

Description

The Z200 PVA PV testing kit offers a comprehensive range of features designed to test and troubleshoot PV modules and arrays . It allows you to measure the position of a single ground fault in a PV string with a Riso of less than 3 MΩ. Moreover, it can identify the position of a single disconnect in PV strings where Rs is greater than 10 kΩ. The Z200 PVA provides PV string impedance curves for health and degradation checks. It also calculates PV string series resistance (Rs), open circuit voltage (Voc), and short circuit current (Isc). The instrument is also equipped with a PV module voltage reader and a bypass diode checker to identify if an open or short circuit has occurred. It measures the shunting resistance (Rsh) to detect module or cell degradation. For periodic faults, an integrated timer is included. To aid in troubleshooting, a tone generator and tone tracer pickup are also incorporated. To ensure you have all the data you need, a built-in report generator provides reports in PDF, CSV, or JSON format. The instrument is operated over WiFi using a smartphone, tablet, PC, or MAC, providing flexibility and ease of use.

Feature / function	Z200 PVA
Impedance test, frequency coverage	100 Hz to 100 kHz
Impedance test, frequency accuracy	+/- 2 %
Frequency drift with temperature (0 – 35 Celsius)	>0.1
DC current test range	0 – 15 A
DC voltage test range	0 – 1000 V
Polarity check	Yes
Measurement of resistance towards ground (Riso)	Yes
Riso measurement range	0 Ω – 40 MΩ
Riso measurement test conditions	Irradiation > 100 W and m2 string VOC > 100V
Riso measurement precision (stable light conditions)	+/- 50 kΩ +/- 10%
Riso measurement analysis	Above 40M Ω, Riso > 40M Ω Below 100kΩ, Riso < 100kΩ

Threshold for localisation of an Riso ground fault	3 M Ω
Localisation of an Riso ground fault precision (stable light conditions)	+/- 0.5 PV module
Localisation of an Riso ground fault resolution	0.1 PV modules
Localisation of singular series fault disconnect	Yes
Localisation of singular series fault precision	+/- 1 PV module
Localisation of singular series fault resolution	0.1 PV modules
Conditions for localisation of a singular series fault	Irradiation > 100 W/m ²
Tone generator to map out strings	0 – 100 kHz
Amplifier probe	Included
Wireless connection to controller device	WiFi, use almost any web browser
Enclosure	HPRC2300
String test time to complete	60 seconds
Report functions	Single PDF (CSV for String test)
Battery model	RCC-2054
Battery technology	Li-Ion, DC 15 V, 3200 mAh, 48.0 Wh
Operation time	8-10 hours