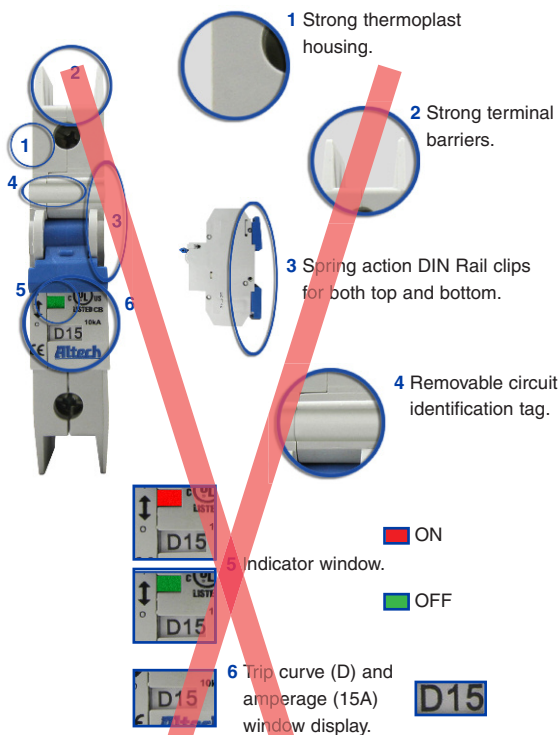




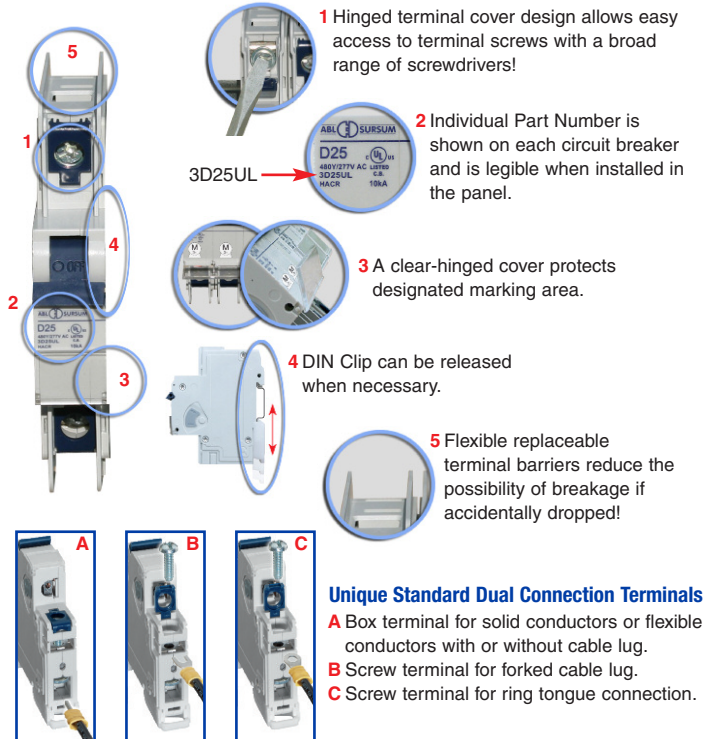
In today's very competitive marketplace you need reliability, so you need to use circuit breakers that are high quality and technically correct for your application. Altech is a US leader in DIN rail mounted breakers with ratings up to 63A. Only Altech offers DIN rail mounted breakers that meet UL489,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

