	100,000,000	630	170M7148	170M7168	170M7208	170M7228
	500 Vac (IEC)	7500	18,500,000	93,000,000[1]	660	170M7149	170M7169	170M7209	170M7229

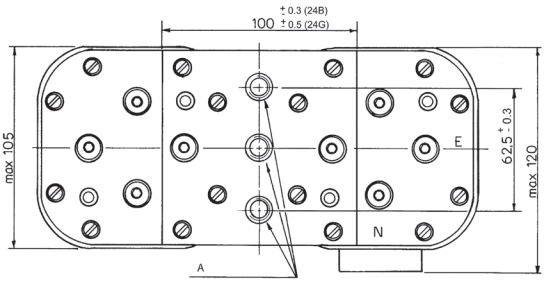
* Watts loss at rated current.

[1] Clearing at 500 Vac.

When using these fuses, please consult our application engineers.

Dimensions — mm





Size	Type	A
24	BKN	2x3 M12
24	GKN	2x3 1/2-13 UNC-2B

For details on electrical characteristics, contact Application Engineering and ask for data sheet:170K6332

170M — size 24, flush-end contact

1000 Vac (IEC), 2000 to 5000 A



Description

Square body, flush-end contact, high speed fuses, for the protection of power rectifiers. Catalog numbers come with Type K indicator for use with microswitches.

Specifications

Ratings

- Volts: 1000 Vac (IEC)
- Amps: 2000-5000 A
- Interrupting rating: 300 kA RMS Sym.

Operating class: aR

Agency information

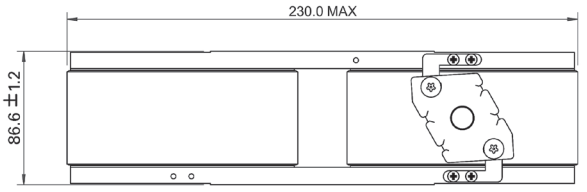
- Designed and tested to IEC 60269 Part 4
- UL Recognized, E125085, JFHR2
- CE

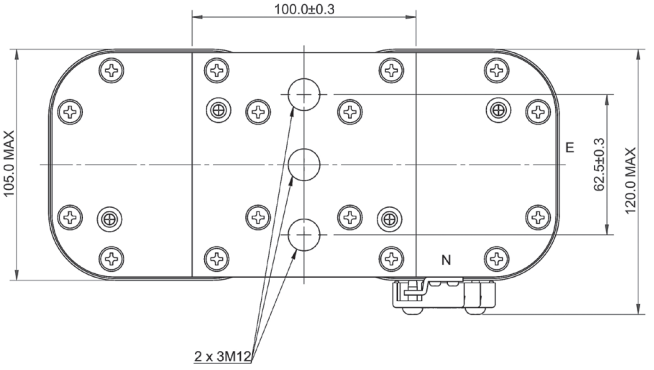
Fuse size	Rated voltage	Rated current (amps)	I²t (A²s) Pre-arcing	I²t (A²s) Clearing at 1000 Vac	Watts loss (W)	Catalog no. for -BKN/85 Type K indicator
24	1000 Vac (IEC)	2000	900,000	5,350,000	345	170M7608
		3000	2,950,000	17,500,000	430	170M7680
		3200	3,300,000	20,000,000	440	170M7567
		3500	4,500,000	27,000,000	450	170M7568
		4000	6,800,000	40,000,000	475	170M7569
		4200	8,000,000	47,500,000	485	170M7498
		4500	10,000,000	59,000,000	495	170M7488
		5000	14,000,000	82,500,000	540	170M7622

* Watts loss at rated current.

When using these fuses, please consult our application engineers.

Dimensions — mm





The normal position of the indicator is as shown position "N", position "E" on request only.

For details on electrical characteristics, contact Application Engineering and ask for data sheet:170K8514

Square body fuses

170M — size 5, flush-end contact

1100-2000 Vac (IEC), 1800 to 5500 A



Description

Square body flush-end contact high speed fuses, for the protection or isolation for components such as diodes, Silicon Controlled Rectifiers (SCRs), Gate Turn-Off Thrystors (GTOs) and IGBTs. Typical application include AC and DC drives, high power rectifiers.

Specifications

Ratings

- Volts: 1100-2000 Vac (IEC)
- Amps: 1800-5500 A
- Interrupting rating: 300 kA RMS Sym. estimated: 197 kA tested.

