

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, CCC and AS/NZS 60947-2 approved, CE certified
- UL recognised (UL 1053)
- Ratings 5 A to 63 A
- Earth leakage sensitivity 30 mA, type A
- Single pole plus switched neutral earth leakage protection
- Switch versions fitted with short circuit protection
- Available in various currents ratings
- Precision tripping characteristics
- Compact 26 mm wide module
- Trip indication with mid-trip position
- Can be switched on immediately after tripping
- Suitable to use for electrical isolation
- Shell designed for easier installation onto busbar

Auxiliary Switch, Trip Alarm & Combination: Features

- Factory fitted
- Attached to right hand side of circuit breaker
- Compact 6.5 mm width
- Auxiliary switch
- Auxiliary switch + trip alarm
- Trip alarm
- AC and DC voltages
- UL 489 listed (Auxiliary switch: 6 A 250 Vac, 0.5 A 80 Vdc)
- IEC 60947-5-1 approved (Auxiliary switch: 6 A 240 Vac, 0.5 A 110 Vdc; trip alarm: 6 A 240 Vac, 0.5 A 110 Vdc)

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 - QFAP001
- Surface mounting clips - SAAX000
- Busbar - 2121380
- Escutcheon blank - SFEB000
- Safety blank - SAEB000

VC 8035



AS/NZS 60947-2



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	230 V	230 V
Rated S/C Withstand Capacity (Icw)	-	5 kA / 50 ms
Short Circuit Breaking Capacity (Ics)	2.5 kA	-
Ultimate S/C Breaking Capacity (Icu)	5 kA	-

Product Type	QF17A	QF17C
Approvals	AS/NZS 60947-2, IEC / EN 60947-2, 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	240 V	240 V
Rated S/C Withstand Capacity (Icw)	-	6 kA
Short Circuit Breaking Capacity (Ics)	3 kA	-
Ultimate S/C Breaking Capacity (Icu)	6 kA	-

Product Type	QF17A	QF17C
Approvals	UL 1053	
Number of Poles	2 (1+N)	2 (1+N)
Standard Ampere Ratings	1 to 63 A	63 A
Sensitivity	22 mA	22 mA
Rated Voltage	240 V	240 V
Rated S/C Withstand Capacity (Icw)	-	5 kA
Short Circuit Breaking Capacity (Ics)	5 kA	-
Ultimate S/C Breaking Capacity (Icu)	-	-

Product Type	QF17A	QF17C
Approvals	GB 14048.2	
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	240 V	240 V
Rated S/C Withstand Capacity (Icw)	-	6 kA
Short Circuit Breaking Capacity (Ics)	3 kA	-
Ultimate S/C Breaking Capacity (Icu)	6 kA	-

Verify approvals for specific ratings in accordance with the relevant test certificates.

Auxiliary Module	
Auxiliary Switch	DIN and CBI mini rail mounted
Trip Alarm	CBI mini rail mount only
Auxiliary Switch + Trip Alarm	CBI mini rail mount only

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Technical Data

Product Type	QF17
Ambient Operating Temperature	-40 °C to +85 °C
Mounting Options	Dual mounting (DIN & mini), surface mount, front mount
Endurance	10000 operations - 1500 with current, 8500 without current (IEC 60947-2, clause 7.2.4.2)*
Dielectric Strength	1480 V (single pole) / 1830 V (multi pole), 50 Hz for one minute after testing
Rated Impulse Withstand Voltage	4 kV (IEC 60947-2 Clause 8.3.32)
Weight	264 g - QF17C, 265 g - QF17A (unpacked)
Altitude	Certification tests done at altitude ≈ 2000 metres. Will operate at higher altitudes.
Shock	10 G (IEC 60068-2-27)
Vibration	2 G (IEC 60068-2-27) (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.

