

Busmann series
Low-Peak™ fuses offer
the industry's most advanced
circuit protection



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Low voltage,
branch circuit fuses

Fuse holder and block selection guide

Catalog pages for the blocks and holders are denoted parenthetically "()" next to their catalog symbol.

Fuse class	Catalog symbol	Blocks	DIN-Rail holders	Panel mount holders	In-line holders
CC	FNQ-R KTK-R LP-CC	BCM (8-6) 3743 (8-14) 4421 (8-14) 4515 (8-14)	OPM-1038 (8-12) OPM-NG (8-13) CHCC (8-8) CCP-CC††† (11-2)	HPF-RR (8-45) HPS-RR (8-47)	HEY (8-55) HEZ (8-54)
CF	FCF TCF WCF††	TCFH (1-11) TCFHNW (1-11)	CCP-CF††† (11-4) CCPB††† (11-6)	—	—
G	SC	BG (8-15) G (8-15)	—	HPG-EE (15 A) (8-46) HPS-EE (15 A) (8-47) HPS-FF (30 A) (8-47) HPS-JJ (20 A) (8-47)	HEC (30 A) (8-51) HEG (15 A) (8-51) HEH (20 A) (8-51) HEJ (60 A) (8-51)
H(K) 250 V	NON (250 V)	HM25_ (8-19) HM25060_MW* (8-24)	—	—	—
H(K) 600 V	NOS (600 V)	HM60_ (8-19) HM60030_MW* (8-24)	—	—	—
J	LPJ JKS	JM60_ (8-31) JM60_MW* (8-33) JP60030 (8-30)	CH_J (8-28) JT(N) (8-29)	—	—
L	KRP-C KRP-CL KLU KTU	51215** 51235**	—	—	—
RK1 250 V	LPN-RK KTN-R	RM25_ (8-21) RM25_MW* (8-26)	—	—	—
RK1 600 V	LPS-RK KTS-R	RM60_ (8-21) RM60_MW* (8-26)	—	—	—
RK5 250 V	FRN-R	RM25_ (8-21) RM25_MW* (8-26)	—	—	—
RK5 600 V	FRS-R	RM60_ (8-21) RM60_MW* (8-26)	—	—	—
T 300 V	JJN	T300 (8-35)	—	—	—
T 600 V	JJS	T600 (8-37)	—	—	—
T up to 600 V	JJN/JJS	BH-0_, BH-1_, BH-3_† (8-39)	—	—	—
Plug fuses	P, T, TC, TL, W Edison base	Box cover units (1-30)	—	—	—
	S, SL rejection base	SA adapters (1-29)	—	—	—

* Power distribution fuse blocks.

** Up to 800 A, contact customer satisfaction at 855-287-7626 for more information.

† Various blade bolt-on up to 700 A, see data sheets for limitations.

†† WCF (wind CUBEFuse) is rated to 690 V and is not a UL Listed Class CF fuse and can only be applied in the TCFHNW holder.

††† UL 98 Listed disconnect switch, available in 1-, 2- and 3-pole versions.

250 V fuse reducers

Equipment fuse clip amps	Desired fuse (case)	
	amp size	Catalog no. (pairs)
60	30	NO.263-R
	30	NO.213-R
100	60	NO.216-R
	60	NO.226-R
200	100	NO.2621-R
	100	NO.2641-R
400	200	NO.242-R
	100	NO.2661-R
600	200	NO.2662-R
	400	NO.2664-R*

* Single reducer only (pair not required).

600 V fuse reducers

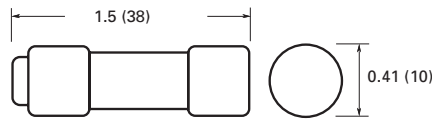
Equipment fuse clip amps	Desired fuse (case)	
	amp size	Catalog no. (pairs)
60	30	NO.663-R
	30	NO.216-R
100	60	NO.616-R
	60	NO.626-R
200	100	NO.2621-R
	100	NO.2641-R
400	200	NO.642-R
	100	NO.2661-R
600	200	NO.2662-R
	400	NO.2664-R*

* Single reducer only (pair not required).