Operating class: aR

Agency information

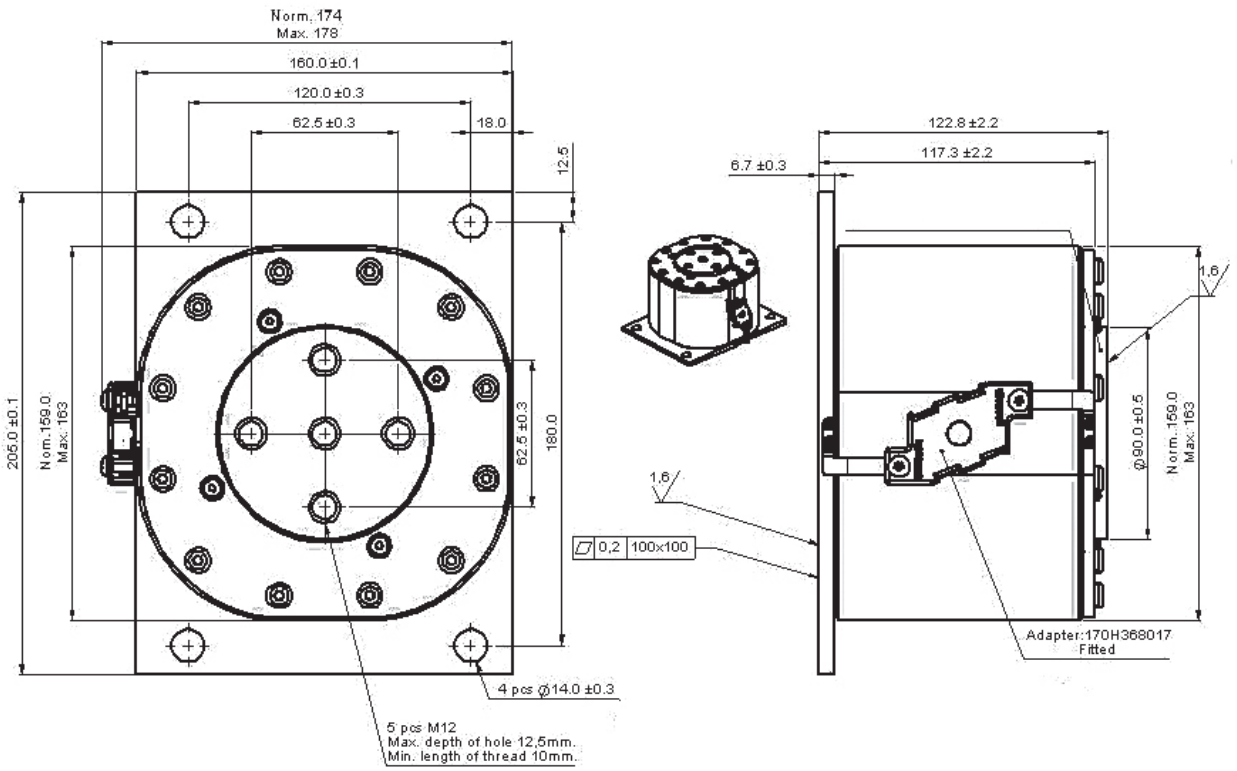
Consult your Bussmann series product representative.

Catalog Numbers

Consult your Bussmann series product representative.

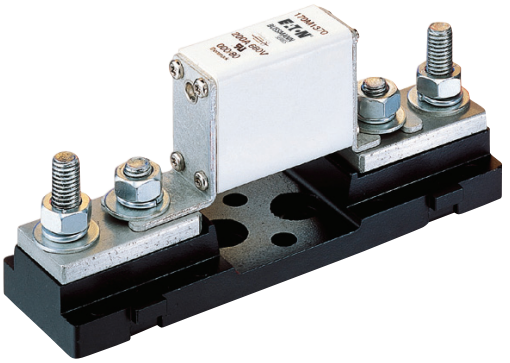
Dimensions — mm

This drawing is an example of the available size 5 fuses.



Accessories

Fixed center fuse blocks for DIN 43653 fuses



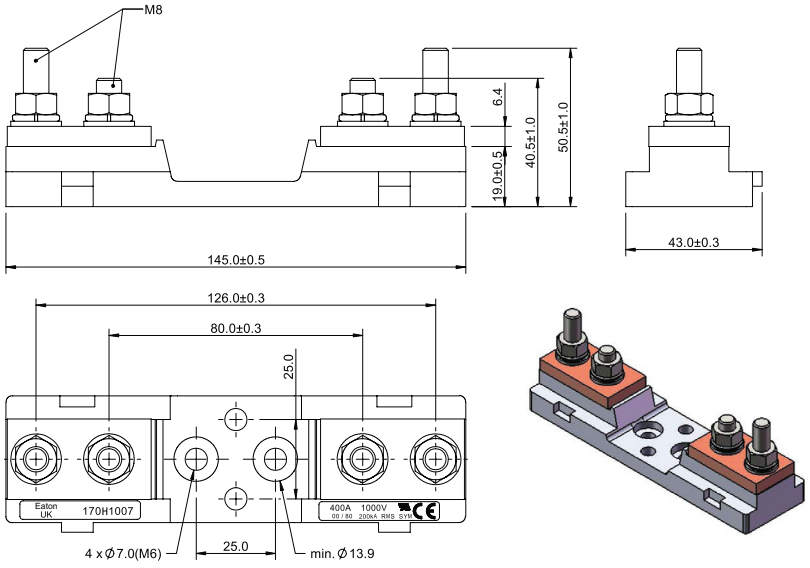
Description

Fuse blocks for use with DIN 43653 square body fuses with center distances of 80 and 110 mm. Available for sizes 000, 00, 1*, 1, 2 and 3.

