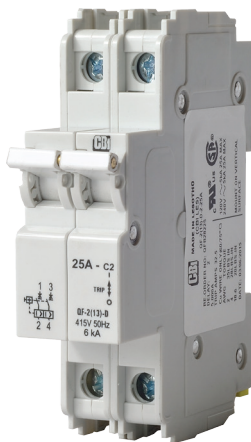


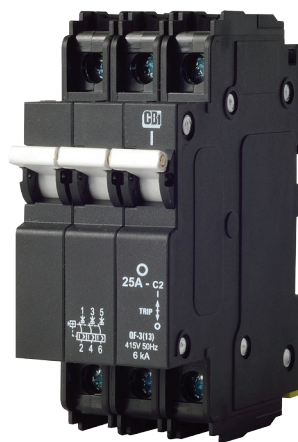
## QF(13) - Series Miniature Circuit Breakers



DIN Mount  
1 pole



DIN Mount  
2 pole



Dual Mount  
3 pole



Dual Mount  
3 + N

### Features

- AC Circuit Breaker
- Hydraulic-Magnetic technology
- 100% rating capability, independent of ambient temperature
- VC 8036 compliant (SANS 556-1)
- VDE and CCC approved, CE certified
- UL 1077 recognised (supplementary protector)
- AS 3111 approved
- Ratings 0.1 to 25 A (subject to certification)
- Optional Shunt Trip (no approvals)
- Available in various currents and time delays
- Precision tripping characteristics
- Ultra compact – 13 mm wide module
- Trip indication with mid-trip position
- Reset immediately after overload
- DIN Mount product in grey shells
- Dual Mount product in black shells
- Suitable to use for electrical isolation
- Shell designed for easier installation onto busbar

### Applications

- AC branch circuit protection (IEC / EN 60947-2)
- Switch Disconnecter (IEC / EN 60947-3)
- Supplementary protection (UL 1077)
- Telecom / datacom equipment
- Lighting control
- UPS equipment
- Alternative energy equipment
- Mobile power generation equipment
- Railway signalling equipment
- Residential equipment
- Industrial equipment

### Auxiliary Switch, Trip Alarm & Combo: Features

- Auxiliary Switch (DIN and Dual Mount)
- Auxiliary Switch + Trip Alarm (Dual Mount only)
- Trip Alarm (Dual Mount only)
- 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

### Optional Accessories

- Handle lock
- Surface mounting clips
- Busbar
- 57 mm Escutcheon blank (Dual Mount only)
- 57 mm Safety blank (Dual Mount only)

## QF(I3) - Series Miniature Circuit Breakers

### Technical Data

Product Type	Circuit Breaker				
Approvals	VC 8036 (SANS 556-1)				
Number of Poles	I	2 (I+N)	2	3	4 (3+N)
Operating Voltages	240 V AC		415 V AC		
Minimum Current Rating	5 A				
Maximum Current Rating	25 A				
Interrupting Capacity	5 kA				

Product Type	Circuit Breaker				
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				

Product Type	Supplementary Protector	
Approvals	UL 1077	
	Tested with and without series fuse	
Number of Poles	I	2
Operating Voltages	120 V AC	120 / 240 V AC
Minimum Current Rating	0.1 A	
Maximum Current Rating	25 A	
Interrupting Capacity	5 kA	

Product Type	Circuit Breaker				
Approvals	CCC				
Number of Poles	I	2 (I+N)	2	3	4 (3+N)
Operating Voltages	240 V AC		415 V AC		
Minimum Current Rating	1 A				
Maximum Current Rating	25 A				
Interrupting Capacity	6 kA				

Product Type	Circuit Breaker				
Approvals	AS3111				
Number of Poles	I	2 (I+N)	2	3	
Operating Voltages	240 V AC		415 V AC		
Minimum Current Rating	0.1 A				
Maximum Current Rating	25 A				
Interrupting Capacity	6 kA				

