

SM36 - Series Earth Leakages

The SM36 is a three phase heavy duty industrial earth leakage circuit breaker available as a surface mount and CBI Mini Rail mount device. This earth leakage circuit breaker is available with earth leakage sensitivity of 30, 50, 100, 250, 375, 500 and 1000 mA.



SM36A
CBI Mini Rail &
Surface Mount

Features

- Hydraulic-magnetic technology
- 100% rating capability, independent of ambient temperature
- AS/NZS 3111 and AS/NZS 3910 approved
- Precision tripping characteristics
- Ratings 15 to 80 A
- Earth Leakage sensitivity 50 mA, 100 mA, 250 mA, 375 mA, 500 mA, 1000 mA
- Three pole plus switched neutral earth leakage protection
Switches all active and neutral poles.
- Immune to pulsating DC load current
- Reset immediately after overload
- Suitable to use for electrical isolation

Applications

- Mining, heavy industrial and commercial applications requiring different sensitivities for earth leakage protections from electrical shock and fire hazards
- Mobile power generation equipment
- Railway signalling and infrastructure

Approvals



SM36 - Series Earth Leakages

Technical Data

Product Type	SM36
Approvals	AS/NZS 3111, AS/NZS 3190
Number of Poles	3 + N
Standard Ampere Ratings	15,16, 20, 32, 40, 63, 80 A
Sensitivity	30 mA, 50 mA, 375 mA, 100 mA, 250 mA, 500 mA, 1000 mA
Rated Voltage	110V / 415V
Rated Interrupting	6 kA
Time Delay Curves	2

Product Type	SM36
Operating Temperature Range	-40 °C to +85 °C
Mounting Options	Surface mount
Time Delay Curves	2
Endurance	1500 electrical operations (AS/NZS 3111, AS/NZS 3190)
Dielectric Strength	1480V (single pole) / 1830V (multi pole), 50 Hz for one minute after testing
Weight	960 g (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Flammability	I3 - Ignition does not persist at 850 °C after glow wire is withdrawn with an oxygen index of ≥ 28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
3+N	0.75 - 35 mm ²	2.5 Nm	Pozidriv #2 Combi head

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Ordering Information

Example Code: **S-M-36-A--2-80A-500mA-415V---**

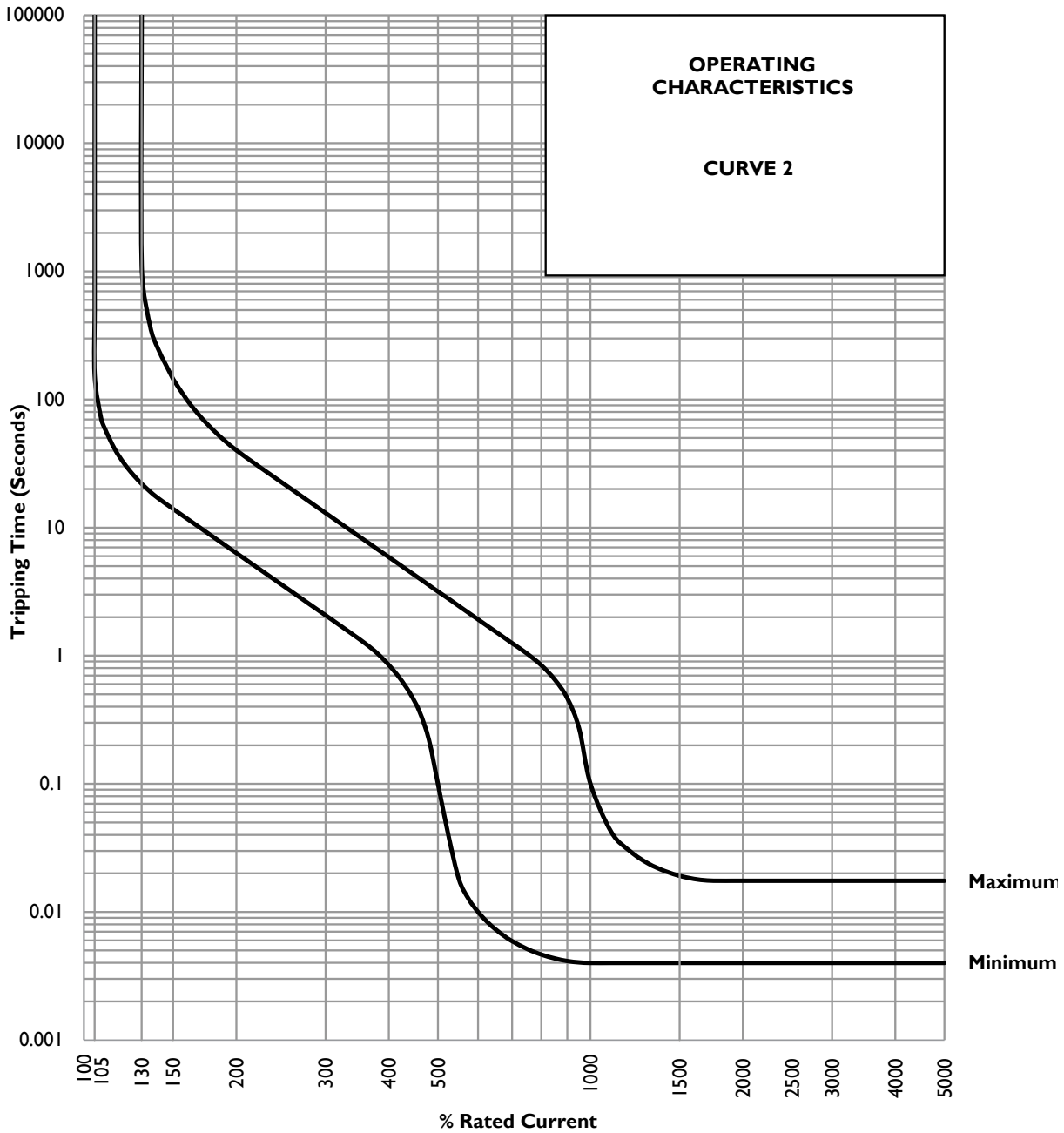
Group	1	2	3	4	5	6	7	8	9	10
Requirement	S Frame	Type M	3 pole + N	Overload	No Auxiliary	Medium delay curve 2	Current Rating 80 A	Sensitivity 500 mA	Voltage 415 V AC	No special termination
Long Code	S	M	36	A	-	2	80A	500mA	415V	-