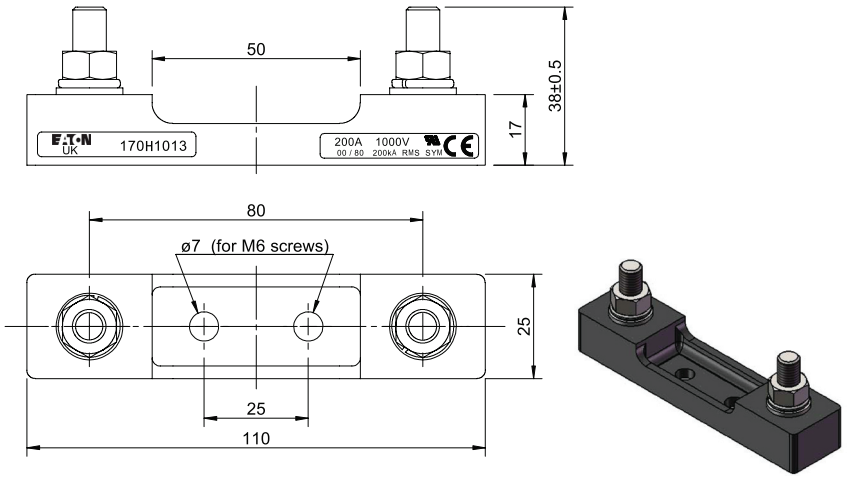
Sizes 000 to 00

Catalog no.	Max rated voltage	Max fuse amp rating	Center distance (mm)	Fuse sizes
170H1007	1000	400	80	00, 000
170H1013	690	200	80	0000, 000

Dimensions — mm



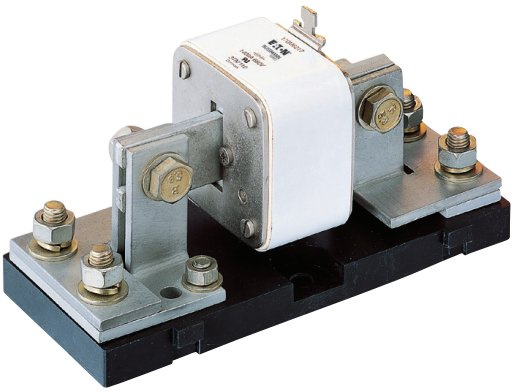
170H1007



170H1013

Accessories

Fixed center fuse blocks for DIN 43653 fuses



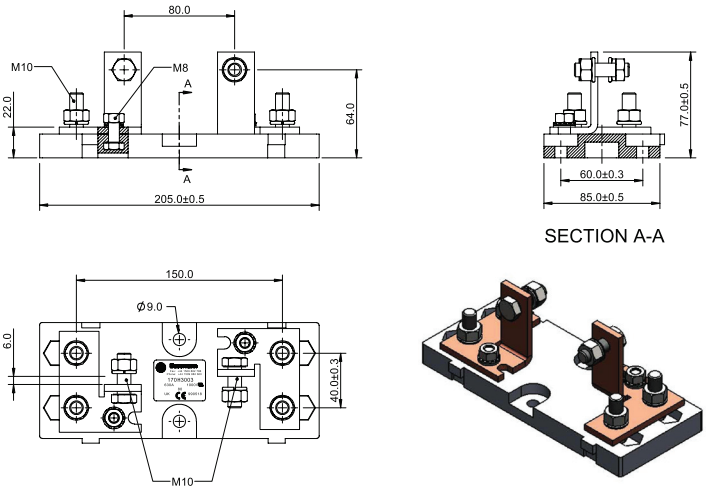
Sizes 1* to 3

Catalog no.	Max rated voltage	Max fuse amp rating	Center distance (mm)
170H3003	1000	630	80
170H3004†	1000	1250	80
170H3005	1400	630	110
170H3006†	1400	1250	110

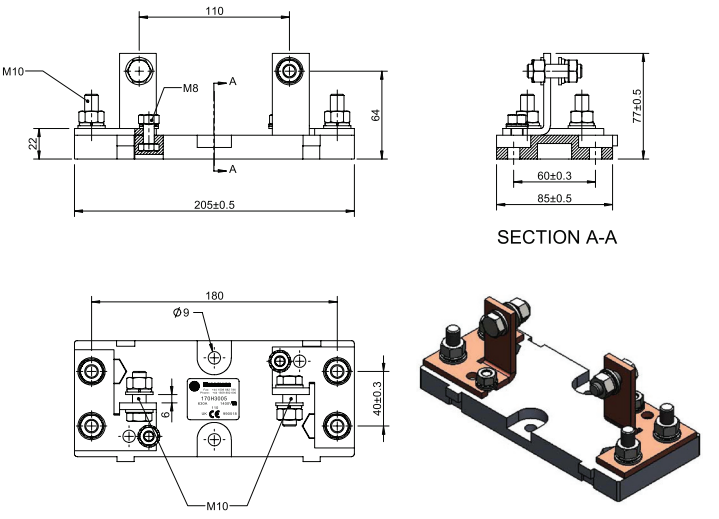
† Fuses with ratings higher than 1250 A can be used with 170H3004 or 170H3006 if the maximum load current is derated according to this table.

