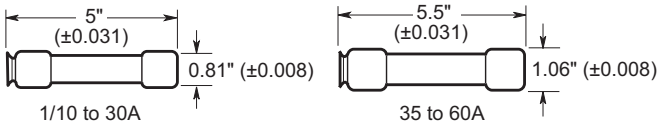
FUSETRON™ 600V Class RK5

FRS-R — 600Vac/300Vdc, 1/10-60A, Dual Element, Time-Delay Fuses



Dimensions - in



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.

Catalog Symbol: FRS-R-(amp) (non-inducating)
FRS-R-(amp)ID (indicating

Ratings:

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

Catalog Numbers (amps) — Non-indictaing fuses

FRS-R-1/10	FRS-R-1 9/10	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 4/10	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 8/10	FRS-R-7 1/2*	

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

Carton Quantity:

Amp Rating	Carton Qty.
1/10–60	10

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 200kA 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.
- 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.
- 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.

Recommended Fuse Blocks

Fuse Amps	1-Pole	2-Pole	3-Pole
0-30	R60030-1	R60030-2	R60030-3
35-60	R60060-1	R60060-2	R60060-3

For additional information on the R600 Series of 600 volt fuse blocks, see Data Sheet # 1111.

Fuse Reducers For Class R Fuses

Equipment Fuse Clips	Desired Fuse (Case) Size	Catalog Numbers (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 # 1118.

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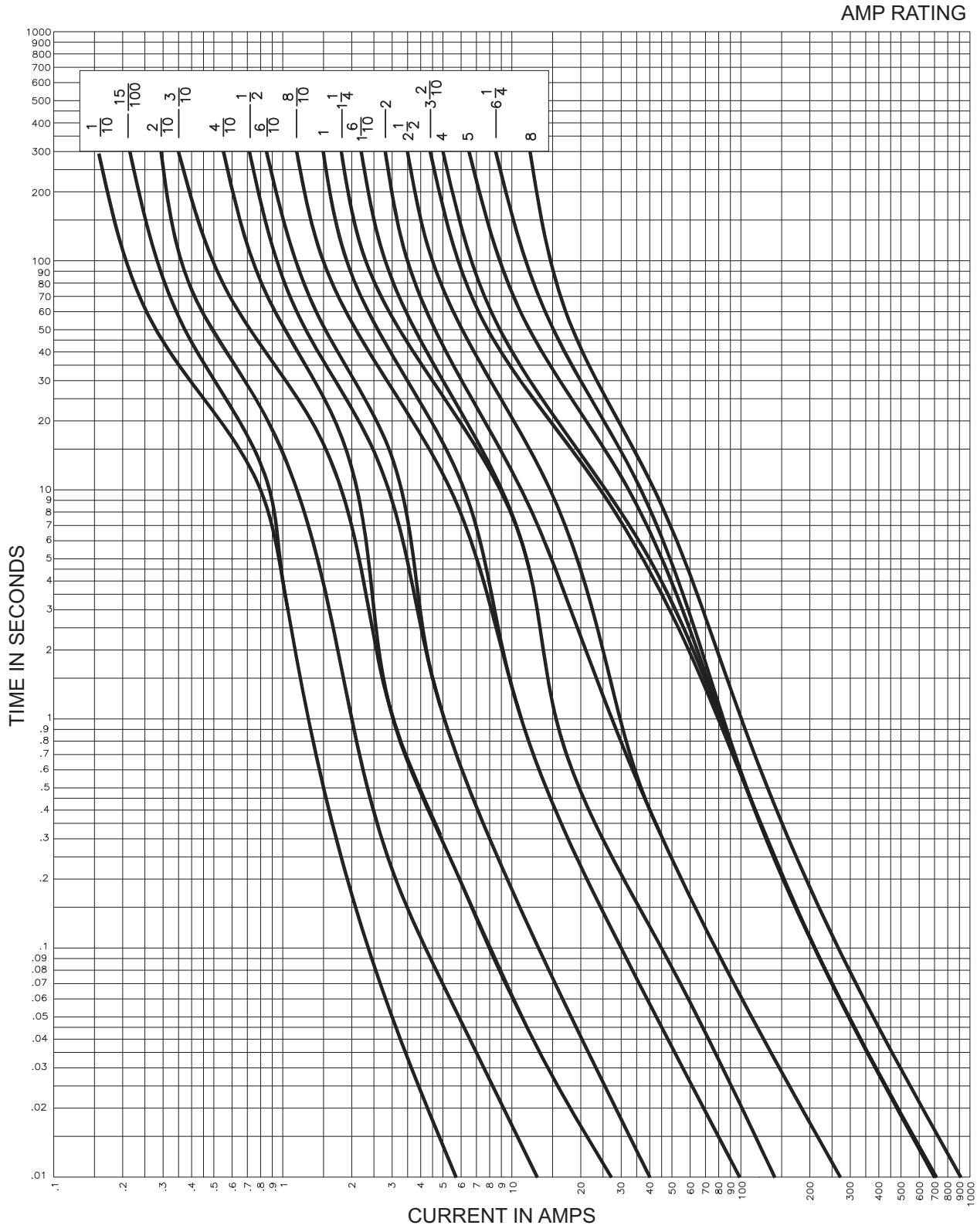
Time-Current Curves - Average Melt

