

Защитные автоматические выключатели QA(13)DM Технические характеристики



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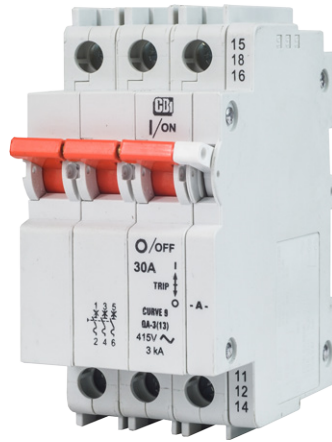
QA(I3)DM - Series Miniature Circuit Breakers



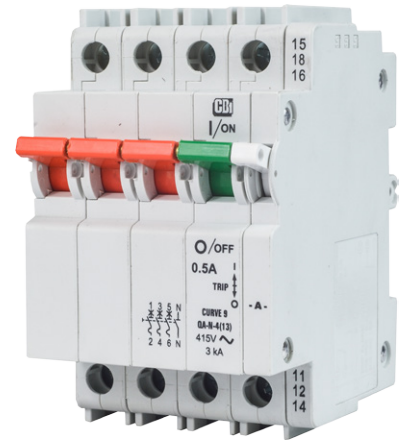
Dual Mount
1 pole + Auxiliary



Dual Mount
2 pole



Dual Mount
3 pole + Auxiliary



Dual Mount
3 + N + Auxiliary

Features

- AC circuit breaker
- Hydraulic-magnetic technology
- 100% rating capability, independent of ambient temperature
- One, two, three, four pole, 1+N and 3+N
- VC 8036 compliant (SANS 556-1)
- VDE, CCC, EAC and CRCC approved, CE certified
- Ratings 0.5 to 60 A (subject to certification)
- Precision tripping characteristics
- Ultra compact – 13 mm wide module
- Trip indication with mid-trip position
- Reset immediately after overload
- Dual mount product in grey 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)
- 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
- 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

Optional Accessories

- Handle lock
- Surface mounting clips
- Busbar
- Escutcheon blank
- Safety blank

QA(I3)DM - Series Miniature Circuit Breakers

Technical Data

Product Type	Circuit Breaker				
Approvals	VC 8036 (SANS 556-1)				
Number of Poles	1	2 (1+N)	2	3	4 (3+N)
Operating Voltages	240 V AC			415 V AC	
Minimum Current Rating	0.5 A			0.5 A	
Maximum Current Rating	60 A			50 A	
Specific Ratings (Verify Certification)	0.1, 0.5, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 15, 16, 20, 25, 30, 35, 40, 45, 50, 60 A				
Interrupting Capacity	2.5 kA				

Product Type	Circuit Breaker				
Approvals	IEC / EN 60947-2, VDE, CCC, CRCC, CE, EAC				
Number of Poles	1	2 (1+N)	2	3	4 (3+N)
Operating Voltages	240 V AC			415 V AC	
Minimum Current Rating	0.5 A				
Maximum Current Rating	50 A				
Specific Ratings (Verify Certification)	0.1, 0.5, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 15, 16, 20, 25, 30, 35, 40, 45, 50, 60 A				
Interrupting Capacity	3 kA				

Product Type	Switch Disconnecter			
Approvals	IEC / EN 60947-3, SANS 60947-3, CCC			
Number of Poles	1	2	3	4
Operating Voltages	240 V AC	415 V AC		
Current Rating	63 A			

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

QA(13)DM - Series Miniature Circuit Breakers

Technical Data

Product Type	QA(13)
Operating Temperature Range	-40 °C to +85 °C
Mounting Options	Dual mounting (DIN & Mini), surface mount
Time Delay Curves	3
Endurance	10000 operations - 1500 electrical at rated current and voltage (IEC 60947-2)
Dielectric Strength	1480 V (single pole) / 1830 V (multi pole), 50 Hz for one minute after testing
Weight	102 g per pole, 160 g with Auxiliary (depending on rating) (unpacked)
Humidity	35 to 85% relative
Altitude	Certification tests done at altitude ≈ 2000 metres. Will operate at higher altitudes.
Shock	16 G (IEC 60068-2-27)
Vibration	2 G (IEC 60068-2-6) (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.

Breaker QA	Wire Size mm ² (IEC)	Torque (IEC)	Comments
1 Pole to 4 Pole	0.75 - 35 mm ²	2.5 Nm	Pozidriv #2 Combi head