* Refer to the standard for details

Earth Leakage	Wire Size mm ² (IEC)	Torque (IEC)	Comments
Main Terminals	0.75 - 25 mm ²	2.5 Nm	Pozidriv #2 Combi head

QF17 - Series Earth Leakages

Long Code

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

Group	1	2	3	4	5	6	7	8	9	10	11	12	13
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 Vac	No special termination	Future use	Customer specific
Long Code	Q	F	17	A	-	DM	2	63A	30mA	240V	-	-	-

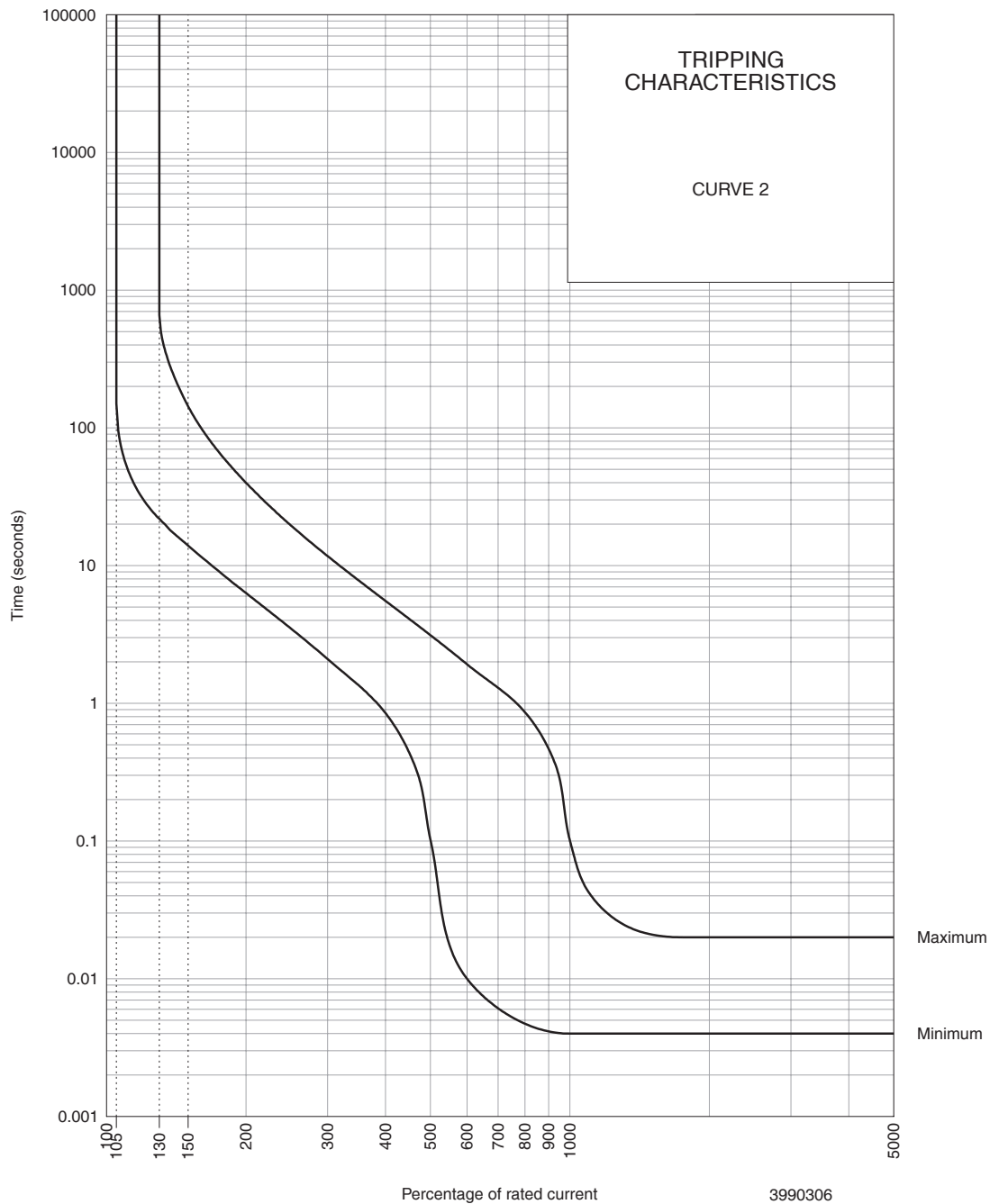
Ordering Information

Group 1: Frame Type	Code	Description	Comments	
	Q	26 mm wide earth leakage		
Group 2: Product Type	Code	Description	Comments	
	F	240 Vac	6 kA	
Group 3: No of Poles	Code	Description	Comments	
	17	Single phase Earth Leakage Unit (1+N)	QF17	
Group 4: E-L Type	Code	Description	Comments	
	A	Overload protection	White and green handle	
	C	Switch disconnecter	Green handle	
Group 5: Auxiliary / Additional Pole	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	
	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	
Group 6: Mounting	Code	Description	Comments	
	DM	Dual mount	Dual mount supplied in black body only - 57 mm escutcheon	
Group 7: Time Delays	Code	Description	Instantaneous Trip Point (x In)	Comments
	-	Switch		Not applicable
	2	Medium time delay	5 – 10	
Group 8: Current Ratings	Code / Description		Comments	
	1, 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	
	240 V	240 Vac		
Group 11: Special Termination	Code	Description	Comments	
	-	Box terminals (standard)		
	S	Rear connected stud (factory fitted)	Factory fitted. Front mount	
Group 12:	Code	Description	Comments	
	-	For future use (-)		
Group 13: Customer Specific	Code	Description	Comments	
	-	Not applicable	For future use	

