QA(13) - Series Miniature Circuit Breakers

1 pole
Mini rail mount

2 pole
Mini rail mount

3 pole
Mini rail mount

3 + N
Mini rail mount

Features

- AC circuit breaker
- Hydraulic-magnetic technology
- One, two, three, four pole, 1+N and 3+N
- 100% rating capability, independent of ambient temperature
- VC 8036 compliant (SANS 556-1)
- Ratings 5 to 60 A (subject to certification)
- Precision tripping characteristics
- Ultra compact – 13 mm wide module
- Trip indication with mid-trip position
- Can be switched on immediately after tripping
- Mini rail mount, 57 mm front escutcheon (Black)
- Suitable to use for electrical isolation
- Shell designed for easier installation onto busbar

Applications

- AC branch circuit protection
- Switch disconnector (SANS 60947-3)
- Telecom / datacom equipment
- Lighting control
- UPS equipment
- Alternative energy equipment
- Mobile power generation equipment
- Railway signalling equipment
- Residential equipment
- Industrial equipment

Optional Accessories

- Handle lock - QFAP001
- Surface mounting clips - SAAX000
- Busbar - SABBM54
- 57 mm escutcheon blank - 2305608
- 57 mm safety blank - SAEB000

VC 8036

Hydraulic-Magnetic Circuit Breakers 100% rated, unaffected by ambient temperature

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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 Vac			415 Vac	
Minimum Current Rating	5 A			5 A	
Maximum Current Rating	60 A			50 A	
Specific Ratings (Verify Certification)	5, 6, 7, 8, 9, 10, 12, 15, 16, 20, 25, 30, 35, 40, 45, 50, 60 A				
Ultimate S/C Breaking Capacity (Icu)	2.5 kA				

Product Type	Switch Disconnector			
Approvals	SANS 60947-3			
Number of Poles	1	2 (1+N)	3	4 (3+N)
Operating Voltages	240 Vac	415 Vac		
Current Rating	63 A			
Rated S/C Withstand Capacity (Icw)	6 kA 50 ms			

Product Type	QA(13)
Operating Temperature Range	-40 °C to +85 °C
Mounting Options	Mini rail mount
Time Delay Curve	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	1 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 (IEC)	Torque (IEC)	Comments
1 Pole to 4 Pole	0.75 - 35 mm²	2.5 Nm	Pozidriv #2 Combi head

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Long Code

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

Group	1	2	3	4	5	6	7	8	9	10	11	12	13
Requirement	QA frame	Switch / neutral	Auxiliary + trip alarm	Triple pole	13 mm module width	Mini rail	Short delay curve 3	Current rating 15 A	Future use	Shunt trip	Future use	Special Termian-tion	Customer Specific
Long Code	**QA**	**-**	**-**	**3**	**(13)**	**-**	**3**	**15A**	**-**	**-**	**-**		

Ordering Information

Group 1: Frame Type	**Code**	**Description**	**Comments**	
	QA	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	Green handle	
Group 3: Auxiliary	**Code**	**Description**	**Comments**	
	-	Not applicable	Use this code if no auxiliary used	
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	
Group 5: Module Width	**Code**	**Description**	**Comments**	
	(13)	13 mm module width		
Group 6: Mounting	**Code**	**Description**	**Comments**	
	-	Mini rail mount	Mini rail mount supplied in black body only - 57 mm front escutcheon	
Group 7: Time Delays	**Code**	**Description**	**Instantaneous Trip Point (x In)**	**Comments**
	3	Short time delay	3 – 5	White handle
Group 8: Current Ratings	**Code / Description**		**Comments**	
	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**	**Description**	**Comments**	
	-		For future use	
Group 10: Shunt Trip	**Code**	**Description**	**Comments**	
	-	Not applicable	Use this code if no shunt trip is used	
Group 11	**Code**	**Description**	**Comments**	
	-		For future use	
Group 12: Special Termination	**Code**	**Description**	**Comments**	
	-		For future use	
Group 13: Customer Specific	**Code**	**Description**	**Comments**	
	-		For future use	

