

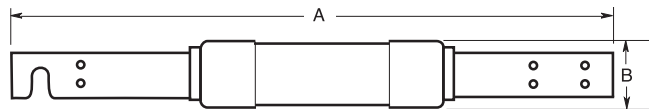
# ECSR

## Class RK5 600Vac, 70 to 600A

### Dual-Element, Time-Delay Fuses



#### Dimensions (inches)



Dimensions (inches)

Ampere 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: ECSR

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

#### Current-Limiting

**Volts:** 600Vac (or less)

**Amps:** 65 to 600A

**IR:** 200kA RMS Sym.

**Agency Information:** CE, UL. Listed, Std. 248-12, Class RK5, Guide JDDZ, File E162363 CSA Certified, HRCI-R C22.2 No. 248.12, Class 1422-01, File 53787

#### Features

- 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 costs.
- 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.

#### Catalog Numbers (amps)

ECSR70	ECSR110	ECSR225	ECSR450
ECSR75	ECSR125	ECSR250	ECSR500
ECSR80	ECSR150	ECSR300	ECSR600
ECSR90	ECSR175	ECSR350	
ECSR100	ECSR200	ECSR400	

#### Carton Quantity and Weight

Amps	Carton Quantity	Weight per Carton	
		lbs	kg
65-100	1	0.54	0.24
101-200	1	1.22	0.54
201-400	1	3.00	1.36
401-600	1	5.00	2.27

#### Class R Fuse Blocks (600V) Catalog Data

(Clip Retaining Spring Standard, Suffix "R")

#### Terminal Type (Suffix No.)

#### Basic Box Lug w/

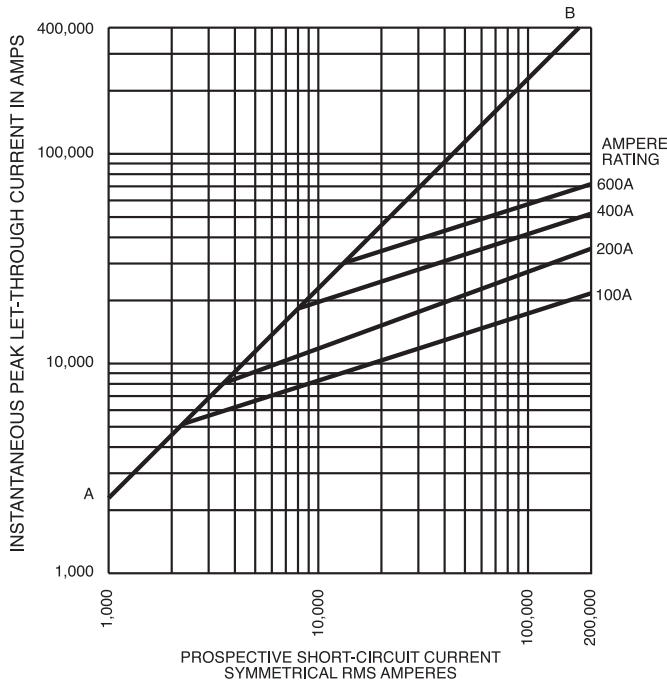
Amps	Poles	Catalog Number	Reinforced Clip	
			—	CU only
70	1	R60100-1	CR	COR
to	2	R60100-2	CR	COR
100	3	R60100-3	CR	COR
to 200	1	R60200-1	CR	—
to 400	1	R60400-1	CR	—
to 600	1	R60600-1	CR	—