For options not listed, please contact CBI

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Time Delay Curve

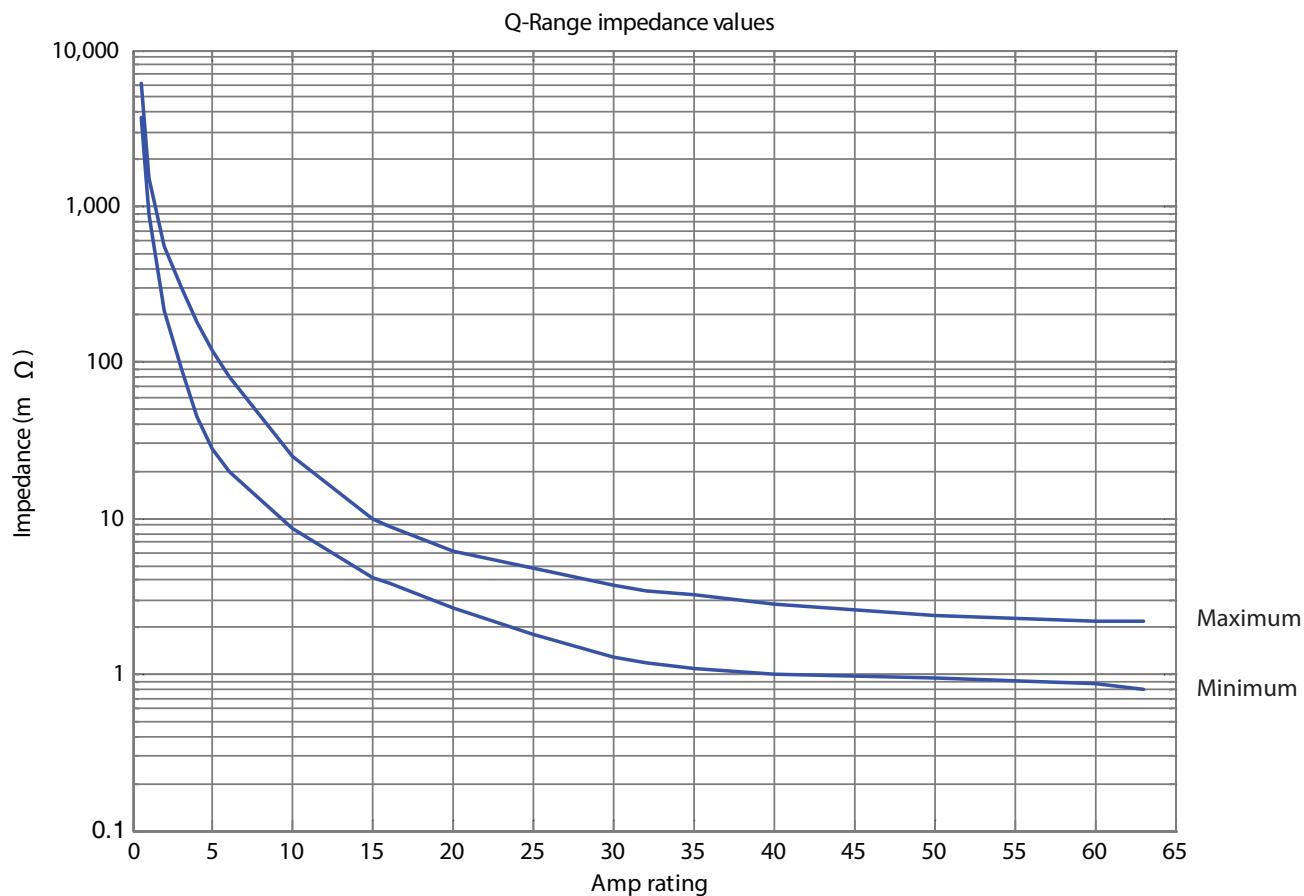


PERCENTAGE OF RATED CURRENT	105%	130%	145%	150%	200%	300%	400%	500%	600%	700%	800%	900%	1000%	2000%
MINIMUM TRIP TIME IN SECONDS	NO TRIP	22	15.4	14	6.3	2.1	0.85	0.1	0.001	0.006	0.005	0.041	0.004	0.004
MAXIMUM TRIP TIME IN SECONDS	NO TRIP	660	180	144	40	12	5.5	3	1.92	1.3	0.86	0.47	0.1	0.02

* 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.

