

TPL 3 PHASE LEAKAGE CURRENT METER

QUICK REFERENCE GUIDE



Thank you for your purchase of a TPL Series 3-Phase Leakage Current Meter. You can now safely, easily and accurately measure 3-Phase leakage current without having to purchase bulky and expensive 3-Phase appliance testers.

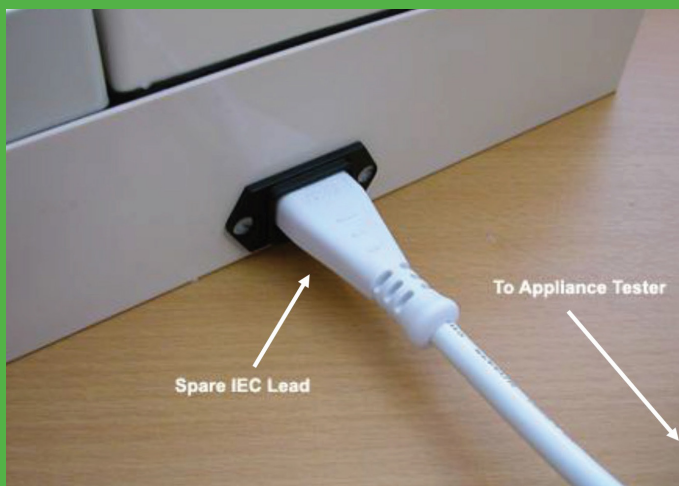
As an added feature the unit incorporates an IEC socket to allow you to check earth continuity with your existing appliance tester.

How to Measure 3 Phase Leakage Current

- Unplug the appliance to be tested from the mains supply and plug the TPL into the appropriate mains socket
- Plug the appliance to be tested into the appropriate test socket on the TPL
- Turn the mains on at the supply and turn the appliance to be tested ON
- Turn the TPL on. When you're ready to take your measurement depress and hold the Test button for a few seconds and note the reading on the LCD display (at the time of writing these instructions the allowable earth leakage current limit for a Class I device was 5mA AC as per AS/NZS 3760:2003). The LCD screen gives a direct in mA AC. i.e. a display of 3.24 is 3.24mA AC and so on. (Note: If the display reads "1" on the left hand side of the screen this means that the leakage current is greater than 20mA and the meter is over-ranging. This is an automatic failure of the appliance under test).
- As per best practice for appliance testing, the equipment under test should be turned on and running at maximum. (I.e. The hottest or fastest setting). All switch positions and combinations should be tried to ensure that there is no specific function which could cause excessive leakage.
- Turn off the TPL and return all equipment to their previous states/locations.

How to do an Earth Resistance Test

- ENSURE THE TPL IS SWITCHED OFF
- Using a spare IEC lead plug one end into your appliance tester's test socket and the other end into the IEC socket on the TPL (see Fig 2 below).
- Plug the appliance under test into the appropriate socket on the TPL.
- Attach your earth clamp to the appliance under test.
- Perform an earth bond test as per usual procedures for your particular appliance tester.



How to Check a 3-Phase Extension Lead

To check a 3-phase lead we need to perform an earth resistance test and a leakage/insulation test. Polarity can be checked with a basic multimeter.

- Make sure the TPL is NOT plugged into mains.
- Plug one end of the extension lead into the TPL.
- Plug your IEC lead from your appliance tester into the IEC socket on the side of the TPL.
- With your earth probe/clamp probe inside the earth terminal on the other end of the extension lead.
- Perform the earth resistance test.
- Disconnect the IEC lead from the TPL and remove your probe from the end of the extension lead.
- Plug the TPL into the appropriate mains socket.
- Leave one end of the extension lead plugged into the TPL and the other end not connected to anything.
- With the mains applied turn on the TPL and take a measurement by pressing the test button. In this case we are “powering” a lead which is not connected to anything to check the quality of the insulation.
- Note the leakage reading in mA.
- Perform polarity test with basic multimeter.

Calibration

To ensure accurate measurement the unit shall be calibrated every 12 months. Please return the unit to Appliance Testing Supplies or calibration agency for re-calibration.

Specifications

Mains Ratings:

20A, 32A, 40A, 50A (depending on model)
500V, 50Hz

Display

Reading rate time: 2-3 readings per second

Range: 0 - 19.99 mA AC

Accuracy @ 5mA AC: +/-1%, 23 Degrees +/-5 Degrees Celsius, <80%RH