



Model 2126 NA

Electrical Network Analyzers



The 2126 NA is a portable real electrical network analyzer. It has a built-in earth tester which does not require the use of poles or long wires. This instrument is useful for fault-finding or commissioning of electrical installations. Differentiating between the line (hot), neutral and earth (ground) path by reading their values has never been easier. Bad contacts, old wiring or bad earth path are quickly identified.

Faulty electrical network can be resolved in a fraction of the time normally required using conventional equipment. Down time due to a faulty electrical network is minimal as them fault can be identified and diagnosed quickly. Find which wire need to be attended to and why (find those old wires with high impedance before a fire starts and replace them). The complete electrical network can be analyzed by scrolling through the results. Of course, it has a built-in loop impedance and prospective short circuit tester as well as a voltmeter.

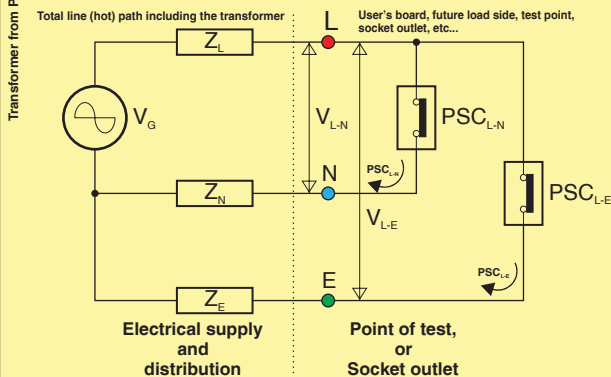
Features

- Microprocessor-controlled.
- Built-in earth tester.
- Built-in loop/psc tester. 0.03-2000 Ω (software ctrl).
- Built-in voltmeter.
- Built-in wiring checker.
- One push button smart control.
- Display L-N and L-E voltages. 50 to 280Vac (sine).
- Display line path impedance. 0.01-2000 Ω (software ctrl).
- Display earth path impedance. 0.01-2000 Ω (software ctrl).
- Display neutral path impedance. 0.01-2000 Ω (software ctrl).
- Display psc line to neutral. 6kA@230Vac supply.
- Display psc line to earth. 6kA@230Vac supply.
- Re-scroll through previous results.
- Bat. ok/low battery indicator.
- Auto off function.
- Color-coded test leads.
- Rugged case.
- Ultra low power consumption.

Specifications

Loop / Earth / Wires:	0.03-2000 Ω (auto-ranging)
Prospective short circuit:	0~6kA at 230Vac
Operating voltage:	50V~275Vac (50Hz)
Best performance at rated voltage:	230Vac $\pm$ 20V Max. 10A
Accuracy of voltage:	$\pm$ 1% (210~250V). $\pm$ 3% otherwise
Accuracy of loops / earth:	$\pm$ 2% (0.05~50 Ω) / $\pm$ 3% (50~500 Ω)
Accuracy of wires impedances:	$\pm$ 15% (above 500 Ω)
Operating temp. & humidity:	0°C to 40°C, 80% Maximum
Dimensions:	210(L) $\times$ 210(W) $\times$ 100(D)mm
Weight (battery included):	Approx. 1445g
Power source:	1.5V (AA) $\times$ 6
Safety standard:	EN 61010-1 CAT III 270V EN 61326-1
Accessories:	Instruction manual. Test leads. Shoulder belt. Batteries.

Fault Finding and Analyzing the Electrical Network



V_G = Voltage of the generator (supply transformer) (internal impedance of transformer = X-Form)
 Z_L = Impedance of the line wire from the transformer, up to the test point (Z_L displayed by Instrument also includes X-Form). If this impedance is too high, check the connections of the line wiring, check the quality of the line wiring and the switches / contacts in the line circuit.
 Z_N = Impedance of the neutral wire from the transformer, up to the test point. If this impedance is too high, check the connections of the neutral wiring, check the quality of the line wiring and the switches or contacts in the neutral circuit.
 Z_E = Impedance of the earth wire, including the earth impedance itself, as seen by the protection system. similar checking, specially at the bounding points should be done if this path impedance is too high.
 Z_L = Line (hot) wire impedance including the transformer impedance.
 Z_N = Neutral wire impedance.
 Z_E = Earth (ground) path impedance including all the connections.
 PSC_{L-N} , PSC_{L-E} = Prospective short circuit current (L to N) & (L to E).
 V_G = Electrical Network supply voltage transformer (without load).
 V_{L-N} , V_{L-E} = Voltage between L-N & L-E (without load).

Please note: Instrument accuracy depends on V_G stability while testing.