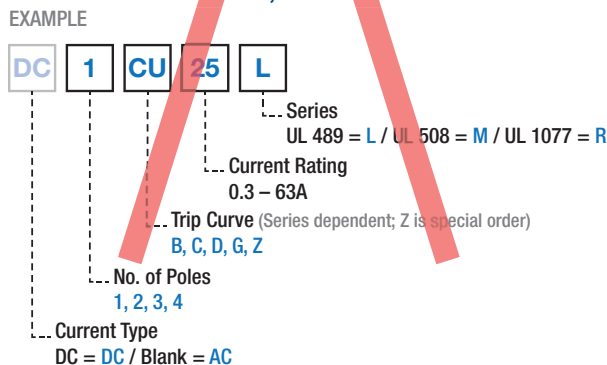


UL (AC), DL (DC), V-EA and UR Series

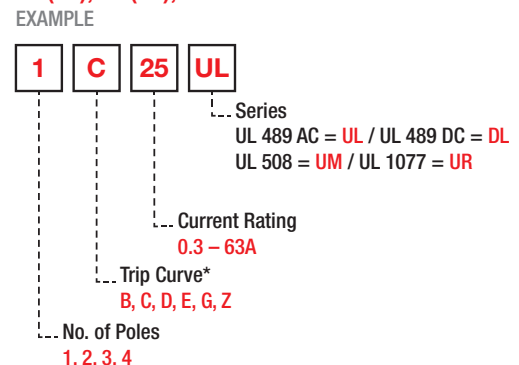


Ordering Part Builder

L, M and R Series



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



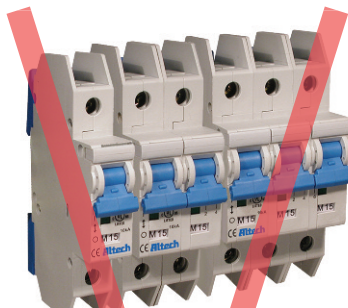
* Trip curves available depend on circuit breaker series.

Miniature Molded Case Circuit Breakers

UL 489

L Series, AC or DC UL489

UL (AC), DL (DC) Series UL489

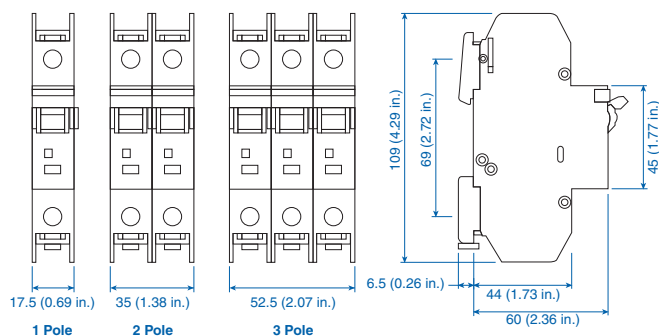


Current/ Voltage Rating

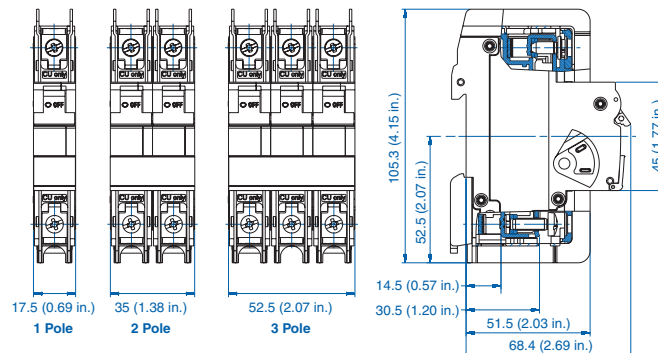
AC Version (one device - dual voltage ratings)	0.2-63A/ 240V AC, 0.2-32A/ 480Y/277VAC	0.3 - 63A/ 240V AC, 0.3-32A/ 480Y/277V AC
DC Version	0.2-63A/ 125/ 250V DC	0.3 - 63A/ 125/ 250V DC
Poles	1, 2, 3 (4 poles available upon request.)	1, 2, 3 (4 poles available upon request.)
Trip Characteristics	C, D; 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	- Auxiliary Contact - Shunt Trip - Neutral Pole - Undervoltage Trip - Front Mounting Kit with hardware - Lock-out Adapter	- 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!)

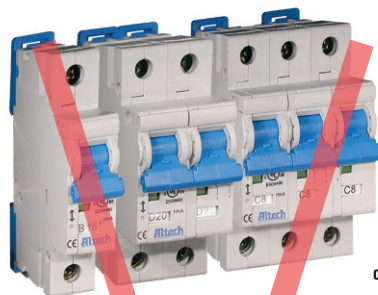
Altech Corp.

