



Dual mount  
(black body)



Dual mount + Auxiliary  
(black body)

### Features

- AC Circuit Breaker
- Hydraulic-Magnetic technology
- 100% rating capability, independent of ambient temperature
- One, two and three pole (UL). One, two, three pole and 1+N, 3+N (VDE).
- VDE and CCC approved, CE certified
- UL listed (CSA / UL 489)
- Ratings 0.1 to 25 A
- Optional Auxiliary Switch / Trip Alarm - factory fitted (6.5 mm wide)
- Optional Shunt Trip (no approvals)
- Wide range of time delays and operating currents
- Precision tripping characteristics
- Ultra compact – 13 mm wide module
- Trip indication with mid-trip handle
- Reset immediately after overload
- DIN mount product in grey shells
- Dual mount product in black shells
- Current limiting capability
- Ring terminal ready (terminal screw is removable)
- Suitable to use for electrical isolation

### Auxiliary Switch, Trip Alarm & Combo:

#### Features

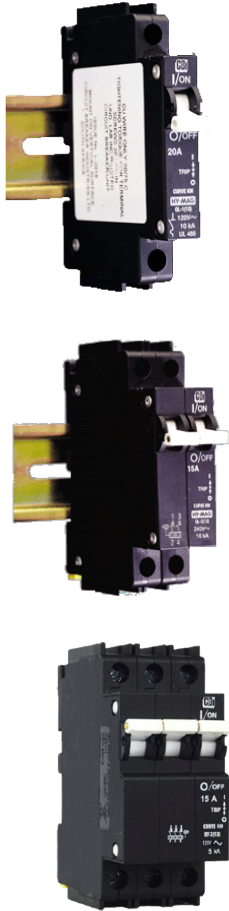
- AC and DC voltages
- UL 489 listed (Auxiliary Switch: 6 A 250 V AC, 0.5 A 80 V DC)
- IEC 60947-5-1 approved (Auxiliary Switch: 6 A 240 V AC, 0.5 A 110 V DC; Trip Alarm: 6 A 240 V AC, 0.5 A 110 V DC)
- Factory fitted
- Attached to right hand side of Circuit Breaker
- Compact 6.5 mm width

### Applications

- AC branch circuit protection (UL 489, IEC / EN 60847-2)
- Telecom / datacom equipment
- Lighting control
- UPS equipment
- Alternative energy equipment
- Mobile power generation equipment
- Power conditioning equipment

### Optional Accessories

- Auxiliary Switch (DIN and Dual Mount)
- Auxiliary Switch + Trip Alarm (Dual Mount only)
- Trip Alarm (Dual Mount only)
- Handle lock
- Surface mounting clips
- Busbar
- 57 mm Escutcheon blank (Dual Mount only)
- 57 mm Safety blank (Dual Mount only)



SINGLE POLE			DOUBLE POLE		THREE POLE	
RATED CURRENT	PART #	PKG SIZE	PART #	PKG SIZE	PART #	PKG SIZE
0.1A	QL113DMKM.1	12				
0.2A	QL113DMKM.2	12				
0.3A	QL113DMKM.3	12				
0.4A	QL113DMKM.4	12				
0.5A	QL113DMKM.5	12				
1A	QL113DMKM01	12	QL213DMKM01	6	QL313DMKM01	4
2A	QL113DMKM02	12	QL213DMKM02	6	QL313DMKM02	4
3A	QL113DMKM03	12	QL213DMKM03	6	QL313DMKM03	4
4A	QL113DMKM04	12	QL213DMKM04	6	QL313DMKM04	4
5A	QL113DMKM05	12	QL213DMKM05	6	QL313DMKM05	4
6A	QL113DMKM06	12	QL213DMKM06	6	QL313DMKM06	4
7A	QL113DMKM07	12	QL213DMKM07	6	QL313DMKM07	4
8A	QL113DMKM08	12	QL213DMKM08	6	QL313DMKM08	4
9A	QL113DMKM09	12	QL213DMKM09	6	QL313DMKM09	4
10A	QL113DMKM10	12	QL213DMKM10	6	QL313DMKM10	4
15A	QL113DMKM15	12	QL213DMKM15	6	QL313DMKM15	4
16A	QL113DMKM16	12	QL213DMKM16	6	QL313DMKM16	4
20A	QL113DMKM20	12	QL213DMKM20	6	QL313DMKM20	4
25A	QL113DMKM25	12	QL213DMKM25	6	QL313DMKM25	4

