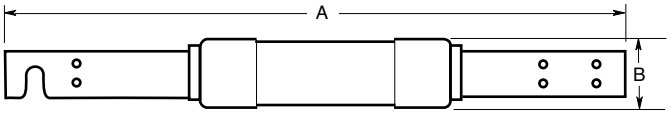
COOPER Bussmann

Fusetron®

Dual-Element, Time-Delay Fuses
Class RK5 — 600 Volt

FRS-R
65-600A

Dimensions - in



Amp Ratings	A	B
65-100	7.88 (± 0.062)	1.11 (± 0.020)
110-200	9.63 (± 0.062)	1.61 (± 0.020)
225-400	11.63 (± 0.094)	2.34 (± 0.020)
450-600	13.38 (± 0.094)	2.88 (± 0.020)

Catalog Symbol: FRS-R

Current-Limiting, dual-element, time-delay – 10 seconds (minimum) at 500% rated current

Ratings:

Volts – 600Vac (or less)
Amps – 65-600A†
IR – 200kA RMS Sym.
– 20kA @300Vdc

Agency Information:

CE, UL Listed, Std. 248-12, Class RK5, Guide JDDZ, File E4273 CSA Certified, C22.2 No. 248.12, Class 1422-01, File 53787

Catalog Numbers

FRS-R-65	FRS-R-125	FRS-R-350
FRS-R-70	FRS-R-150	FRS-R-400
FRS-R-75	FRS-R-175	FRS-R-450
FRS-R-80	FRS-R-200	FRS-R-500
FRS-R-90	FRS-R-225	FRS-R-600
FRS-R-100	FRS-R-250	
FRS-R-110	FRS-R-300	

Carton Quantity and Weight

Ampere Ratings	Carton Qty.	Weight* Lbs.	Weight* Kg.
65–100	1	0.54	0.245
101–200	1	1.22	0.544
201–400	1	3.00	1.359
401–600	1	5.00	2.268

*Weight per carton.

General Information:

- Provides motor overload, ground fault and short-circuit protection. When used in circuits subject to surge currents such as those caused by motors, transformers and other inductive components, these fuses can be sized close to full-load amps to give maximum overcurrent protection.
- The time-delay feature makes it possible to use fuse amp ratings which are much smaller than those of non-time-delay fuses. Considerable cost saving occurs by permitting the use of smaller size switches, panels and fuses themselves.
- Provides a good degree of short-circuit protection (greater current-limitation) to help protect downstream components from high fault currents.
- Gives motor running back-up protection to motors without extra cost.
- Helps protect motors against burnout from overloads and single-phasing when sized properly.
- Simplifies and improves blackout prevention (selective coordination ratios).
- 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.

Recommended Fuse Blocks

These are the most commonly used fuse blocks for Class R 600V fuses.

65-100A	R60100-3CR	3-Pole
110-200A	R60200-3CR	3-Pole
225-400A	R60400-3CR	3-Pole

For other available fuse blocks, see Data Sheet 1111.

† To obtain information for 0-60A, see Data Sheet: 1017.

Fuse Reducers For Class R Fuses

Equipment Fuse Clips	Desired Fuse (Case) Size	Catalog Number (Pairs) 600V
200A	100A	No. 2621-R
400A	100A	No. 2641-R
	200A	No. 642-R
600A	100A	No. 2661-R
	200A	No. 2662-R
	400A	No. 2664-R**