Product Type	Switch Disconnecter			
Approvals	IEC / EN 60947-3			
Number of Poles	I	2	3	4
Operating Voltages	240 V AC	415 V AC		
Current Rating	63 A			
Short-time Withstand	6 kA			

## QF(13) - Series Miniature Circuit Breakers

Description	
Operating Temperature Range	-40 °C to +85 °C
Mounting Options	DIN Rail, Dual mounting (DIN & Mini), surface mount
Time Delay Curves	I, 2

Breaker QF	Wire Size mm <sup>2</sup> (IEC)	Wire Gauge (UL)	Torque (IEC)	Torque (UL)	Comments
1 Pole & 2 Pole	0.75 - 35 mm <sup>2</sup>	18 - 2 - AWG	2.5 Nm	20 in-lb	Pozidriv #2 Combi head
3 Pole & 4 Pole	0.75 - 35 mm <sup>2</sup>	-	2.5 Nm	-	Pozidriv #2 Combi head

### Long Code

Example Code: QF--AT-3(13)-D-2-15A-----

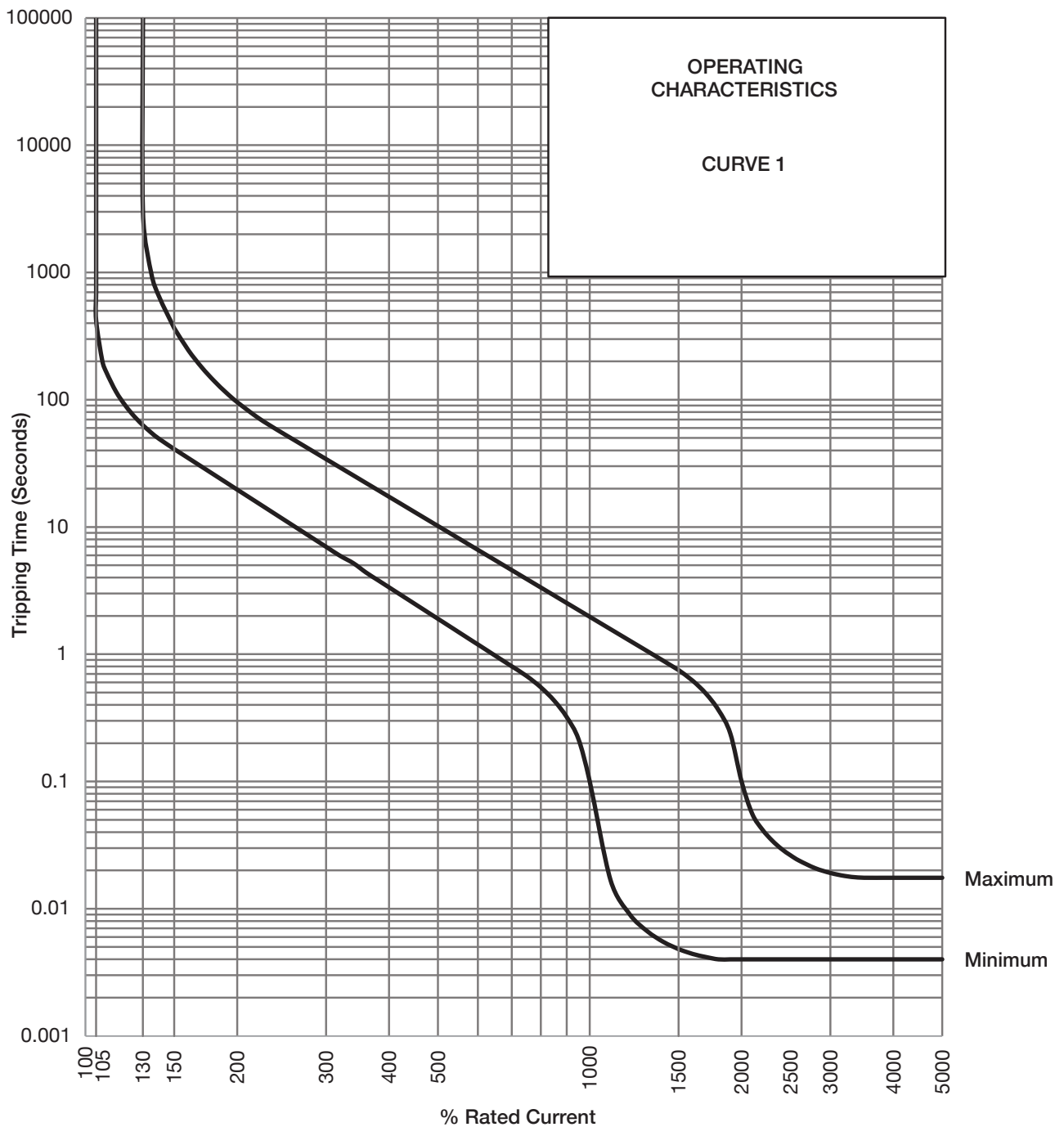
Group	1	2	3	4	5	6	7	8	9	10	11
Requirement	QF Frame	Switch / Neutral	Auxiliary + Trip Alarm	Triple pole	13 mm module width	DIN Rail	Medium delay curve 2	Current Rating 15 A	Future use	Shunt Trip	Future use
Long Code	QF	-	AT	3	(13)	D	2	15A	-	-	-