### Technical Data:

Number of Poles: 1,2,3  
 Max. Voltage: 240Vac, 50/60 Hz  
 Min. Amp Rating: 0.1 Amps  
 Max. Amp. Rating: 25 Amps  
 Interrupting Capacity: 10kA (1,2 pole), 5kA (3 pole)  
 Operating Temperature Range: -40°C to +65°C

### Features:

UL489 Listed  
 Rated from 0.1 to 25 Amps  
 Compact 13mm width  
 Shock Proof Connections  
 35mm DIN Rail Mounting



Your Source for Automation Components

# UL489 Miniature Circuit Breakers

## QL Series

### Technical Data

Approvals	IEC / EN 60947-2, VDE				
Number of Poles	I	2 (I+N)	2	3	4 (3+N)
Operating Voltages	240 V AC		415 V AC		
Minimum Current Rating	0.1 A				
Maximum Current Rating	25 A				
Interrupting Capacity	6 kA				
Operating Temperature Range	-40°C to +85°C				
Mounting Options	DIN Rail, Dual mounting (DIN & Mini), surface mounting clip				
Time Delay Curves	I, 3, 9, KM, OP				

Approvals	UL 489			
Number of Poles	I	I	2	3
Operating Voltages	120 V AC	240 V AC	120 / 240 V AC	240 V AC
Minimum Current Rating	0.1 A			
Maximum Current Rating	25 A	20 A	25 A	25 A
Interrupting Capacity	10 kA	5 kA	10 kA	5 kA
Operating Temperature Range	-40°C to +85°C			
Mounting Options	DIN Rail, Dual mounting (DIN & Mini), surface mounting clip			
Time Delay Curves	I, 3, 9, KM, OP			

Approvals	CCC		
Number of Poles	I	2 (I+N)	2
Operating Voltages	240 V AC	240 V AC	240 V AC
Minimum Current Rating	0.1 A		
Maximum Current Rating	25 A	25 A	25 A
Interrupting Capacity	6 kA		
Operating Temperature Range	-40°C to +85°C		
Mounting Options	DIN Rail, Dual mounting (DIN & Mini), surface mounting clip		
Time Delay Curves	I, 3, 9, KM, OP		

Breaker QL	Wire Size mm <sup>2</sup> (IEC)	Wire Gauge (UL)	Torque (IEC)	Torque (UL)	Comments
I Pole & 2 Pole	0.75 - 35 mm <sup>2</sup>	18 - 2 - AWG	2.5 Nm	20 in-lb	Pozidriv #2 Combi head



Your Source for Automation Components

# UL489 Miniature Circuit Breakers

## QL Series

### Example Code: QL--AT-3(13)-D-KM-15A-----Z

Group	1	2	3	4	5	6	7	8	9	10	11	12
<b>Requirement</b>	QL Frame	Switch / Neutral	Auxiliary + Trip Alarm	Triple pole	13 mm module width	DIN Rail	Medium delay curve KM	Current Rating 15 A	Future use	No Shunt Trip	Future use	Parallel bridged (by customer)
<b>Long Code</b>	<b>QL</b>	<b>-</b>	<b>AT</b>	<b>3</b>	<b>(13)</b>	<b>D</b>	<b>KM</b>	<b>15A</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>Z</b>

