

SUPPLEMENTARY CIRCUIT PROTECTORS UL 1077 FOR EQUIPMENT, LIGHTING AND CONTROL CIRCUITS

NEW

UR Series



- DIN Rail Mounted
- 17.5 mm Width per Pole
- Thermal Magnetic, Current Limiting
- 0.5-60A, 480 Y/277 Vac 50/60 Hz
- 10kA Short Circuit Interrupting Capacity
- Box Clamp or Ring Tongue Wire Connection

While UL 489 branch circuit breakers protect feeder or branch circuits, UR Series UL 1077 supplementary protectors are made to trip faster than a standard UL 489 circuit breaker, therefore providing additional protection for specific devices. Supplementary protectors provide critical protection in applications where branch circuit protection is not required, or is already provided by a separate device. These breakers are installed on the load side of the branch circuit and are typically used to safeguard control circuits, lighting, business equipment, appliances and a range of other applications.

UR Series supplementary protectors are available in one-, two-, and three-pole configurations and up to 21 different current ratings from 0.5A to 60A and can safely be used in applications up to 480Y/277 Vac with a 10 kA short circuit withstand rating (see table on next page for backup fuse requirements). Three different trip characteristics, including B, C and D curves, give you the ability to configure the exact protection scheme you require. These supplementary protectors are DIN rail mounted and at only 17.5 mm (0.69") wide, they are extremely compact and help to reduce panel size.

Accessories are field mounted on these supplementary protectors for enhanced control and monitoring capabilities. Field mounting kits include all necessary parts and instructions. Accessories can be gang mounted on a single controller (the auxiliary switch in the outside position). The mounting arrangement links the internal latch-pins for the tripping mechanisms, ensuring simultaneous trips. Handles are linked to simplify manual resetting. Accessories include neutral pole, shunt and undervoltage trip and auxiliary contacts.



AU-3B30UR 3-pole supplementary protector, 30 Amp B-trip curve.



DIN rail sold separately. Visit omega.com/drtb-rail

AU-1B10UR 1-pole supplementary protector, 10Amp B-trip curve.

For Terminal Blocks and Enclosures. Visit omega.com/auto

Applications

B-Trip Protectors

Include business equipment, wiring protection, lighting, appliances, control circuits and some electronic applications. Relatively long thermal trip delay but low magnetic trip point.

C-Trip Protectors

Include lighting, wiring protection, appliances, business equipment, and control circuit applications. Relatively long thermal trip delay and medium magnetic trip point.

D-Trip Protectors

Include control transformers, power supplies and reactive loads. Relatively long thermal trip delay and very high magnetic trip point.



SHORT CIRCUIT WITHSTAND RATINGS FOR SUPPLEMENTRY PROTECTORS

TRIP CURVE	Amp RANGE	BACKUP PROTECTION	
		UL-Listed Class J FUSE UP TO 10 kA	NO BACKUP FUSE REQUIRED
All	0.5 to 10 A	70 A	10kA
All	12 to 60 A	4x RC*	5kA

* Up to rated current.

SPECIFICATIONS

Voltage Rating: 480Y/277 Vac

Short Circuit Withstand Rating

(UL - Ratings):

0.5-6A (RC): 10kA with no back-up fuse

8-60A (RC): 10kA with UL-listed Class J back-up fuse; 5kA with no back-up fuse

Calibration Temperature: 30°C (86°F)

Operating Temperature: -25 to 55°C (-13 to 131°F)

Storage Temperature: -40 to 70°C (-40 to 158°F)

Terminal Size Acceptability:

Top: 18-3 AWG

Bottom: 18-2 AWG

Tightening Torque: 25 lb-in. (2.8 Nm)

Terminal Protection Degree: IP20

Vibration Resistance: >15 g (18 to 50 Hz)

Mechanical Life: 6000 on/off cycles

Electrical Life: 10,000 on/off cycles

Dimensions:

Height: 89.3 mm (3.52")

