

Earth Leakage Module

Application:

Leader's in Innovative Protection Systems, Bramco's elf3 detects earth fault currents flowing in a power system and provides visual indication of earth leakage conditions. The elf3 is specifically designed to protect systems supplying VF drives and provides very high immunity to converter noise.

Compliant to latest Australian standards, the elf3 is the next generation in earth leakage protection, offering improved features over ELF2.

Features:

- 32-bit microprocessor core
- 50-60Hz (VSD Mode Off)
- 5-100Hz (VSD Mode On)
- · Backlit Graphic LCD display
- · Settings adjustable through menu
- · Optional password protection for settings
- CT/Toroid open fault indication
- Failsafe / non failsafe and latch/non-latch operation, configured via the menu
- Red LCD backlight to clearly indicate a trip condition, yellow backlight for warning and green for healthy
- Protection settings and status clearly visible at all times
- Diagnostics screen to view all current conditions and settings
- Wide voltage supply range
- Local reset functionality configurable through the menu
- Provision for a remote reset button
- · Clear opening door protection to IP66
- Instrumentation output 4-20mA
 Current loop or 2-10V voltage output
- Use with range of Bramco Earth Leakage Toroids
- · Last fault duration reading
- Logging of previous trip details
- Current settings, measurement information and status available via RS485 MODBUS ASCII/RTU
- Communications settings such as baud rate configurable via menu
- Backward compatible with ELF2 when installed with new 1000T EL Toroid.

Specifications:

Supply

• 24 - 48V AC (50/60Hz) /DC

• 110-240VAC (50/60Hz)

3VA

• Voltage Tolerance: -25% to +20%

• DPCO 5A 250VAC (General)

• 5A 30VDC (Resistive) (100VA Max)

• 0-60° C

• 30-500mA 50-500ms

0.5A-5A
 2A-20A
 50ms-20s
 50ms-20s

Monitoring Outputs:

Relay Contacts:

Operating Temp:

Model Varients:

 4-20mA output into 500 ohm or 2-10V output with internal resistors

• RS485 MODBUS RTU/ASCII

Glass filled Noryl L94V1

Material: Fascia Mounting:

- Fascia Mount din dimensions
 96 x 96mm with clear opening door
 bezel IP66 rated
- Panel opening 90 x 90mm
- Phoenix plugs provided

Weight: • 500g



Bramco Contacts:

19 Aruma Place Cardiff, NSW 2285 AUSTRALIA

Telephone +61 2 4954 4721 Email sales@bramco.com.au www.bramco.com.au



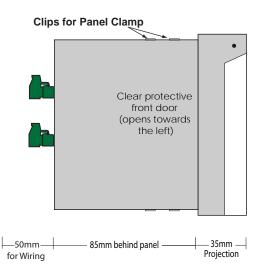




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Enclosure Dimensions:

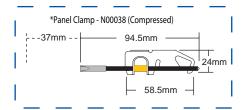




Green = Healthy

Red = Fault

*Supplied with 1 x Sealing Gasket and 2 x Panel Clamps



Compliance:

AS/NZS 2081 - 2011

Electrical Equipment for Coal and Shale Mines
 Electrical Protection Devices

The elf3 comes with a 2 year warranty.

Ordering Information:

A01324	elf3 Compliant	30-500mA 50-500ms
A01325	elf3 Low Range	0.5A-5A 50ms-20s
A01326	elf3 High Range	2A-20A 50ms-20s

Toroid Ordering Information:

A01334 A01335 A01336 A01337	Toroid (1000T) Toroid (1000T) Toroid (1000T) Toroid (1000T)	40mm 72mm 130mm 200mm	Yellow = Warning
A01337	Toroid (10001)	200mm	
A01338	Toroid (1000T)	300mm	

Typical displays coloured to match operating status:



