

QF17 - Series Earth Leakages

The QF17 is a 6 kA earth leakage device, available as a circuit breaker as well as switch. It is black in colour and can be mounted on DIN Rail and the CBI Mini Rail. Its front escutcheon is 57 mm.



QF17A
Dual Mount



QF17C
Dual Mount

Features

- Hydraulic-magnetic technology
- 100% rating capability, independent of ambient temperature
- VC 8035 compliant
- VDE and CCC approved, CE certified
- UL recognised (UL 1053, UL 1077)
- Ratings 5 to 63 A
- Earth leakage sensitivity 30 mA
- Single pole plus switched neutral earth leakage protection
- Switch versions fitted with short circuit protection
- Available in various currents and time delays
- Precision tripping characteristics
- Compact 26 mm wide module
- Trip indication with mid-trip position
- Reset immediately after overload
- Suitable to use for electrical isolation
- Shell designed for easier installation onto busbar

Auxiliary Switch, Trip Alarm & Combo:

Features

- Auxiliary switch
- Auxiliary switch + trip alarm
- Trip alarm
- 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

- Residential and commercial applications requiring high sensitivity earth leakage protection from electrical shock and fire hazards
- Earth leakage protection (IEC / EN 60947-2)
- Telecom / datacom equipment
- Lighting control
- UPS equipment
- Alternative energy equipment
- Mobile power generation equipment
- Railway signalling equipment
- Industrial equipment

Optional Accessories

- Rear studs (factory fitted)
- Handle lock
- Surface mounting clips
- Busbar
- Escutcheon blank
- Safety blank

Approvals

VC 8035



(IEC / EN 60947-2)



(UL 1053 / UL 1077)



QF17 - Series Earth Leakages

Technical Data

Product Type	QF17A	QF17C
Approvals	VC 8035	
Number of Poles	2 (1+N)	2 (1+N)
Standard Ampere Ratings	5 to 63 A	40 and 63 A
Sensitivity	30 mA	30 mA
Rated Voltage	230V	230V
Rated Interrupting / Withstand Capacity	5 kA -	- 5 kA
Time Delay Curves	2	-

Product Type	QF17A	QF17C
Approvals	IEC / EN 60947-2, VDE, CE	
Number of Poles	2 (1+N)	2 (1+N)
Standard Ampere Ratings	5 to 63 A	40 and 63 A
Sensitivity	30 mA	30 mA
Rated Voltage	240V	240V
Rated Interrupting / Withstand Capacity	6 kA -	- 6 kA
Time Delay Curves	2	-

Product Type	QF17A	QF17C
Approvals	UL 1053, UL 1077	
Number of Poles	2 (1+N)	2 (1+N)
Standard Ampere Ratings	5 to 63 A	40 and 63 A
Sensitivity	22 mA	22 mA
Rated Voltage	240V	240V
Rated Interrupting / Withstand Capacity	5 kA -	- 5 kA
Time Delay Curves	2	-

Product Type	QF17A	QF17C
Approvals	CCC	
Number of Poles	2 (1+N)	2 (1+N)
Standard Ampere Ratings	5 to 63 A	40 and 63 A
Sensitivity	30 mA	30 mA
Rated Voltage	240V	240V
Rated Interrupting / Withstand Capacity	6 kA -	- 6 kA
Time Delay Curves	2	-

Auxiliary Module	
Auxiliary Switch	DIN and CBI Mini Rail mounted
Trip Alarm	CBI Mini Rail mount only
Auxiliary Switch / Trip Alarm Combo	CBI Mini Rail mount only

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Technical Data

Product Type	QF17
Operating Temperature Range	-40 °C to +85 °C
Mounting Options	Dual mounting (DIN & Mini), surface mount, front mount
Time Delay Curves	2 (A version only)
Endurance	10000 operations - 1500 electrical at rated current and voltage (IEC 60947-2) 6000 electrical operations (UL 1077)
Dielectric Strength	1480 V (single pole) / 1830 V (multi pole), 50 Hz for one minute after testing
Weight	264 g - QF17C, 265 g - QF17A (unpacked)
Humidity	35 to 85% relative
Altitude	Certification tests done at altitude ≈ 2000 metres. Will operate at higher altitudes.
Shock	16 G (IEC 600068-2-27)
Vibration	2 G (IEC 600068-2-27) (sinusoidal wave)
Flammability	I3 - Ignition does not persist at 850 °C after glow wire is withdrawn with an oxygen index of ≥ 28
Toxicity	F1 - Smoke index of ≤ 20 which determines the fume class
Pollution Degree	PD2 - Normally only non-conductive pollution occurs. Temporary conductivity caused by condensation is to be expected.