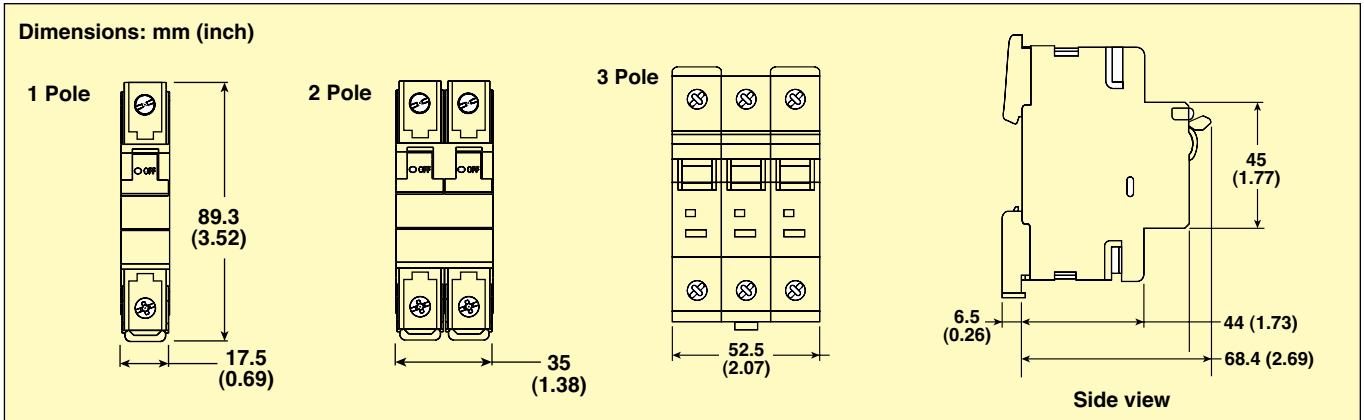
Width:

One Pole: 17.5 mm (0.69")

2 Pole: 35 mm (1.38")

3 Pole: 52.5 mm (2.07")

Depth: 74.9 mm (2.95")



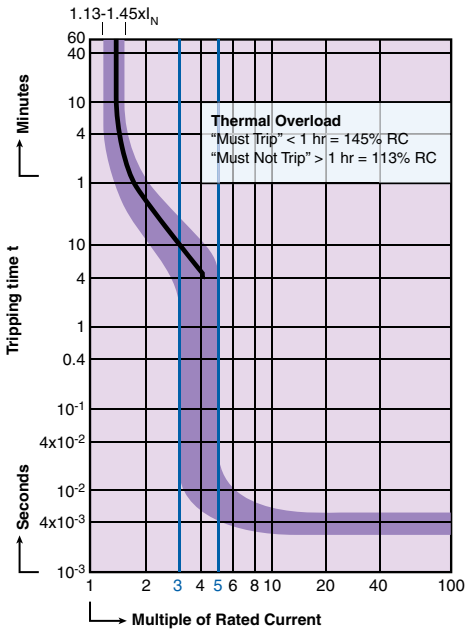
Trip-Characteristics*				Applications					
Characteristic Trip Boundaries				Lighting Wiring Protection Control Circuits	Business Equipment Appliances	Control Transformers	Power Supplies	General Electronics	Reactive Load
Thermal Trip		Magnetic Trip							
Must not Trip >100ms	Must Trip <1hr	Must not Trip >100ms	Must Trip at 100ms						
B-Characteristics									
1.13xRC	1.45xRC	3xRC	5xRC						
C-Characteristics									
1.13xRC	1.45xRC	5xRC	10xRC						
D-Characteristics									
1.13xRC	1.45xRC	10xRC	20xRC						

* The value of each characteristic is shown vertically beneath its corresponding heading.

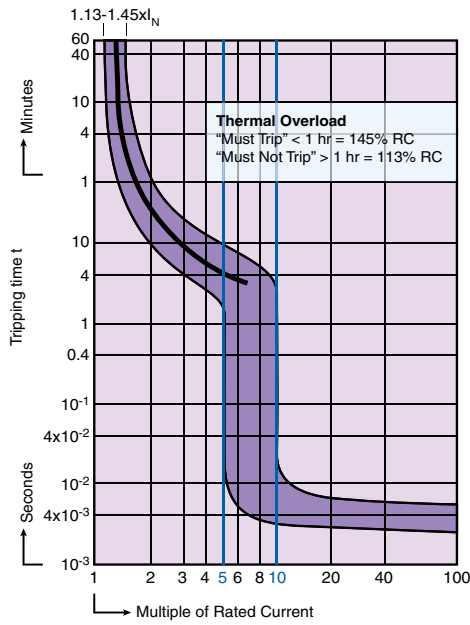
Warning!

