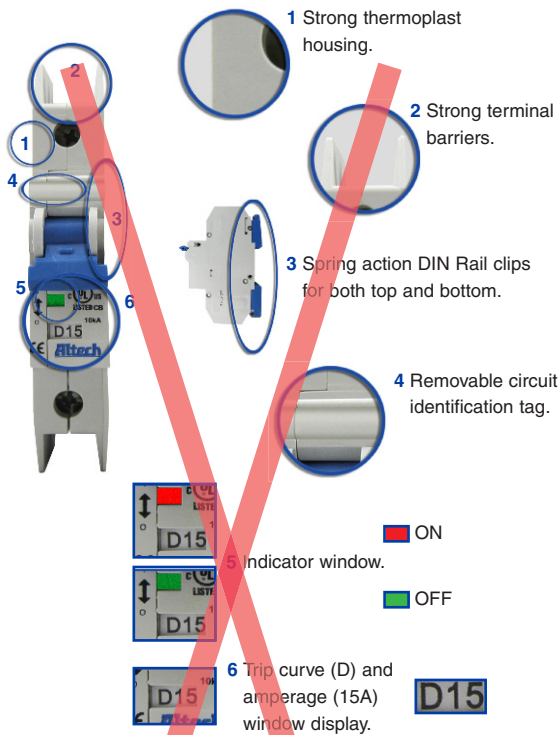




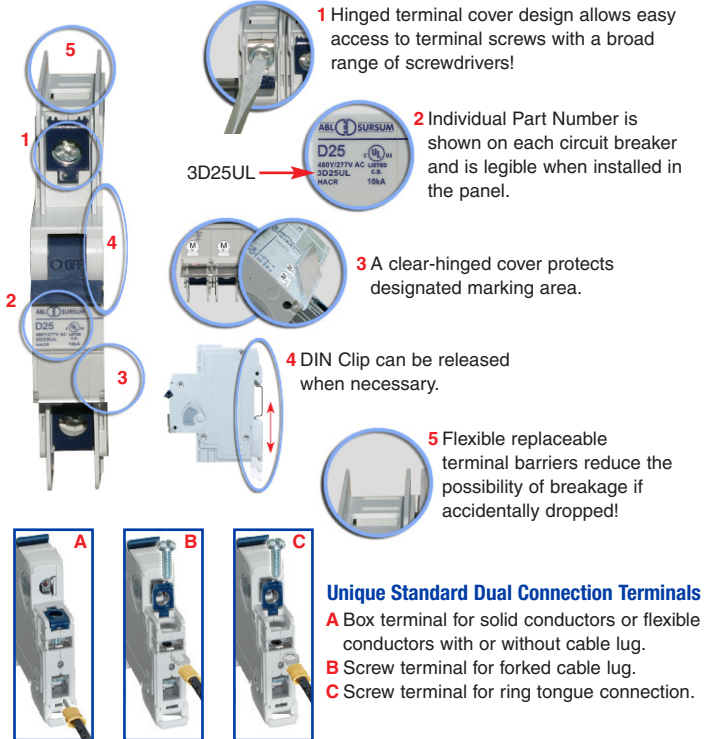
In today's very competitive marketplace you need reliability, so you need to use circuit breakers that are high quality and technically correct for your application. Altech is a US leader in DIN rail mounted breakers with ratings up to 63A. Only Altech offers DIN rail mounted breakers that meet UL489,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

