

SF1EL - Series Earth Leakages

The SF1EL is a 26 mm wide, surface mounted earth leakage circuit breaker with a switched neutral and an additional 50 cm neutral cable attached. It is applied in commercial and industrial applications.



SF1EL
Surface Mount

Features

- Hydraulic-magnetic technology
- 100% rating capability, independent of ambient temperature
- AS/NZS 3111 and AS/NZS 3190 compliant
- Compact width 26 mm
- Operating voltage 240V AC single pole
- Immune to pulsating DC load current
- Ratings 6 to 40 A
- Earth leakage sensitivity 10 mA or 30 mA
- Single pole plus switched neutral earth leakage protection
- Additional neutral wire
- Precision tripping characteristics
- Trip indication with mid-trip position
- Reset immediately after overload
- Suitable to use for electrical isolation
- Shell design permits easier installation onto busbar

Applications

- Mining, heavy industrial and commercial applications requiring high sensitivity earth leakage protection from electrical shock and fire hazards
- Telecom / datacom equipment
- Lighting control
- UPS equipment
- Alternative energy equipment
- Mobile power generation equipment
- Railway signalling and infrastructure

Approvals



SF1EL - Series Earth Leakages

Technical Data

| Product Type | SF1EL |
|-------------------------|-----------------------------|
| Approvals | AS/NZS 3111,AS/NZS 3190 |
| Number of Poles | 1+N |
| Standard Ampere Ratings | 6, 10, 16, 20, 25, 32, 40 A |
| Sensitivity | 10 mA / 30 mA |
| Rated Voltage | 240V |
| Operating Voltage | 240V AC |
| Rated Interrupting | 6 kA |

| Product Type | SF1EL |
|-----------------------------|--|
| Operating Temperature Range | -40 °C to +85 °C |
| Mounting Options | Surface mount |
| Time Delay Curves | 1, 2, 3 |
| Endurance | 1500 electrical operations (AS/NZS 3111,AS/NZS 3190) |
| Dielectric Strength | 1480V (single pole), 50 Hz for one minute after testing |
| Weight | 400 g per pole (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| Flammability | I3 - Ignition does not persist at 850 °C after glow wire is withdrawn with an oxygen index of ≥ 28 |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 |
|---------------|---------------------------------|--------------|----------------------------------|
| 1+N | 0.75 - 35 mm ² | 2.5 Nm | Pozidriv #2 Combi head + Flat |

SF1EL - Series Earth Leakages

Ordering Information

Example Code: SF1EL-2-40-A---30mA-240V--

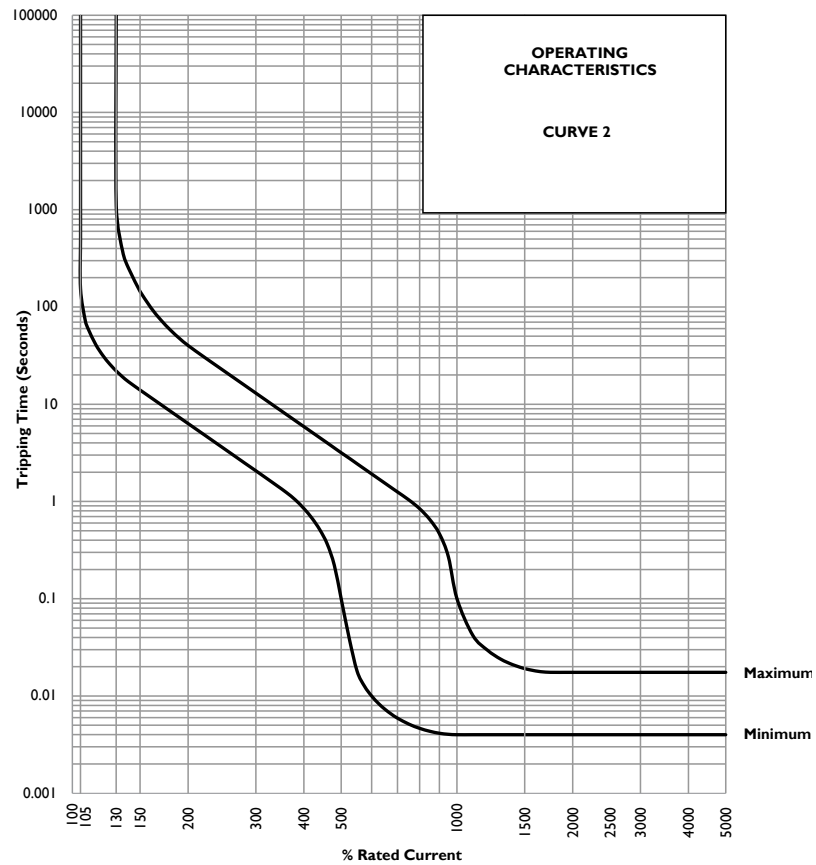
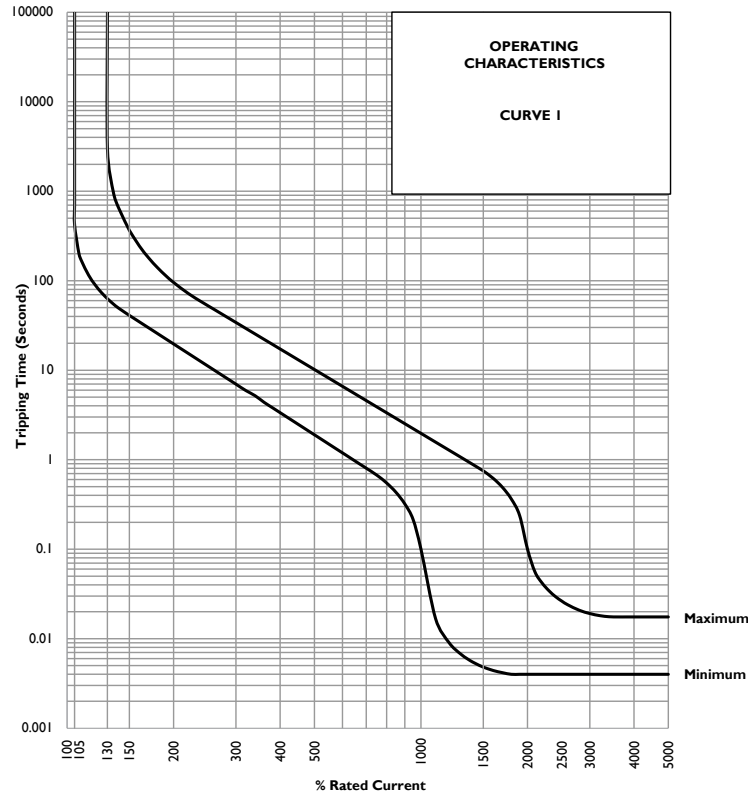
| Group | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-------------|------------|--------|------------|----------|--------------|----------------------------|------------------------|----------------------|---------------------|---------------------------|
| Requirement | S Frame | Type F | 1 pole + N | Overload | No auxiliary | Medium delay curve 2 | Current rating 40 A | Sensitivity 30 mA | Voltage 240 V AC | No special termination |
| Long Code | S | F | 1 | EL | - | 2 | 40A | 30mA | 240V | - |