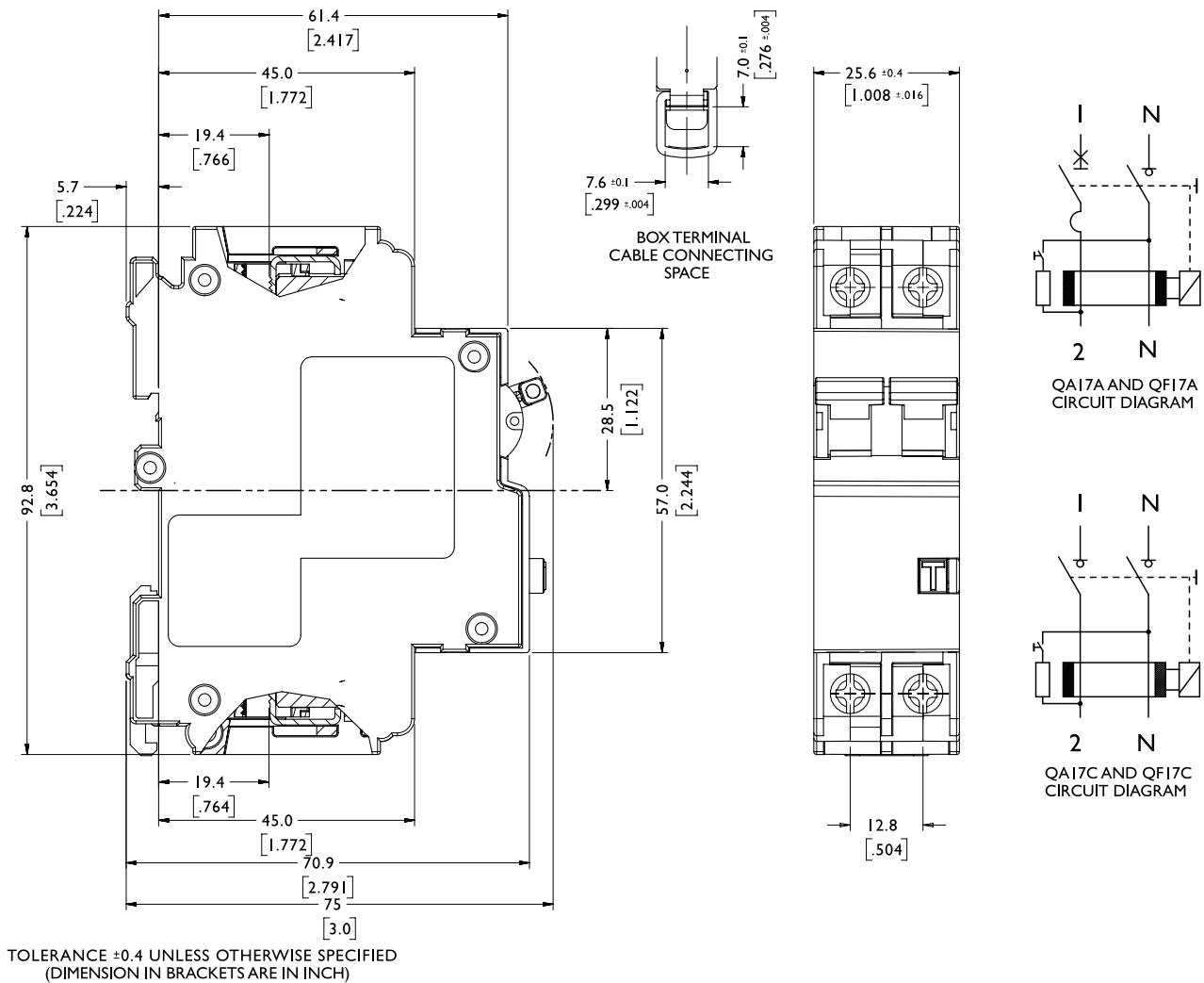
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Internal Impedance vs Current Rating