Fuse amp rating	Max. amp load in fuse block
1400	1325
1500	1400
1600	1500
1800	1650
2000	1800

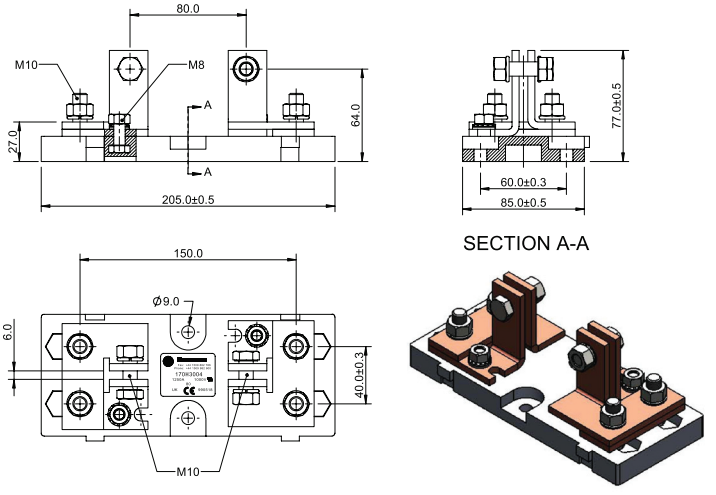
Dimensions — mm



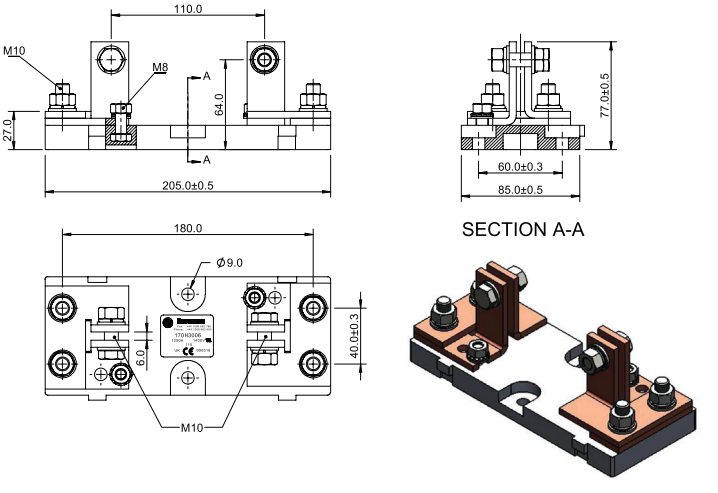
170H3003



170H3005



170H3004



170H3006

Accessories

Indicators

High speed square body fuses are available with the following indicators.

Visual indicator

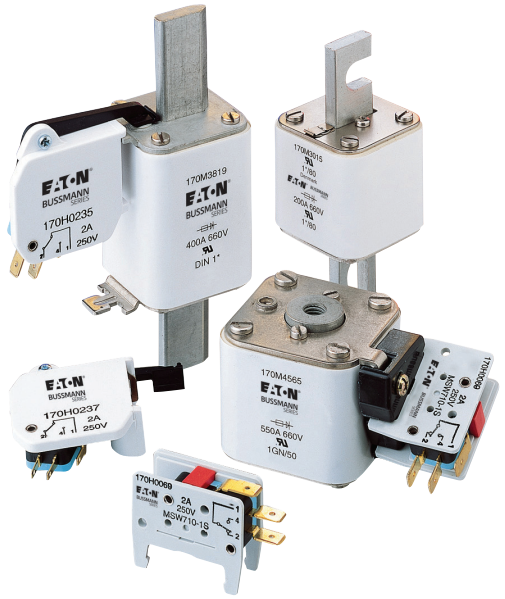
The indicator situated in one end plate is clearly visible as soon as the fuse has operated. The minimum rated voltage for operating the indicator is 20 V.

Type T indicator

The indicator is situated on one cover plate with a cover plate tag to accommodate an auxiliary switch. The minimum rated voltage for operating the indicator is 20 V. A special low rated voltage indicator (1.5 V) is available on request).