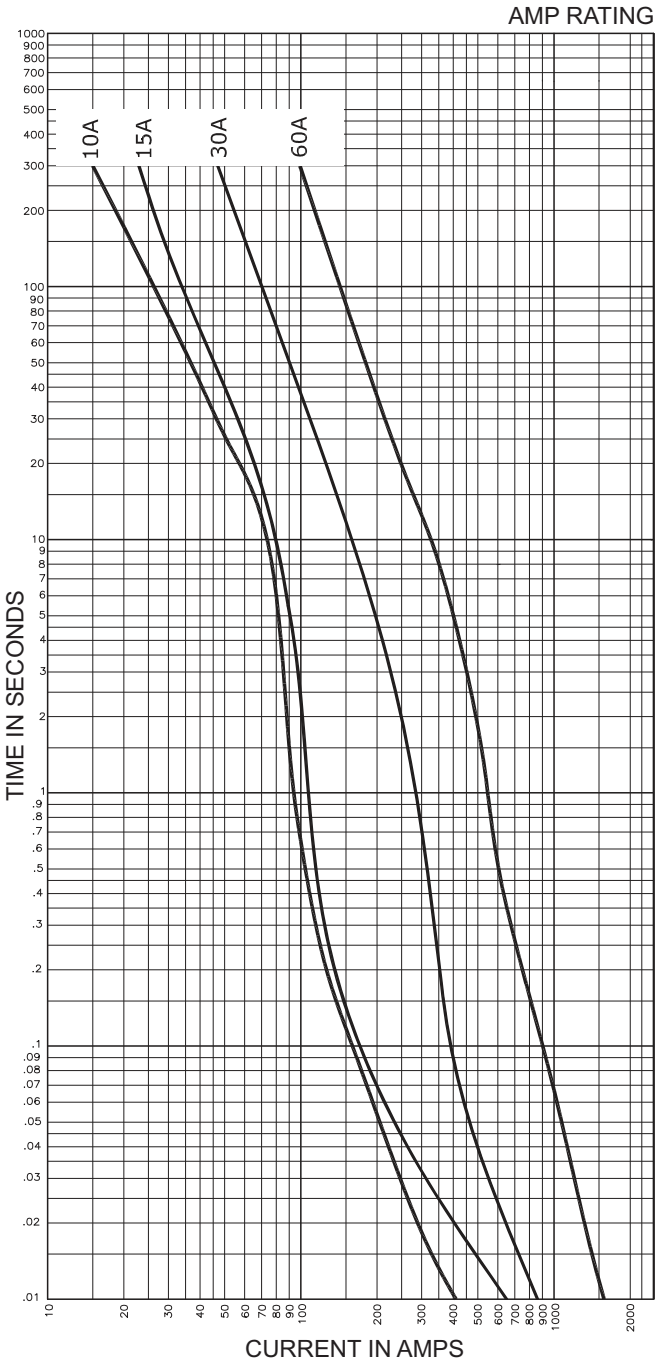
1/10 to 8 Amps



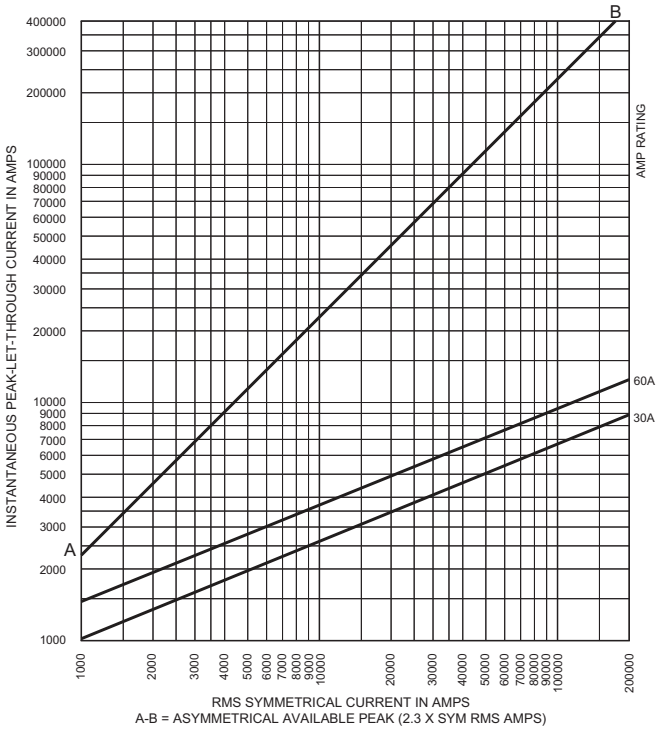
FRS-R — 600Vac/300Vdc, 1/10-60A, Dual Element, Time-Delay Fuses

Time-Current Curves - Average Melt

10 to 60 Amps



Current-Limitation Curves



Current-Limiting Effects

Prosp. S.C.C.	Let-Through Current (Apparent RMS Symmetrical Vs. Fuse Rating)	
—	30A	60A
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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