

# Fusetron®

## Dual-Element, Time-Delay Fuses

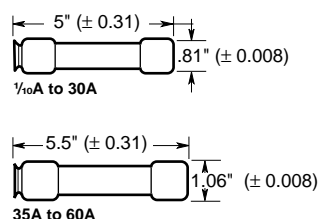
### Class RK5 – 600 Volt

# FRS-R

## 1/10-60A



#### Dimensional Data



#### Catalog Symbol: FRS-R

Dual-Element, Time-Delay – 10 second (minimum) at 500% rated current

Current-Limiting

**Ampere Rating:** 1/10 to 60 Amperes

**Voltage Rating:** 600 Volts AC (or less)

**Interrupting Rating:** 200,000A RMS Sym.

DC Ratings (20,000AIC @ 250 VDC)

#### Agency Approvals:

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

FRS-R-1/10	FRS-R-1 1/10	FRS-R-8
FRS-R-1/6	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 3/10	FRS-R-15
FRS-R-3/10	FRS-R-3	FRS-R-17 1/2
FRS-R-1/10	FRS-R-3 3/10	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 9/10	FRS-R-45
FRS-R-1 1/4	FRS-R-6	FRS-R-50
FRS-R-1 1/10	FRS-R-6 1/4	FRS-R-60
FRS-R-1 1/2	FRS-R-7	—
FRS-R-1 3/10	FRS-R-7 1/2	—

#### Carton Quantity and Weight

Ampere Ratings	Carton Qty.	Weight*	
		Lbs.	Kg.
1/10-15	10	0.40	0.181
17.5-30	10	0.50	0.277
35-60	10	3.10	1.406

\*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 amperes to give maximum overcurrent protection.
- Permits the use of smaller and less costly switches. The time-delay feature makes it possible to use fuse ampere 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 higher degree of short-circuit protection (greater current-limitation) in circuits in which surge currents or temporary overloads occur.
- Helps protect motors against burnout from overloads.
- Gives motor running back-up protection to motors without extra costs.
- 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.

#### 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

#### Class R Catalog Numbers

(Clip Retaining Spring Standard, Suffix "R")

Amps	Poles	Basic Catalog Number	Terminal Type (Suffix No.)			
			Screw w/		Box Lug w/	
			—	Pres. Plate	—	Clip CU only
1/10	1	R60030-1	SR	PR	CR	COR
to	2	R60030-2	SR	PR	CR	COR
30	3	R60030-3	SR	PR	CR	COR
31	1	R60060-1	SR	—	CR	COR
to	2	R60060-2	SR	—	CR	COR
60	3	R60060-3	SR	—	CR	COR

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000 VAC, 75-1500 VDC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 314-527-1270 for more information.