For options not listed, please contact CBI for assistance

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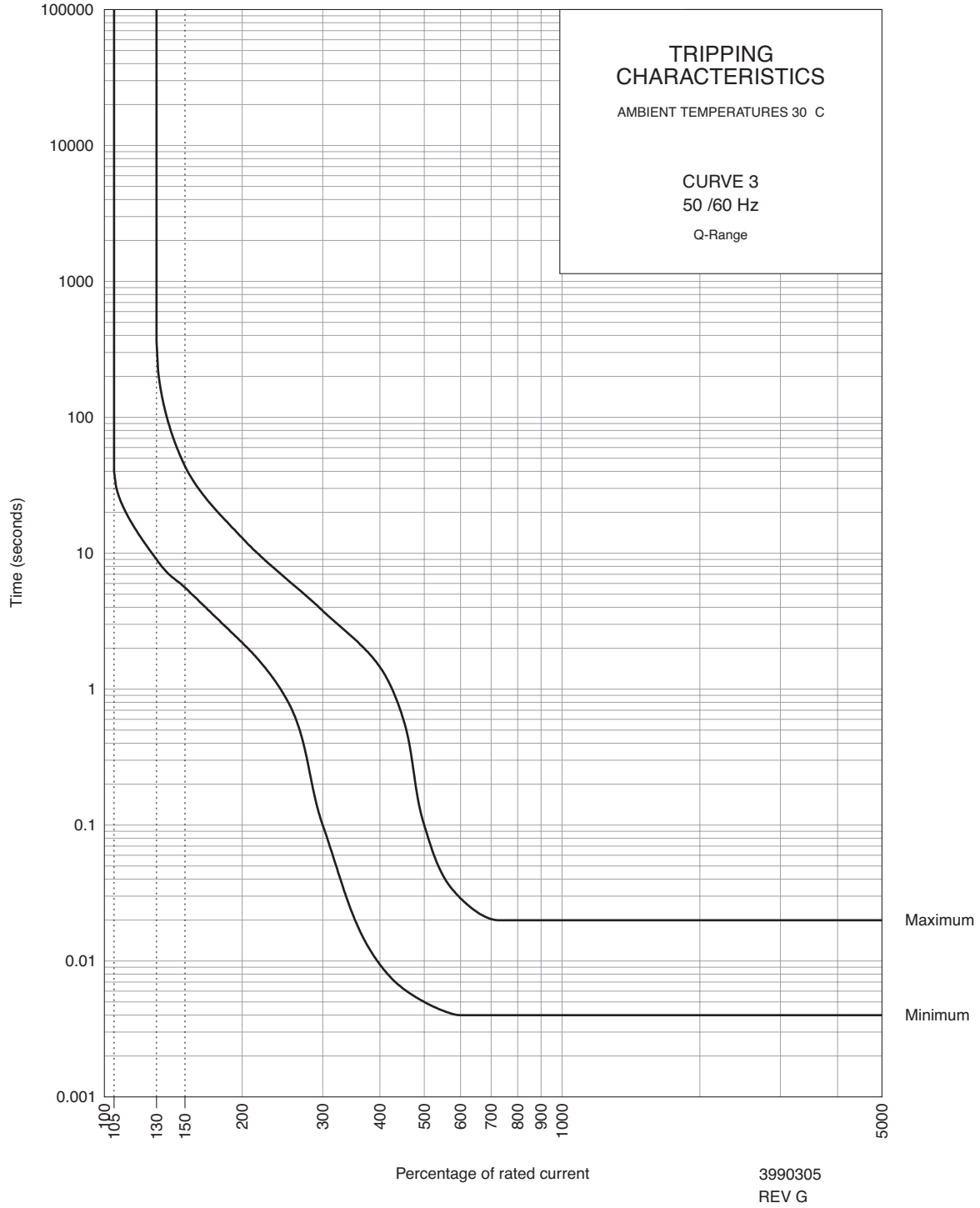
Time Delay Curves



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	9	6	5.6	2.2	0.1	0.009	0.005	0.004	0.004	0.004	0.004	0.004	0.004
MAXIMUM TRIP TIME IN SECONDS	NO TRIP	365	57	44	13	3.8	1.45	0.1	0.028	0.02	0.02	0.02	0.02	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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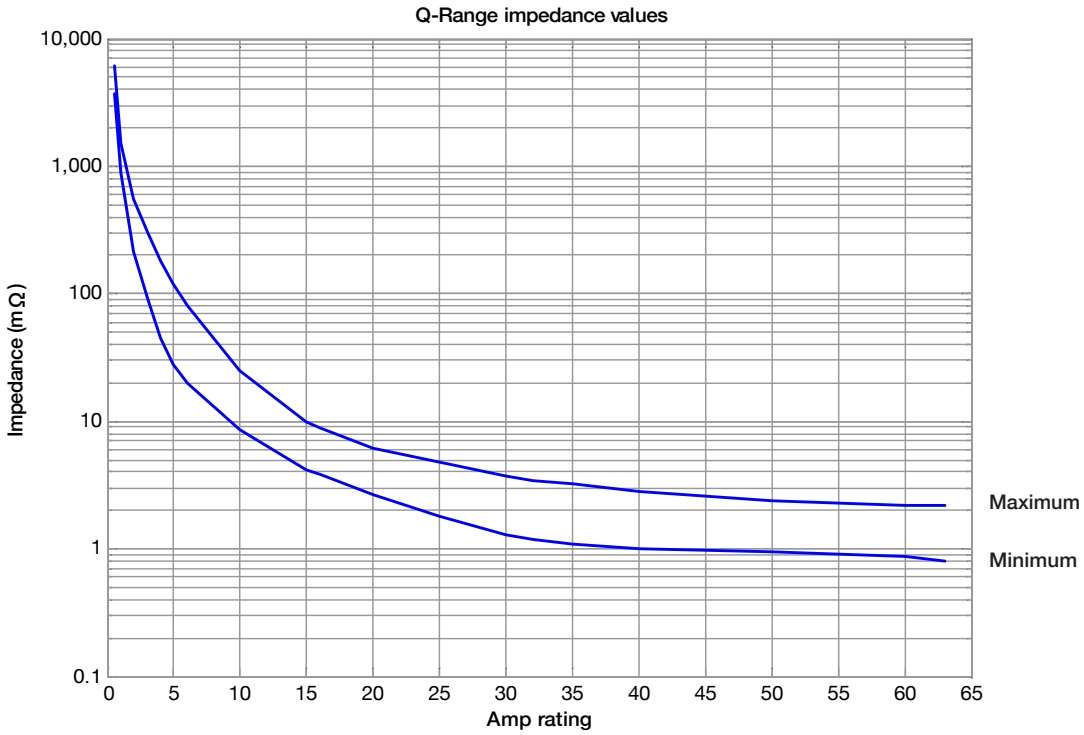
Internal Impedance vs Current Rating



