

# UL489 or UL1077?

## What are your Circuit Protection Requirements?

**An understanding of circuit types and circuit protection products is critical to ensure their proper application.**  
See NEC Sections 100, 430 and 409 for definitions.

**The proper sizing of an overcurrent protection device is the responsibility of the customer and should be determined using the application standards of the NEC (National Electric Code), CEC (Canadian Electrical Code) or other applicable standards. Per fine print note of 2008 NEC Section 100 "A current in excess of rating may be accommodated by certain equipment and conductors for a given set of conditions. Therefore, the rules for overcurrent protection are specific for particular situations."**

### UL489

#### Branch Protection



### UL1077

#### Supplementary Protection



### What You Need to Know and Look For In Specifications

Certifications – Standards – Acceptance

### UL489

#### Branch Protection

- UL489 Listed or Recognized
- CSA C22.2 No. 5
- International ratings available depending on breaker type

### UL1077

#### Supplementary Protection

- UL Recognized under UL1077
- CSA 22.2 No. 285
- IEC 60947-2 or IEC 898

#### Function

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Opens automatically on Overload and Short Circuit when properly applied within its ratings</li> <li>• Protects wire and cable against Overload and Short Circuit</li> </ul> | <ul style="list-style-type: none"> <li>• Opens automatically on Overload and Short Circuit</li> <li>• Provides additional equipment protection where branch circuit protection is already provided or not required</li> <li>• Not suitable for the protection of branch circuit conductors</li> </ul> |
|--|---|

#### Applications

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Branch circuit protection in control panels, panelboards, switchboards and motor control centers</li> <li>• Motor overload and motor short circuit protection (UL489 Recognized motor circuit protectors) for control panels and motor control centers</li> </ul> | <ul style="list-style-type: none"> <li>• Used within appliances or other electrical equipment such as control circuits, control power transformers, relays, PLC I/O points and lighting circuits</li> <li>• Ideal replacement for fuses that are applied as supplementary protection</li> </ul> |
|--|---|

#### Features

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Bolted down or DIN-rail mounted</li> <li>• External handle mechanisms available</li> <li>• Field mounted accessories</li> <li>• Stand alone branch circuit protection</li> <li>• Various levels of protection (curve type)</li> <li>• High voltage and interruption levels (up to 100 kAIC @ 480V)</li> </ul> | <ul style="list-style-type: none"> <li>• DIN-Rail mounted</li> <li>• Field mounted accessories</li> <li>• Current limiting</li> <li>• Various levels of protection (curve type)</li> <li>• 10 kAIC @ 240 VAC</li> <li>• 6 kAIC @ 277 VAC and 5 kAIC @ 480 VAC</li> <li>• 10 kAIC @ 65 VDC</li> </ul> |
|--|--|

kAIC = thousands of Amps interrupt capacity

#### Summary

**A Supplementary Protector can't Be used for Branch Circuit Protection.**  
**Understanding the difference between Branch Circuit Protection and Supplementary Protection helps to ensure their proper use.**

# Edison Fuses – Fuse Blocks for Class RK Fuses

## Description

For use with Edison LENRK and ECNR, R250; Edison LESRK and ECSR, R600, Class R fuses

Terminal type

- SR = Screw type, clip with re-inforced spring.
- CR = Box lug type, clip with reinforced spring



**R25030-1SR**



**R60030-1SR**

## Specifications

**Construction:** Thermoplastic

**UL Flammability:** 94V-0

**Voltage Ratings:**

R250: 250 Volts AC; R600: 600 Volts AC

**Ampere Ratings:** 0.10 - 600 Amps

**Short-circuit current Rating:** 200,000 RMS Symmetrical Amps

## Agency Approvals

- UL Listed, UL 512, Guide IZLT, File E14853
- CSA, Certified, C22.2 No.39 Class 6225-01, File 47235

