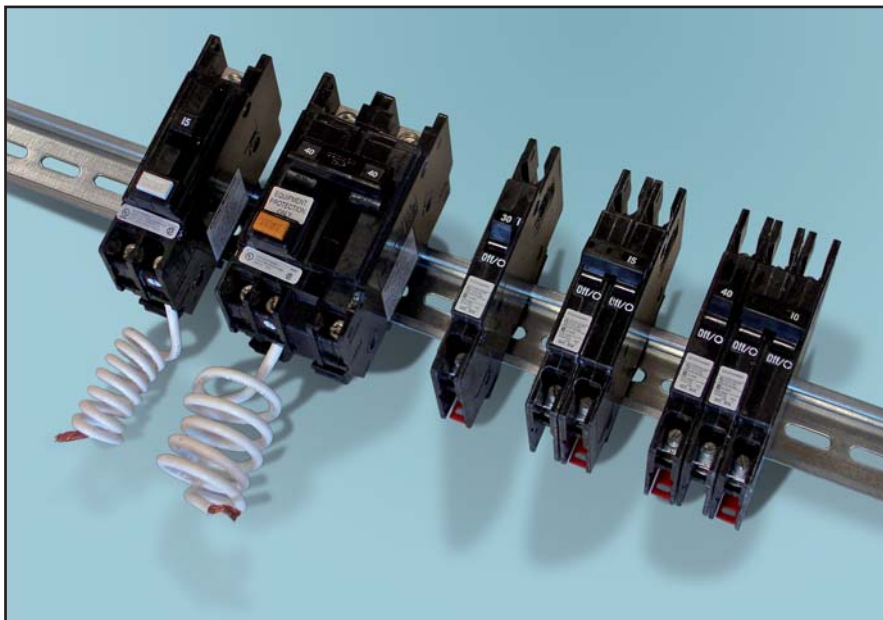


Eaton Cutler-Hammer

Quicklag miniature circuit breakers & residual current breakers



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www.chscontrols.se
Always available - Always open!

Eaton Cutler-Hammer Quicklag Miniature Circuit Breakers are thermal-magnetic circuit breakers and offer "Branch Circuit Protection" in a compact format. Quicklag residual current breakers offers thermal-magnetic protection as well as earth fault protection - personal or equipment protection.

Quicklag miniature circuit breakers

Quicklag miniature circuit breakers (MCB) are UL 489 and CSA C22.2 No 5 listed devices. They meet the requirements for "Branch Circuit Protection" according to National Electrical Code (NEC) article 210. Branch circuit protection is required on all circuits utilizing equipment, for example a heater or a motor. On OEM products, circuits exiting the control panel must be considered as branch circuits as well as circuits supplying receptacles in the control panel.

Quicklag MCBs meet and exceed the requirements of NEC for use as disconnecting means. 15 and 20 A single pole MCBs are "Switching Duty" (SWD) rated for switching and protecting fluorescent lamp loads.

All Quicklag MCBs except 10 A are "Heating, Air Conditioning and Refrigeration" (HACR) rated and certified to be used to protect such loads.

Quicklag residual current breakers

Quicklag residual current breakers - Ground Fault Current Interrupters (GFCI) provide both thermal-magnetic protection and earth fault protection. GFCIs for personal protection are UL 489/943 and CSA C22.2 No 144 listed. GFCIs for equipment protection are UL 489/1053 and CSA C22.2 No 144 listed.

GFCIs for personal protection have 5 mA earth fault trip sensitivity and meet the requirements for Class A GFCI. There are also duplex receptacles with built-in GFCI available, contact CHS Controls for more information. GFCIs for equipment protection have 30 mA earth fault trip sensitivity.

GFCIs can be supplied with factory installed alarm switch or auxiliary switch.