Type K indicator

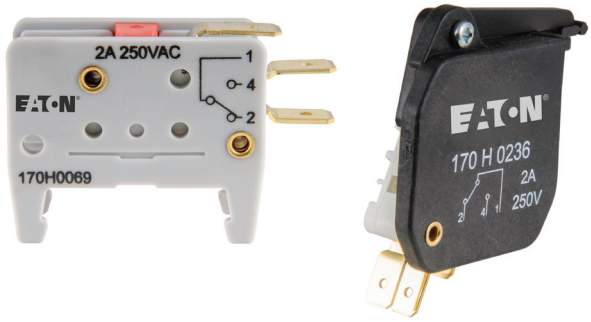
The indicator is situated on the fuse body. It is covered by an adapter for snap-on mounting of a microswitch. The rated operating voltage of the indicator is 1.5 V. As a matter of safety, the factory mounted adapter must not be removed from the fuse.



Microswitches

Specifications

High speed square body fuses with either Type T or K indicators can be equipped with a microswitch for remote signaling of fuse operation. All microswitches have one normally open (NO) and one normally closed (NC) contact.



Ratings

- Volts: 250 Vac
- Amps: 2 A

Catalog numbers:

Fuse size	DIN 43653		DIN 43620		French style		Flush-end		US style	Quick connect terminal size (mm)
	Type T	Type K	aR	gR and dual indication	Type T	Type K	Type T	Type K	Type K	
000	170H0236	—	170H0236	170H0236	—	—	—	—	—	6.3x0.8
	170H0238	—	170H0238	170H0238	—	—	—	—	—	2.8x0.5
00	170H0235	—	170H0236	170H0236	—	—	170H0235	—	—	6.3x0.8
	170H0237	—	170H0238	170H0238	—	—	170H0237	—	—	2.8x0.5
1*	170H0235	170H0069	170H0235	—	170H0236	170H0069	—	170H0069	170H0069	6.3x0.8
	170H0237	—	170H0237	—	170H0238	—	—	—	—	2.8x0.5
1	170H0235	170H0069	170H0235[1]	170H0236	170H0236	170H0069	—	170H0069	170H0069	6.3x0.8
	170H0237	—	170H0237[1]	170H0238	170H0238	—	—	—	—	2.8x0.5
2	170H0235	170H0069	170H0235	170H0236	170H0236	170H0069	—	170H0069	170H0069	6.3x0.8
	170H0237	—	170H0237	170H0238	170H0238	—	—	—	—	2.8x0.5
3	170H0235	170H0069	170H0236	170H0236	170H0236	170H0069	—	170H0069	170H0069	6.3x0.8
	170H0237	—	170H0238	170H0238	170H0238	—	—	—	—	2.8x0.5
4	—	—	—	—	—	—	—	170H0069	—	6.3x0.8
23	—	—	—	—	—	—	—	170H0069	—	6.3x0.8
24	—	—	—	—	—	—	—	170H0069	—	6.3x0.8

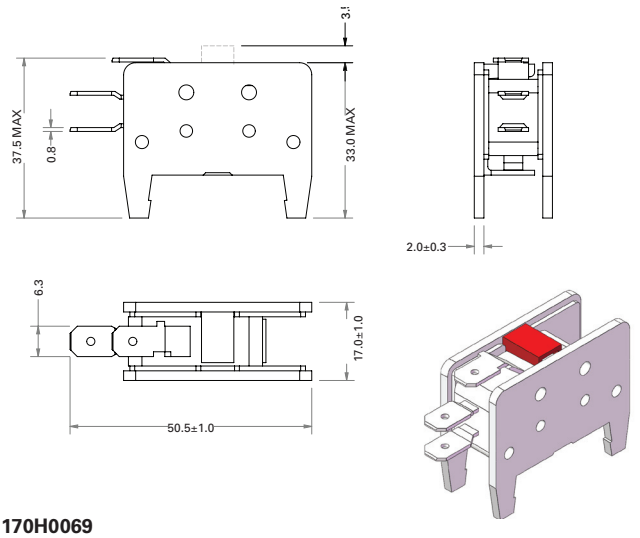
[1] DIN2* (55x55), if DIN2 then use microswitch 170H0236, 170H0238.

For special microswitches, double microswitches, microswitches with DC ratings, lower/higher signal levels and for insulation voltages please contact Eaton's Bussmann Division: bulehighspeedtechnical@eaton.com.