Group 1: Frame Type	Code	Description	Comments	
	QF	13 mm wide Miniature Circuit Breaker		
Group 2: Switch/Neutral	Code	Description	Comments	
	-	Not applicable	Overload poles do not have any further coding	
	S	Switch	Green handle	
	N	Neutral		
Group 3: Auxiliary	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 (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)	
Group 4: No of Poles	Code	Description	Comments	
	1	Single pole		
	2	Double pole	2 pole or 1+N	
	3	Triple pole		
	4	Four pole	4 pole or 3+N only	
Group 5: Module Width	Code	Description	Comments	
	(13)	13 mm module width	13 mm per pole	
Group 6: Mounting	Code	Description	Comments	
	D	DIN Mount	DIN Mount supplied in grey body only - 45 mm Escutcheon	
	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
	1	Long time delay, high instantaneous trip	10 – 20	Orange handle
	2	Medium time delay	5 – 10	White handle
Group 8: Current Ratings	Code / Description		Comments	
	0.1, 0.2, 0.3, 0.5, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 15, 16, 20, 25 A		Ratings available vary depending on certification * Other ratings are available as special orders. Check availability.	
Group 9:	Code	For future use (-)		
Group 10: Shunt Trip  (not certified, only offered as special order)	Code	Description	Comments	
	-	Not applicable	Use this code if no Shunt Trip is used	
	V0	100 – 480 V AC	Fly leads (approximately 60 mm long)	
	V5	100 – 480 V AC	Internally connected	
	Other voltages are available as special orders. Check availability.			
Group 11	Code	For future use (-)		