**Single reducer only (pair not required).
For additional information, see Data Sheet: 1118.

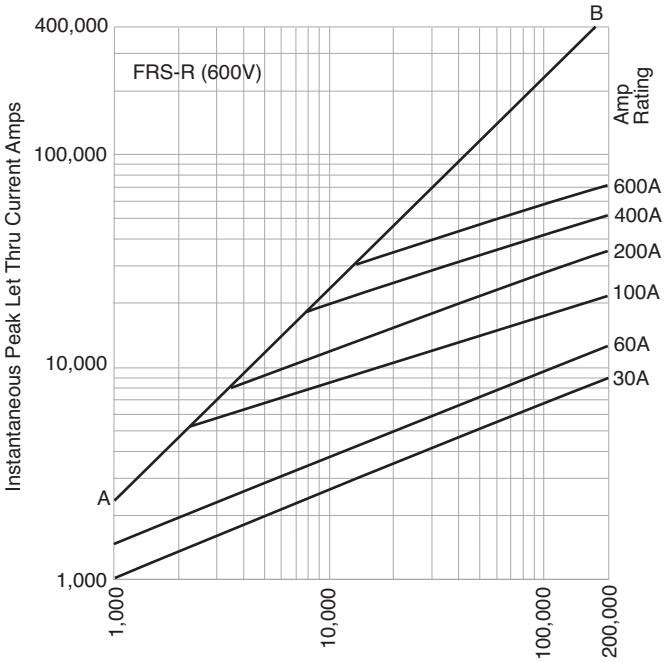
Current-Limiting Effects

FRS-R Apparent RMS Symmetrical Let-Through Current

Prospective SCC	30A	60A	100A	200A	400A	600A
5,000	1,400	2,000	2,900	3,950	5,000	5,000
10,000	1,850	2,650	3,600	5,100	8,550	10,000
15,000	2,200	3,200	4,100	5,950	9,750	13,700
20,000	2,450	3,550	4,500	6,600	10,700	15,000
25,000	2,700	3,900	4,850	7,150	11,500	16,100
30,000	2,900	4,280	5,150	7,650	12,200	17,050
35,000	3,100	4,400	5,400	8,100	12,800	17,900
40,000	3,300	4,760	5,600	8,500	13,400	18,700
50,000	3,550	5,150	6,050	9,250	14,400	20,050
60,000	3,800	5,500	6,400	9,850	15,250	21,250
80,000	4,300	6,100	7,000	10,950	16,750	23,300
100,000	4,500	6,600	7,550	11,900	18,000	25,000
150,000	5,200	8,000	8,600	13,800	20,550	28,450
200,000	5,800	8,500	9,400	15,350	22,550	31,200

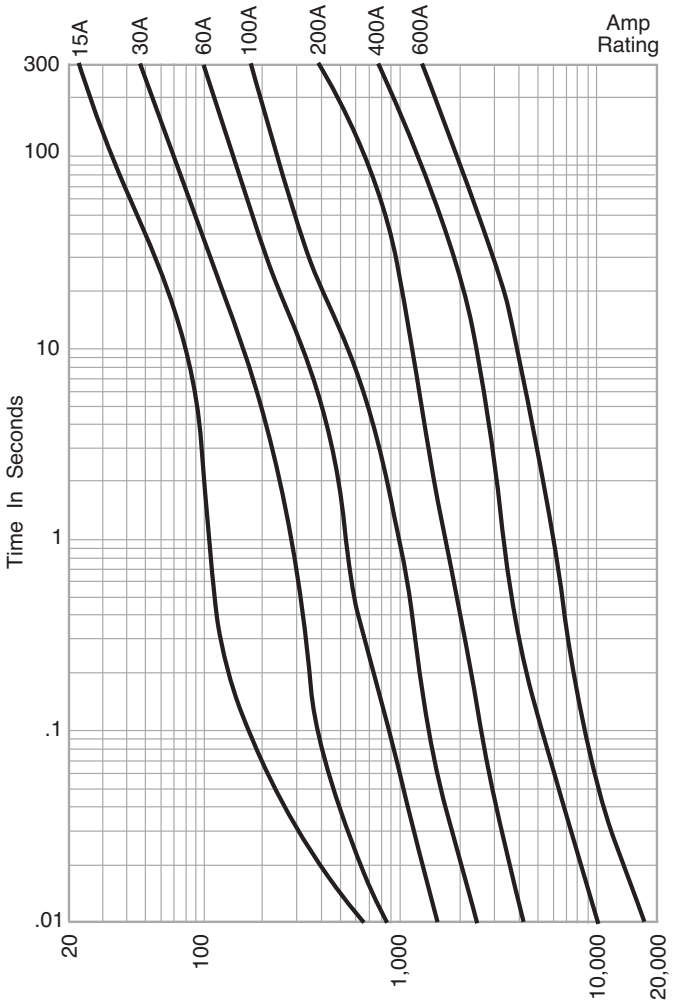
For information on previous design FRS-R, 70-600, see Data Sheet: 1153.

Current-Limitation Curves



RMS Symmetrical Currents In Amps
A–B=Asymmetrical Available Peak (2.3 x Sym RMS Amps)

Time-Current Characteristic Curves–Average Melt



RMS Symmetrical Current In Amps