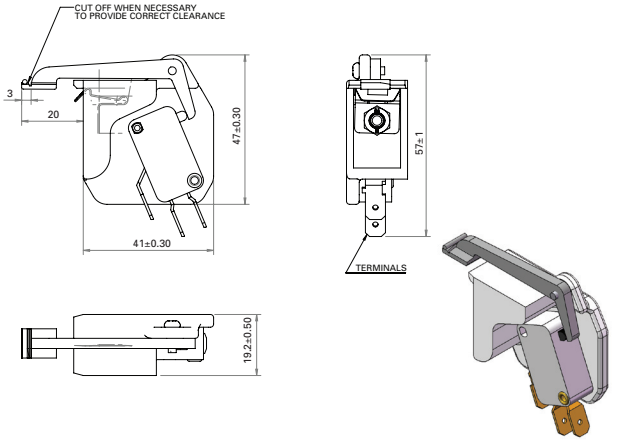
Accessories

Microswitches

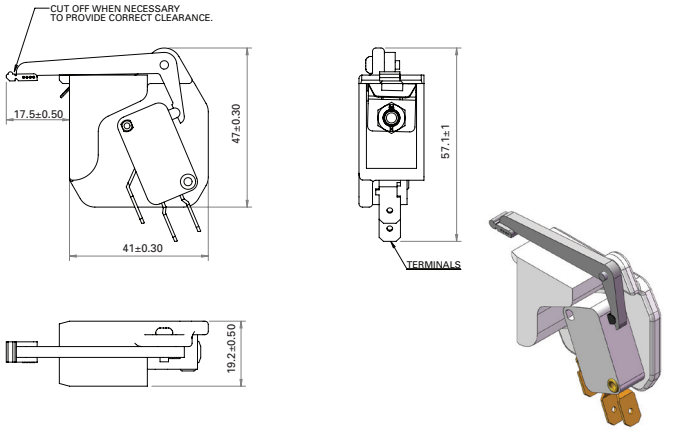
Dimensions — mm



170H0069



170H0235/170H0237 for bent tags



170H0236/170H0238 for straight tags



General information

Eaton's Bussmann seriesrange of square body IGBT fuses are UL Recognized.

Their unique design and construction provide:

- Minimal energy let-through (I^2t)
- Low operating temperature
- Low watts loss

Square body IGBT fuses are a very attractive solution for high power applications which require a compact design with superior performance. The construction and design of square body IGBT fuses make it easy for Eaton to manufacture custom products to meet your high speed fuse needs. Our standard catalog numbers provide only a sample of the wide variety of possible products.

Square body IGBT fuses are available with single or dual bolt tags, depending on amp rating.

Voltage rating

All Bussmann series square body IGBT fuses are tested according to IEC 60269 Part 4 and UL 248-1.

Features and benefits

- Excellent DC performance
- Low arc voltage and low energy let-through (I^2t)
- Low watts loss
- Superior cycling capability

Typical applications

- Protecting euqipment with IGBTs

Square body IGBT fuse contents

Fuses

Volts (IEC/UL)	Size	Current range (amps)	Bolt tags	Page
750 Vdc (IEC)	000	25-350	Single	94-95
800 Vdc (UL)	230	100-630	Dual	
1000 Vdc (IEC/UL)	000	25-250	Single	96-97
	230	100-500	Dual	

IGBT fuses

170M — size 000 and 230

750 Vdc (IEC), 800 Vdc (UL), 25 to 630 A



Description

Bolted tag high speed fuses for the protection of IGBT modules, optimized for use in IGBT inverter circuits with DC fuse voltage ratings up to 750 Vdc. Low inductance ≤ 15nH.

Specifications

Ratings

- Volts:
  - 750 Vdc tested at 863 Vdc according to IEC 60269-4
  - 800 Vdc tested at 800 Vdc according to UL 248-1
- Amps: 25-630 A
- Interrupting rating: 50 kA DC (1ms tc) at 800 Vdc

Operating class: aR

Agency information

- UL DC Recognized, 800 Vdc L/R 1 ms max

			I²t (A²s)			Catalog no.	
Fuse size	**Rated voltage**	**Rated current (amps)**	**Pre-arcing**	**Clearing at 690 Vac**	**Watts loss (W)***	**-FU/70**	**-FN/70**
000	750 Vdc (IEC) 800 Vdc (UL)	25	25	135	12	170M1750	170M1730
		32	45	240	13	170M1751	170M1731
		40	75	395	14	170M1752	170M1732
		50	135	695	16	170M1753	170M1733
		63	260	1350	17	170M1754	170M1734
		80	460	2350	20	170M1755	170M1735
		100	795	4000	25	170M1756	170M1736
		125	1300	6800	29	170M1757	170M1737
		160	2550	13500	34	170M1758	170M1738
		200	4350	22000	40	170M1759	170M1739
		250	7400	37500	48	170M1760	170M1740
		315	12,500	65000	60	170M1761	170M1741
		350	17,000	88000	65	170M1762	170M1742
230	750 Vdc (IEC) 800 Vdc (UL)	100	380	1950	35	170M1770	170M1785
		125	645	3300	42	170M1771	170M1786
		160	1350	7000	47	170M1772	170M1787
		200	2550	13500	54	170M1773	170M1788
		250	4950	25000	62	170M1774	170M1789
		315	9350	47500	72	170M1775	170M1790
		350	12,000	61000	78	170M1776	170M1791
		400	18,500	94500	80	170M1777	170M1792
		450	27,000	140000	85	170M1778	170M1793
		500	37,500	190000	90	170M1779	170M1794
		550	48,500	245000	95	170M1780	170M1795
		630	69,500	355000	105	170M1781	170M1796

