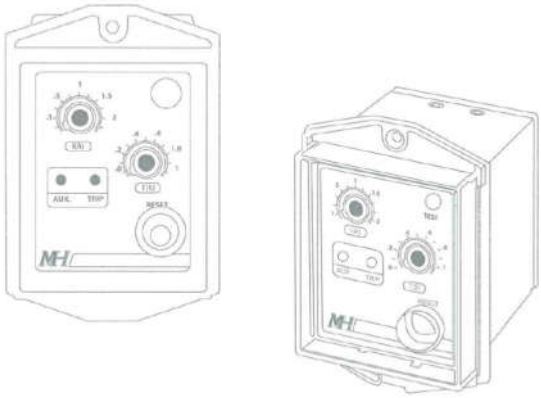
Protection Relays

EF18 DTL Earth Fault Relay

Operating Instructions



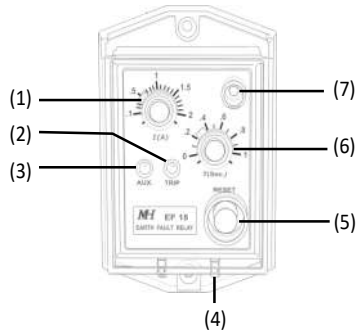
Features

- Mechanical Trip Button (MTB) trip indication.
- No requirement for auxiliary power supply for Trip indication
- Safeguard against automatic reset before fault rectification
- Tamper-Proof design for setting protection

Technical Data

Power supply		AC 230V ± 15% (other voltages available upon request)
Operating frequency		50/60Hz
Current setting		AC 0.1 - 2.0A
Delay Time setting		0-1 sec
Operating and storage temperature range		Operating -10°C to 55°C Storage and transit -20°C to 65°C
Relative humidity		95% at +40°C
Degree of protection		IP31 (Front), IP20 (Back)
Output	Contact Output	2 x N/O (Normally Open)
	Contact Rating	2A at 250V
	Electrical Life	1×10^5
	Mechanical Life	5×10^6
Indication		Red LED (relay tripped)
		Green LED (Power ON)
Safety feature		Mechanical Trip Button (MTB)
Housing material		ABS resin complying with UL94VO
Unit Weight		Approximately 300g
Power consumption		≤ 2VA

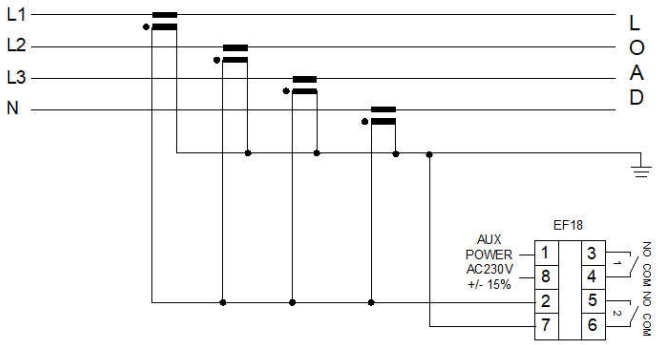
Overview



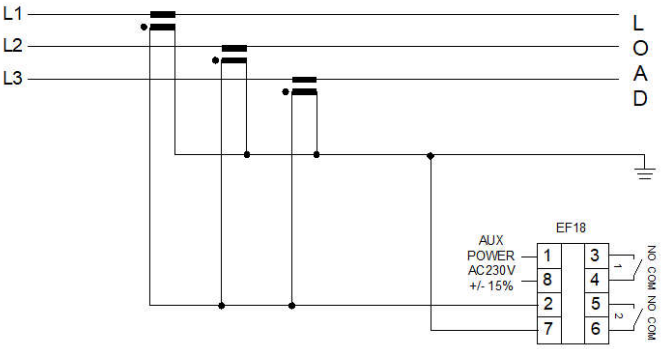
(1) Current Setting Knob
(2) Trip Indicator
(3) Power ON
(4) Tamper Proof Seal
(5) Reset/ MTB (Trip Indicator)
(6) Time Setting Knob
(7) Test Button

Connection Diagram

3P4W



3P3W



Operation Description

Contact

The relay is equipped with voltage free contact relay. The contact will energise after the delay time lapse during a fault.

Current Setting

- This is to set the threshold of the earth fault current, if the measured current exceeds this threshold value, the relay pick up and after the delay time lapse the trip contact will close which in turn trip the breaker.

Time Setting

- This is to set the time delay for the relay is trip after detecting a fault

Button

- Test Button: This is to check the functionality of the relay
  Press to simulate a Earth leakage to trip the relay.
- Reset Button: This is to reset the relay after tripping
  Press on to reset the relay to resume operation

Standards Compliance

Product Safety Requirements	IEC 60255-27
Electromagnetic Compatibility	CISPR11/22 (IEC 60255-26)
	IEC 61000-4-2 (IEC 60255-26)
	IEC 61000-4-3 (IEC 60255-26)
	IEC 61000-4-4 (IEC 60255-26)
	IEC 61000-4-5 (IEC 60255-26)
	IEC 61000-4-6 (IEC 60255-26)
	IEC 61000-4-8 (IEC 60255-26)
	IEC 61000-4-11 (IEC 60255-26)
Vibration, Shock and Bump	IEC 60255-21-1
	IEC 60255-21-2
Dry Heat, Damp Heat, Steady State, Cyclic Temperature with Humidity	IEC 60068-2-2 (IEC 60255-1)
	IEC 60068-2-78 (IEC 60255-1)
	IEC 60068-2-30 (IEC 60255-1)

Dimension & Cut Out (in mm)