R250 Series Fuse Blocks (250V)								R600 Series Fuse Blocks (600V)							
Part Number	Amps	Poles	Maximum Wire Size	Fig #	Pcs/ Pkg	Wt. (lbs.)	Price	Part Number	Amps	Poles	Maximum Wire Size	Fig #	Pcs/ Pkg	Wt. (lbs.)	Price
R25030-1SR	0.1 to 30	1	#10-18 Cu	1	1	0.10	<-->	R60030-1SR	0.1 to 30	1	#10-18 Cu only	13	1	0.24	<-->
R25030-2SR		2		2		0.25	<-->	R60030-2SR		2		14		0.44	<-->
R25030-3SR		3		3		0.30	<-->	R60030-3SR		3		15		0.40	<-->
R25060-1CR	31 to 60	1	#2-14 Cu #2-8 Al	4		0.23	<-->	R60060-1CR	31 to 60	1	#2-14 Cu #2-8 Al	16		0.30	<-->
R25060-2CR		2		5		0.44	<-->	R60060-2CR		2		17		0.60	<-->
R25060-3CR		3		6		0.45	<-->	R60060-3CR		3		18		0.85	<-->
R25100-1CR	61 to 100	1	1/0-8 Cu-Al	7		0.60	<-->	R60100-1CR	61 to 100	1	1/0-8 Cu-Al	19		1.00	<-->
R25100-2CR		2		8		1.00	<-->	R60100-2CR		2		20		1.50	<-->
R25100-3CR		3		9		1.50	<-->	R60100-3CR		3		21		2.30	<-->
R25200-1CR	101 to 200	1	250MCM-6 Cu-Al	See Table 1 below then refer to Figure #	2.20	<-->	R60200-1CR	101 to 200	1	250MCM-6 Cu-Al	See Table 2 below then refer to Figure #	0.50	<-->		
R25200-3CR		3			5.30	<-->	R60200-3CR		3			4.95	<-->		
R25400-1CR	201 to 400	1	500MCM-4 Cu-Al		2.90	<-->	R60400-1CR	201 to 400	1	500MCM-4 Cu-Al		4.10	<-->		
R25400-3CR*		3			1070	<-->	R60400-3CR*		3			9.85	<-->		
R25600-1CR	401 to 600	1	(2) 500MCM-4/0 Cu-Al		5.80	<-->	R60600-1CR	401 to 600	1	(2) 500MCM-4/0 Cu-Al		7.50	<-->		
R25600-3CR*		3			20.70	<-->	R60600-3CR*		3			17.30	<-->		

\* Not UL, Please use (3) J60600-1CR to assemble a 3 pole UL Fuseblock

\* Not UL, Please use (3) J60600-1CR to assemble a 3 pole UL Fuseblock

# Edison Fuses – R250 Fuse Blocks for Class RK Fuses

## Dimensions

inches (mm)