Overview of Physical Attributes of Our Lines

L, M and R Series

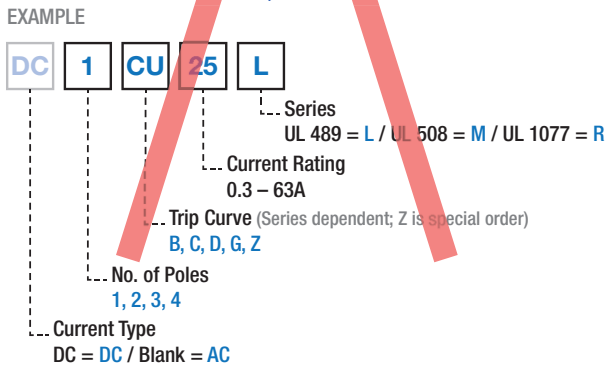


UL (AC), DL (DC), V-EA and UR Series

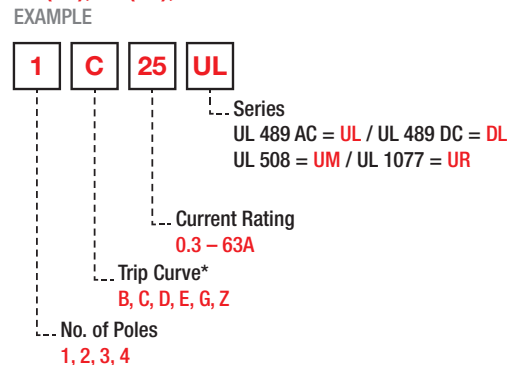


Ordering Part Builder

L, M and R Series



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



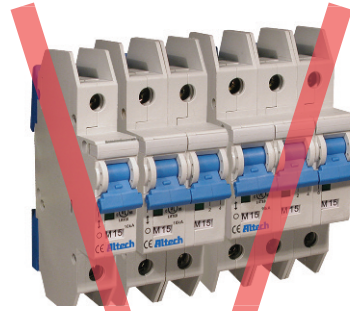
* Trip curves available depend on circuit breaker series.

Miniature Molded Case Circuit Breakers

UL 489

L Series, AC or DC UL489

UL (AC), DL (DC) Series UL489



UL LISTED C.B. E305318

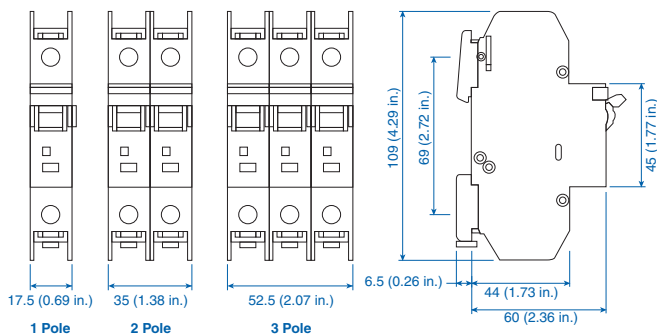
UL LISTED C.B. E329510

Current/ Voltage Rating

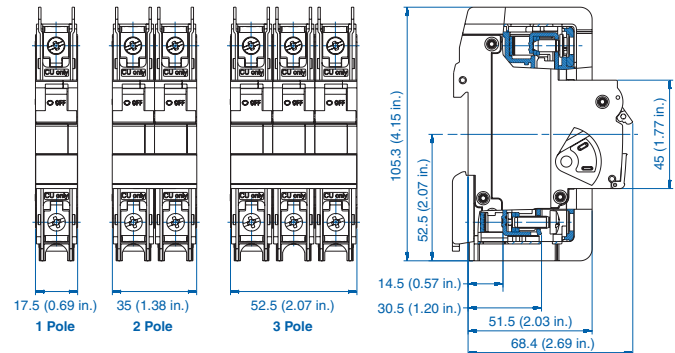
AC Version (one device - dual voltage ratings) DC Version	0.2-63A/ 240V AC, 0.2-32A/ 480Y/277VAC 0.2-63A/ 125/ 250V DC	0.3 - 63A/ 240V AC, 0.3-32A/ 480Y/277V AC 0.3 - 63A/ 125/ 250V DC
Poles	1, 2, 3 (4 poles available upon request.)	1, 2, 3 (4 poles available upon request.)
Trip Characteristics	C, D; AC and DC; (Z special order only)	C, D; AC and DC
Interrupting Capacity	10kA	10kA
Calibration Temperature	40°C (104°F)	40°C (104°F)
Ambient Temperature	-25°C to 60°C (-13°F to 140°F)	-25°C to 55°C (-13°F to 131°F)
Storage Temperature	-25°C to 75°C (-13°F to 167°F)	-40°C to 70°C (-40°F to 158°F)
Terminal Size Acceptability and Terminal Torque	14-3 AWG: 17.7 lb-in. (2.0 Nm) 18-16 AWG: 25 lb-in.(2.8 Nm)	Top: 18-3 AWG; Bottom: 18-2 AWG 2.0 Nm (17.7lb.in.)(min) / 2.5Nm (22.2lb.in)(max)
Electrical Life	6,000 switching cycles ON/ OFF	6,000 switching cycles ON/ OFF
Mechanical Life	10,000 switching cycles ON/ OFF	10,000 switching cycles ON/ OFF
Terminal Protection Degree	IP20 at front	IP20
Mounting Orientation	In any plane	In any plane
Accessories	<ul style="list-style-type: none"> Auxiliary Contact Shunt Trip Neutral Pole Undervoltage Trip Front Mounting Kit with hardware Lock-out Adapter 	<ul style="list-style-type: none"> Auxiliary Contact, Alarm Switch Shunt Trip Neutral Pole Lock-out Adapter Touch Protection Caps Cooling Spacer Mounting Screw 34mm