Branch circuit fuse dimensions

Class CC — in (mm)

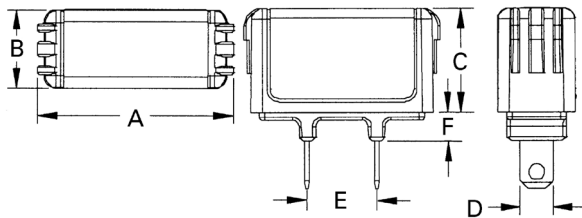
LP-CC, FNQ-R, KTK-R and LP-CC



Amp range	A	B
Up to 30	1.5 (38)	0.41 (10)

Class CF — in (mm)

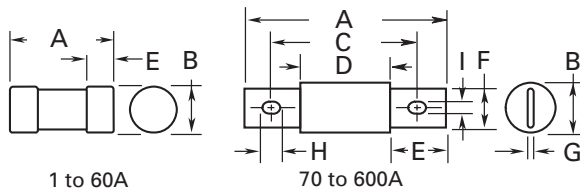
TCF, FCF and WCF



Amp range	A	B	C	D	E	F
1-15	1.88 (48)	0.75 (19)	1.0 (25)	0.23 (6)	0.63 (16)	0.28 (7)
17-1/2	1.88 (48)	0.75 (19)	1.0 (25)	0.31 (8)	0.63 (16)	0.28 (7)
20	1.88 (48)	0.75 (19)	1.0 (25)	0.31 (8)	0.63 (16)	0.28 (7)
25-30	1.88 (48)	0.75 (19)	1.0 (25)	0.31 (8)	0.63 (16)	0.28 (7)
35-40	2.13 (54)	1.0 (25)	1.13 (29)	0.36 (9)	0.63 (16)	0.38 (10)
45-50	2.13 (54)	1.0 (25)	1.13 (29)	0.44 (11)	0.63 (16)	0.38 (10)
60	2.13 (54)	1.0 (25)	1.13 (29)	0.44 (11)	0.63 (16)	0.38 (10)
70	3.01 (76)	1.0 (25)	1.26 (32)	0.49 (12)	0.58 (15)	0.38 (10)
80-90	3.01 (76)	1.0 (25)	1.26 (32)	0.49 (12)	0.58 (15)	0.38 (10)
100	3.01 (76)	1.0 (25)	1.26 (32)	0.57 (14)	0.58 (15)	0.38 (10)

Class J — in (mm)

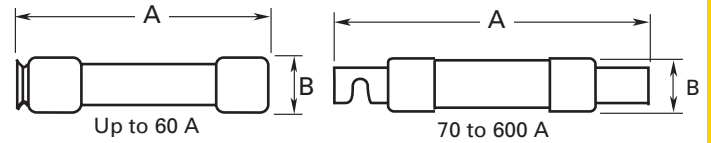
LPJ and JKS



Amp range	A	B	C	D	E	F	G	H	I
1-30	2.25 (57)	0.81 (21)	—	—	0.5 (13)	—	—	—	—
35-60	2.38 (60)	1.06 (27)	—	—	0.63 (16)	—	—	—	—
70-100	4.63 (118)	1.13 (29)	3.63 (92)	2.63 (67)	1.0 (25)	0.75 (19)	0.13 (3)	0.41 (10)	0.28 (7)
110-200	5.75 (146)	1.63 (41)	4.38 (111)	3.0 (76)	1.38 (35)	1.13 (29)	0.19 (5)	0.38 (10)	0.28 (7)
225-400	7.12 (181)	2.11 (54)	5.25 (133)	3.26 (83)	1.87 (48)	1.62 (41)	0.25 (6)	0.56 (14)	0.4 (10)
450-600	8.0 (203)	2.6 (66)	6.0 (152)	3.31 (84)	2.12 (54)	2.0 (51)	0.53 (14)	0.72 (18)	0.53 (14)

Class RK1 and RK5 — in (mm)

FRN-R, KTN-R LPN-RK (250 V) and FRS-R, KTS-R LPS-RK (600 V)

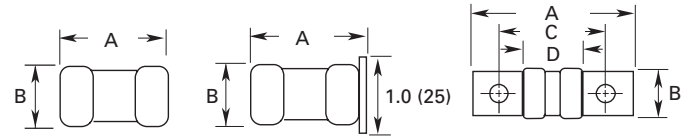


Basic dimensions are same as Class H, one-time (NON and NOS) fuses. **Note:** relating to dimensional compatibility these fuses can replace existing Class H, RK1 and RK5 fuses.