# ECSR

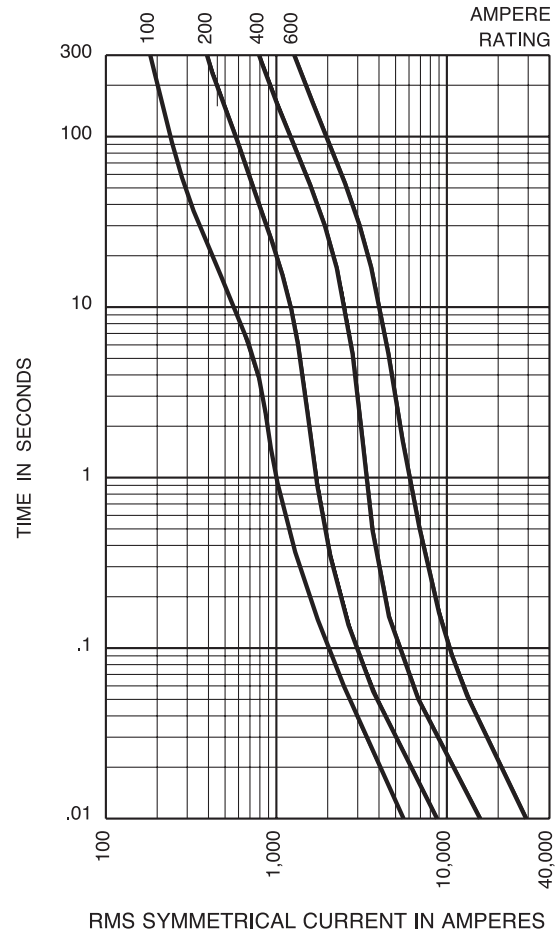
## Class RK5 600Vac, 70 to 600A

### Dual-Element, Time-Delay Fuses

#### Current Limitation Curves



#### Time-Current Characteristic Curves- Average Melt



#### Current-Limiting Effects

ECSR Apparent RMS Symmetrical Let-Through Current  
**Prosp.**

SCC	30A	60A	100A	200A	400A	600A
5000	1400	2000	2900	3950	5000	5000
10,000	1850	2650	3600	5100	8550	10,000
15,000	2200	3200	4100	5950	9750	13,700
20,000	2450	3550	4500	6600	10,700	15,000
25,000	2700	3900	4850	7150	11,500	16,100
30,000	2900	4280	5150	7650	12,200	17,050
35,000	3100	4400	5400	8100	12,800	17,900
40,000	3300	4760	5600	8500	13,400	18,700
50,000	3550	5150	6050	9250	14,400	20,050
60,000	3800	5500	6400	9850	15,250	21,250
80,000	4300	6100	7000	10,950	16,750	23,300
100,000	4500	6600	7550	11,900	18,000	25,000
150,000	5200	8000	8600	13,800	20,550	28,450
200,000	5800	8500	9400	15,350	22,550	31,200

#### Fuse Reducers For Class R Fuses

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

\*Single reducer only (pair not required).

The only controlled copy of this document is the electronic read-only version maintained by Cooper Bussmann. All other copies of this document are by definition uncontrolled. This bulletin is intended to clearly present comprehensive product data and provide technical information that will help the end user with design applications. Cooper Bussmann reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Cooper Bussmann also reserves the right to change or update, without notice, any technical information contained in this bulletin. Once a product has been selected, it should be tested by the user in all possible applications.

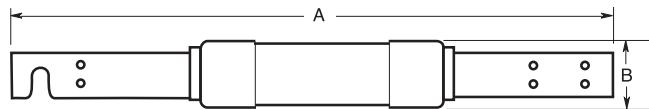
# ECSR

## Class RK5 600Vac, 70 to 600A

### Dual-Element, Time-Delay Fuses



#### Dimensions (inches)



Dimensions (inches)

Ampere 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: ECSR

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

Current-Limiting

**Volts:** 600Vac (or less)

**Amps:** 65 to 600A

**IR:** 200kA RMS Sym.

**Agency Information:** CE, UL. Listed, Std. 248-12, Class RK5, Guide JDDZ, File E162363 CSA Certified, HRCI-R C22.2 No. 248.12, Class 1422-01, File 53787

#### Features

- 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 costs.
- 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.

#### Catalog Numbers (amps)

ECSR70	ECSR110	ECSR225	ECSR450
ECSR75	ECSR125	ECSR250	ECSR500
ECSR80	ECSR150	ECSR300	ECSR600
ECSR90	ECSR175	ECSR350	
ECSR100	ECSR200	ECSR400	

#### Carton Quantity and Weight

Amps	Carton Quantity	Weight per Carton	
		lbs	kg
65-100	1	0.54	0.24
101-200	1	1.22	0.54
201-400	1	3.00	1.36
401-600	1	5.00	2.27

#### Class R Fuse Blocks (600V) Catalog Data

(Clip Retaining Spring Standard, Suffix "R")