Group	Code	Description	Comments
<b>Group 1: Frame Type</b>	QL	13 mm wide Miniature Circuit Breaker	UL 489, IEC / EN 60947-2, VDE, CE, CCC
<b>Group 2: Switch/Neutral</b>	-	Not applicable	Overload poles do not have any further coding
	N	Neutral	
<b>Group 3: Auxiliary</b>	-	Not applicable	Use this code if no Auxiliary used
	A	Auxiliary Switch (1 x Aux in 1 module)	6.5 mm module fitted on right-hand side (DIN & Dual Mount)
	T	Trip Alarm (1 x Trip Alarm in 1 module)	6.5 mm module fitted on right-hand side (Dual Mount only)
	AT	Auxiliary Switch + Trip Alarm combo (combined in 1 module)	6.5 mm module fitted on right-hand side (Dual Mount only)
<b>Group 4: No of Poles</b>	1	Single pole	
	2	Double pole	2 pole or I+N
	3	Triple pole	
	4	Four pole	3+N only
<b>Group 5: Module Width</b>	(13)	13 mm module width	13 mm per pole
<b>Group 6: Mounting</b>	D	DIN rail mount – 45 mm Escutcheon, grey body	DIN mount supplied in grey only
	DM	Dual mount – 57 mm Escutcheon, black body	Dual mount supplied in black only
<b>Group 7: Time Delays</b>	1	Long time delay, high instantaneous trip	Instantaneous Trip Point (x In) 10 – 20 Comments Orange handle
	3	Short time delay	3 – 5 White handle
	9	Long time delay	7 – 12 White handle
	KM	Medium time delay	6 – 12 White handle
	OP	Instantaneous	None White handle
<b>Group 8: Current Ratings</b>	Code / Description 0.1, 0.2, 0.3, 0.5, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 15, 16, 20, 25 A		Comments Ratings available vary depending on certification * Other ratings are available as special orders. Check availability.
<b>Group 9:</b>	Code For future use (-)		
<b>Group 10: Shunt Trip</b>	-	Not applicable	Comments Use this code if no Shunt Trip is used
<b>(not certified, only offered as special order)</b>	V0	100 – 480 VAC	Fly leads (approximately 60 mm long)
	V5	100 – 480 VAC	Internally connected
	Other voltages are available as special orders. Check availability.		
<b>Group 11</b>	Code For future use (-)		
<b>Group 12: Special Termination</b>	-	Not applicable	Comments Use this code if no special terminations are used
	P	Plug-in	
	Z	Bridged unit (bridge to be fitted by customer)	
	ZL	Bridged unit (factory fitted)	

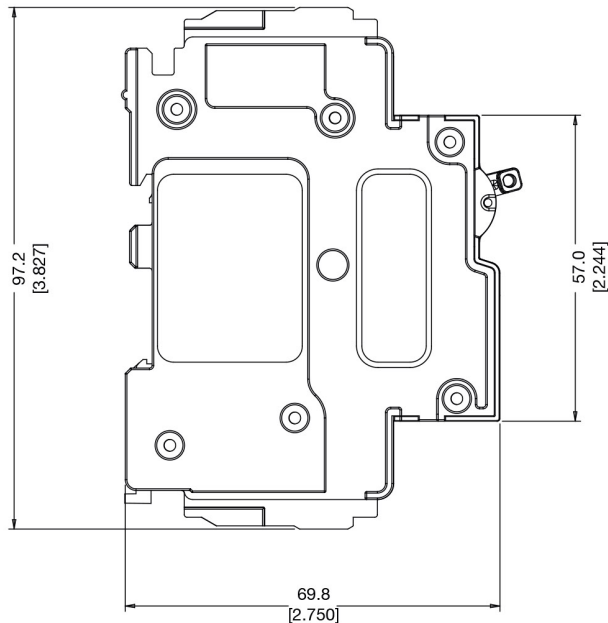
### Typical outline of Auxiliary Switch / Trip Alarm

Auxiliary available (6.5 mm module width) to match the unit to which it is attached.

Available types as listed in Group 3:

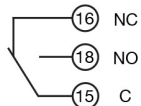
- Type T - Trip Alarm as shown in outline drawings (fitted on a Dual mount product)
- Type AT - Auxiliary Switch + Trip Alarm (as shown)
- Type A - Auxiliary Switch

Typical outline for an Auxiliary module attached to a Dual mount single pole Circuit Breaker  
All dimensions in mm [ inch ]  
Tolerance  $\pm 0.2$  unless otherwise specified

