Fusetron™ FRN-R Class RK5 250Vac/125Vdc 1/10-60A, dual element, time-delay fuses

Catalog symbols:

- FRN-R-_ (non-indicating)
- FRN-R-_ID (indicating)

Description:

Eaton Bussmann® series advanced protection, energy efficient FRN-R Class RK5 dual element, current-limiting, time-delay fuses with optional open fuse indication on select ratings. Time-delay – 10 seconds (minimum) at 500% of rated current (8 seconds for 1/10-30A sizes).

Specifications:

Ratings

- Volts
  - 250Vac
  - 125Vdc
- Amps 1/10-60A
- Interrupting rating
  - 200kA Vac RMS Sym.
  - 20kA Vdc

Agency information

- UL Listed, Std. 248-12, Class RK-5, Guide JDDZ, File E4273
- CSA Certified, C22.2 No. 248.12, Class 1422-02, File 53787
- CE

Catalog numbers (amps) — non-indictaing fuses		
FRN-R-1/10	FRN-R-1-8/10	FRN-R-8*
FRN-R-1/8	FRN-R-2	FRN-R-9*
FRN-R-15/100	FRN-R-2-1/4	FRN-R-10*
FRN-R-2/10	FRN-R-2-1/2	FRN-R-12*
FRN-R-1/4	FRN-R-2-8/10	FRN-R-15*
FRN-R-3/10	FRN-R-3	FRN-R-17-1/2*
FRN-R-4/10	FRN-R-3-2/10	FRN-R-20*
FRN-R-1/2	FRN-R-3-1/2	FRN-R-25*
FRN-R-6/10	FRN-R-4	FRN-R-30*
FRN-R-8/10	FRN-R-4-1/2	FRN-R-35*
FRN-R-1	FRN-R-5	FRN-R-40*
FRN-R-1-1/8	FRN-R-5-6/10	FRN-R-45*
FRN-R-1-1/4	FRN-R-6	FRN-R-50*
FRN-R-1-4/10	FRN-R-6-1/4	FRN-R-60*
FRN-R-1-1/2	FRN-R-7	
FRN-R-1-6/10	FRN-R-7-1/2	

* Open fuse indication available by inserting the suffix "ID." E.g., FRN-R-15ID.

Carton Quantity:

| Amp rating	Carton qty.
1/10 – 60	10

Features:

- Provides motor overload, ground fault and short-circuit protection
- Helps protect motors against burnout from overloads
- Helps protect motors against burnout from single-phasing on three-phase systems
- Simplifies and improves blackout prevention (selective coordination)
- Dual-element fuses can be applied in circuits subject to temporary motor overloads and surge currents to provide both high performance short-circuit and overload protection
- The overload element provides protection against low level overcurrent of overloads and will hold an overload which is five times greater than the ampere rating of the fuse for a minimum of ten seconds

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Dimensions - in:
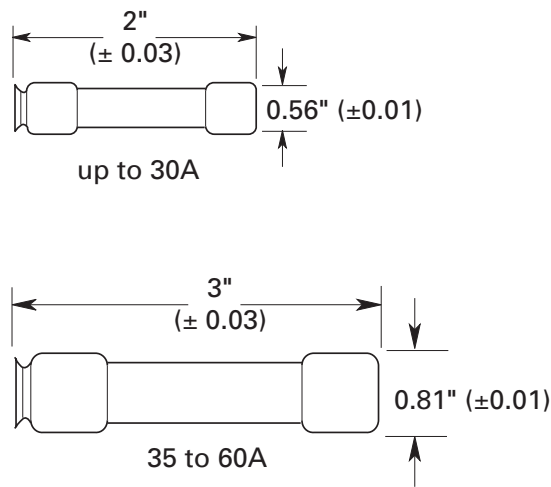
up to 30A

35 to 60A

Recommended fuse blocks:

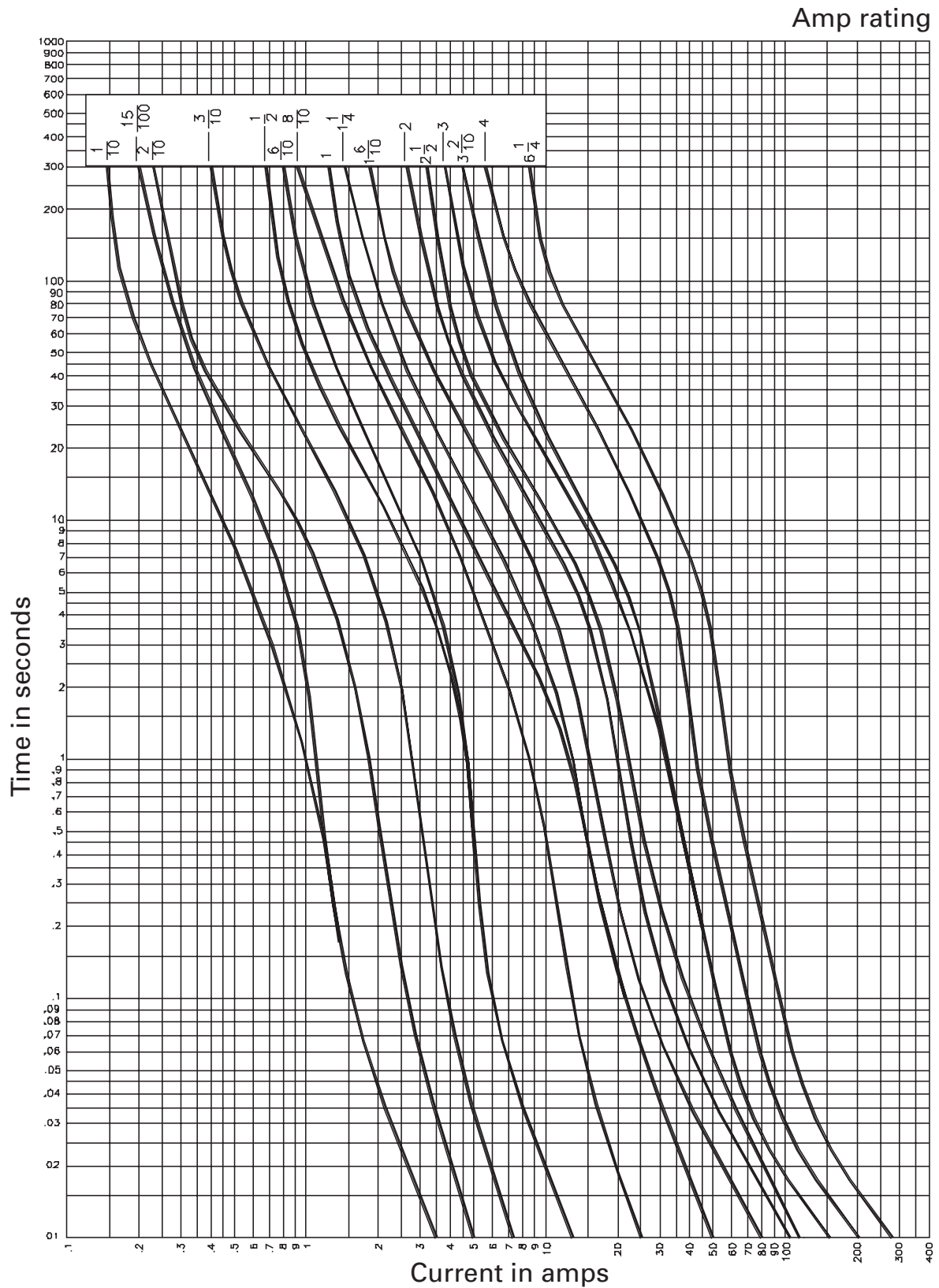| Fuse amps	1-pole	2-pole	3-pole
up to 30	RM25030-1_	RM25030-2_	RM25030-3_
35 to 60	RM25060-1CR	RM25060-2CR	RM25060-3CR

For additional information see data sheet no. 10289.

Fuse reducers for Class R fuses

Fuse size	Amp size of fuse block or disconnect switch	Catalog no. (pairs)
Up to 30A	60A	No.263-R
Up to 30A	100A	No.213-R
35 to 60A		No.216-R
35 to 60A	200A	No.226-R

For additional information on Class R fuse reducers, see data sheet no 1118.
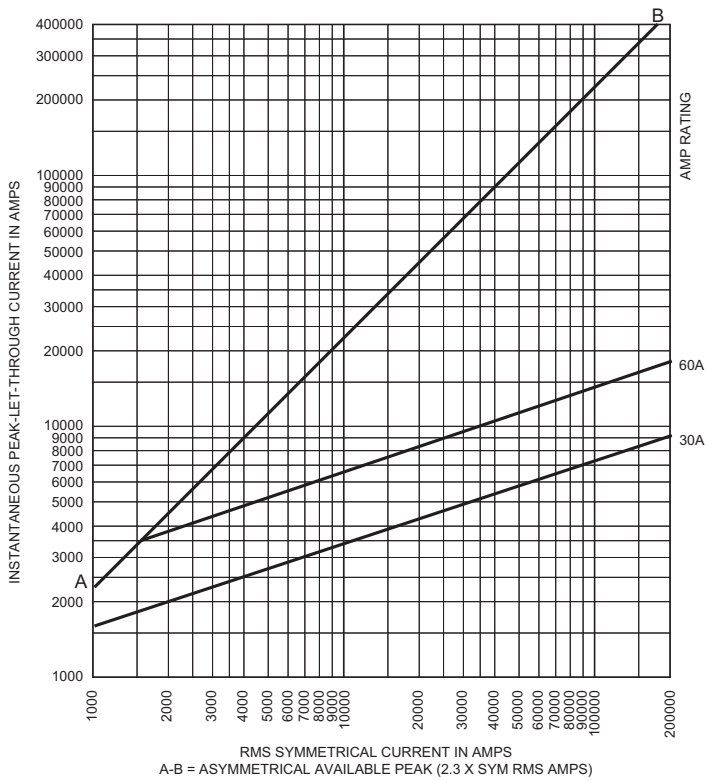
Time-current curves — average melt:

1/10 to 6-1/4 amps

Amp rating

Time in seconds

Current in amps

Time-current curves — average melt:

8 to 60 amps

Amp rating

Time in seconds

Current in amps
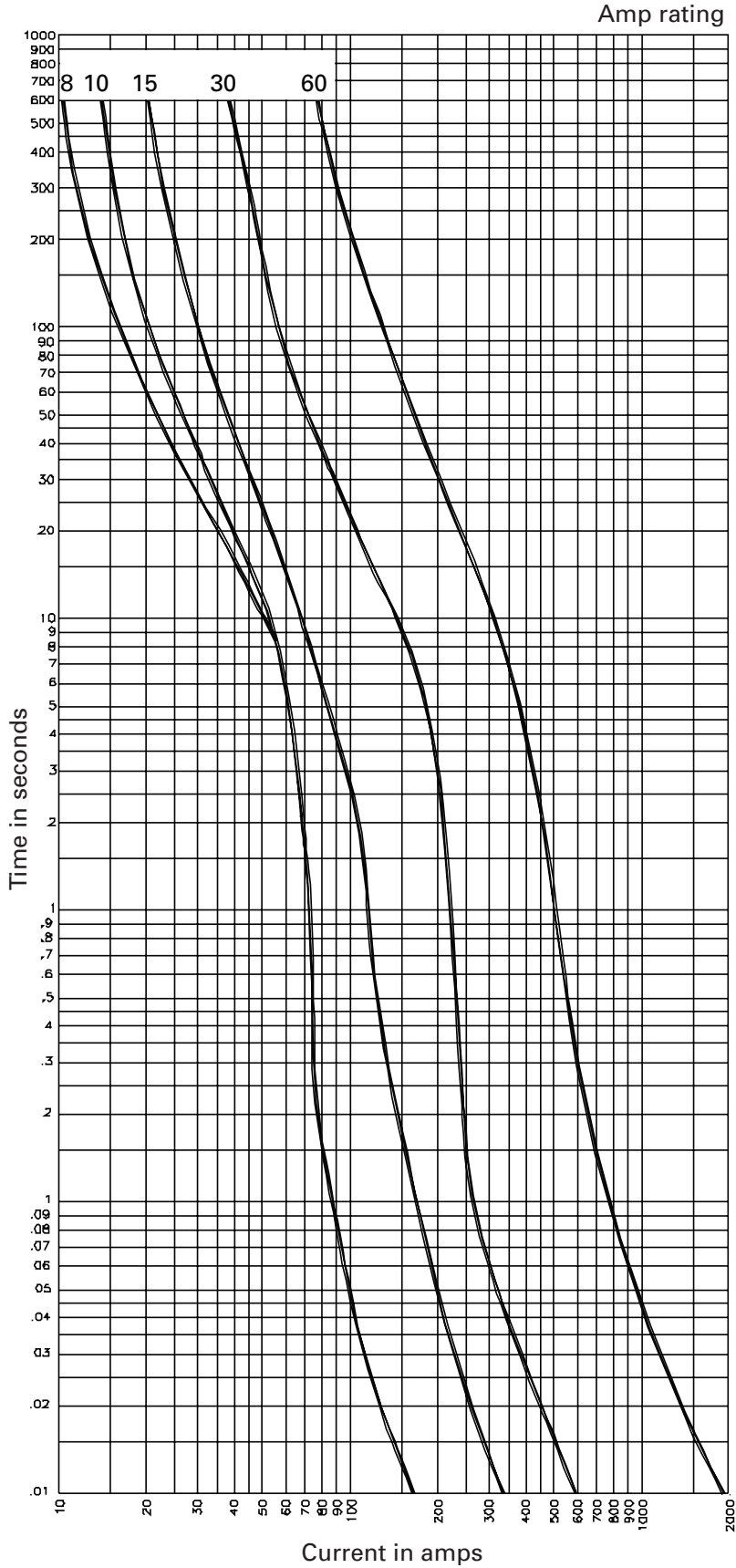
Current-limitation curves:

RMS SYMMETRICAL CURRENT IN AMPS
A-B = ASYMMETRICAL AVAILABLE PEAK (2.3 X SYM RMS AMPS)

Current-limiting effects:

Prosp. S.C.C.	Let-through current (apparent RMS Sym. vs. fuse rating)	
	30A	60A
—	30A	60A
5000	1000	2000
10,000	2000	3000
15,000	2000	3000
20,000	2000	4000
25,000	2000	4000
30,000	2000	4000
35,000	2000	4000
40,000	2000	5000
50,000	3000	5000
60,000	3000	5000
70,000	3000	6000
80,000	3000	6000
90,000	3000	6000
100,000	3000	6000
150,000	4000	7000
200,000	4000	8000

For Eaton's Bussmann series product information,
call **1-855-287-7626** or visit:
Eaton.com/bussmannseries

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