Earth Leakage	Wire Size mm ² (IEC)	Torque (IEC)	Comments
1+N	0.75 - 35 mm ²	2.5 Nm	Pozidriv #2 Combi head

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Ordering Information

Example Code: Q-F-17-A--DM-2-63A-30mA-240V---

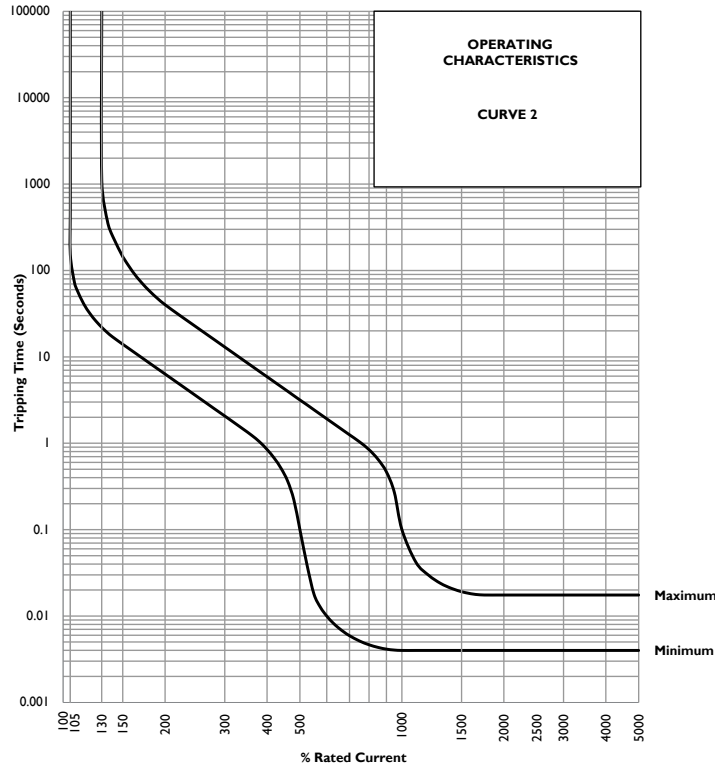
Group	1	2	3	4	5	6	7	8	9	10	11	12
Requirement	Q Frame	Type F	1 pole + N	Overload	No Auxiliary Switch	Dual Mount	Medium delay curve 2	Current Rating 63 A	Sensitivity 30 mA	Voltage 240 V AC	No special termination	Future use
Long Code	Q	F	17	A	-	DM	2	63A	30mA	240V	-	-

Group	Code	Description	Comments
Group 1: Frame Type	Q	26 mm wide earth leakage	
	Group 2: Product Type	F	240 V AC, 5 / 6 kA (IEC / EN 60947-2, CCC, UL 1053, UL 1077)
Group 3: No of Poles	17	Single pole plus switched neutral (1+N)	QF17
	Group 4: E-L Type	A	Overload (auto tripping)
Group 5: Auxiliary / Additional Pole	C	Switch disconnecter	Green handle
	Code	Description	Comments
	-	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
	AA	Double auxiliary switch (2 x Aux switch in 1 module)	6.5 mm module fitted on right-hand side
Group 6: Mounting	T	Trip alarm (1 x trip alarm in 1 module)	6.5 mm module fitted on right-hand side
	AT	Auxiliary switch + trip alarm (in 1 module)	6.5 mm module fitted on right-hand side
	DM	Dual mount	Dual mount supplied in black body only - 57 mm escutcheon
Group 7: Time Delays	Code	Description	Instantaneous Trip Point (x In)
	2	Medium time delay	5 – 10
Group 8: Current Ratings	Code / Description	Comments	
	5, 10, 15, 16, 20, 25, 30, 32, 40, 50, 60, 63 A	QF17A Ratings available vary depending on certification * Other ratings are available as special orders. Check availability.	
	40, 63 A	QF17C Ratings available vary depending on certification * Other ratings are available as special orders. Check availability.	
Group 9: Sensitivity	Code	Description	Comments
	30mA	30 mA	Standard
Group 10: Voltage	Code	Description	Comments
	240V	240 V AC	
Group 11: Special Termination	Code	Description	Comments
	-	No special termination	
	S	Rear connected stud (factory fitted)	Factory fitted
Group 12	Code	For future use (-)	

For options not listed, please contact CBI

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Time Delay Curves



* The published time delay curves are generated at 30°C ambient temperature with the Circuit Breaker mounted in the up-right position. The “must hold”, “must trip” and “instantaneous trip” current values are not affected by temperature, although delay time for the other operating current values may have to be adjusted using the temperature compensation curve which is available on request.

Internal Impedance vs Current Rating