Amp range	250 V fuses		600 V fuses	
	A	B	A	B
Up to 30	2 (51)	0.56 (14)	5.0 (127)	0.81 (21)
35-60	3 (76)	0.81 (21)	5.5 (140)	1.06 (27)
RK5 FRN-R, FRS-R, — RK1 KTN-R, KTS-R				
70-100	5.88 (149)	1.06 (27)	7.88 (200)	1.34 (34)
110-200	7.13 (181)	1.56 (40)	9.63 (245)	1.84 (47)
225-400	8.63 (219)	2.38 (61)	11.63 (295)	2.59 (66)
450-600	10.38 (264)	2.88 (73)	13.38 (340)	3.13 (80)
RK1 LPN-RK, LPS-RK				
70-100	5.88 (149)	1.16 (30)	7.88 (200)	1.16 (30)
110-200	7.13 (181)	1.66 (42)	9.63 (245)	1.66 (42)
225-400	8.63 (219)	2.38 (61)	11.63 (295)	2.38 (61)
450-600	10.38 (264)	2.88 (73)	13.38 (340)	2.88 (73)

Class T — in (mm)

JJN (300 V) and JJS (600 V)



JJN up to 60 A
JJS up to 30 A
JJN 70 to 1200 A
JJS 70 to 800 A

Amp range	A	B	C	D
300 V JJN				
Up to 30	0.88 (22)	0.41 (10)	—	—
35-60	0.88 (22)	0.56 (14)	—	—
70-100	2.16 (55)	0.75 (19)	1.56 (40)	0.84 (21)
110-200	2.44 (62)	0.88 (22)	1.69 (43)	0.84 (21)
225-400	2.75 (70)	1.00 (25)	1.84 (47)	0.86 (22)
450-600	3.06 (78)	1.25 (32)	2.03 (52)	0.88 (22)
601-800	3.38 (86)	1.75 (45)	2.22 (56)	0.89 (23)
801-1200	4.00 (102)	2.00 (51)	2.53 (64)	1.08 (27)
600 V JJS				
Up to 30	1.50 (38)	0.56 (14)	—	—
35-60	1.56 (40)	0.81 (21)	—	—
70-100	2.95 (75)	0.75 (19)	2.36 (60)	1.64 (42)
110-200	3.25 (83)	0.88 (22)	2.50 (64)	1.66 (42)
225-400	3.63 (92)	1.00 (25)	2.72 (69)	1.73 (44)
450-600	3.98 (101)	1.25 (32)	2.96 (75)	1.78 (45)
601-800	4.33 (110)	1.75 (45)	3.17 (81)	1.88 (48)

Low voltage, branch circuit fuses

FRN-R (250 V) and FRS-R (600 V) Class RK5 Fusetron™ energy efficient, dual-element, time-delay fuses

Dual-element, time-delay Class RK5 fuses. FRN-R — 10 seconds (minimum) at 500% rated amps (8 seconds for 0-30 A sizes). FRS-R — 10 seconds (minimum) at 500% rated amps. FRN-R and FRS-R available with optional indication on select ratings (see catalog numbers table). For superior electrical protection, Eaton recommends upgrading to Bussmann series Low-Peak LPN-RK (250 V) or LPS-RK (600 V) fuses, see page 1-18. For dimensions, see page 1-3.