### 250V, 0.1 Amp to 30 Amp

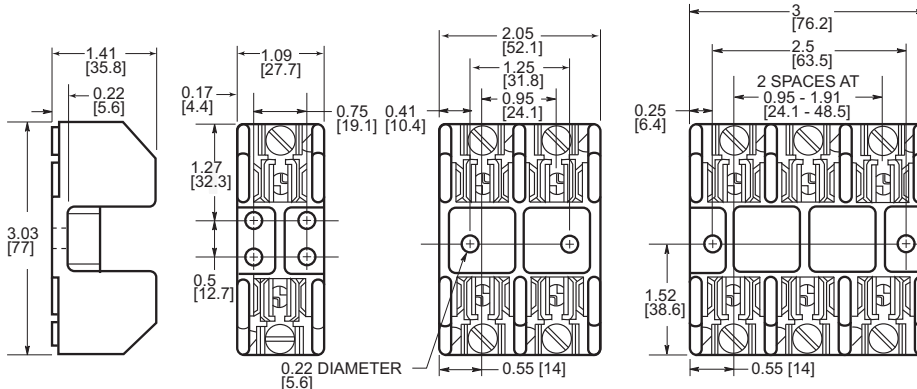


Figure 1

Figure 2

Figure 3

### 250V, 31 Amp to 60 Amp

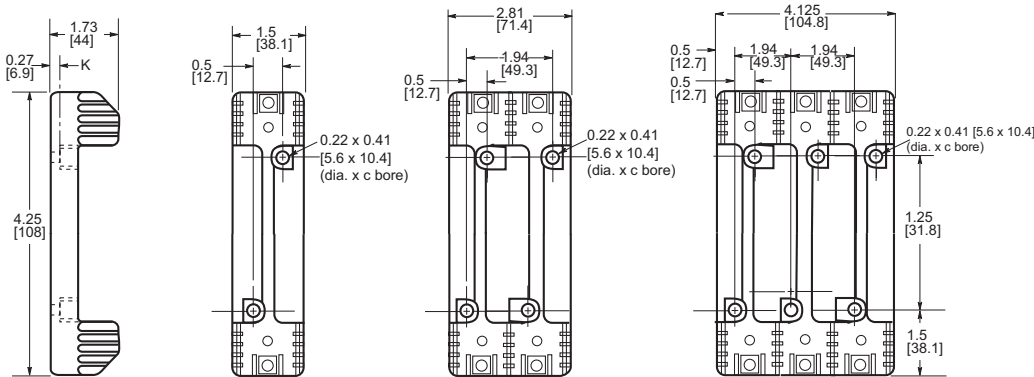


Figure 4

Figure 5

Figure 6

### 250V, 61 Amp to 100 Amp

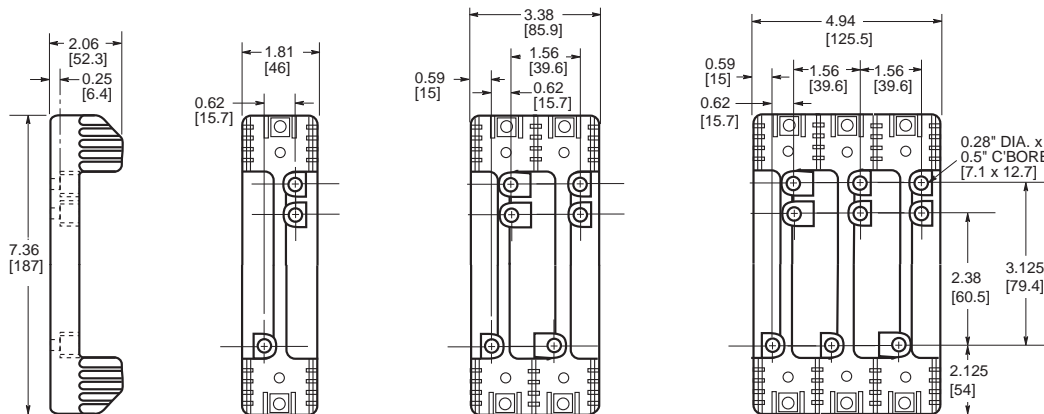


Figure 7

Figure 8

Figure 9

Note: All dimensions shown in inches [mm]

# Edison Fuses – R250 Fuse Blocks for Class RK Fuses

Table 1 (250V)										
	Fig #	A	B	C	D	E	F	G	H	K
<b>R25200-1CR</b>	10	7.15in (181.6mm)	3.15in (80mm)	3.0in (76.2mm)	2.06in (52.3mm)	0.5in (12.7mm)	2.0in (50.8mm)	3.0in (76.2mm)	0.75in (19.05mm)	0.31in (7.9mm)
<b>R25200-3CR</b>	11	Dimensions on Figure								
<b>R25400-1CR</b>	10	9.06in (230.1mm)	4.0in (101.6mm)	3.0in (76.2mm)	3.02in (76.7mm)	0.91in (23.1mm)	1.75in (44.5mm)	3.0in (76.2mm)	1.0in (25.4mm)	0.31in (7.9mm)
<b>R25400-3CR</b>	12	9.06in (230.1mm)	4.0in (101.6mm)	4.0in (101.6mm)	2.5in (63.5mm)	0.82in (20.8mm)	9.25in (235mm)	10.88in (276.4mm)	1.0in (25.4mm)	0.56in (14.2mm)
<b>R25600-1CR</b>	10	11.0in (279.4mm)	4.97in (126.2mm)	3.0in (76.2mm)	4.0in (101.6mm)	1.125in (28.6mm)	1.75in (44.5mm)	4.0in (101.6mm)	1.0in (25.4mm)	0.56in (14.2mm)
<b>R25600-3CR</b>	12	11.0in (279.4mm)	4.97in (126.2mm)	5.0in (127mm)	3.0in (76.2mm)	1.87in (47.5mm)	11.0in (279.4mm)	14.74in (374.4mm)	1.0in (25.4mm)	0.56in (14.2mm)