For options not listed, please contact CBI for assistance

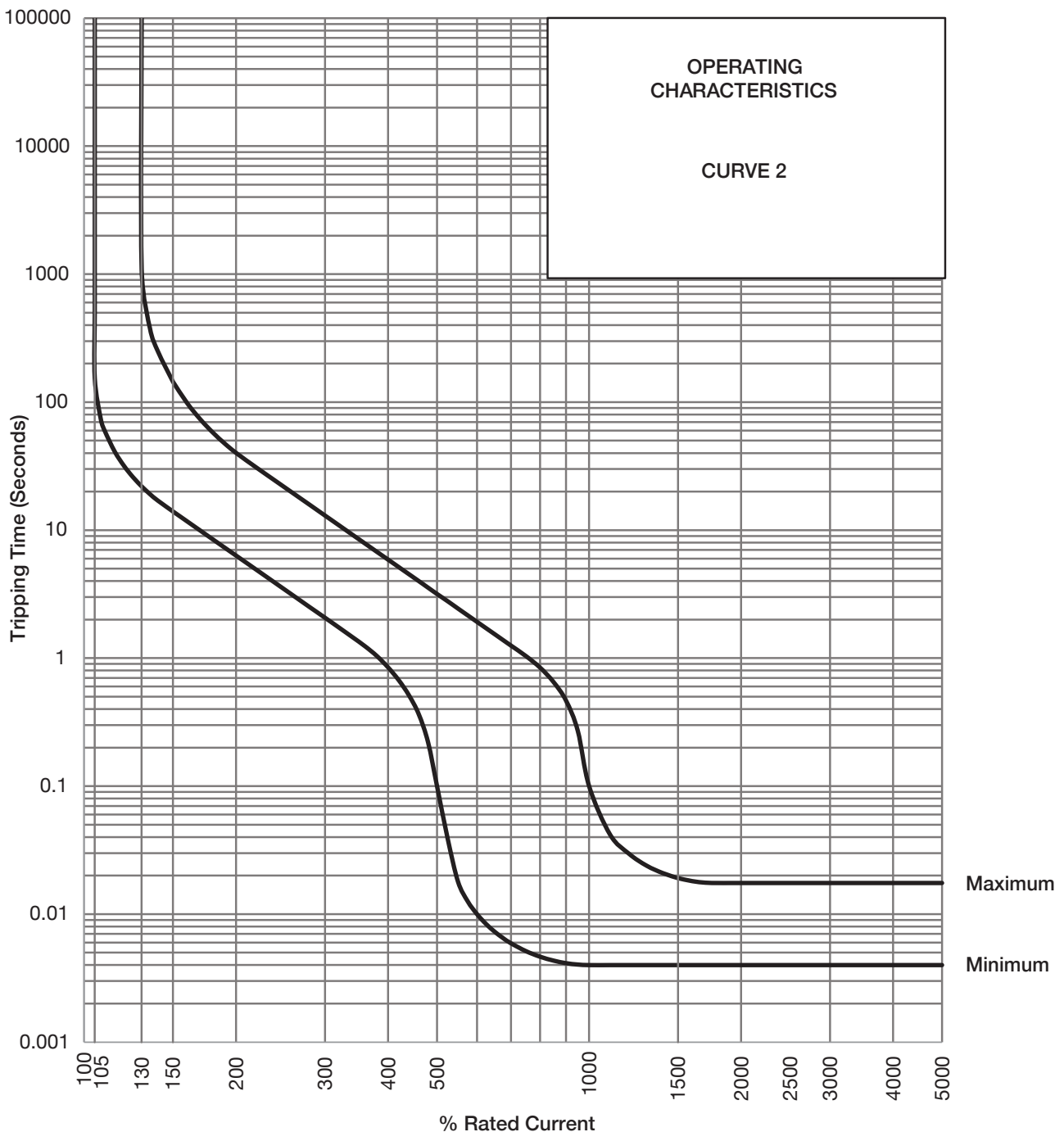
## QF(13) - Series Miniature Circuit Breakers