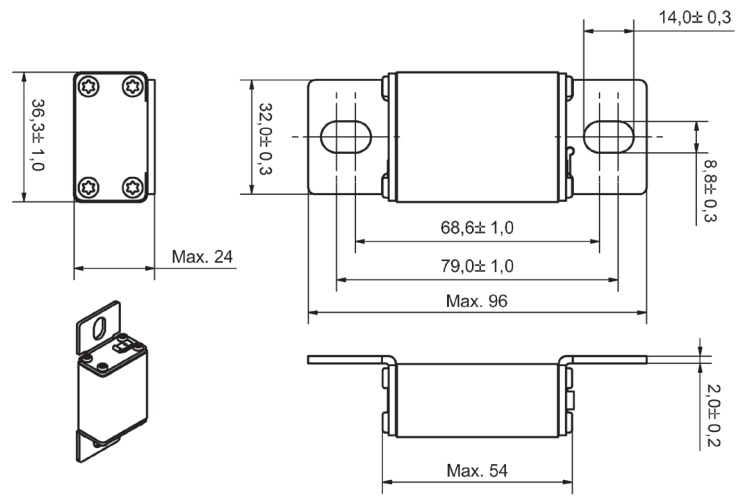
* Watts loss at rated current.

For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K6422 (Size 000), 170K6426 (Size 230)

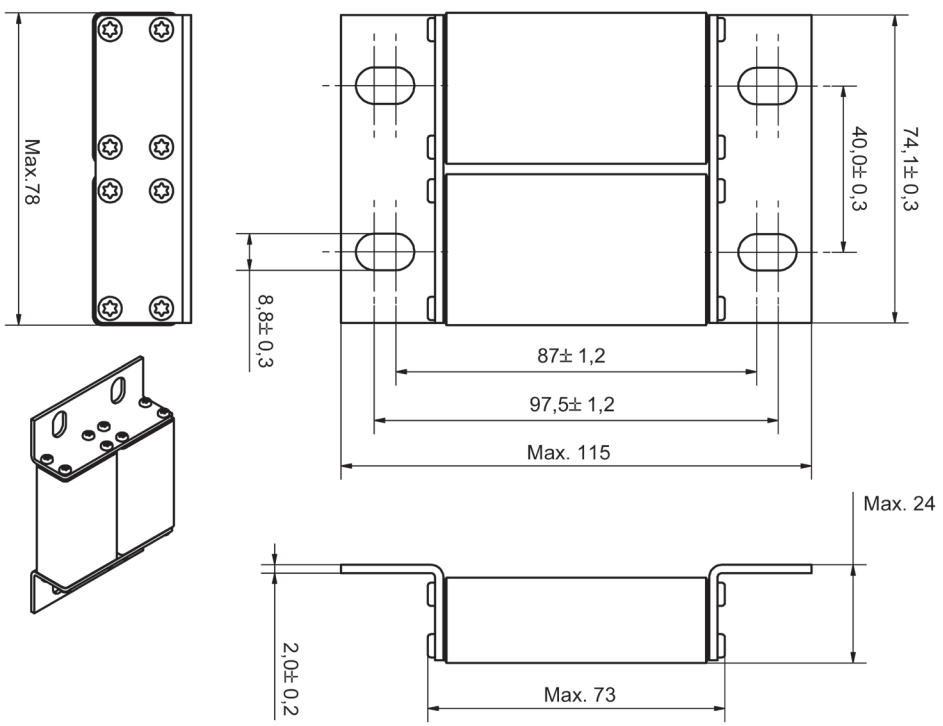
170M — size 000 and 230

750 Vdc (IEC), 800 Vdc (UL), 25 to 630 A

Dimensions — mm



Size 000



Size 230

For details on electrical characteristics, contact Application Engineering and ask for data sheets: 170K6422 (Size 000), 170K6426 (Size 230)

IGBT fuses

170M — size 000 and 230

1000 Vdc (IEC and UL), 25 to 500 A



Description

Bolted tag high speed fuses for the protection of IGBT modules, optimized for use in IGBT inverter circuits with DC fuse voltage ratings up to 1000 Vdc. Low inductance ≤ 20nH.

Specifications

Ratings

- Volts:
  - 1000 Vdc tested at 1150 Vdc according to IEC 60269-4
  - 1000 Vdc tested at 1000 Vdc according to UL 248-1
- Amps: 25-500 A
- Interrupting rating: 50 kA DC (1ms tc)