##### Terminal Type (Suffix No.)

##### Basic Box Lug w/

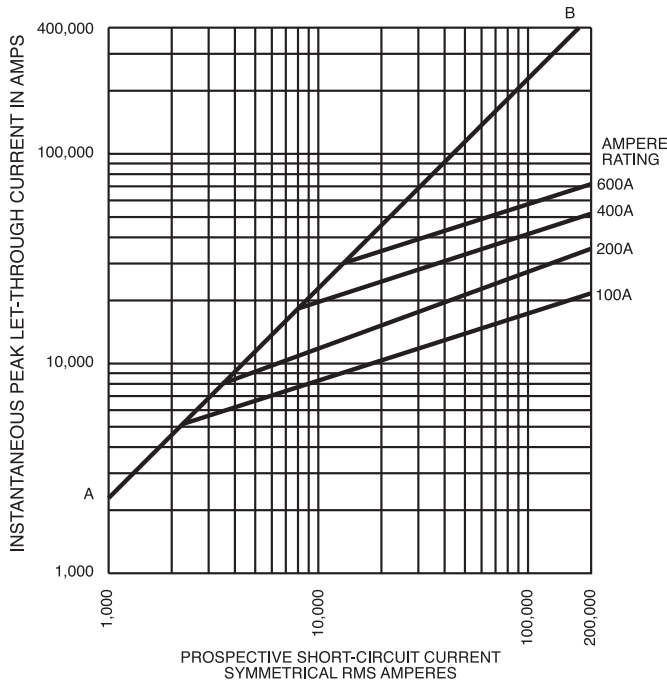
Amps	Poles	Catalog Number	Reinforced Clip	
			—	CU only
70	1	R60100-1	CR	COR
to	2	R60100-2	CR	COR
100	3	R60100-3	CR	COR
to 200	1	R60200-1	CR	—
to 400	1	R60400-1	CR	—
to 600	1	R60600-1	CR	—

# ECSR

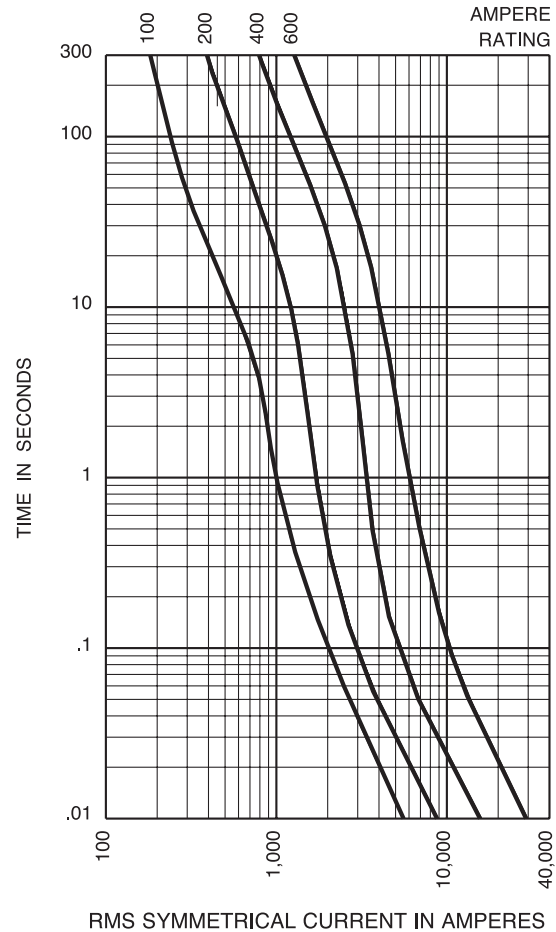
## Class RK5 600Vac, 70 to 600A

### Dual-Element, Time-Delay Fuses

#### Current Limitation Curves



#### Time-Current Characteristic Curves- Average Melt



#### Current-Limiting Effects

ECSR Apparent RMS Symmetrical Let-Through Current  
**Prosp.**

<b>SCC</b>	<b>30A</b>	<b>60A</b>	<b>100A</b>	<b>200A</b>	<b>400A</b>	<b>600A</b>
5000	1400	2000	2900	3950	5000	5000
10,000	1850	2650	3600	5100	8550	10,000
15,000	2200	3200	4100	5950	9750	13,700
20,000	2450	3550	4500	6600	10,700	15,000
25,000	2700	3900	4850	7150	11,500	16,100
30,000	2900	4280	5150	7650	12,200	17,050
35,000	3100	4400	5400	8100	12,800	17,900
40,000	3300	4760	5600	8500	13,400	18,700
50,000	3550	5150	6050	9250	14,400	20,050
60,000	3800	5500	6400	9850	15,250	21,250
80,000	4300	6100	7000	10,950	16,750	23,300
100,000	4500	6600	7550	11,900	18,000	25,000
150,000	5200	8000	8600	13,800	20,550	28,450
200,000	5800	8500	9400	15,350	22,550	31,200

#### Fuse Reducers For Class R Fuses

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

\*Single reducer only (pair not required).

The only controlled copy of this document is the electronic read-only version maintained by Cooper Bussmann. All other copies of this document are by definition uncontrolled. This bulletin is intended to clearly present comprehensive product data and provide technical information that will help the end user with design applications. Cooper Bussmann reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Cooper Bussmann also reserves the right to change or update, without notice, any technical information contained in this bulletin. Once a product has been selected, it should be tested by the user in all possible applications.