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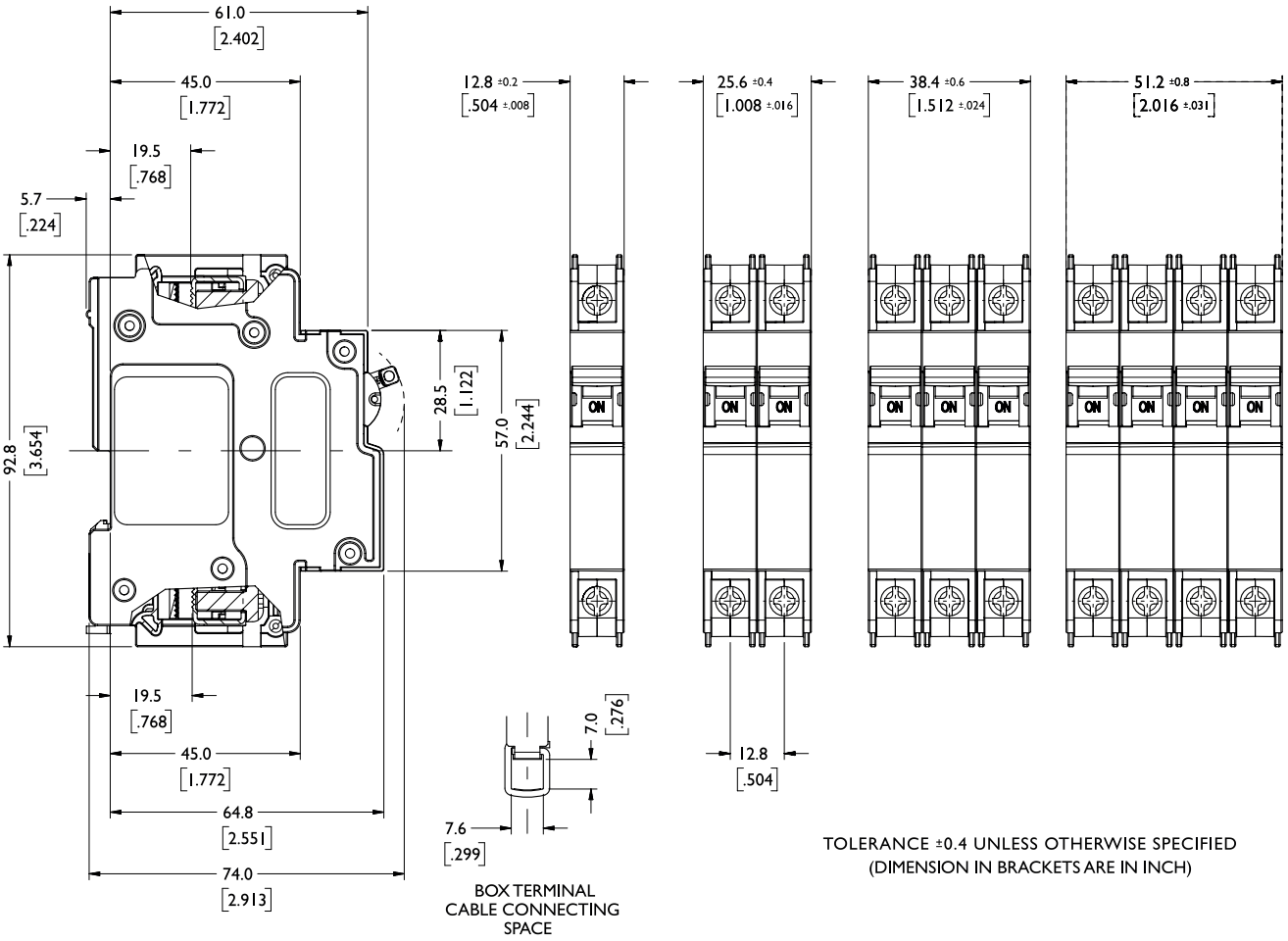
Outline Dimensions: Mini rail



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