| Group | Code | Description | Comments |
|---|-----------------------------|---|--|
| Group 1: Frame Type | S | 26 mm wide earth leakage | |
| Group 2: Product Type | F | 240 V AC, 6 kA | |
| Group 3: No of Poles | 1 | Single pole plus switched neutral (1+N) | SF1EL |
| Group 4: E-L Type | EL | Overload (auto tripping) | White and green handle C / Orange |
| Group 5: Auxiliary / Additional Pole | - | Not applicable | Use this code if no auxiliary used |
| | A | Auxiliary switch | |
| Group 6: Time Delays | 1 | Long time delay | |
| | 2 | Medium time delay | |
| | 3 | Short time delay | |
| Group 7: Current Ratings | Code / Description | | Comments |
| | 6, 10, 16, 20, 25, 32, 40 A | | SF1EL Ratings available vary depending on certification * Other ratings are available as special orders. Check availability. |
| Group 8: Sensitivity | Code | Description | Comments |
| | 10mA | 10 mA | |
| | 30mA | 30 mA | |
| Group 9: Voltage | Code | Description | Comments |
| | 240V | 240 V AC | |
| Group 10: Special Termination | Code | Description | Comments |
| | - | No special termination | |

For options not listed, please contact CBI

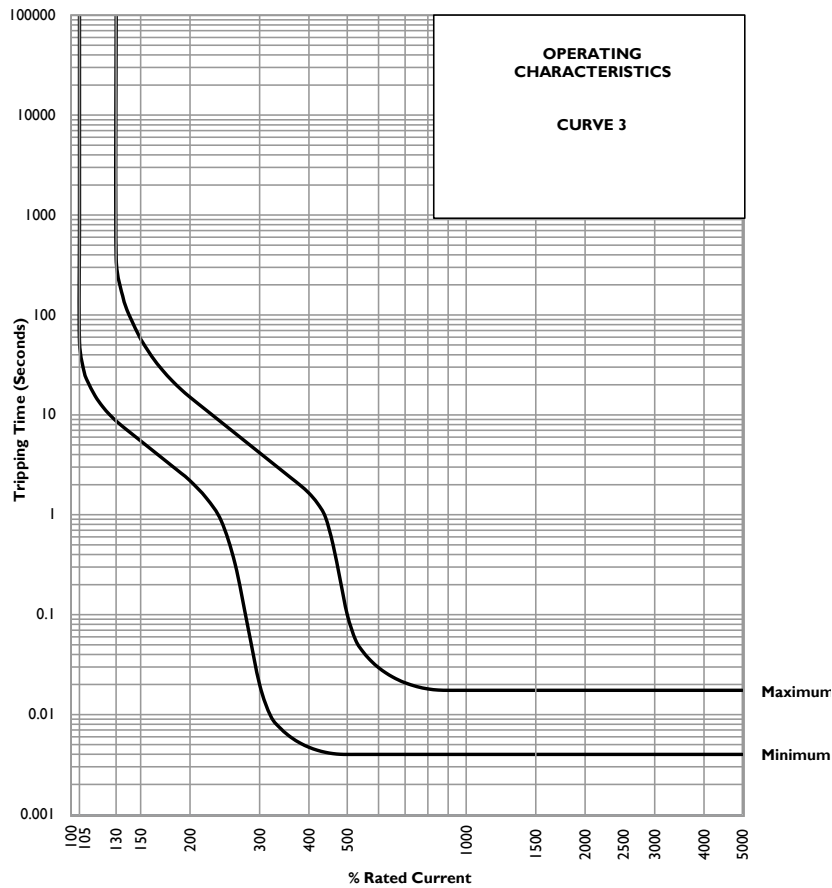
SFIEL - Series Earth Leakages

Time Delay Curves



SFIEL - Series Earth Leakages

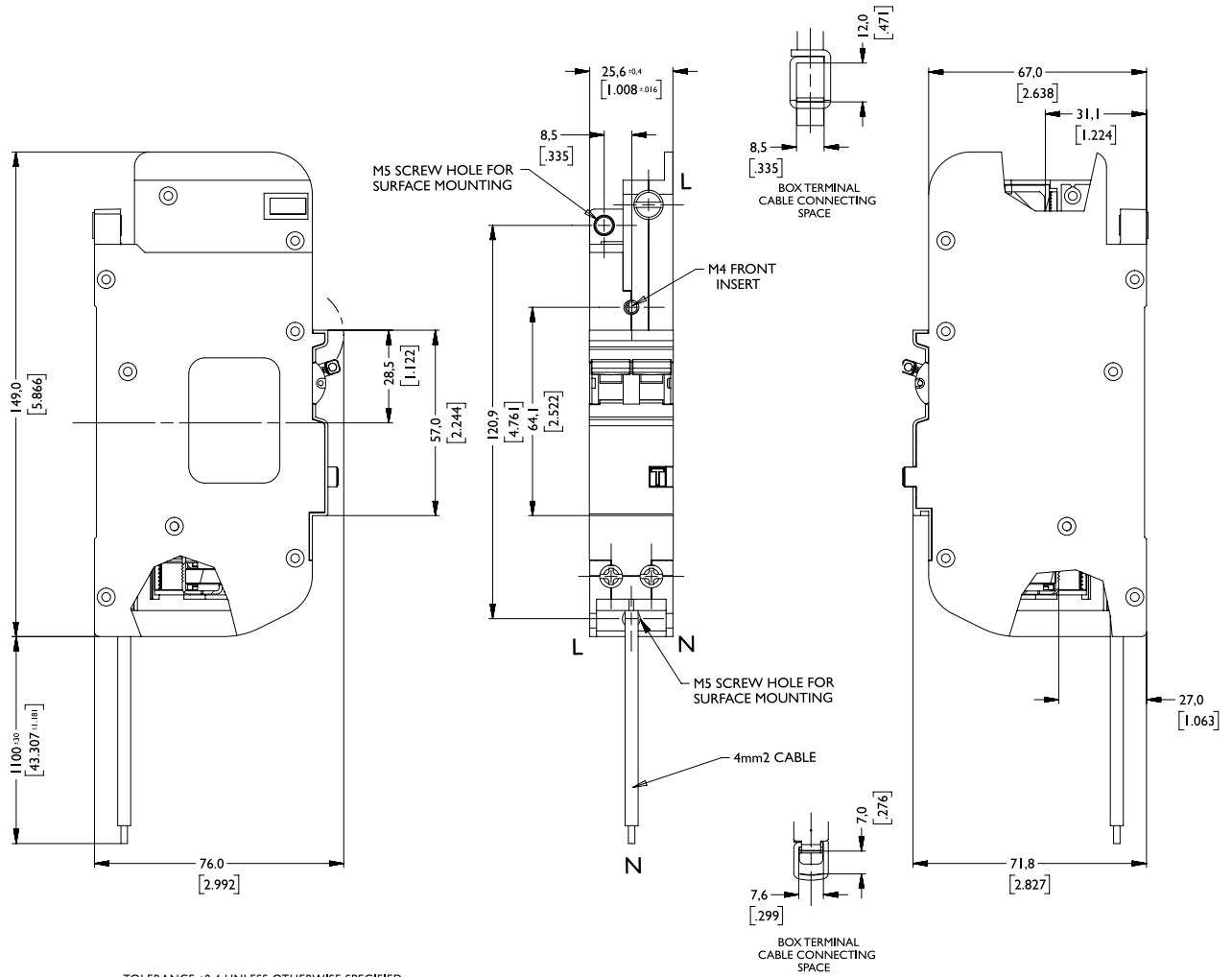
Time Delay Curves



* 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.

QF36 - Series Earth Leakages

Outline Dimensions: Surface Mount



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

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