SF36 - Series Earth Leakages

The SF36 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 mA.

**Features**
- Hydraulic-magnetic technology
- 100% rating capability, independent of ambient temperature
- VC 8035 compliant
- AS/NZS 3111 and AS/NZS 3190 compliant
- Immune to pulsating DC load current
- Ratings 10 to 80 A
- Earth Leakage sensitivity 30 mA
- Three pole plus switched neutral earth leakage protection
- Switches all active and neutral poles
- Precision tripping characteristics
- Reset immediately after overload
- Suitable to use for electrical isolation
- Surface mount & Mini Rail mount
- 55 mm front escutcheon

**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 equipment

**Approvals**
- VC 8035
- AS/NZS 3111
- AS/NZS 3190
## SF36 - Series Earth Leakages

### Technical Data

<table>
<thead>
<tr>
<th>Product Type</th>
<th>SF36A</th>
<th>SF36C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approvals</td>
<td>VC 8035</td>
<td></td>
</tr>
<tr>
<td>Number of Poles</td>
<td>3+N</td>
<td>3+N</td>
</tr>
<tr>
<td>Standard Ampere Ratings</td>
<td>10 to 80 A</td>
<td>80 A</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>30 mA</td>
<td>30 mA</td>
</tr>
<tr>
<td>Rated Voltage</td>
<td>415 V</td>
<td>415 V</td>
</tr>
<tr>
<td>Rated Interrupting / Withstand Capacity</td>
<td>5 kA</td>
<td>-</td>
</tr>
<tr>
<td>Time Delay Curves</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product Type</th>
<th>SF36AE</th>
<th>SF36CE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approvals</td>
<td>AS/NZS 3111, AS/NZS 3190</td>
<td></td>
</tr>
<tr>
<td>Number of Poles</td>
<td>3+N</td>
<td>3+N</td>
</tr>
<tr>
<td>Standard Ampere Ratings</td>
<td>10 to 80 A</td>
<td>80 A</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>30 mA</td>
<td>30 mA</td>
</tr>
<tr>
<td>Rated Voltage</td>
<td>415 V</td>
<td>415 V</td>
</tr>
<tr>
<td>Rated Interrupting / Withstand Capacity</td>
<td>6 kA</td>
<td>-</td>
</tr>
<tr>
<td>Time Delay Curves</td>
<td>2</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product Type</th>
<th>SF36</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature Range</td>
<td>-40 °C to +85 °C</td>
</tr>
<tr>
<td>Mounting Options</td>
<td>CBI Mini Rail, surface mount</td>
</tr>
<tr>
<td>Time Delay Curves</td>
<td>2</td>
</tr>
<tr>
<td>Endurance</td>
<td>1500 electrical operations (AS/NZS 3111, AS/NZS 3190)</td>
</tr>
<tr>
<td>Dielectric Strength</td>
<td>1480 V (single pole) / 1830 V (multi pole), 50 Hz for one minute after testing</td>
</tr>
<tr>
<td>Weight</td>
<td>960 g (unpacked)</td>
</tr>
<tr>
<td>Humidity</td>
<td>35 to 85% relative</td>
</tr>
<tr>
<td>Altitude</td>
<td>Certification tests done at altitude ≈ 2000 metres. Will operate at higher altitudes.</td>
</tr>
<tr>
<td>Shock</td>
<td>16 G (IEC 600068-2-27)</td>
</tr>
<tr>
<td>Vibration</td>
<td>2 G (IEC 600068-2-27) (sinusoidal wave)</td>
</tr>
<tr>
<td>Flammability</td>
<td>I3 - Ignition does not persist at 850 °C after glow wire is withdrawn with an oxygen index of ≥ 28</td>
</tr>
<tr>
<td>Toxicity</td>
<td>F1 - Smoke index of ≤ 20 which determines the fume class</td>
</tr>
<tr>
<td>Pollution Degree</td>
<td>PD2 - Normally only non-conductive pollution occurs. Temporary conductivity caused by condensation is to be expected.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Earth Leakage</th>
<th>Wire Size mm² (IEC)</th>
<th>Torque (IEC)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>3+N</td>
<td>0.75 - 35 mm² (IEC)</td>
<td>2.5 Nm</td>
<td>Pozidriv #2 Combi head</td>
</tr>
</tbody>
</table>
### SF36 - Series Earth Leakages

#### Ordering Information

**Example Code:** S-F-36-AE--2--80A-30mA-415V--

<table>
<thead>
<tr>
<th>Group</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requirement</td>
<td>Frame</td>
<td>Type F</td>
<td>3 pole + N</td>
<td>Overload</td>
<td>No auxiliary</td>
<td>Medium delay curve 2</td>
<td>Current rating 80 A</td>
<td>Sensitivity 30 mA</td>
<td>Voltage 415V AC</td>
<td>No special termination</td>
</tr>
<tr>
<td>Long Code</td>
<td>S</td>
<td>F</td>
<td>36</td>
<td>AE</td>
<td>-</td>
<td>2</td>
<td>80A</td>
<td>30mA</td>
<td>415V</td>
<td>-</td>
</tr>
</tbody>
</table>

**Group 1: Frame Type**
- Code: S
- Description: 117 mm wide earth leakage

**Group 2: Product Type**
- Code: F
- Description: 415 V AC, 6 kA

**Group 3: No of Poles**
- Code: 36
- Description: Three pole plus switched neutral (3+N)

**Group 4: E-L Type**
- Code: AE
- Description: Overload (auto tripping)
  - Comments: White and green handle
- Code: CE
  - Description: Switch disconnector
  - Comments: Green handle

**Group 5: Auxiliary / Additional Pole**
- Code: -
  - Description: Not applicable
  - Comments: Use this code if no auxiliary used
- Code: A
  - Description: Auxiliary switch

**Group 6: Time Delays**
- Code: 2
  - Description: Medium time delay

**Group 7: Current Ratings**
- Code: 10, 16, 20, 25, 32, 40, 63, 80 A
  - Comments: SF36
  - Ratings available vary depending on certification
  * Other ratings are available as special orders. Check availability.
- Code: 80 A
  - Comments: SF36

**Group 8: Sensitivity**
- Code: 30mA
  - Description: 30 mA
  - Comments: Standard

**Group 9: Voltage**
- Code: 415V
  - Description: 415V AC

**Group 10: Special Termination**
- Code: -
  - Description: No special termination

For options not listed, please contact CBI
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: SF36

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