

NEW ELEC

MOTOR PROTECTION & CONTROL TECHNOLOGY

Earth Leakage Test Unit Activated through door-mounted push button



A South African Company to be Proud of

About

The NewElec Earth Leakage Test Unit was developed to comply with the NRCS Department: Electrotechnical (VC 8035), 16-Oct-87, Sec 4.13 regulation. [Compulsory specification for earth leakage protection units]

“The test facility shall be so connected in the circuit as to ensure that the sensing device, the amplifier, and the circuit-breaker mechanism are all tested for failure or deterioration. The test facility shall be so designed that a current equivalent to 125-175 % of the rated earth leakage tripping current flows through the sensing device when the test button is operated with the EL circuit-breaker energized at its rated voltage.”

The objective of this unit is to diminish the time taken to test the earth leakage device, utilizing an earth leakage testing tool and to add a measure of safety so that the test is carried out without the opening of the cubicle door. The NewElec Earth Leakage Test Unit actually creates a real-time earth leakage fault.

The physical ELTU Kit consists of a small bolt-down enclosure (60 x 60 x 20mm) with blue and red wires and yellow and red LEDs. Included in the kit is a 22 mm yellow Push Button, with a two pole Normally Open (N/O) contact block.

The schematic wiring diagram reflects a typical circuit that comprises of the NewElec GA Earth Leakage Relay. The unit is Universal and can be adapted for any other brand Earth Leakage device.

Protection Features:

- Easy to install
- Injects a genuine real-time earth fault
- No need to open any MCC cubicle door
- Integrated safety thermistor prevents overheating of the unit itself
- Available for a wide range of earth leakage trip sensitivities (30, 250, 375, 500 and 1000 mA)
- Suitable for use in conjunction with any core operated earth leakage device
- Works with both Inverse Definite Minimum Time (IDMT) and instantaneous curves



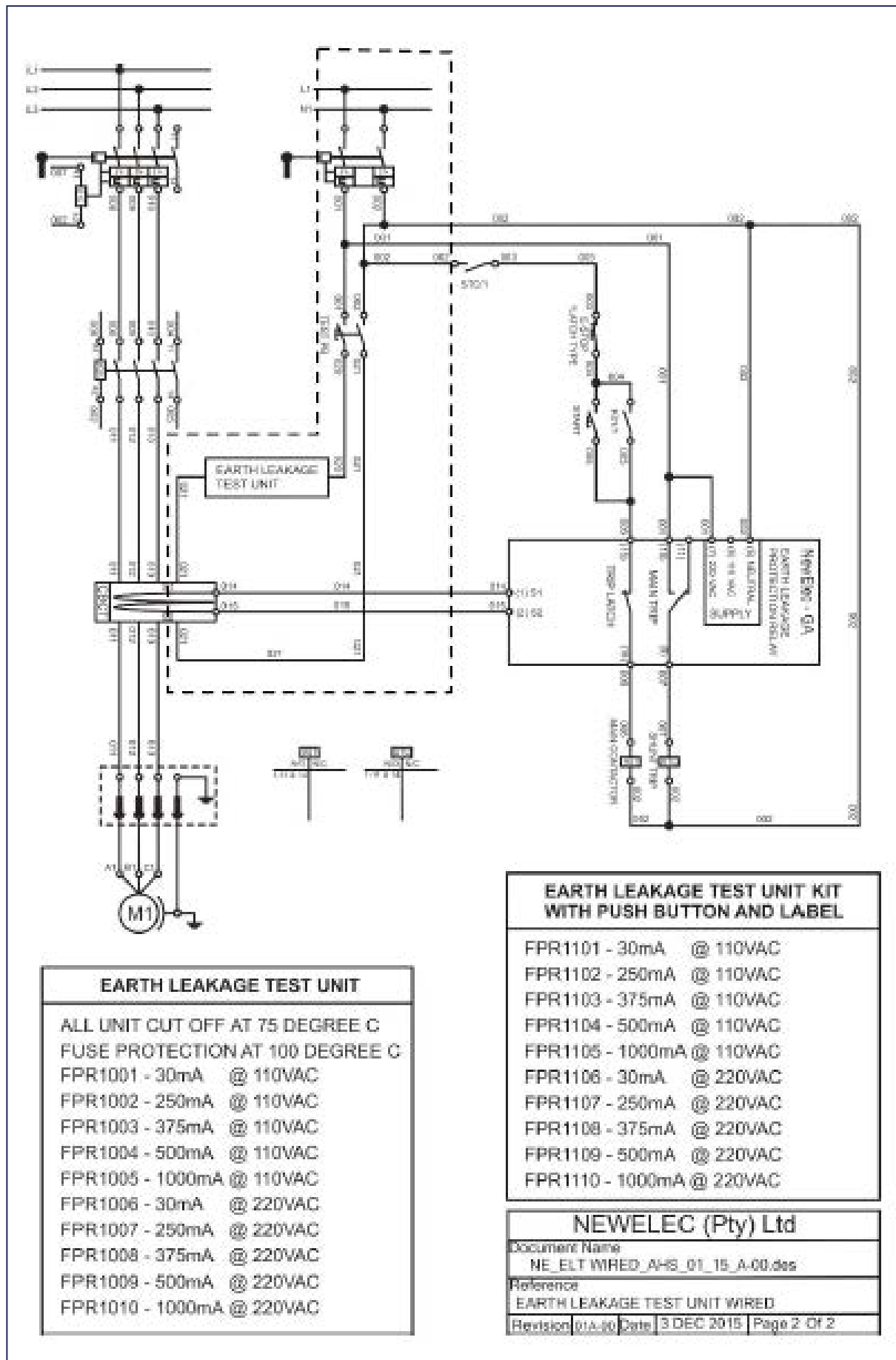
Design Criteria

The NewElec Earth Leakage Test Unit (ELTU) was designed to be used with any earth leakage protection relay that utilizes the earth leakage core principal. As a safety precaution the device integrates a heat activated cut off thermistor that will cut the circuit off at a 75° C value and as an added precaution, fuse at 100° C. The latter signifying the need to replace the unit.

Identifying fault LEDs are integrated into the testing device that indicate thermistor cooling down (YELLOW) and fused (RED).



Typical Installation Diagram and Ordering Information



EARTH LEAKAGE TEST UNIT	
ALL UNIT CUT OFF AT 75 DEGREE C	
FUSE PROTECTION AT 100 DEGREE C	
FPR1001	- 30mA @ 110VAC
FPR1002	- 250mA @ 110VAC
FPR1003	- 375mA @ 110VAC
FPR1004	- 500mA @ 110VAC
FPR1005	- 1000mA @ 110VAC
FPR1006	- 30mA @ 220VAC
FPR1007	- 250mA @ 220VAC
FPR1008	- 375mA @ 220VAC
FPR1009	- 500mA @ 220VAC
FPR1010	- 1000mA @ 220VAC

EARTH LEAKAGE TEST UNIT KIT WITH PUSH BUTTON AND LABEL	
FPR1101	- 30mA @ 110VAC
FPR1102	- 250mA @ 110VAC
FPR1103	- 375mA @ 110VAC
FPR1104	- 500mA @ 110VAC
FPR1105	- 1000mA @ 110VAC
FPR1106	- 30mA @ 220VAC
FPR1107	- 250mA @ 220VAC
FPR1108	- 375mA @ 220VAC
FPR1109	- 500mA @ 220VAC
FPR1110	- 1000mA @ 220VAC