## 250V, 101 Amp to 200 Amp

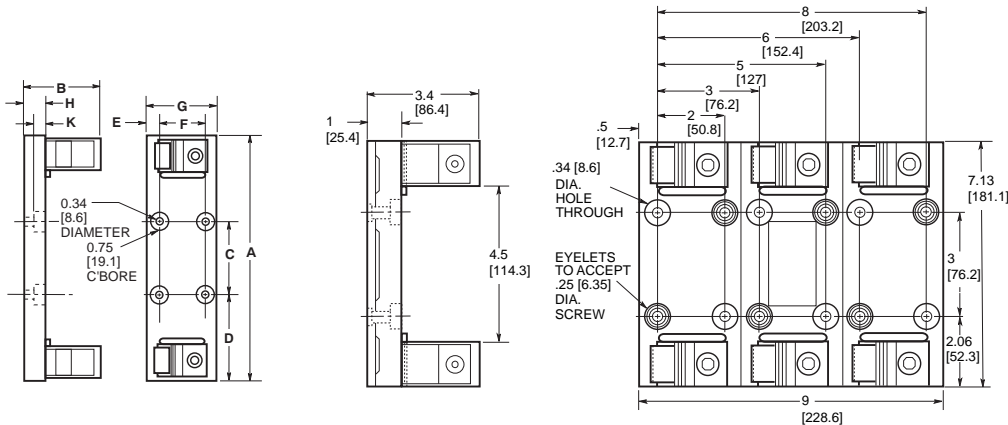


Figure 10

Figure 11

## 250V, 201 Amp to 600 Amp

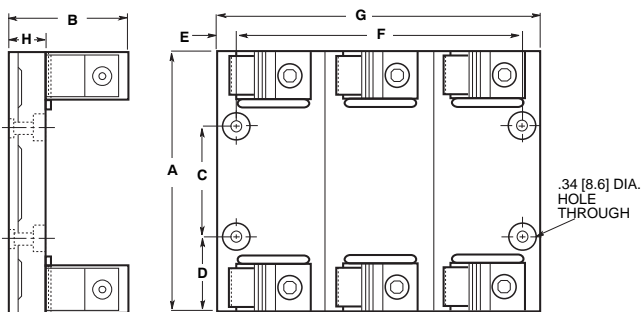


Figure 12

Note: All dimensions shown in inches [mm]

# Edison Fuses – R600 Fuse Blocks for Class RK Fuses

## Dimensions

inches (mm)