Dimensions

L Series



UL (AC), DL (DC) Series



NOTES

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

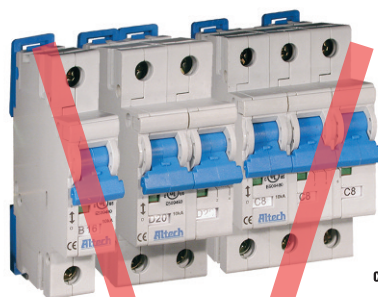
UL/DL series terminal barriers might interfere with the front panel (door) when the breaker is front panel mounted.
The position of the DIN rail/mounting bracket might have to be adjusted. (This series will NOT fit in an AK or EK Spelsberg enclosure!)

Altech Corp.

UL 489

Manual Motor Controllers “Suitable as Motor Disconnect”

M Series UL508



UM (V-EA) Series UL508



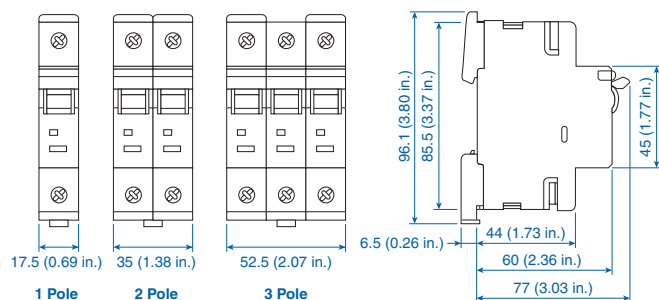
E137938

Current/ Voltage Rating

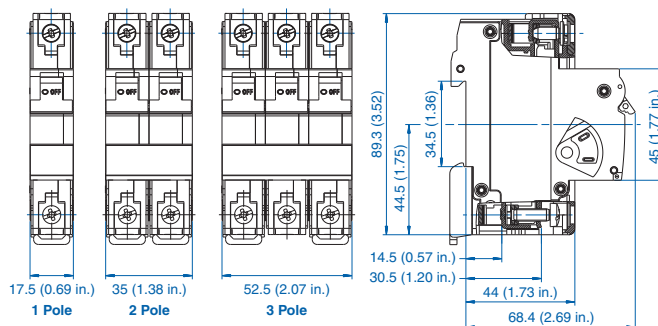
AC Version	0.5-63A / 480Y/ 277V AC	0.3-60A/ 480Y/ 277V AC
DC Rating		0.3-25A: 1 pole - 42V DC; 2 Pole - 80V DC 30-60A: 1 pole - 24V DC; 2 Pole - 60V DC
Poles	1, 2, 3 (4 poles available upon request.)	1, 2, 3 (4 poles available upon request.)
Trip Characteristics	B, C, D, G	B, C, D, E, G, Z
Short Circuit Withstand Rating (UL/CSA - Ratings)	0.5-6A (RC): 10kA with no back-up fuse 8-63A (RC): 10kA with UL-listed Class J back-up fuse; 5kA with no back-up fuse	0.3-60A (RC): 10kA with UL-listed RK5 back-up fuse or MCCB
Calibration Temperature	30°C (86°F)	40°C (104°F)
Ambient Temperature	-25°C to 60°C (-13°C to 140°F)	-25°C to 55°C (-13°F to 131°F)
Storage Temperature	-25°C to 75°C (-13°C to 167°F)	-40°C to 70°C (-40°F to 158°F)
Terminal Size Acceptability and Terminal Torque	14-3 AWG: 17.7 lb.in. (2.0 Nm) 18-16 AWG: 25 lb.in. (2.8 Nm)	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	IP20
Mounting Orientation	In any plane	In any plane
Horsepower Ratings	see catalog	see catalog
Accessories	<ul style="list-style-type: none"> • Auxiliary Contact • Shunt Trip • Neutral Pole • Lock-out Adapter • Front Mounting Kit with hardware 	<ul style="list-style-type: none"> • Auxiliary Contact, Alarm Switch • Shunt Trip • Neutral Pole • Lock-out Adapter • Touch Protection Caps • Cooling Spacer • Mounting Screw 34mm

