



Miniature Circuit Breakers



**SHAMROCK
CONTROLS**

RoHS
Compliant

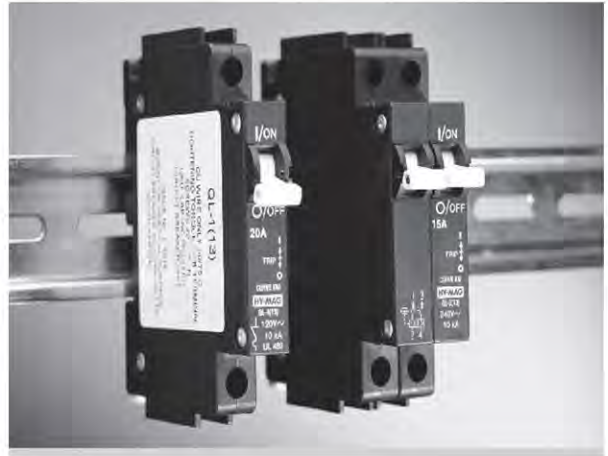
Miniature Circuit Breaker - QL Series

Features

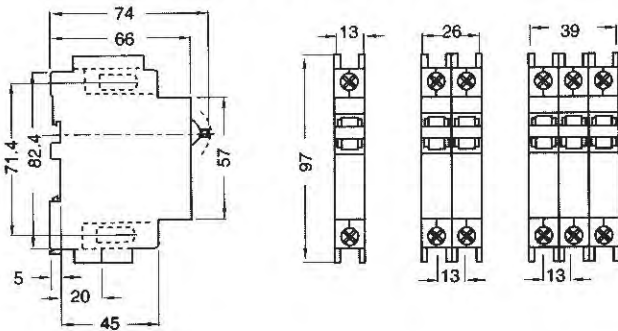
UL 489 Listed
 DIN Rail Mounting
 Compact 13 mm width
 Temperature Independent
 100% Rating Capability
 2 year Warranty
 Hydraulic-Magnetic Technology
 Auxiliary and/or Alarm Switch Avail

Technical Data

Number of Poles 1, 2 & 3 Poles
 Maximum Voltage 120/240V 50/60Hz
 Minimum Amp Rating 0.1 Amp
 Maximum Amp Rating 25 Amp
 Interrupting Cap. 10,000A
 Dielectric Strength 1500V 50/60 Hz
 Insulation Resistance 100 Megaohm
 Oper Temp Range -40 C to +65 C



QL Series Outline



QL Time Delay

Curve	Limits	Percentage of Rated Current Trip Time in Seconds							
		125	150	200	400	600	800	1000	
KM = Curve "C"	Minimum	15	8	4	0.7	0.1	0	0.01	
	Maximum	300	90	28	4	1.5	0.6	0.4	
Curve	Limits	Percentage of Rated Current Trip Time in Seconds							
		130	150	300	400	500	600	800	1000
1 = Curve "D"	Minimum	60	42	7	3.5	2	1.2	0.6	>0.1
	Maximum	1800	420	40	19	11	7.2	3.5	2.2

Catalog Number

Rated Current	Single Pole Equivalent to Curve C	Single Pole Equivalent to Curve D	Two Pole Equivalent to Curve C	Two Pole Equivalent to Curve D	Three Pole Equivalent to Curve C	Three Pole Equivalent to Curve D
0.5A	QL18KM0.5	QL1810.5	QL28KM0.5	QL2810.5	QL38KM0.5	QL3810.5
1A	QL18KM01	QL18101	QL28KM01	QL28101	QL38KM01	QL38101
2A	QL18KM02	QL18102	QL28KM02	QL28102	QL38KM02	QL38102
5A	QL18KM05	QL18105	QL28KM05	QL28105	QL38KM05	QL38105
10A	QL18KM10	QL18110	QL28KM10	QL28110	QL38KM10	QL38110
15A	QL18KM15	QL18115	QL28KM15	QL28115	QL38KM15	QL38115
20A	QL18KM20	QL18120	QL28KM20	QL28120	QL38KM20	QL38120
25A	QL18KM25	QL18125	QL28KM25	QL28125	QL38KM25	QL38125

