

# Fusetron™ 600 V Class RK5, FRS-R — 600 Vac/300 Vdc, 1/10-60 A, dual element, time-delay fuses



**Catalog symbol:**

- FRS-R-(amp) (non-indicating)
- FRS-R-(amp)ID (indicating)

**Description:**

- Advanced protection, energy efficient Class RK5 dual element, current-limiting, time-delay fuses with optional open fuse indication on select ratings
- Time-delay – 10 second (minimum) at 500% of rated current

**Specifications:**

**Ratings**

- Volts
  - 600 Vac, 300 Vdc (1/10-30 A)
  - 600 Vac, 250 Vdc (35-60 A)
- Amps — 1/10-60 A
- Interrupting rating
  - 200 kA Vac RMS Sym
  - 20 kA Vdc

**Agency information:**

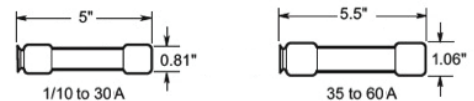
- CE, UL® Listed, Std. 248-12, Class RK5, Guide JDDZ, File E4273
- CSA® Certified, C22.2 No. 248.12, Class 1422-02, File 53787
- CE

**Features:**

- Dual-element feature provides the best time-delay performance, allowing closer sizing and superior protection of motors and transformers
- Closer sizing allows for smaller fuses and less costly switches
- Class RK5 fuses with a 200 kA interrupting rating for use in a broad range of applications
- Provides motor overload, ground fault, and short-circuit protection
- Helps protect motors against burnout from overloads and single-phasing when sized properly

- 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
- Offers a 10-second time delay at 5 times the rated current
- The time-delay feature makes it possible to use fuse amp ratings that are much smaller than those of non-time delay fuses. Considerable cost savings occur by permitting the use of smaller size switches, panels, and fuses themselves.
- Provides current limitation to help protect downstream components from high fault currents.
- Gives motor running back-up protection to motors without extra costs.

**Dimensions - in:**



**Catalog numbers (amps) — Non-indicating fuses**

FRS-R-1/10	FRS-R-1 8/10	FRS-R-8*
FRS-R-1/8	FRS-R-2	FRS-R-9*
FRS-R-15/100	FRS-R-2 1/4	FRS-R-10*
FRS-R-2/10	FRS-R-2 1/2	FRS-R-12*
FRS-R-1/4	FRS-R-2 8/10	FRS-R-15*
FRS-R-3/10	FRS-R-3	FRS-R-17 1/2*
FRS-R-4/10	FRS-R-3 2/10	FRS-R-20*
FRS-R-1/2	FRS-R-3 1/2	FRS-R-25*
FRS-R-6/10	FRS-R-4	FRS-R-30*
FRS-R-8/10	FRS-R-4 1/2	FRS-R-35*
FRS-R-1	FRS-R-5	FRS-R-40*
FRS-R-1 1/8	FRS-R-5 6/10	FRS-R-45*
FRS-R-1 1/4	FRS-R-6*	FRS-R-50*
FRS-R-1 4/10	FRS-R-6 1/4*	FRS-R-60*
FRS-R-1 1/2	FRS-R-7*	—
FRS-R-1 6/10	FRS-R-7 1/2*	—

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

**Carton quantity:**

Amp rating	Carton qty.
1/10-60	10

**Recommended fuse blocks**

Fuse amps	1-Pole	2-Pole	3-Pole
0-30	RM60030-1	RM60030-2	RM60030-3
35-60	RM60060-1	RM60060-2	RM60060-3

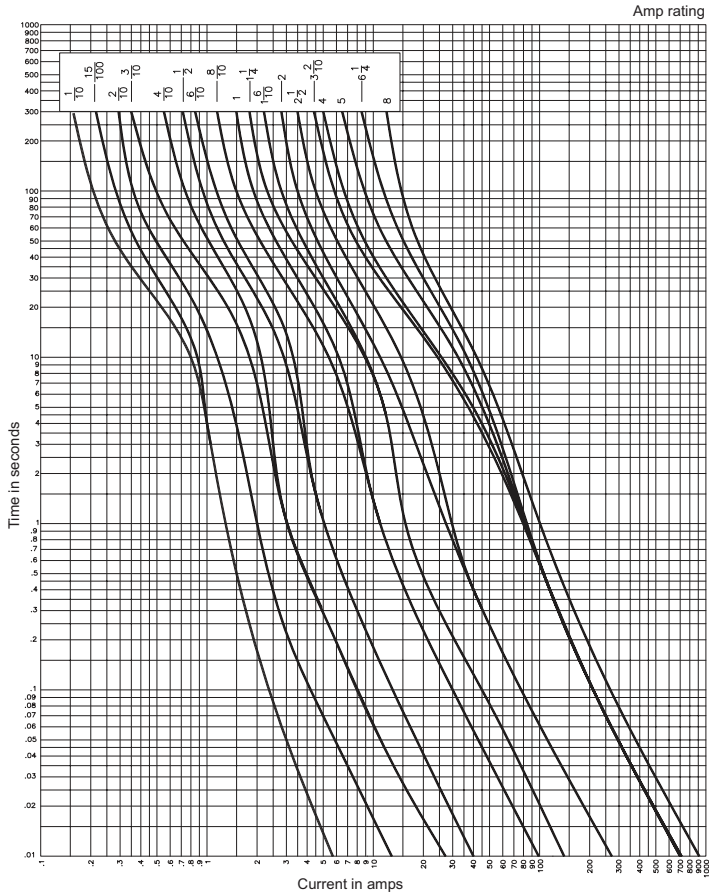
**Fuse reducers for class R fuses**

Equipment fuse clips	Desired fuse (case) size	Catalog number (pairs) 600V
60A	30A	No. 663-R
100A	30A	No. 216-R
	60A	No. 616-R
200A	60A	No. 626-R

For additional information on class R fuse reducers, see data sheet No. 1118.