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Ordering Information

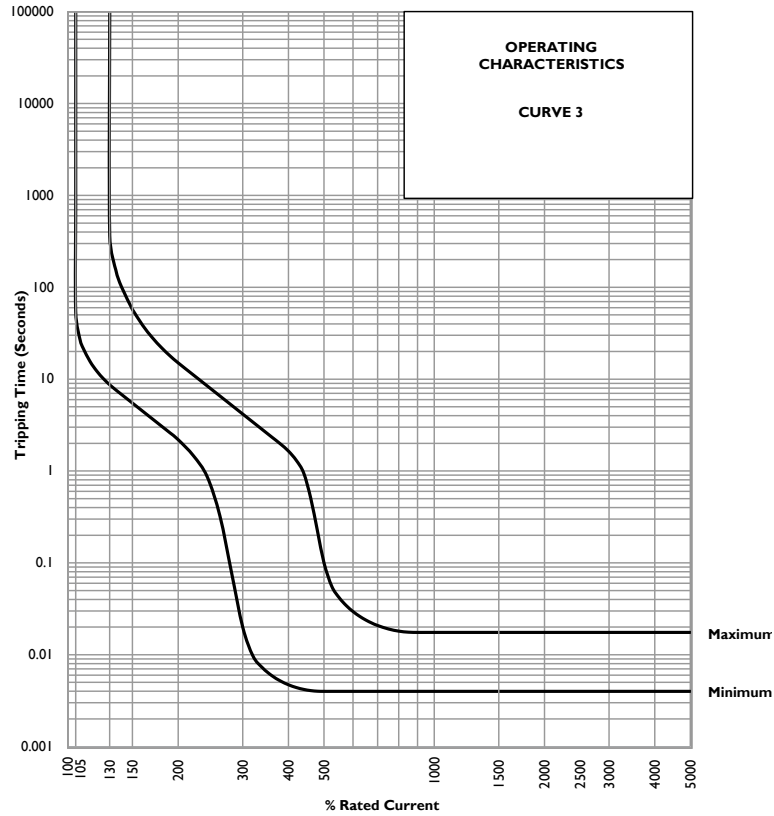
Example Code: QA----3(13)-DM-3-15A-----

Group	1	2	3	4	5	6	7	8	9	10	11
Requirement	QA Frame	Switch / Neutral	Auxiliary switch + trip alarm	Triple pole	13 mm module width	Dual Mount	Short delay curve 3	Current Rating 15 A	Future use	Shunt trip	Future use
Long Code	QA	-	-	3	(13)	DM	3	15A	-	-	-

Group	Code	Description	Comments
Group 1: Frame Type	QA	13 mm wide Miniature Circuit Breaker	
Group 2: Switch/Neutral	-	Not applicable	Overload poles do not have any further coding
	S	Switch	Green handle
	N	Neutral	Green handle
Group 3: Auxiliary	-	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 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 combo (combined in 1 module)	6.5 mm module fitted on right-hand side
Group 4: No of Poles	1	Single pole	
	2	Double pole	2 pole or 1+N
	3	Triple pole	
	4	Four pole	4 pole or 3+N
Group 5: Module Width	(13)	13 mm module width	
Group 6: Mounting	DM	Dual mount	Dual mount supplied in grey body - 57 mm escutcheon
Group 7: Time Delays	3	Short time delay	Instantaneous Trip Point (x In) 3 – 5 White handle
Group 8: Current Ratings		Code / Description	Comments
		0.1, 0.5, 1, 2, 3, 4, 5, 10, 15, 16, 20, 25, 30, 35, 40, 45, 50, 60 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	Code	Description	Comments
	-	Not applicable	Use this code if no shunt trip is used
Group 11	Code	For future use (-)	

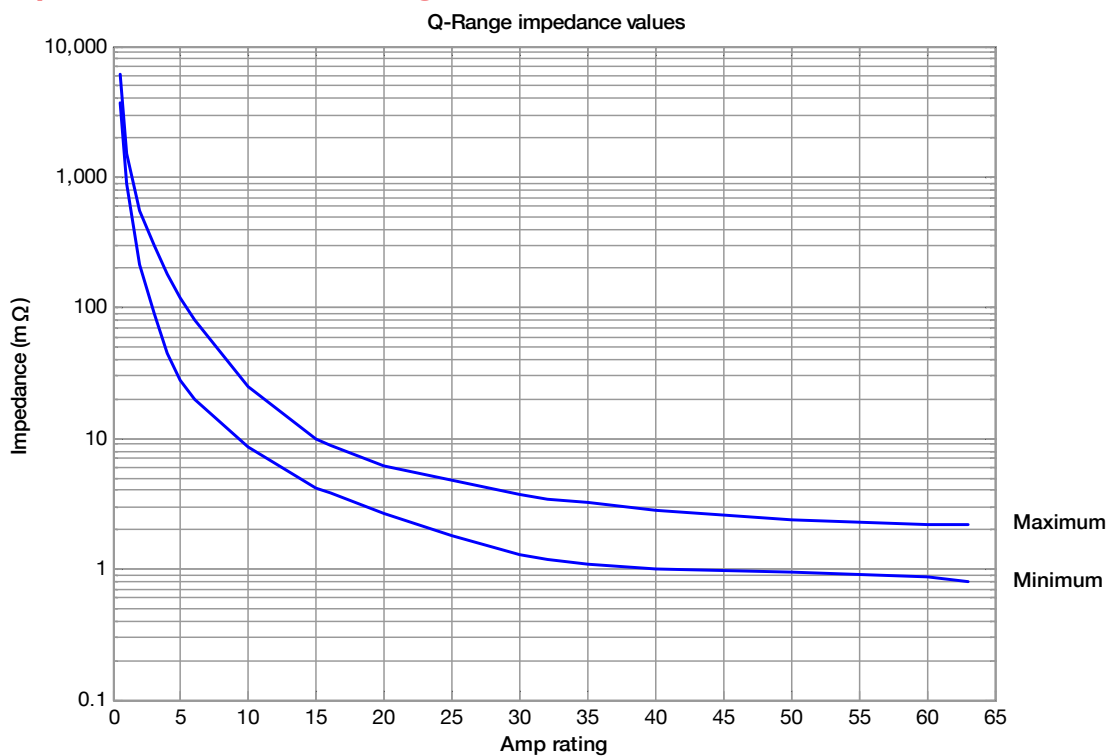
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Time Delay Curves