Miniature Circuit Breaker - QY Series

Features

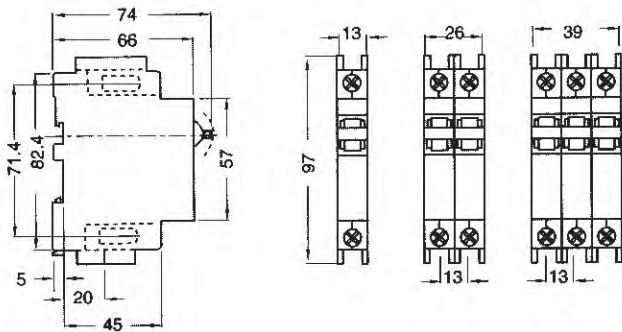
UL 489 Listed
 DIN Rail Mounting
 Compact 13 mm width
 Multi-Pole Configurations Avail
 Temperature Independent
 100% Rating Capability
 Hydraulic-Magnetic Technology
 2 Year Warranty
 125 VDC Rating Available
 Auxiliary and/or Alarm Switch Avail

Technical Data

Number of Poles 1
 Maximum Voltage 80V DC
 Minimum Amp Rating 0.1 Amp
 Maximum Amp Rating 400A in a multi-pole config
 Interrupting Cap. 10,000A
 Dielectric Strength 1500V 50/60 Hz
 Insulation Resistance 100 Megaohm
 Oper Temp Range -40 C to +65 C



QY Series Outline



QY Time Delay

Curve	Limits	Percentage of Rated Current Trip Time in Seconds							
		135	150	200	400	600	800	1000	
U2 = Curve "C"	Minimum	10	9	4	0.6	0.1	0.007	0.006	
	Maximum	300	120	28	4	1.3	0.5	0.3	
Curve	Limits	Percentage of Rated Current Trip Time in Seconds							
		130	150	300	400	500	600	800	1000
1 = Curve "D"	Minimum	60	42	7	3.5	2	1.2	0.6	>0.1
	Maximum	1800	420	40	19	11	7.2	3.5	2.2

Catalog Number

Rated Current	Single Pole Equivalent to Curve C	Single Pole Equivalent to Curve D	Rated Current	Single Pole Equivalent to Curve C	Single Pole Equivalent to Curve D
0.5A	QY18U20.5B0	QY1810.5B0	20A	QY18U220B0	QY18120B0
1A	QY18U201B0	QY18101B0	25A	QY18U225B0	QY18125B0
2A	QY18U202B0	QY18102B0	30A	QY18U230B0	QY18130B0
5A	QY18U205B0	QY18105B0	35A	QY18U235B0	QY18135B0
10A	QY18U210B0	QY18110B0	40A	QY18U240B0	QY18140B0
15A	QY18U215B0	QY18115B0	50A	QY18U250B0	QU18150B0

Contact Customer Service for availability of additional Current Ratings and Time Delay Curves

Miniature Circuit Breaker—QZ Series

Features

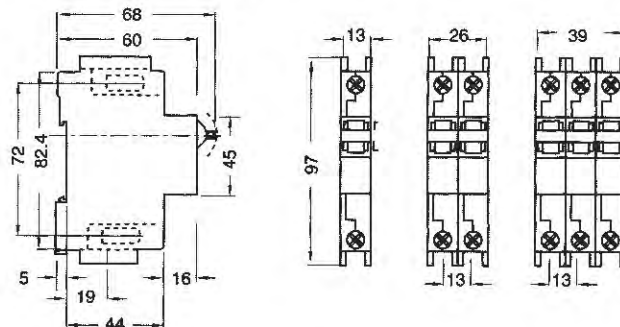
- UL 1077 Recognized
- DIN Rail Mounting
- Compact 13 mm width
- Aux and/or Alarm Switch Avail
- Temperature Independent
- 100% Rating Capability
- Hydraulic-Magnetic Technology
- 2 Year Warranty
- UL60947-4-1A: 1Pole thru 40Amps
3Pole thru 30Amps

