Lines of Miniature Circuit Breakers
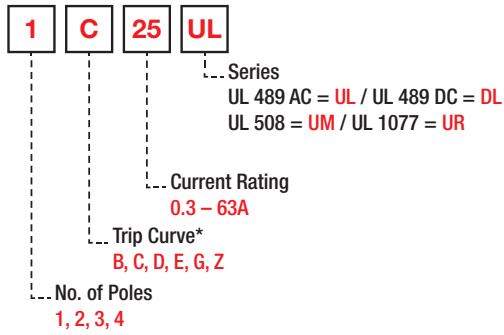
UL 489

UL 508

UL 1077

In today's very competitive marketplace you need reliability, so you need to use circuit breakers that are high quality and technically correct for your application. Altech is a US leader in DIN rail mounted breakers with ratings up to 63A. Only Altech offers DIN rail mounted breakers that meet UL489, UL508 or UL1077 approvals with a short circuit interrupt capacity of up to 10kA.

Overview of Physical Attributes of Our Lines

UL (AC), DL (DC), V-EA and UR Series

3D25UL →

1 Hinged terminal cover design allows easy access to terminal screws with a broad range of screwdrivers!

2 Individual Part Number is shown on each circuit breaker and is legible when installed in the panel.

3 A clear-hinged cover protects designated marking area.

4 DIN Clip can be released when necessary.

5 Flexible replaceable terminal barriers reduce the possibility of breakage if accidentally dropped!

Unique Standard Dual Connection Terminals
A Box terminal for solid conductors or flexible conductors with or without cable lug.
B Screw terminal for forked cable lug.

UL (AC), DL (DC), V-EA and UR Series
EXAMPLE

| 1 | C | 25 | UL |

Series
UL 489 AC = UL / UL 489 DC = DL
UL 508 = UM / UL 1077 = UR

Current Rating
0.3 – 63A

Trip Curve*
B, C, D, E, G, Z

No. of Poles
1, 2, 3, 4

* Trip curves available depend on circuit breaker series.

Miniature Molded Case Circuit Breakers

UL (AC), DL (DC) Series UL489

LISTED
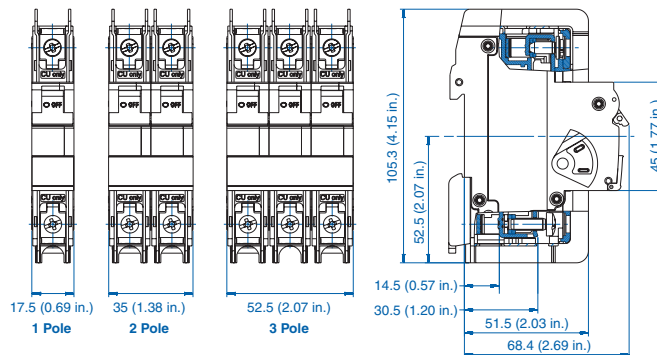C.B.
E329510

Current/ Voltage Rating

AC Version *(one device - dual voltage ratings)*	0.3 - 63A/ 240V AC, 0.3-32A/ 480Y/277V AC
DC Version	0.3 - 63A/ 125/ 250V DC
Poles	1, 2, 3 (4 poles available upon request.)
Trip Characteristics	C, D; AC and DC
Interrupting Capacity	10kA
Calibration Temperature	40°C (104°F)
Ambient Temperature	-25°C to 55°C (-13°F to 131°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Terminal Size Acceptability and Terminal Torque	Top: 18-3 AWG; Bottom: 18-2 AWG 2.0 Nm (17.7 lb.in.)(min) / 2.5Nm (22.2 lb.in)(max)
Electrical Life	6,000 switching cycles ON/ OFF
Mechanical Life	10,000 switching cycles ON/ OFF
Terminal Protection Degree	IP20
Mounting Orientation	In any plane
Accessories	• Auxiliary Contact, Alarm Switch • Shunt Trip • Neutral Pole • Lock-out Adapter • Touch Protection Caps • Cooling Spacer • Mounting Screw 34mm

Dimensions

UL (AC), DL (DC) Series

17.5 (0.69 in.) **1 Pole**

35 (1.38 in.) **2 Pole**

52.5 (2.07 in.) **3 Pole**

105.3 (4.15 in.)

52.5 (2.07 in.)

45 (1.77 in.)

14.5 (0.57 in.)

30.5 (1.20 in.)

51.5 (2.03 in.)

68.4 (2.69 in.)

NOTES

When a busbar is used, mixing and matching between the two series is not possible.
The terminal positons are different in the Z direction (front to back).

UL/DL series terminal barriers might interfere with the front panel (door) when the breaker is front panel mounted.
The position of the DIN rail/mounting bracket might have to be adjusted. (This series will NOT fit in an AK or EK Spelsberg enclosure!)