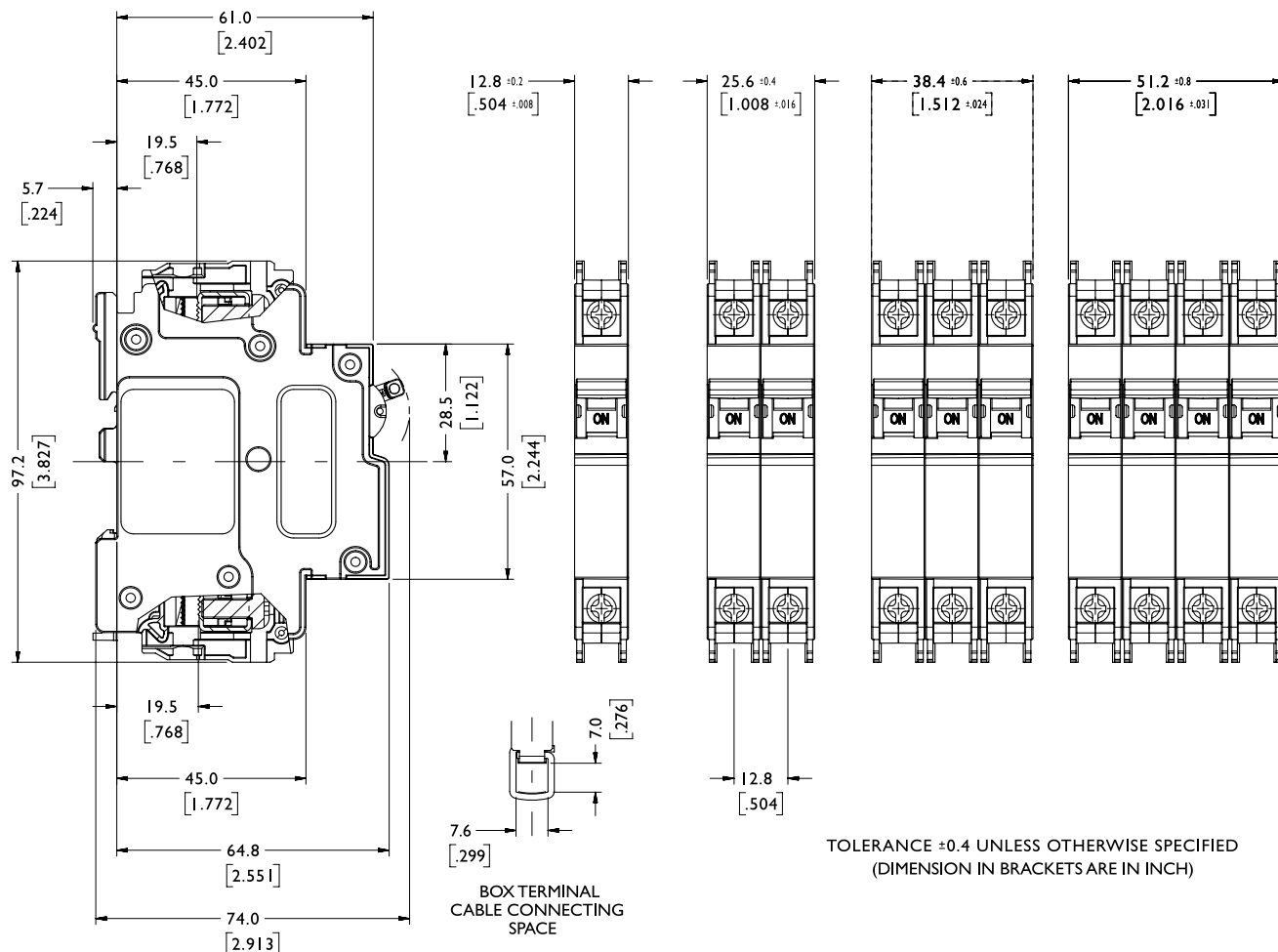
* The published time delay curves are generated at 30°C ambient temperature with the Circuit Breaker mounted in the up-right position. The “must hold”, “must trip” and “instantaneous trip” current values are not affected by temperature, although delay time for the other operating current values may have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

Internal Impedance vs Current Rating



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Outline Dimensions: Mini Rail



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