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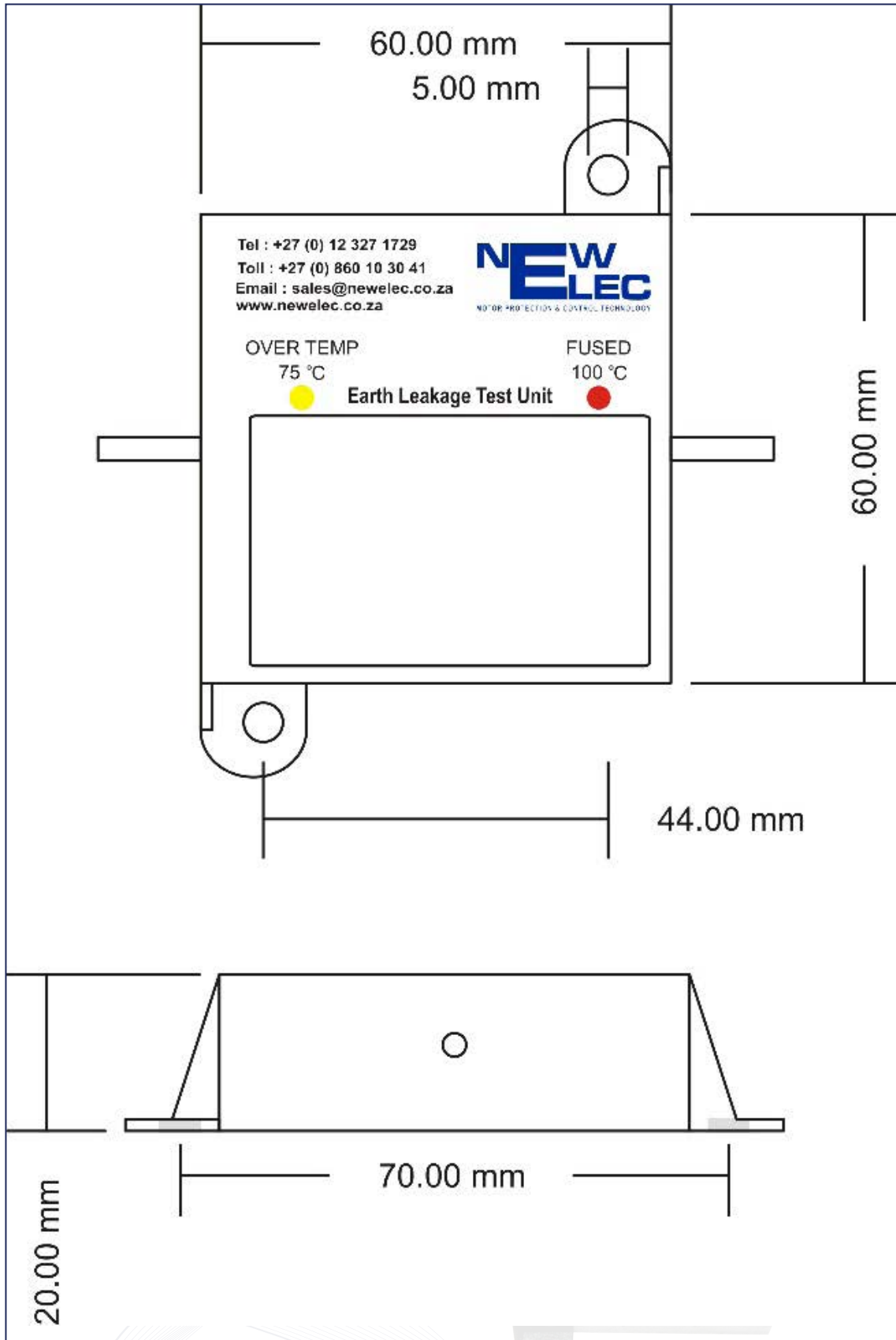
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Figure 1:
TYPICAL INSTALLATION, SHOWING TEST BUTTON AND CURVE SELECTION.



Test Level 300mA
Fuse Temp_100 Deg C
01/02/16

Dimensional diagram



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door-mounted push
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