

S642

EARTH LEAKAGE CLAMP METER

0.01 mA RESOLUTION · UP TO 300 A AC



FIND THE LEAKAGE. VERIFY THE CIRCUIT.

Leakage-current diagnosis for RCD/GFCI troubleshooting and low-voltage circuit checks

S642 measures earth leakage with 0.01 mA resolution, plus AC current, voltage, phase angle and frequency. Data hold and 99-record memory support on-site troubleshooting.

Field Diagnostic Highlights



0.01 mA Resolution

Track small leakage-current changes during RCD/GFCI troubleshooting.



Up to 300 A AC

Measure leakage and operating currents with one clamp, up to 300 A AC.



Circuit Checks

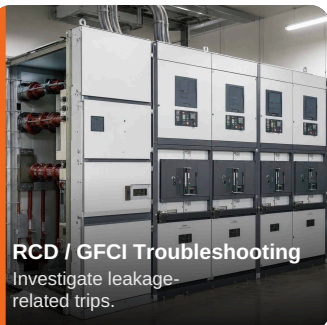
Check current, voltage, phase angle and frequency during troubleshooting.



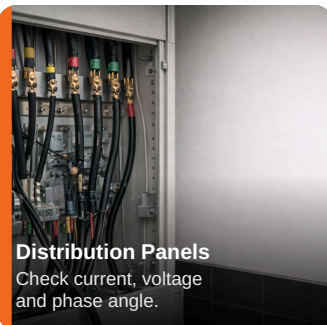
99-Record Memory

Hold, store and review up to 99 records directly on the meter.

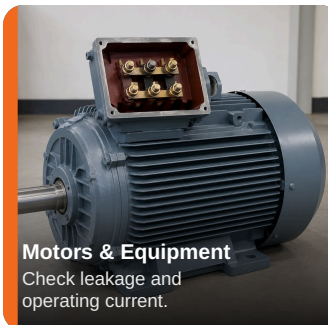
Applications



RCD / GFCI Troubleshooting
Investigate leakage-related trips.



Distribution Panels
Check current, voltage and phase angle.



Motors & Equipment
Check leakage and operating current.



3-Phase Systems
Check leakage in 3-wire and 4-wire LV systems.

Leakage Current Measurement Setups

Clamp the conductor group that matches the test.
Keep conductors centered in the jaw for stable low-current readings.

3-Phase 4-Wire Leakage

Clamp A · B · C · N together



Single-Phase Equipment

Clamp live + neutral together



Protective Earth Leakage

Clamp PE / ground conductor only



Leakage Test Steps

1

Select

Select the leakage-current measurement mode.

2

Clamp

Center the conductor group in the fully closed jaw.

3

Measure

Read the value. OL indicates the current exceeds the meter range.

4

Hold & Store

Press HOLD to freeze, store and number the reading.
Press READ to review.

Technical Specifications

MEASUREMENT

AC current range	0.00 mA - 300 A
Current resolution (best)	0.01 mA
Current accuracy	±2% rdg ±5 dgt
AC voltage range	0.00 - 600 V
Voltage resolution (best)	0.01 V
Voltage accuracy	±2% rdg ±5 dgt
Phase angle range	1° - 360°
Phase angle accuracy	±6°; ±8° below 10 V or 10 mA
Frequency	35.0 - 65.0 Hz · 0.1 Hz res.

GENERAL

Jaw opening	42 mm
Memory	99 records
Power	2 × AAA LR03
Battery life	Up to 25 h
Auto power off	15 min
Dimensions	78 × 203 × 33 mm
Meter weight	260 g
Operating environment	-10 to 40 °C · <80% RH
Storage environment	-10 to 60 °C · <70% RH

Safety & Compliance



Designed in accordance with IEC 61010-1 and IEC 61010-031 · CAT III 1000 V · Pollution Degree II

What's in the Box



S642 Meter



Instrument Bag



Voltage Test Leads ×2



AAA LR03 Batteries ×2



Cloth Bag



Manual / Warranty /
Quality Certificate