### 600V, 0.1 Amp to 30 Amp

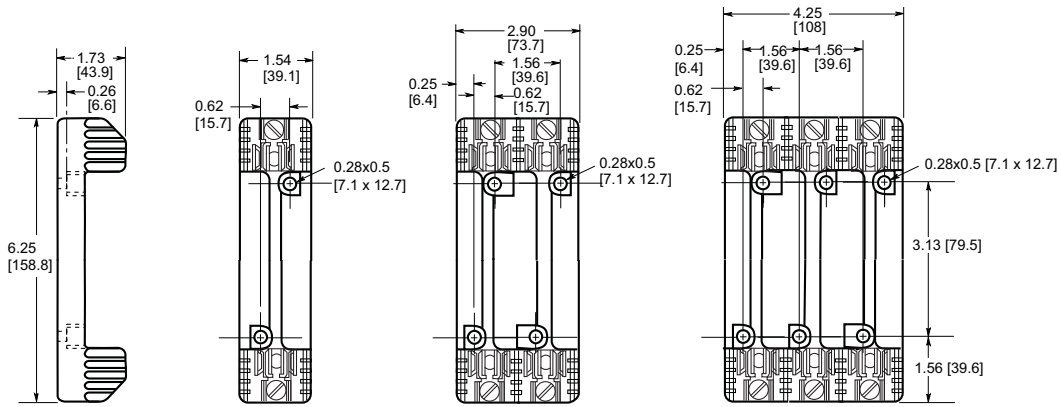


Figure 13

Figure 14

Figure 15

### 600V, 31 Amp to 60 Amp

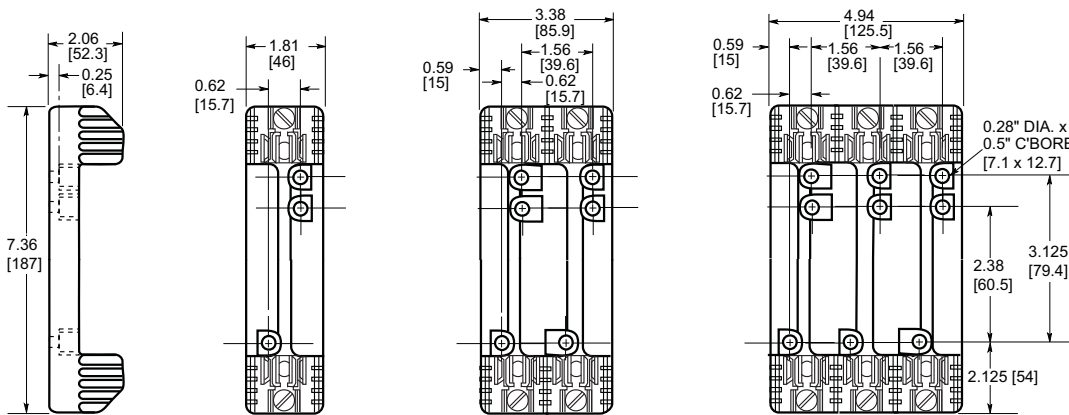


Figure 16

Figure 17

Figure 18

### 600V, 61 Amp to 100 Amp

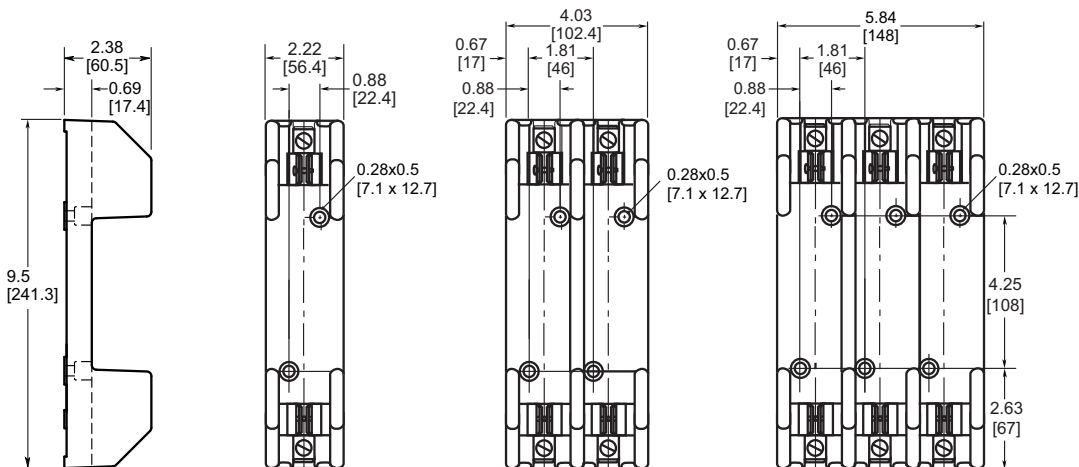


Figure 19

Figure 20

Figure 21

Note: All dimensions shown in inches (mm)