Other Quicklag MCBs

Quicklag MCBs are also available as

- MCBs with shunt trip

- MCBs for remote control
- Arc Fault Circuit Interrupters (AFCI) that offer additional protection against arcing faults that may occur by damaged wire insulation or similar

Load Centers/Panelboards

Eaton Cutler-Hammer also offers a complete line of load centers and panelboards, factory assembled or for local assembly. Contact CHS Controls for more information.



Technical data see note 1, 2



Quicklag miniature circuit breakers

Quicklag residual current breakers - GFCI

Electrical data		
Rated voltage	120/240 VAC, 240 VAC, 50-60 Hz 62 VDC, 130 VDC with two poles in serial	120 VAC, 120/240 VAC, 60 Hz
Current range	10-60 A	15-40 A
Interrupting rating		
240 VAC	10/22 kA	10/22 kA
62,5 VDC/130 VDC, 2 poles in serial	3 kA	
Terminals		
Load/line	Box terminal, AWG 14-4/2, 1-21 mm ²	Box terminal, AWG 14-4/2, 1-21 mm ²
Neutral		Pigtail wire, 609 mm long, AWG 12-8/3, 3-8, 4 mm ² depending on rated curr.
Alarm/auxiliary contact		Pigtail wire AWG 18/0, 81 mm ² 355 mm long
Environment		
Operating temperature range	0 - +40°C	0 - +40°C
Humidity, non condensing	5-95%	5-95%
Standard, approvals		
Standard	UL489 CSA C22.2 No 5	UL489, UL943, UL1053 CSA C22.2 No 5, C22.2 No 144
Approvals	UL file E7819 CSA file LR48907	UL file E7819 CSA file LR48907

Notes

- 1 Time/current curves are available at our web site, www.chscontrols.se
- 2 120/240 V rated MCB/GFCI, not to be used in a 3 phase system ie with 240 V between phases. Only for 240 V single phase applications.

Miniature circuit breakers, UL 489 see note 1, 2, 3

Rated current A	Catalogue numbers, 35 mm DIN rail mounting				Catalogue numbers, front mounting			
	120/240 VAC 1 pole	2 pole	240 VAC 2 pole	3 pole	120/240 VAC 1 pole	2 pole	240 VAC 2 pole	3 pole
10 kA interrupting rating								
10	QCR1010	QCR2010			QCF1010	QCF2010		
15	QCR1015	QCR2015	QCR2015H	QCR3015H	QCF1015	QCF2015	QCF2015H	QCF3015H
20	QCR1020	QCR2020	QCR2020H	QCR3020H	QCF1020	QCF2020	QCF2020H	QCF3020H
25	QCR1025	QCR2025	QCR2025H	QCR3025H	QCF1025	QCF2025	QCF2025H	QCF3025H
30	QCR1030	QCR2030	QCR2030H	QCR3030H	QCF1030	QCF2030	QCF2030H	QCF3030H
35	QCR1035	QCR2035			QCF1035	QCF2035		
40	QCR1040	QCR2040			QCF1040	QCF2040		
45	QCR1045	QCR2045			QCF1045	QCF2045		
50	QCR1050	QCR2050			QCF1050	QCF2050		
55	QCR1055	QCR2055			QCF1055	QCF2055		
60	QCR1060	QCR2060			QCF1060	QCF2060		
22 kA interrupting rating								
15	QCRH1015	QCRH2015			QCFH1015	QCFH2015		
20	QCRH1020	QCRH2020			QCFH1020	QCFH2020		