Dimensions

M Series



UM (V-EA) Series

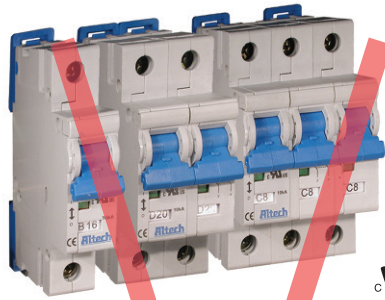


NOTE When a busbar is used, mixing and matching between the two series is not possible. The terminal positions are different in the Z direction (front to back)

Altech Corp.®

R Series UL1077

UR Series UL1077



UL US
E301611



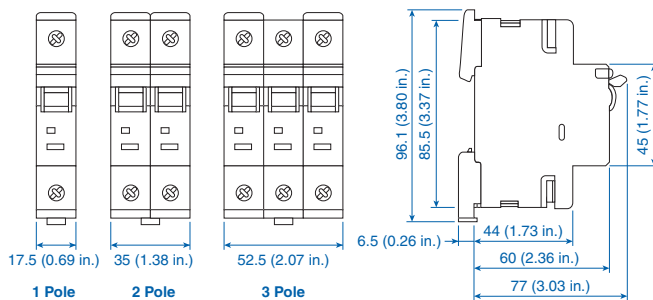
UL US
E137915

Current/ Voltage Rating

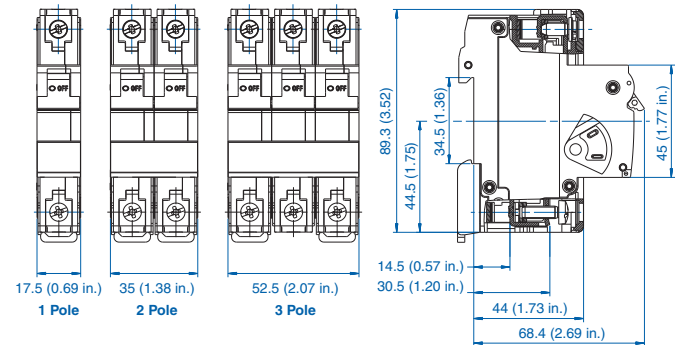
AC Version	0.5-63A / 480Y/ 277V AC	0.5-63A / 480Y/ 277V AC
Poles	1, 2, 3 (4 poles available upon request.)	1, 2, 3 (4 poles available upon request.)
Trip Characteristics	B, C, D	B, C, D
Short Circuit Withstand Rating	0.5-6A (RC): 10kA with no back-up fuse 8-63A (RC): 10kA with UL-listed Class J back-up fuse; 5kA with no back-up fuse	0.3-60A (RC): 10kA with UL-listed RK5 back-up fuse or MCCB
Calibration Temperature	30°C (86°F)	30°C (86°F)
Ambient Temperature	-25°C to 60°C (-13° to 140°F)	-25°C to +55°C (-13°F to 131°F)
Storage Temperature	-25°C to 75°C (-13° to 167°F)	-40°C to +70°C (-40°F to 158°F)
Terminal Size Acceptability and Torque	14-3 AWG: 17.5 lb-in. (2.0 Nm) 18-16 AWG / 25 lb-in. (2.8 Nm)	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	6,000 switching cycles ON/ OFF
Mechanical Life	10,000 cycles ON/ OFF	10,000 switching cycles ON/ OFF
Terminal Protection Degree	IP20 at front	IP20
Mounting Orientation	In any plane	In any plane
Accessories	<ul style="list-style-type: none"> Auxiliary Contact Shunt Trip Neutral Pole Lock-out Adapter 	<ul style="list-style-type: none"> Auxiliary Contact, Alarm Switch Shunt Trip Neutral Pole Lock-out Adapter Touch Protection Caps Cooling Spacer Mounting Screw 34mm

Dimensions

R Series



UR Series



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

Altech Corp.

Cat. No. 346