Operating class: aR

Agency information

- UL DC Recognized, 1000 Vdc L/R 1ms max

Fuse size	Rated voltage	Rated current (amps)	I²t (A²s) Pre-arcing	I²t (A²s) Clearing at 1000 Vac	Watts loss (W)*	Catalog no. -FU/90	Catalog no. -FN/90
000	1000 Vdc (IEC/UL)	25	19	95	14	170M1802	170M1842
		32	34	170	17	170M1803	170M1843
		40	61	300	20	170M1804	170M1844
		50	135	675	21	170M1805	170M1845
		63	245	1200	22	170M1806	170M1846
		80	505	2500	27	170M1807	170M1847
		100	1050	5150	32	170M1808	170M1848
		125	1900	9500	34	170M1809	170M1849
		160	4050	20,000	37	170M1810	170M1850
		200	8500	42,000	43	170M1811	170M1851
		225	12,000	59,000	45	170M1812	170M1852
		250	16,000	79,500	48	170M1813	170M1853
230	1000 Vdc (IEC/UL)	100	600	3050	38	170M1824	170M1860
		125	1200	6050	42	170M1825	170M1861
		160	2550	13,000	48	170M1826	170M1862
		200	4650	23,000	55	170M1827	170M1863
		250	9300	45,500	62	170M1828	170M1864
		315	18,500	91,500	68	170M1829	170M1865
		350	24,500	125,000	75	170M1830	170M1866
		400	37,500	185,000	80	170M1831	170M1867
		450	52,000	260,000	85	170M1832	170M1868
		500	69,500	340,000	90	170M1833	170M1869

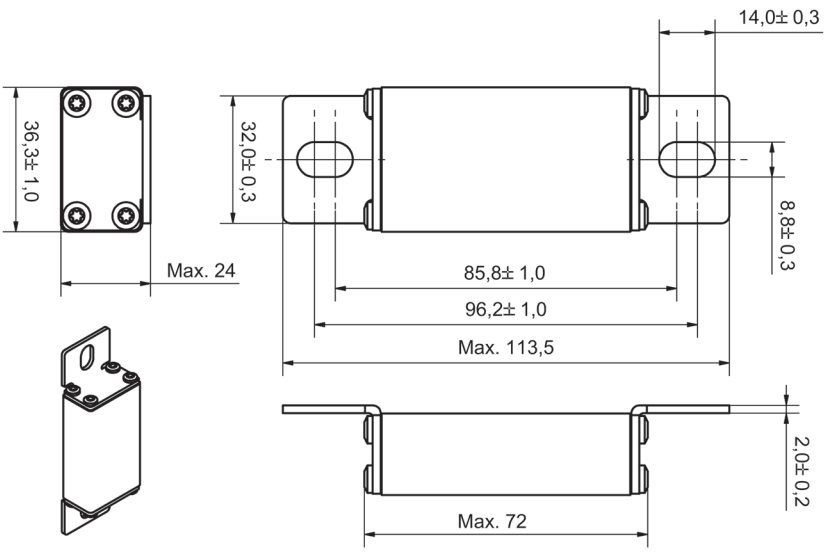
* Watts loss at rated current.

For details on electrical characteristics, contact Application Engineering and ask for data sheets: 170K6680 (Size 000), 170K6682 (Size 230)

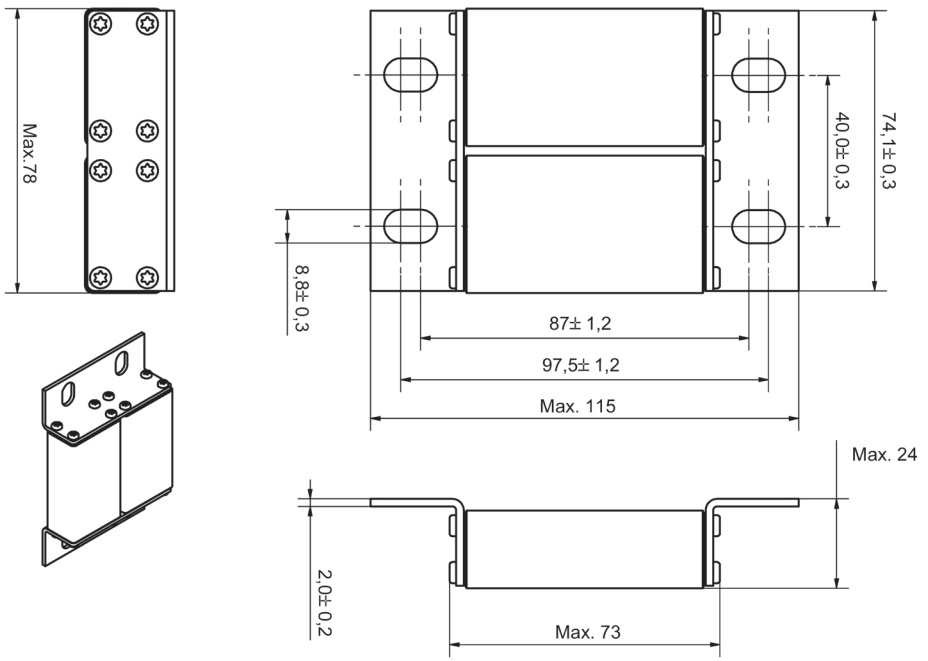
170M — size 000 and 230

1000 Vdc (IEC and UL), 25 to 500 A

Dimensions — mm



Size 000



Size 230

For details on electrical characteristics, contact Application Engineering and ask for data sheets:170K6680 (Size 000), 170K6682 (Size 230)

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