Ratings

- Volts
 - FRN-R
 - 250 Vac (or less)
 - 125 Vdc (1/10-60 A, 110-200 A)
 - 250 Vdc (225-600 A)
 - FRS-R
 - 600 Vac (or less)
 - 300 Vdc 1/10-30 A, 65-600 A
 - 250 Vdc 35-60 A
- Amps 1/10-600 A
- IR
 - 200 kA RMS Sym.
 - 20 kA DC



Agency information

- FRN-R
 - UL Listed, Std 248-12, Class RK5, Guide JDDZ, File E4273
 - CSA Certified, Class 1422-01, File 53787
- FRS-R
 - UL Listed, Std 248-12, Class RK5, Guide JDDZ, File E4273
 - CSA Certified, Class 1422-02, File 53787
- CE

Features

- Separate overload and short-circuit elements provide time-delay for sizing as close as 125% of motor FLA (FRN-R)
- 2:1 selective coordination amp ratio (within the Fusetron RK5 fuse family) helps prevent overcurrent events from opening upstream Fusetron fuses
- Insulated end caps for 225-600 A (FRN-R) and 65-600 A (FRS-R) fuses reduces exposure to live parts and extends air gap to distance between blades of adjacent mounted fuses or to housing

Typical applications

- Power panelboards
- Motor control centers
- Combination starters
- Machinery disconnects

Catalog no. (amps)

250 V FRN-R			
FRN-R-1/10	FRN-R-2	FRN-R-10*	FRN-R-100
FRN-R-1/8	FRN-R-2-1/4	FRN-R-12*	FRN-R-110
FRN-R-15/100	FRN-R-2-1/2	FRN-R-15*	FRN-R-125
FRN-R-2/10	FRN-R-2-8/10	FRN-R-17-1/2*	FRN-R-150
FRN-R-1/4	FRN-R-3	FRN-R-20*	FRN-R-175
FRN-R-3/10	FRN-R-3-2/10	FRN-R-25*	FRN-R-200
FRN-R-4/10	FRN-R-3-1/2	FRN-R-30*	FRN-R-225
FRN-R-1/2	FRN-R-4	FRN-R-35*	FRN-R-250
FRN-R-6/10	FRN-R-4-1/2	FRN-R-40*	FRN-R-300
FRN-R-8/10	FRN-R-5	FRN-R-45*	FRN-R-350
FRN-R-1	FRN-R-5-6/10	FRN-R-50*	FRN-R-400
FRN-R-1-1/8	FRN-R-6	FRN-R-60*	FRN-R-450
FRN-R-1-1/4	FRN-R-6-1/4	FRN-R-70	FRN-R-500
FRN-R-1-4/10	FRN-R-7	FRN-R-75	FRN-R-600
FRN-R-1-1/2	FRN-R-7-1/2	FRN-R-80	
FRN-R-1-6/10	FRN-R-8*	FRN-R-85	
FRN-R-1-8/10	FRN-R-9*	FRN-R-90	
600 V FRS-R			
FRS-R-1/10	FRS-R-2	FRS-R-10*	FRS-R-100
FRS-R-1/8	FRS-R-2-1/4	FRS-R-12*	FRS-R-110
FRS-R-15/100	FRS-R-2-1/2	FRS-R-15*	FRS-R-125
FRS-R-2/10	FRS-R-2-8/10	FRS-R-17-1/2*	FRS-R-150
FRS-R-1/4	FRS-R-3	FRS-R-20*	FRS-R-175
FRS-R-3/10	FRS-R-3-2/10	FRS-R-25*	FRS-R-200
FRS-R-4/10	FRS-R-3-1/2	FRS-R-30*	FRS-R-225
FRS-R-1/2	FRS-R-4	FRS-R-35*	FRS-R-250
FRS-R-6/10	FRS-R-4-1/2	FRS-R-40*	FRS-R-300
FRS-R-8/10	FRS-R-5	FRS-R-45*	FRS-R-350
FRS-R-1	FRS-R-5-6/10	FRS-R-50*	FRS-R-400
FRS-R-1-1/8	FRS-R-6*	FRS-R-60*	FRS-R-450
FRS-R-1-1/4	FRS-R-6-1/4*	FRS-R-65	FRS-R-500
FRS-R-1-4/10	FRS-R-7*	FRS-R-70	FRS-R-600
FRS-R-1-1/2	FRS-R-7-1/2*	FRS-R-75	
FRS-R-1-6/10	FRS-R-8*	FRS-R-80	
FRS-R-1-8/10	FRS-R-9*	FRS-R-90	