Altech Corp.®

UM (V-EA) Series UL508

E137938

Current/ Voltage Rating	
AC Version	0.3-60A/ 480Y/ 277V AC
DC Rating	0.3-25A: 1 pole - 42V DC; 2 Pole - 80V DC 30-60A: 1 pole - 24V DC; 2 Pole - 60V DC
Poles	1, 2, 3 (4 poles available upon request.)
Trip Characteristics	B, C, D, E, G, Z
Short Circuit Withstand Rating (UL/CSA - Ratings)	0.3-60A (RC): 10kA with UL-listed RK5 back-up fuse or MCCB
Calibration Temperature	40°C (104°F)
Ambient Temperature	-25°C to 55°C (-13°F to 131°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Terminal Size Acceptability and Terminal Torque	Top: 18-3 AWG; Bottom: 18-2 AWG 2.0 Nm (17.7 lb.in.)(min) / 2.5Nm (22.2 lb.in)(max)
Terminal Protection Degree	IP20
Mounting Orientation	In any plane
Horsepower Ratings	see catalog
Accessories	• Auxiliary Contact, Alarm Switch • Shunt Trip • Neutral Pole • Lock-out Adapter • Touch Protection Caps • Cooling Spacer • Mounting Screw 34mm

Dimensions

UM (V-EA) Series
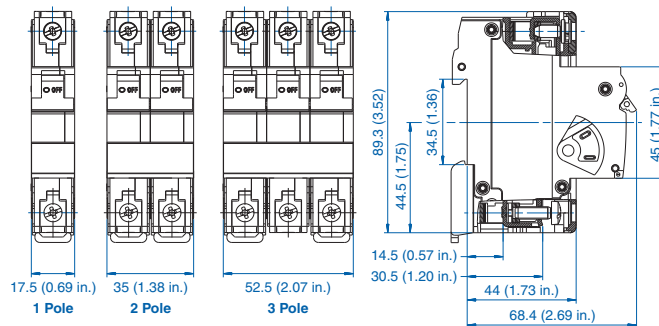
NOTE When a busbar is used, mixing and matching between the two series is not possible. The terminal positons are different in the Z direction (front to back)
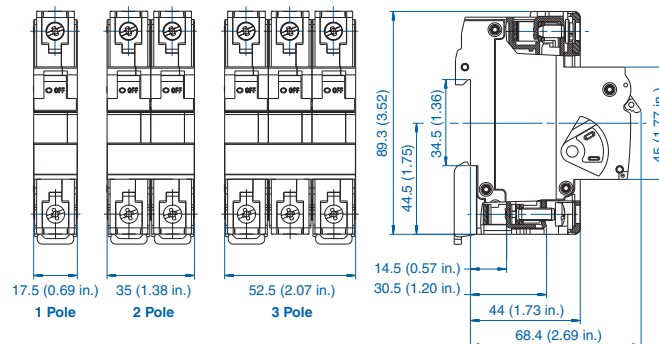
Altech Corp.®

Supplementary Protector

UR Series UL1077

C **RU** US
E137915

Current/ Voltage Rating

AC Version	0.5-63A / 480Y/ 277V AC
Poles	1, 2, 3 (4 poles available upon request.)
Trip Characteristics	B, C, D
Short Circuit Withstand Rating	0.3-60A (RC): 10kA with UL-listed RK5 back-up fuse or MCCB
Calibration Temperature	30ºC (86ºF)
Ambient Temperature	-25ºC to +55ºC (-13ºF to 131ºF)
Storage Temperature	-40ºC to +70ºC (-40ºF to 158ºF)
Terminal Size Acceptability and Torque	Top: 18-3 AWG; Bottom: 18-2 AWG 2.0 Nm (17.7 lb.in.)(min) / 2.5Nm (22.2 lb.in)(max)
Electrical Life	6,000 switching cycles ON/ OFF
Mechanical Life	10,000 switching cycles ON/ OFF
Terminal Protection Degree	IP20
Mounting Orientation	In any plane
Accessories	• Auxiliary Contact, Alarm Switch • Shunt Trip • Neutral Pole • Lock-out Adapter • Touch Protection Caps • Cooling Spacer • Mounting Screw 34mm

Dimensions

UR Series

17.5 (0.69 in.) **1 Pole**
35 (1.38 in.) **2 Pole**
52.5 (2.07 in.) **3 Pole**

89.3 (3.52)
44.5 (1.75)
34.5 (1.36)
45 (1.77 in.)
14.5 (0.57 in.)
30.5 (1.20 in.)
44 (1.73 in.)
68.4 (2.69 in.)

NOTE When a busbar is used, mixing and matching between the two series is not possible. The terminal positons are different in the Z direction (front to back)

Altech Corp. ®

Cat. No. 346