Residual current breakers - GFCI, UL 489/943/1053 see note 1, 2

Rated ström A	Catalogue numbers		Catalogue numbers	
	Personal protection, Class A, UL 943, 5 mA sensitivity 1 pole, 120 VAC	2 pole, 120/240 VAC	Equipment protection, UL 1053, 30 mA sensitivity 1 pole, 120 VAC	2 pole, 120/240 VAC
10 kA interrupting rating				
15	QCGF1015	QCGF2015	QCGFEP1015	QCGFEP2015
20	QCGF1020	QCGF2020	QCGFEP1020	QCGFEP2020
25	QCGF1025	QCGF2025	QCGFEP1025	QCGFEP2025
30	QCGF1030	QCGF2030	QCGFEP1030	QCGFEP2030
40	QCGF1040	QCGF2040	QCGFEP1040	QCGFEP2040
50		QCGF2050		QCGFEP2050
10 kA interrupting rating residual current breakers with factory installed changeover alarm contact <small>see note 4</small>				
15	QCGF1015W1	QCGF2015W1	QCGFEP1015W1	QCGFEP2015W1
20	QCGF1020W1	QCGF2020W1	QCGFEP1020W1	QCGFEP2020W1
25	QCGF1025W1	QCGF2025W1	QCGFEP1025W1	QCGFEP2025W1
30	QCGF1030W1	QCGF2030W1	QCGFEP1030W1	QCGFEP2030W1
40		QCGF2040W1		QCGFEP2040W1
50		QCGF2050W1		QCGFEP2050W1
22 kA interrupting rating				
15	QCHGF1015	QCHGF2015	QCHGFEP1015	QCHGFEP2015
20	QCHGF1020	QCHGF2020	QCHGFEP1020	QCHGFEP2020
25	QCHGF1035	QCHGF2025	QCHGFEP1025	QCHGFEP2025
30	QCHGF1030	QCHGF2030	QCHGFEP1030	QCHGFEP2030

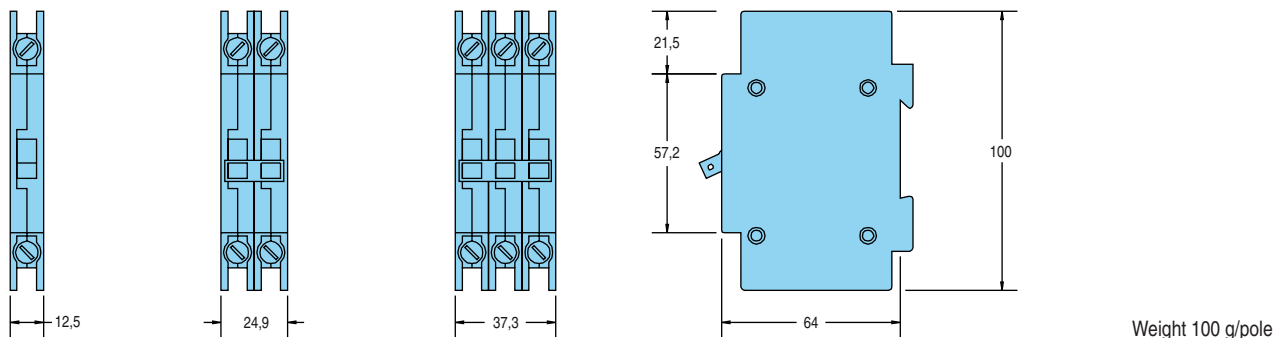
Accessories for residual current breakers - GFCI

Description	Catalogue numbers
Adapter for 35 mm DIN rail mounting, 1 per pole	QCDINADAPT
Face mounting plate, 1 pole residual current breaker	QC1FP
Face mounting plate, 2 pole residual current breaker	QC2FP