**Time-current curves—average melt**

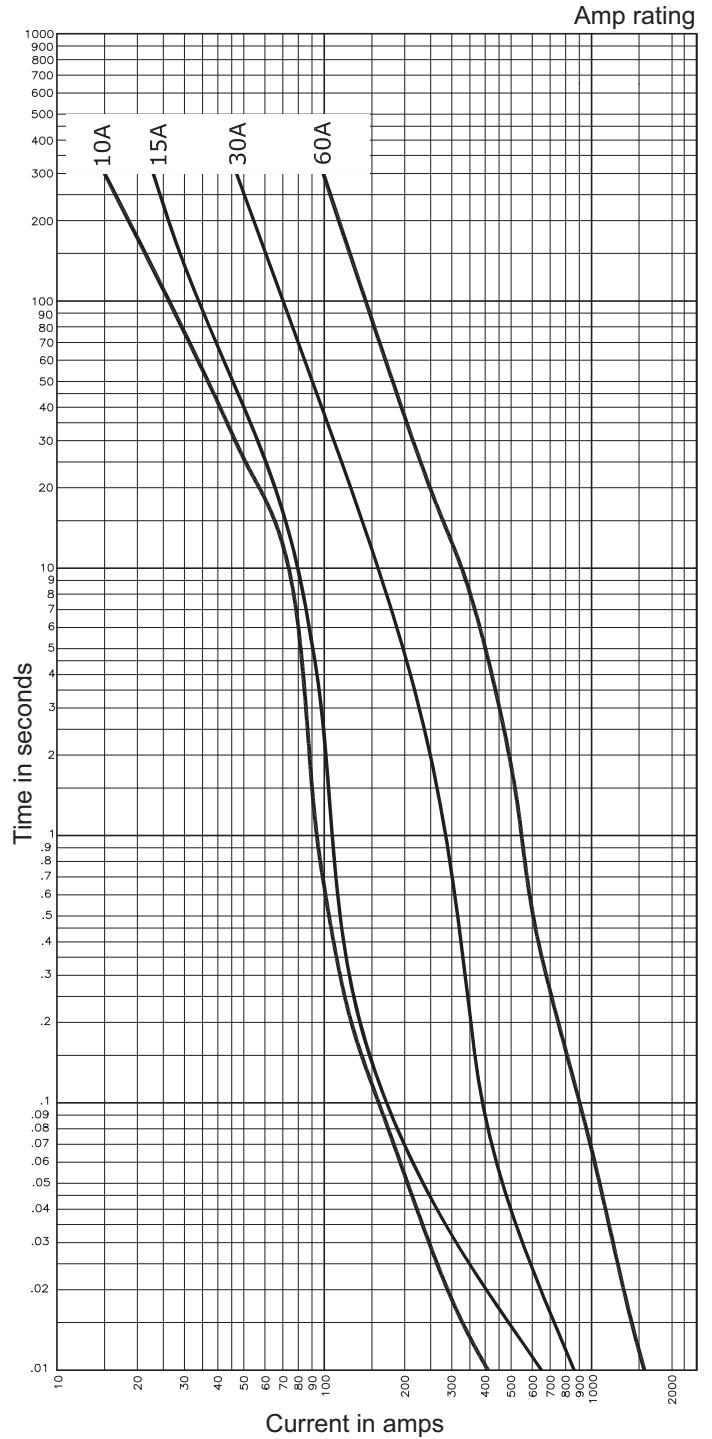
**1/10 to 8 amps**



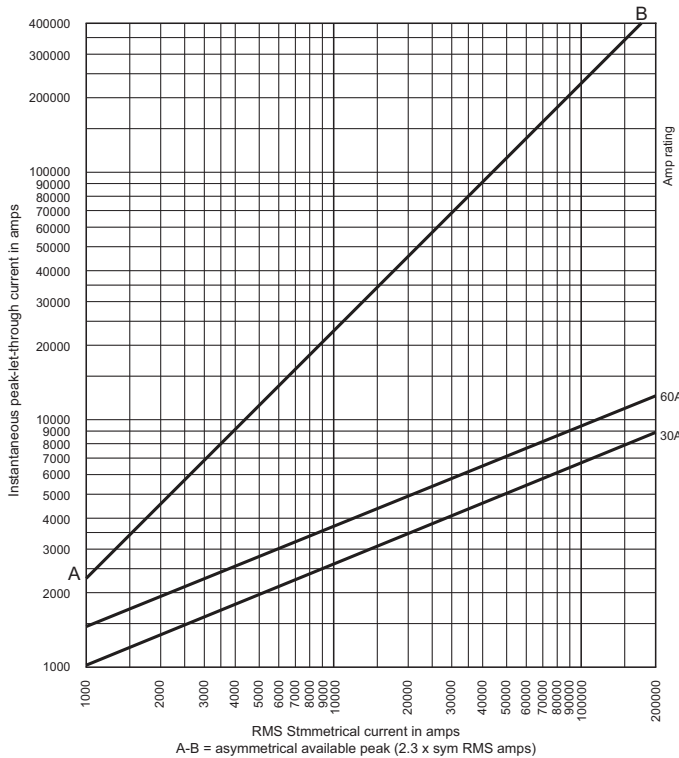
For additional information on the R600, 600 volt fuse blocks, see data sheet No. 1111.

**Time-current curves—average melt**

**10 to 60 amps**



**Current-limitation curves**



**Current-limiting effects**

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

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Printed in USA  
Publication No. 1017 – BU-MC16054  
May 2016

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