### Time Delay Curves



## QF(13) - Series Miniature Circuit Breakers

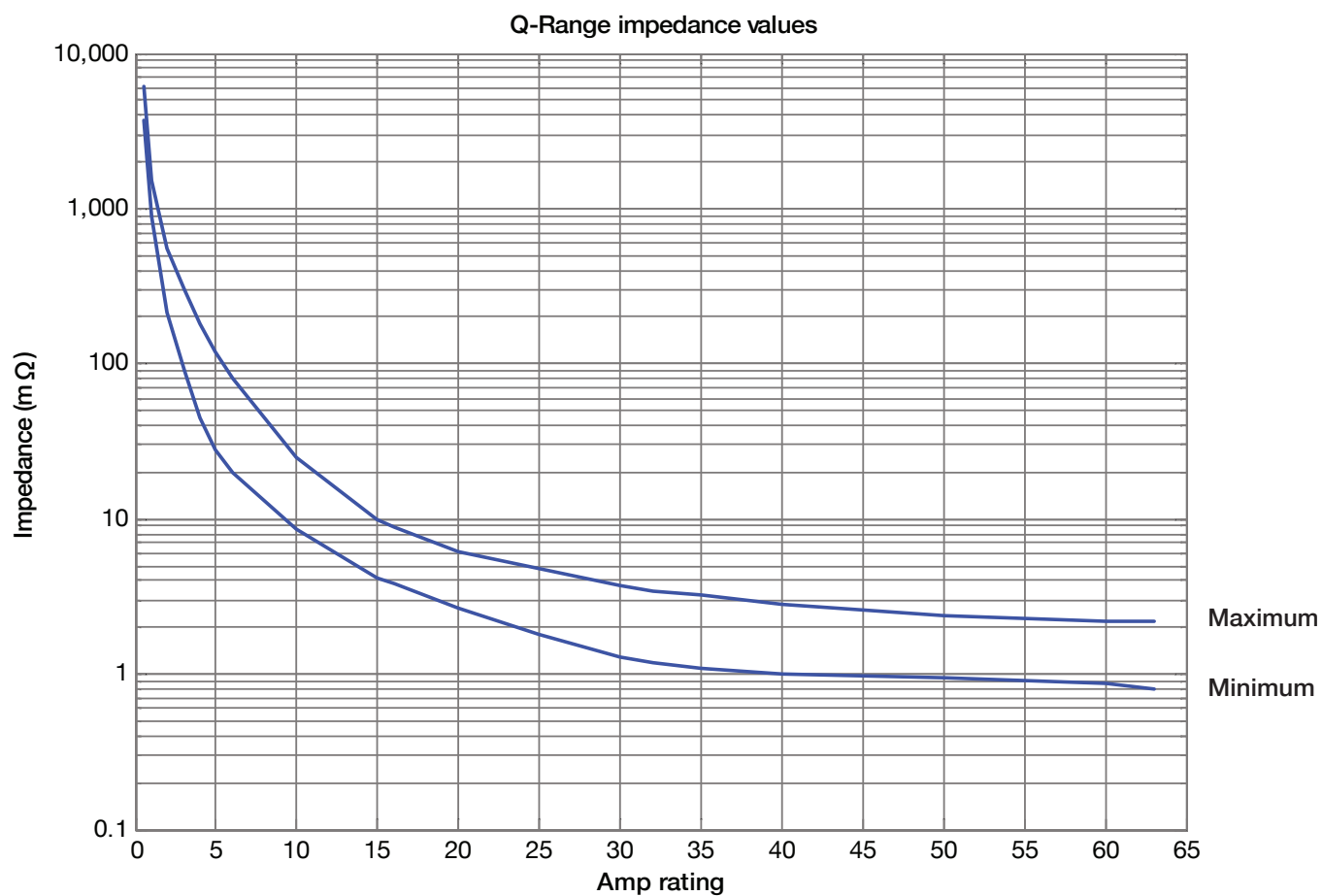
### Time Delay Curves



\* 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.

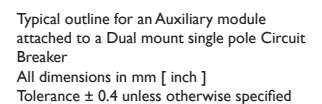
## QF(I3) - Series Miniature Circuit Breakers