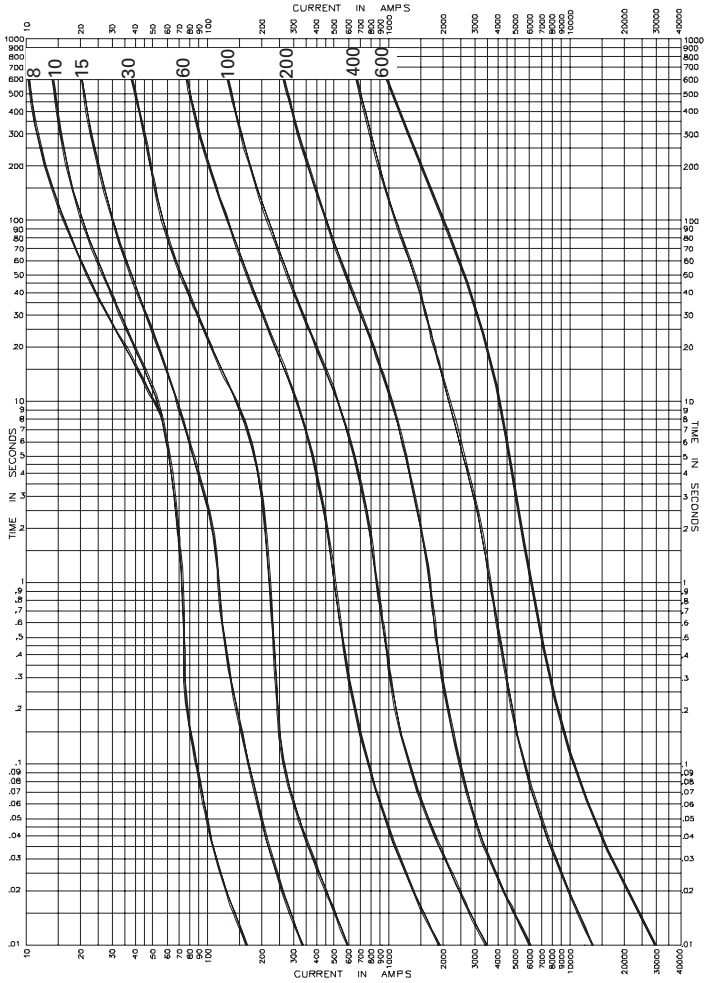
* Available with indication To order, place "ID" at the end of the catalog number. Example: FRN-R-30**ID** or FRS-R-7**ID**.

Recommended blocks for Class RK5 fuses, see page 1-2.

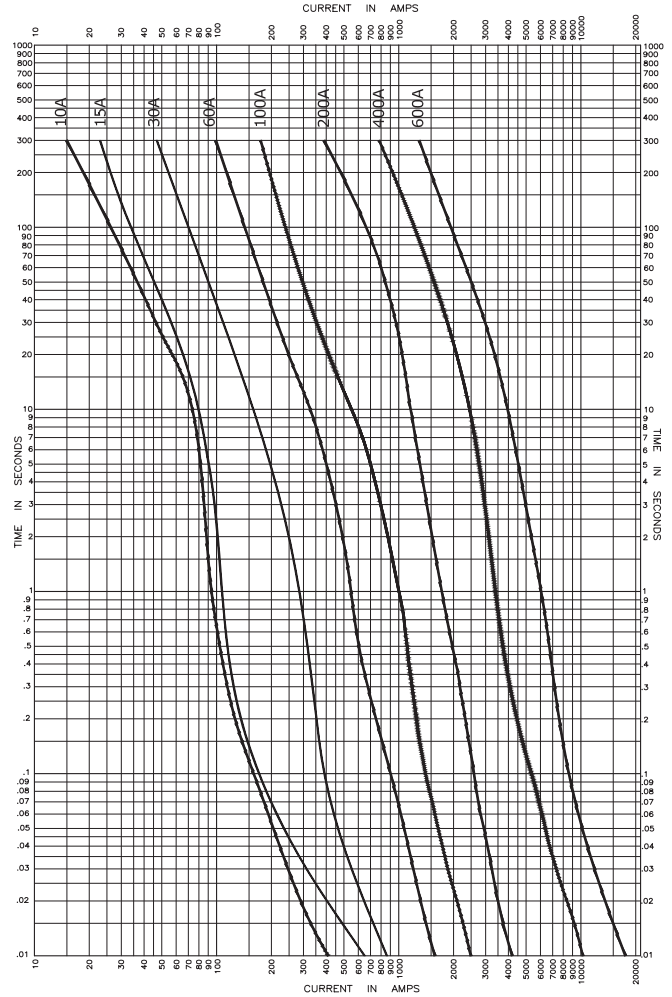
Recommended fuse reducers for Class R fuses, see page 1-2.