Technical Data

- Number of Poles 1, 2 and 3
- Maximum Voltage 277/480 50/60Hz
- Minimum Amp Rating 0.1 Amp
- Maximum Amp Rating 60 Amp
- Interrupting Cap. 5kA @ 277/480VAC
- Dielectric Strength 1960V 50/60 Hz
- Operating Temp. Range -40 C to +65 C



QZ Series Outline



QZ Time Delay

Curve	Limits	Percentage of Rated Current						Trip Time in Seconds	
		130	150	200	400	600	800	1000	
2 = Curve C	Minimum	20	15	7	1	0.1	0	0	
	Maximum	600	150	40	6	2	0.09	0.15	
Curve	Limits	Percentage of Rated Current						Trip Time in Seconds	
		130	150	300	400	500	600	800	1000
1 = Curve D	Minimum	60	42	7	3.5	2	1.2	0.6	>0.1
	Maximum	1800	420	40	19	11	7.2	3.5	2.2

Catalog Number

Rated Current	Single Pole Equivalent to Curve C	Single Pole Equivalent to Curve D	Two Pole Equivalent to Curve C	Two Pole Equivalent to Curve D	Three Pole Equivalent to Curve C	Three Pole Equivalent to Curve D
0.5A	QZD1820.5	QZD1810.5	QZD2820.5	QZD2810.5	QZD3820.5	QZD3810.5
1A	QZD18201	QZD18101	QZD28201	QZD28101	QZD38201	QZD38101
2A	QZD18202	QZD18102	QZD28202	QZD28102	QZD38202	QZD38102
5A	QZD18205	QZD18105	QZD28205	QZD28105	QZD38205	QZD38105
10A	QZD18210	QZD18110	QZD28210	QZD28110	QZD38210	QZD38110
15A	QZD18215	QZD18115	QZD28215	QZD28115	QZD38215	QZD38115
20A	QZD18220	QZD18120	QZD28220	QZD28120	QZD38220	QZD38120
25A	QZD18225	QZD18125	QZD28225	QZD28125	QZD38225	QZD38125
30A	QZD18230	QZD18130	QZD28230	QZD28130	QZD38230	QZD38130
35A	QZD18235	QZD18135	QZD28235	QZD28135	QZD38235	QZD38135
40A	QZD18240	QZD18140	QZD28240	QZD28140	QZD38240	QZD38140
45A	QZD18245	QZD18145	QZD28245	QZD28145	QZD38245	QZD38145
50A	QZD18250	QZD18150	QZD28250	QZD28150	QZD38250	QZD38150
60A	QZD18260	QZD18160	QZD28260	QZD28160	QZD38260	QZD38160

Contact Customer Service for availability of additional Current Ratings and Time Delay Curves