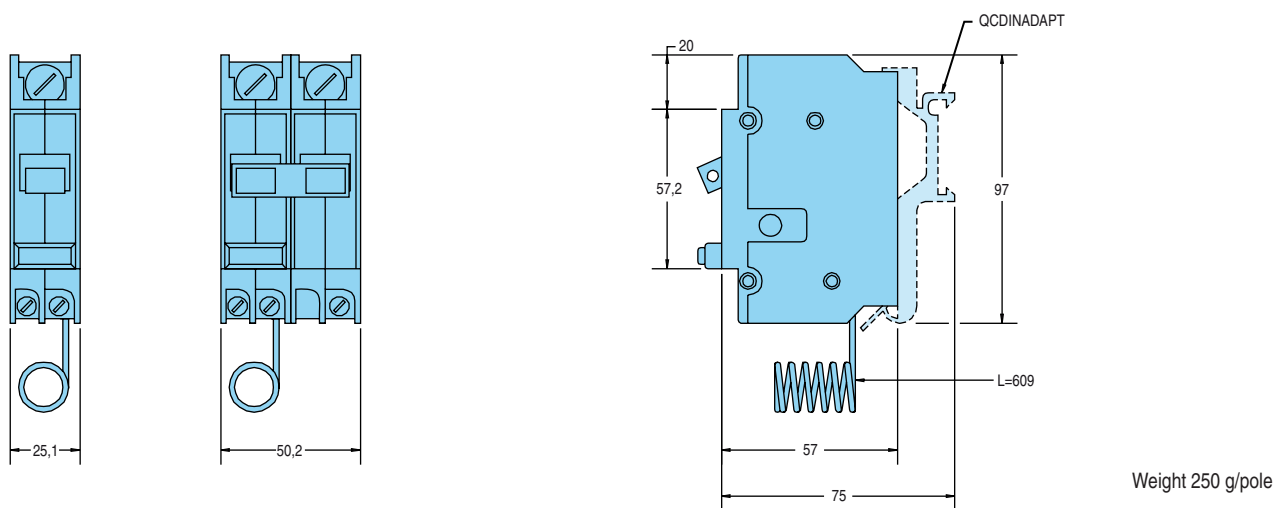
Notes

- 3 15 - 20 A 1 pole breakers are Switching Duty (SWD) rated for fluorescent lighting applications
 4 15 - 30 A 1 pole residual current breakers are also available with co aux. contact, change W1 in the catalogue no. to W2. Example QCGF1015W1 will be QCGF1015W2.

Dimensions miniature circuit breakers, mm

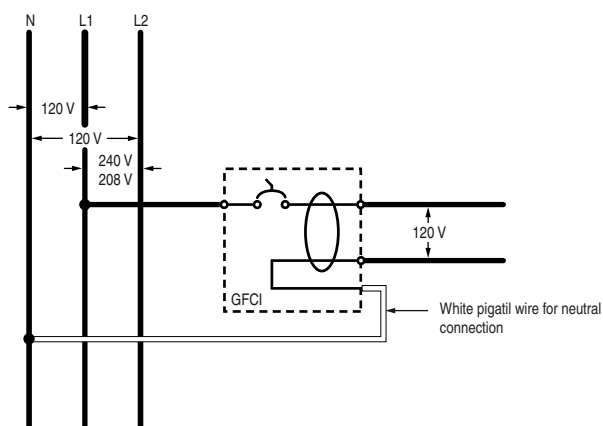


Dimensions, residual current breakers - GFCI, mm

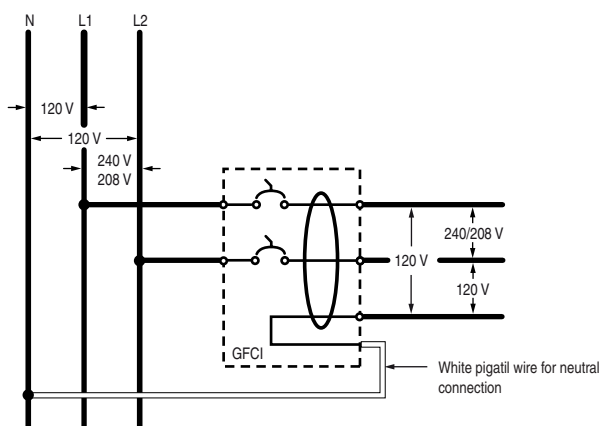


Wiring diagram for residual current breakers - GFCI

1 pole residual current breaker - GFCI



2 pole residual current breaker - GFCI



Residual current breaker - GFCI with factory installed alarm or auxiliary contact