Low voltage, branch circuit fuses

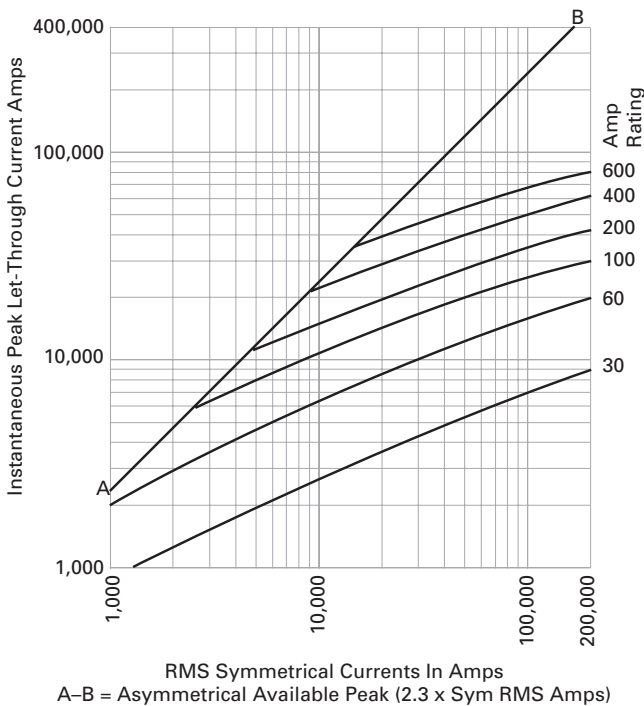
FRN-R Time-current characteristics — average melt



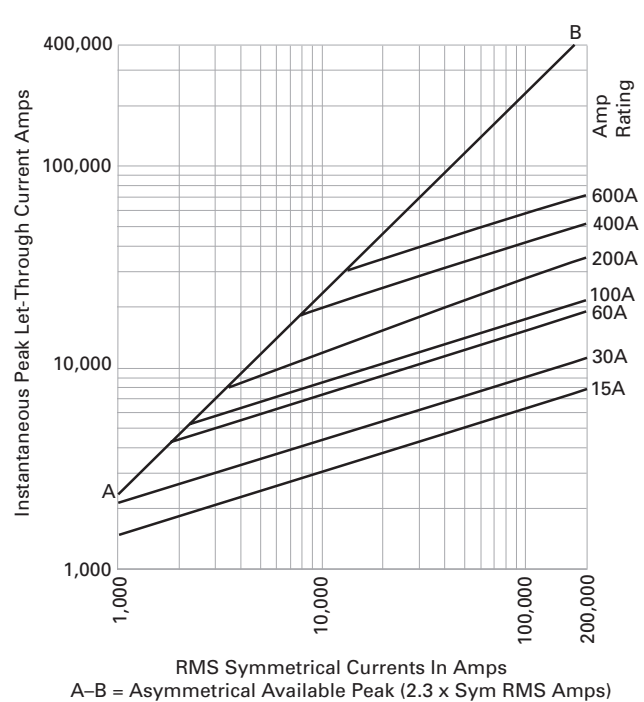
FRS-R Time-current characteristics — average melt



FRN-R Current limitation curves



FRS-R Current limitation curves



Data sheet no. FRN-R; 1019 (up to 60 A), 1020 (70-600 A)
FRS-R 1017 (up to 60 A), 1018 (70-600 A)