Group 1: Frame Type	Code	Description	Comments
	S	117 mm wide earth leakage	
Group 2: Product Type	Code	Description	Comments
	M	110 V AC, 6 kA	
	N	415 V AC, 6 kA	
Group 3: No of Poles	Code	Description	Comments
	36	Three pole plus switched neutral (3+N)	SM36
Group 4: E-L Type	Code	Description	Comments
	A	Overload (auto tripping)	White and green handle
Group 5: Auxiliary / Additional Pole	Code	Description	Comments
	-	Not applicable	Use this code if no auxiliary used
Group 6: Time Delays	Code	Description	Comments
	2	Medium time delay	
Group 7: Current Ratings	Code / Description		Comments
	15, 16, 20, 32, 40, 63, 80 A		SM36 Ratings available vary depending on certification * Other ratings are available as special orders. Check availability.
Group 8: Sensitivity	Code	Description	Comments
	L	50 mA	Standard
	M	100 mA	Standard
	N	200 mA	Standard
	P	375 mA	Standard
	Q	500 mA	Standard
	R	1000 mA	Standard
Group 9: Voltage	Code	Description	Comments
	110V	110 V AC	
	415V	415 V AC	
Group 10: Special Termination	Code	Description	Comments
	-	No special termination	

For options not listed, please contact CBI

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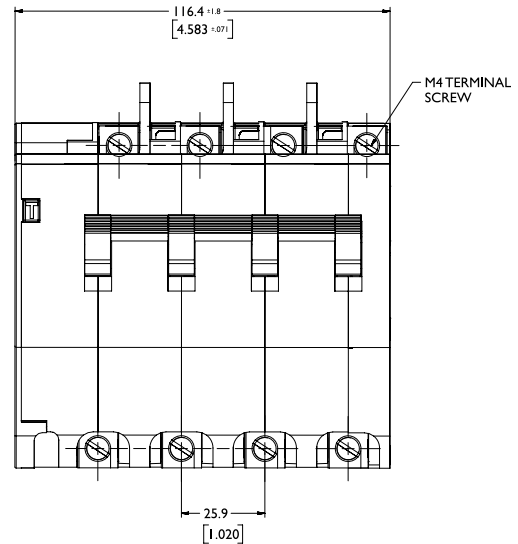
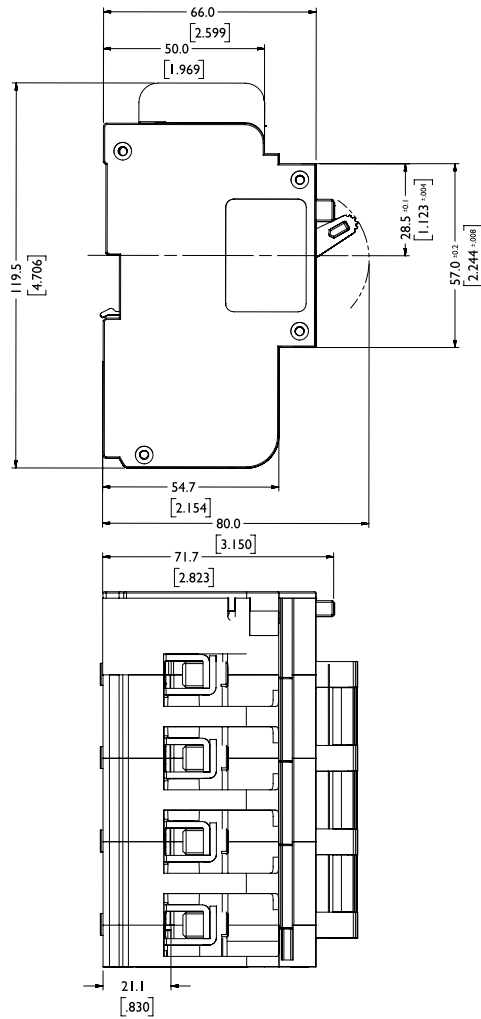
Time Delay Curves



* 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.

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Outline Dimensions: Surface Mount



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

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AUSTRALIA

CBI-electric: Australia
27 Wedgewood Rd, Hallam
Victoria 3803 Australia
Tel: +61 3 8752 9300
Fax: +61 3 9796 5407
Email: sales@cbi-electric.com.au
Website: www.cbi-electric.com.au

SOUTH AFRICA

CBI-electric: low voltage
Tripswitch Drive Elandsfontein
Gauteng South Africa
Tel: +27 11 928 2000
Fax: + 27 11 392 2354
Email: cbi@cbi-electric.com
internationalsales@cbi-electric.com
Website: www.cbi-lowvoltage.com

USA

CBI-electric: North America
35 E. Uwchlan Ave Suite 328
Exton PA 19341 USA
Tel: +1 610 524 9949
Fax: +1 610 524 9945
E-mail: info@cbibreakers.com
Website: www.cbibreakers.com