### Internal Impedance vs Current Rating



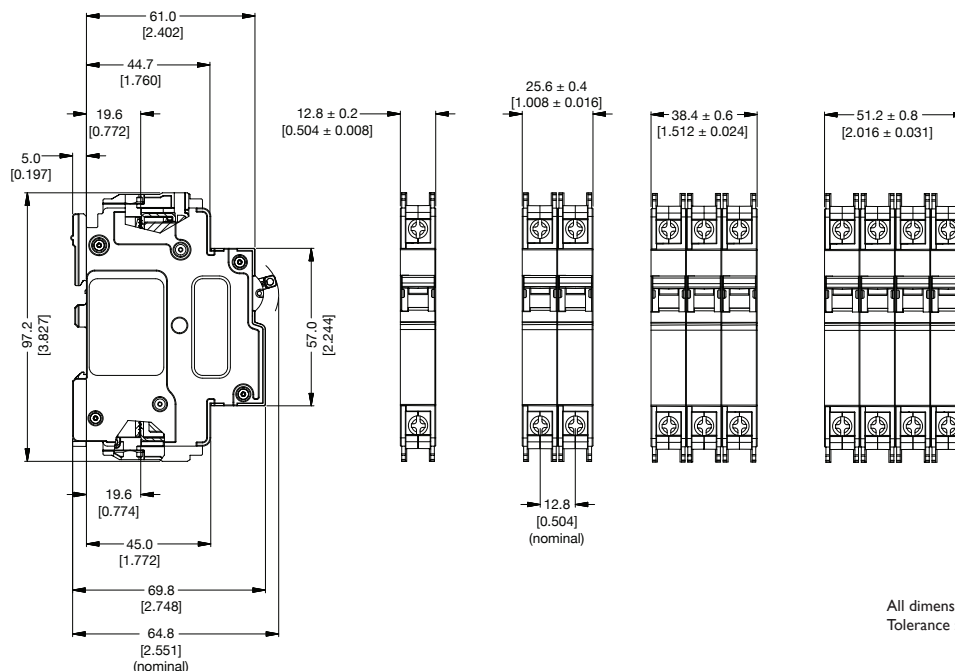
Auxiliary available (6.5 mm module width) to match the unit to which it is attached.

- 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



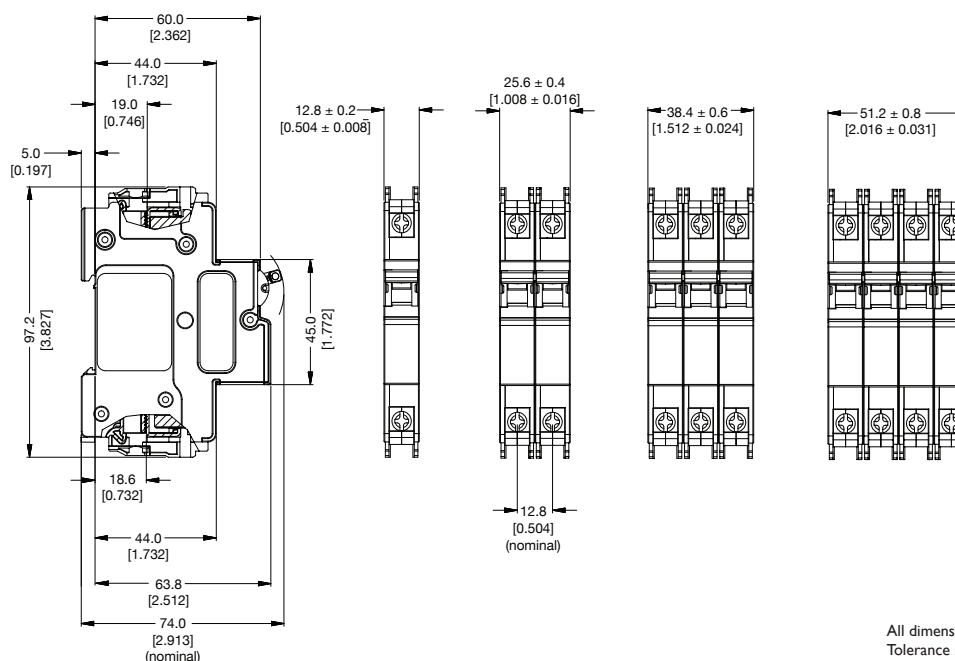
## QF(13) - Series Miniature Circuit Breakers

### Outline Dimensions: Dual Mount



All dimensions in mm [ inch ]  
 Tolerance ± 0.4 unless otherwise specified

### Outline Dimensions: DIN Mount



All dimensions in mm [ inch ]  
 Tolerance ± 0.4 unless otherwise specified

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