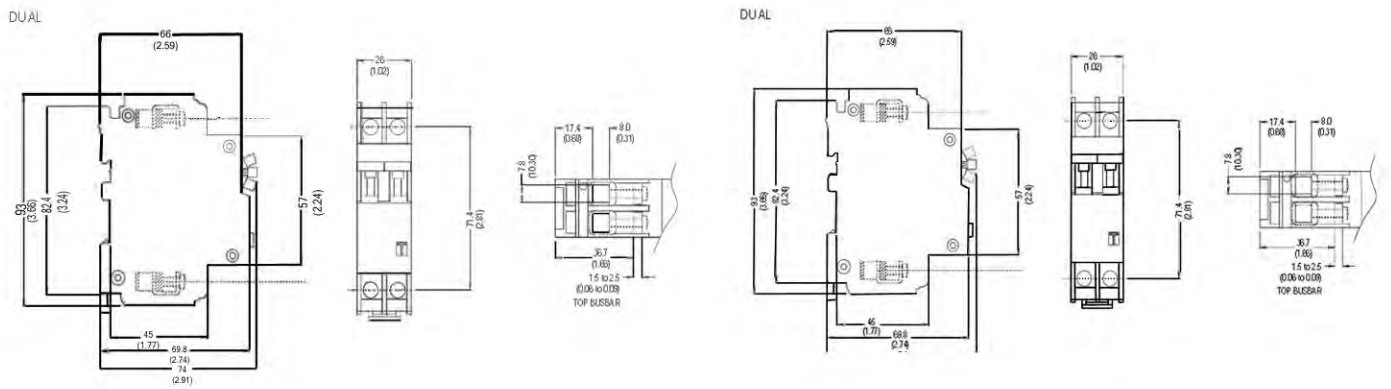
QF 17 Range Earth Leakage Commercial Protection Circuit Breaker

Features

CE Approved
 UL1077 & UL1053 Recognized
 Surface, Dual & DIN Rail Mount Options
 Trip Indication (mid trip handle position)
 Top Busbar design
 Trip point unaffected by ambient
 Small Frame size (26mm wide)
 Energy limiting capability

Technical Data

Standard Amp Ratings 5A to 63A
 Number of Poles 1P + Neutral Switch
 Equipment Type Earth Leakage
 Rated Voltage 230VAC (CE)/240VAC (UL)
 Tripping Curves (stndrd) 2
 Oper Temp -40 to +60°C
 Rated Interrupting Capacity 5 kA
 Weight 0,26kg



QF17A Standard Ratings

Re-Order Number

Description

QF17A05	QF17A 5A 30mA Curve 2
QF17A10	QF17A 10A 30mA Curve 2
QF17A15	QF17A 15A 30mA Curve 2
QF17A16	QF17A 16A 30mA Curve 2
QF17A20	QF17a 20A 30mA Curve 2
QF17A25	QF17A 25A 30mA Curve 2
QF17A30	QF17A 30A 30mA Curve 2
QF17A32	QF17A 32A 30mA Curve 2
QF17A40	QF17A 40A 30mA Curve 2
QF17A50	QF17A 50A 30mA Curve 2
QF17A60	QF17A 60A 30mA Curve 2
QF17A63	QF17A 63A 30mA Curve 2



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SHAMROCK Q-Frame Curve Equivalency Chart

Curve	1	2	3	9	KM	U2	OP	Standard
Breaker Frame	QL		QL	QL	QL		QL	UL 489
	QY			QY		QY	QY	UL 489A
	QZ	QZ	QZ	QZ			QZ	UL 1077, UL60947-4-1A*
Equivalent Curve	D	C	B	K	C	C	Instantaneous	



QL
 UL 489
 AC



QY
 UL 489A
 DC

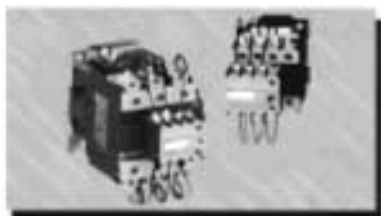
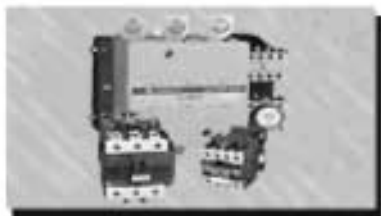


QZ
 UL 1077, UL60947-4-1A
 AC

Shamrock Controls carries the Single Pole Circuit Breakers (Equivalent to Curve C & D) in stock now.
 Other curves available upon request.

Contact us at orders@burnscontrols.com for immediate delivery!

*UL60947-4-1A on QZ Series 1Pole thru 40AMPS, 3Pole thru 30AMPS.



Local Distributor



SHAMROCK CONTROLS

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