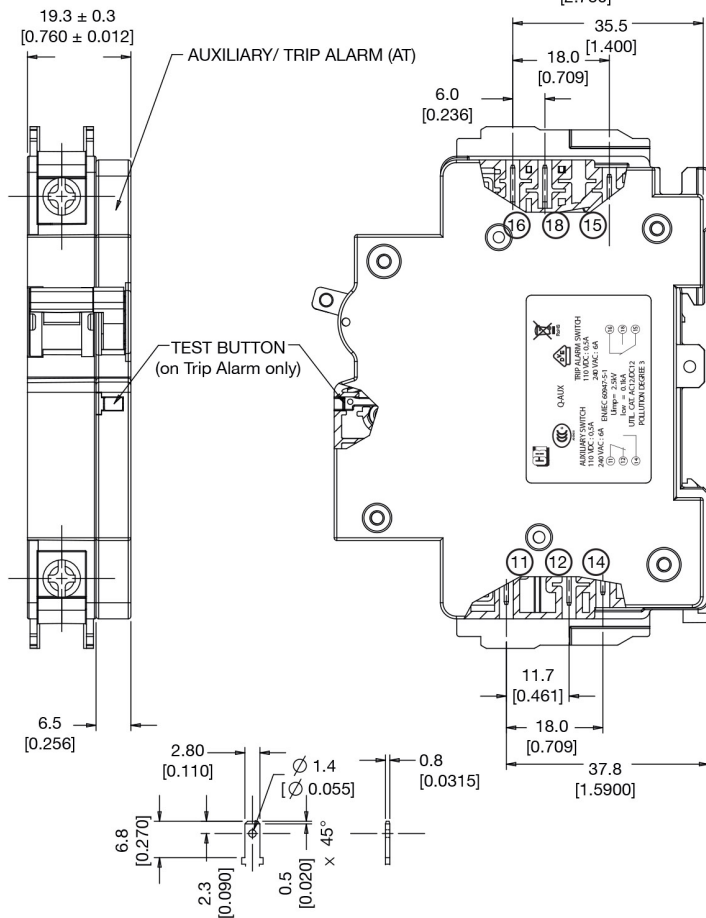
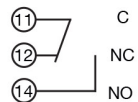


Circuit Diagram when the Circuit Breaker is in the "OFF" position

Trip Alarm Switch

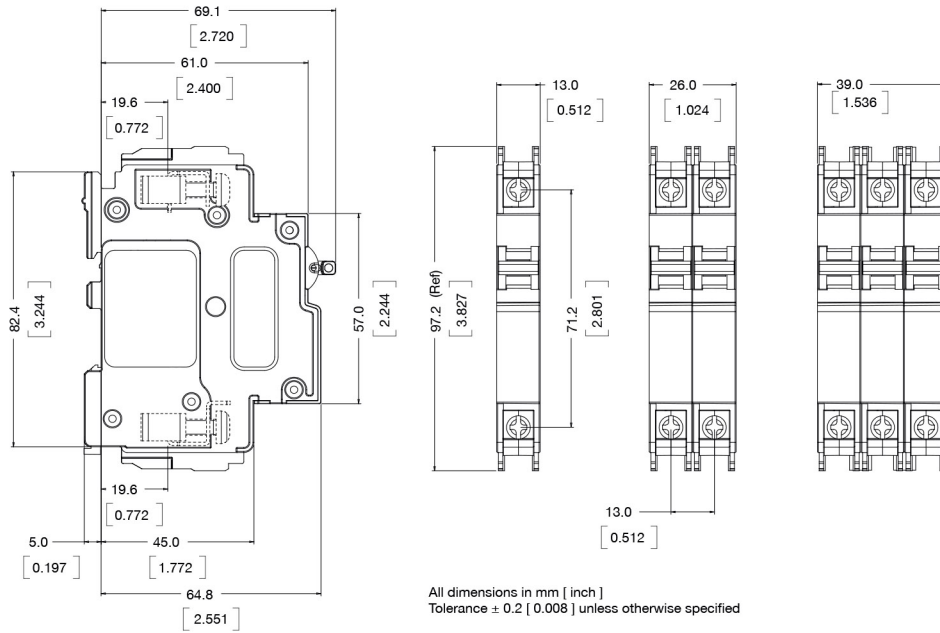


Auxiliary Switch



CONNECTING TERMINALS  
DETAIL (COMMON TO ALL)

### Outline Dimensions: Dual mount



### Time Delay Curves