This information should only be used as a selection guide. The use of a miniature circuit Breaker/supplementary protector in an application with a certain Trip Characteristic always requires prototype testing! It is the responsibility of the circuit design engineer to select the appropriate miniature circuit breaker/supplementary protector for his specific application.

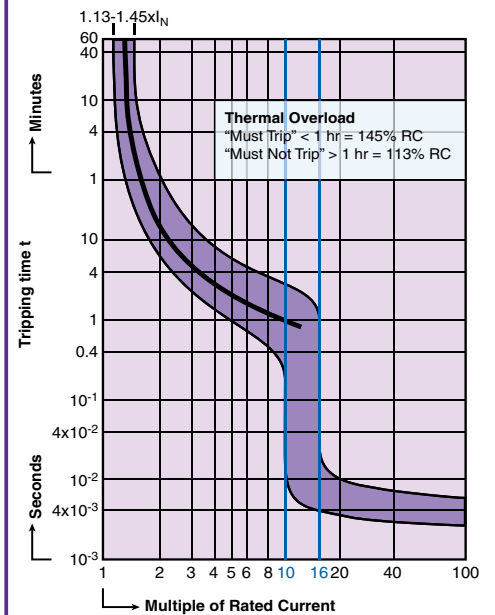
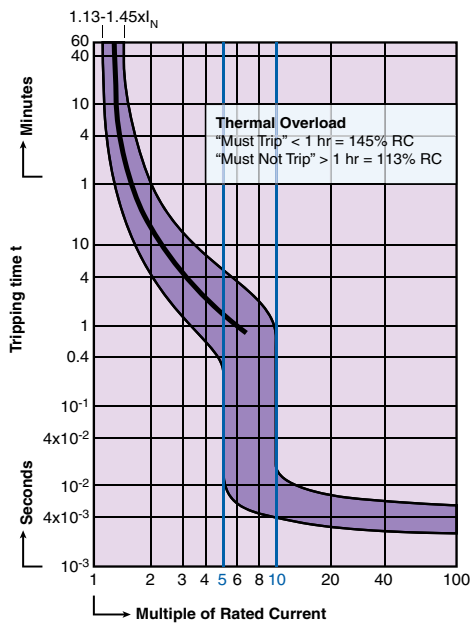
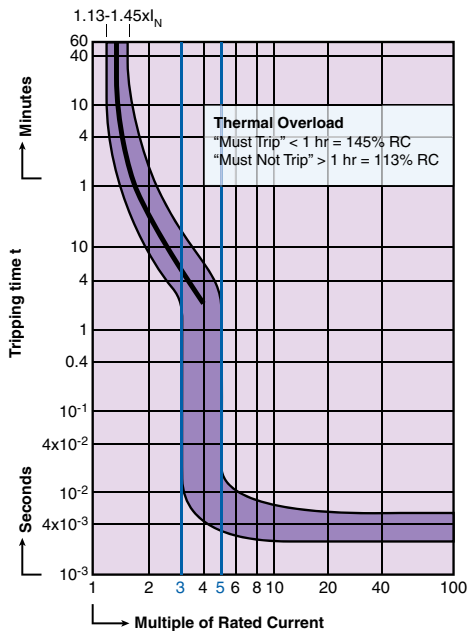
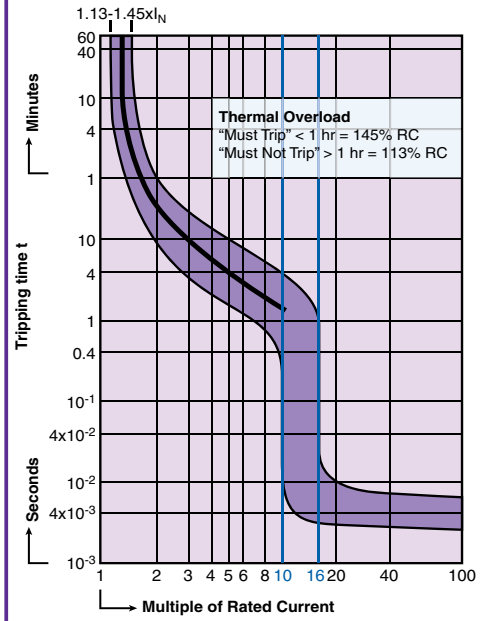
B Trip Curve