# Edison Fuses – R600 Fuse Blocks for Class RK Fuses

Table 2 (600V)										
	Fig #	A	B	C	D	E	F	G	H	K
<b>R60200-1CR</b>	22	9.63in (244.6mm)	3.09in (78.5mm)	3.0in (76.2mm)	3.31in (84.1mm)	0.5in (12.7mm)	2.0in (50.8mm)	3.0in (76.2mm)	0.75in (19.1mm)	0.31in (7.9mm)
<b>R60200-3CR</b>	23	Dimensions on Figure								
<b>R60400-1CR</b>	22	12.0in (305mm)	4.0in (102mm)	3.0in (76.2mm)	4.5in (114.3mm)	0.63in (16mm)	1.75in (44.5mm)	3.0in (76.2mm)	1.0in (25.4mm)	0.56in (14.2mm)
<b>R60400-3CR</b>	24	Dimensions on Figure								
<b>R60600-1CR</b>	22	14.0in (356mm)	4.97in (126.2mm)	3.0in (76.2mm)	5.5in (140mm)	1.125in (28.6mm)	1.75in (44.5mm)	4.0in (102mm)	1.0in (25.4mm)	0.56in (14.2mm)
<b>R60600-3CR</b>	25	Dimensions on Figure								

600V, 101 Amp to 600 Amp

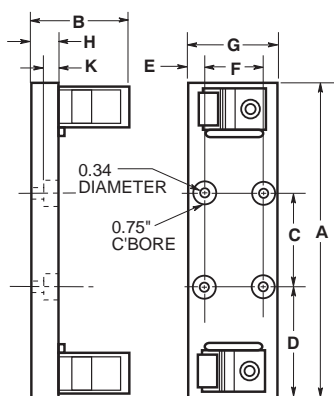


Figure 22

600V, 101 Amp to 200 Amp

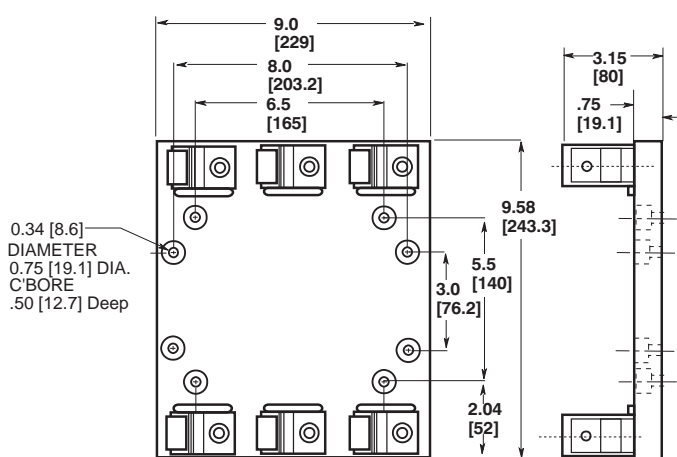


Figure 23

600V, 201 Amp to 400 Amp

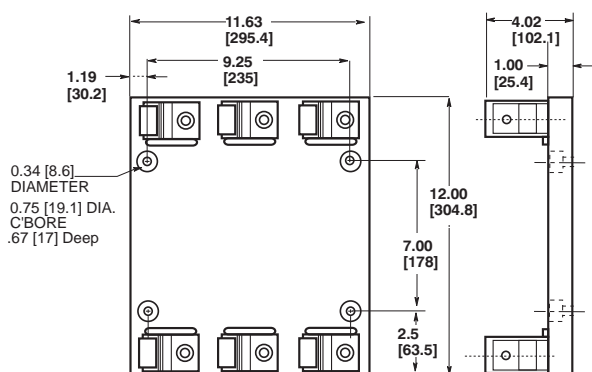


Figure 24

600V, 401 Amp to 600 Amp

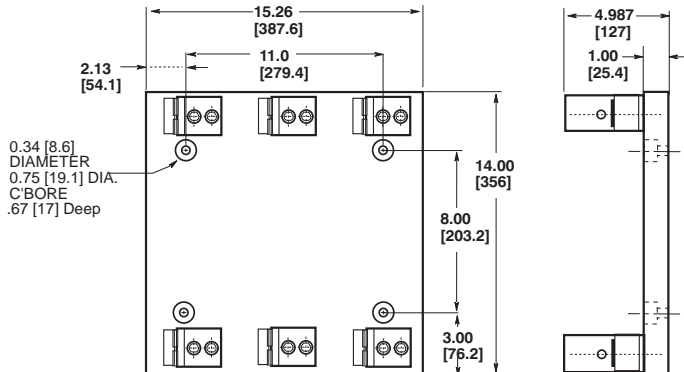


Figure 25

Note: All dimensions shown in inches [mm]