UL 489

Manual Motor Controllers “Suitable as Motor Disconnect”

UL 508

M Series UL508



UM (V-EA) Series UL508



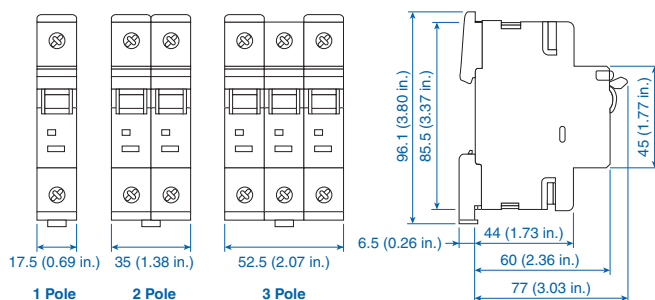
E137938

Current/ Voltage Rating

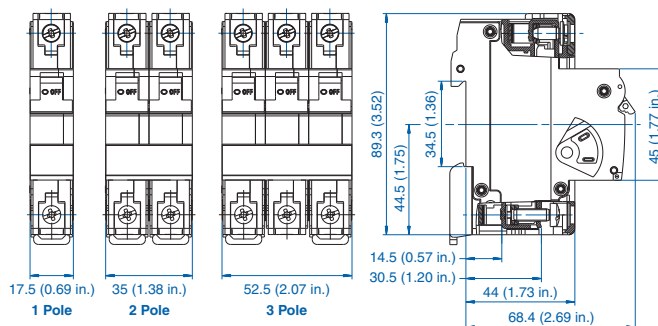
AC Version	0.5-63A / 480Y/ 277V AC	0.3-60A/ 480Y/ 277V AC
DC Rating		0.3-25A: 1 pole - 42V DC; 2 Pole - 80V DC 30-60A: 1 pole - 24V DC; 2 Pole - 60V DC
Poles	1, 2, 3 (4 poles available upon request.)	1, 2, 3 (4 poles available upon request.)
Trip Characteristics	B, C, D, G	B, C, D, E, G, Z
Short Circuit 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	• Auxiliary Contact • Shunt Trip • Neutral Pole • Lock-out Adapter • Front Mounting Kit with hardware	• 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

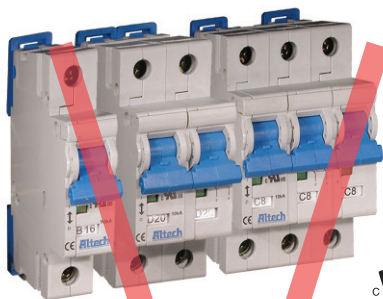


NOTE When a busbar is used, mixing and matching between the two series is not possible.
The terminal positions are different in the Z direction (front to back)

UL 508

Altech Corp.

R Series UL1077



UL
E301611

UR Series UL1077



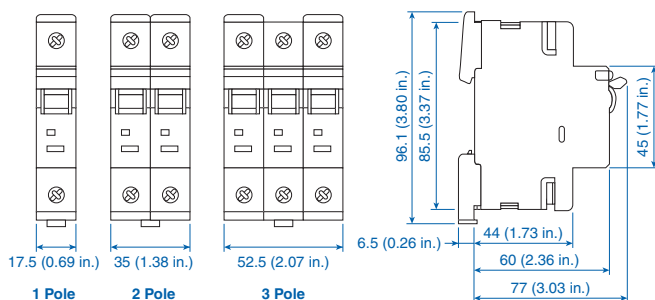
UL
E137915

Current/ Voltage Rating

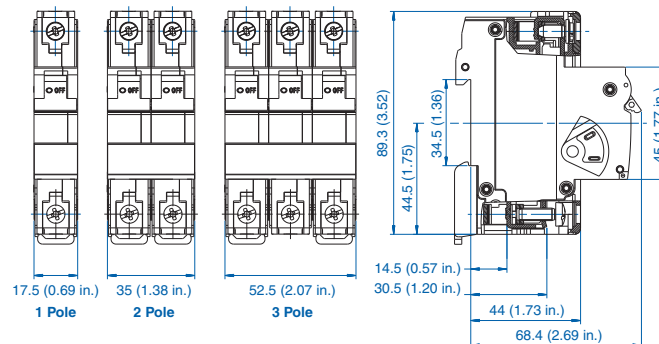
AC Version	0.5-63A / 480Y/ 277V AC	0.5-63A / 480Y/ 277V AC
Poles	1, 2, 3 (4 poles available upon request.)	1, 2, 3 (4 poles available upon request.)
Trip Characteristics	B, C, D	B, C, D
Short Circuit Withstand Rating	0.5-6A (RC): 10kA with no back-up fuse 8-63A (RC): 10kA with UL-listed Class J back-up 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 scycles 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	- Auxiliary Contact - Shunt Trip - Neutral Pole - Lock-out Adapter	- 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 positons are different in the Z direction (front to back)

Altech Corp.

Cat. No. 346