C Trip Curve



D Trip Curve





Accessories

The following accessories can be field mounted on the UR Series supplementary protectors for enhanced control and monitoring capabilities. Field mount kits include all necessary parts and instructions. Accessories can be gang mounted on a single controller with the auxiliary switch on the

outside position. The mounting arrangement links the internal latch-pins for the tripping mechanisms, ensuring simultaneous trips. The handles are linked to simplify manual resetting. Undervoltage trip units are available in AC and DC and will come assembled and calibrated to the protector.

AU-3B30UR 3-pole supplementary protector, 30 Amp B-trip curve.



Accessories

MODEL NUMBER	DESCRIPTION
AU-N63UM	Neutral pole for circuit breaker.
AU-H10UM	1 Auxiliary contact, normally open
AU-H11UM	2 Auxiliary contact, 1 NO and 1 NC
AU-H12UM	3 Auxiliary contact, 1 NO and 2 NC
AU-H21UM	3 Auxiliary contact, 2 NO and 1 NC
AU-FA12UM	12 V AC/DC shunt trip, 1.3A
AU-FA24UM	24 V AC/DC shunt trip, 0.6A
AU-FA48UM	48 V AC/DC shunt trip, 0.2A
AU-FA110UM	Shunt trip, 110 to 240 Vac/dc, 277 Vac, 0.25A @ 110V 0.5A @ 240V 0.58A @ 277V
AU-UA120UM	Undervoltage Trip, 120 Vac, 60 Hz.(UL Pending)

Ordering Example: AU-H10UM, auxiliary switch, 3A, 240 Vac.

To Order Visit omega.com/circuit-breakers for Pricing and Details

Model Number			
One Pole	Two Pole	Three Pole	Rated Current
AU-1(*)05UR	AU-2(*)05UR	AU-3(*)05UR	0.5A
AU-1(*)1UR	AU-2(*)1UR	AU-3(*)1UR	1.0A
AU-1(*)2UR	AU-2(*)2UR	AU-3(*)2UR	2.0A
AU-1(*)3UR	AU-2(*)3UR	AU-3(*)3UR	3.0A
AU-1(*)4UR	AU-2(*)4UR	AU-3(*)4UR	4.0A
AU-1(*)5UR	AU-2(*)5UR	AU-3(*)5UR	5.0A
AU-1(*)6UR	AU-2(*)6UR	AU-3(*)6UR	6.0A
AU-1(*)8UR	AU-2(*)8UR	AU-3(*)8UR	8.0A
AU-1(*)10UR	AU-2(*)10UR	AU-3(*)10UR	10A
AU-1(*)12UR	AU-2(*)12UR	AU-3(*)12UR	12A
AU-1(*)13UR	AU-2(*)13UR	AU-3(*)13UR	13A
AU-1(*)15UR	AU-2(*)15UR	AU-3(*)15UR	15A
AU-1(*)16UR	AU-2(*)16UR	AU-3(*)16UR	16A
AU-1(*)20UR	AU-2(*)20UR	AU-3(*)20UR	20A
AU-1(*)25UR	AU-2(*)25UR	AU-3(*)25UR	25A
AU-1(*)30UR	AU-2(*)30UR	AU-3(*)30UR	30A
AU-1(*)32UR	AU-2(*)32UR	AU-3(*)32UR	32A
AU-1(*)40UR	AU-2(*)40UR	AU-3(*)40UR	40A
AU-1(*)50UR	AU-2(*)50UR	AU-3(*)50UR	50A
AU-1(*)60UR	AU-2(*)60UR	AU-3(*)60UR	60A
AU-1(*)63UR	AU-2(*)63UR	AU-3(*)63UR	63A

(*) Insert "B" for b-curve, "C" for c-curve and "D" for d-curve.

Ordering Examples: AU-1B05UR, one pole supplementary protector rated for 0.5 Amps B-trip curve.

AU-2D2UR, two pole supplementary protector rated for 2 Amps D-trip curve.