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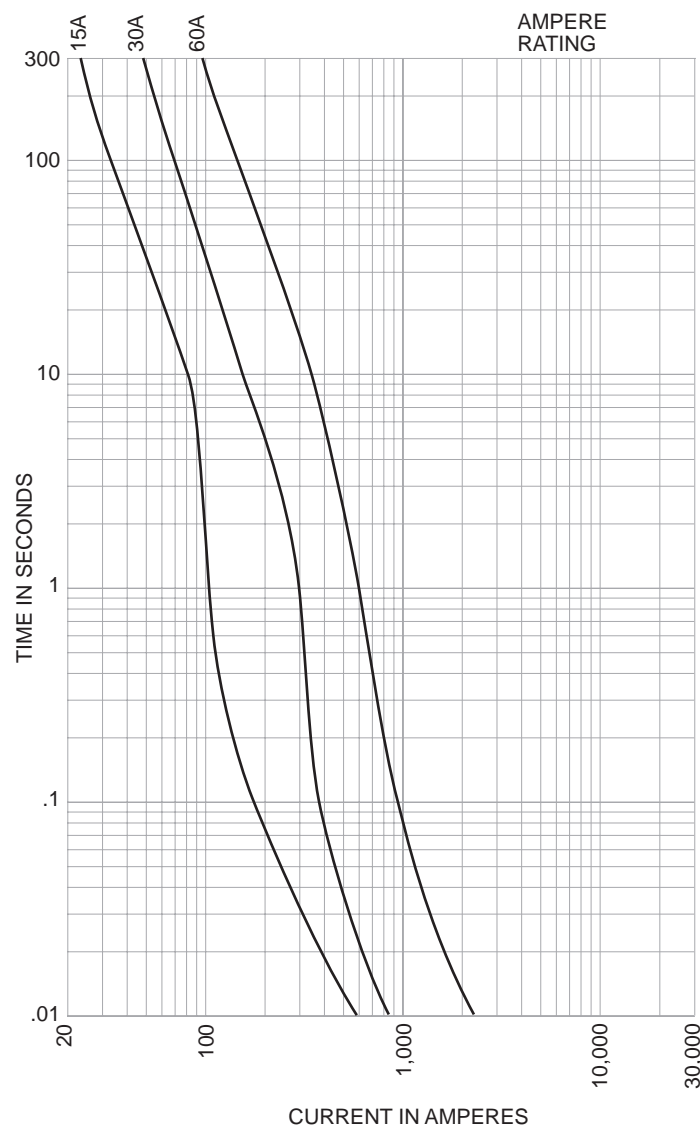
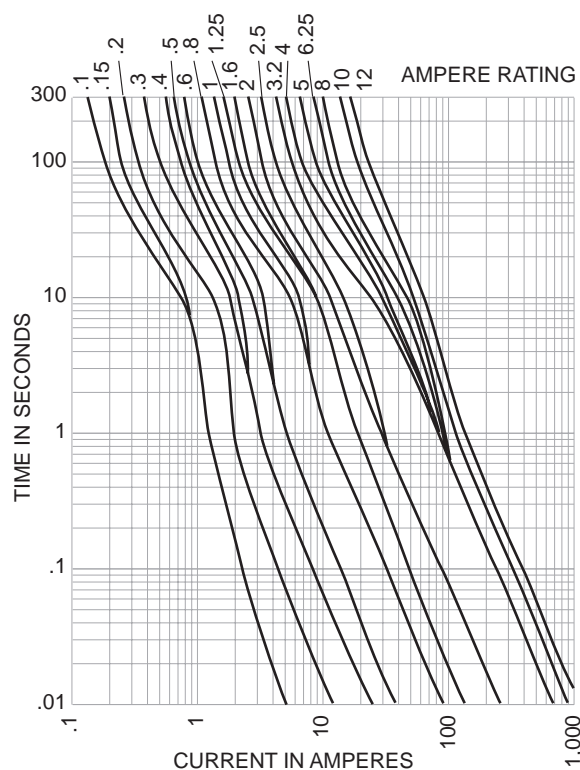
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### Class RK5 – 600 Volt

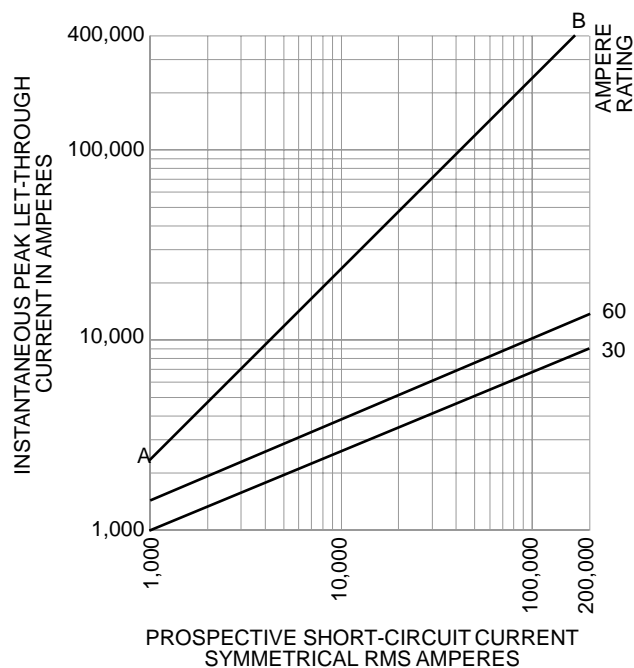
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## 1/10-60A

**Time-Current Characteristic Curves—Average Melt**



**Current-Limitation Curves**



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