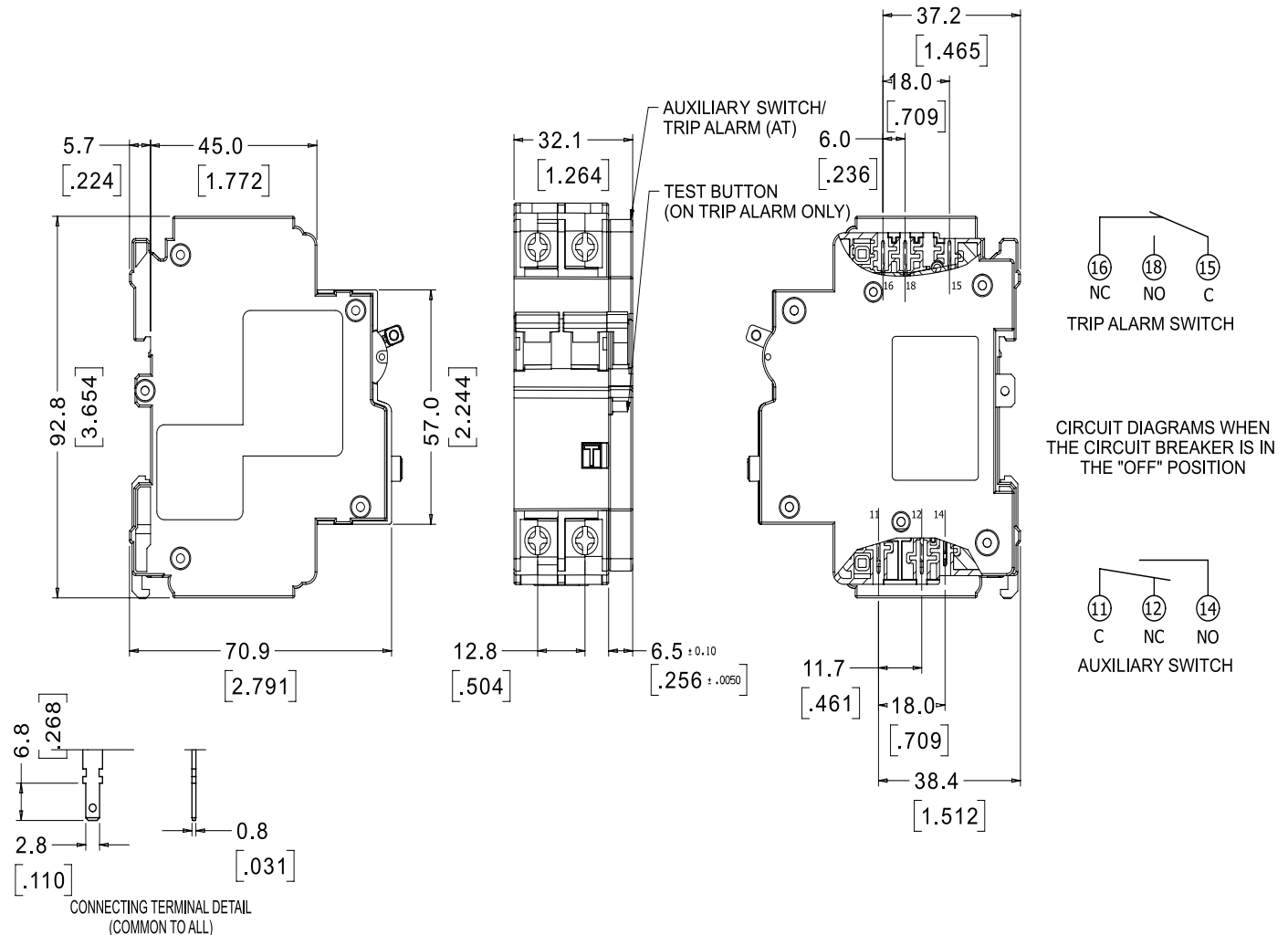
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Outline Dimensions: Dual Mount



QF17 - Series Earth Leakages

Outline Dimensions: Dual Mount and Auxiliary Switch



TOLERANCE ±0.4 UNLESS OTHERWISE SPECIFIED
(DIMENSION IN BRACKETS ARE IN INCH)

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