

Z300 PVT specification

Photovoltaic testing and troubleshooting kit

1500 V / 30A DC - super fast PV tester including fault finding and smart reports functionality.



1 Technical data and specifications

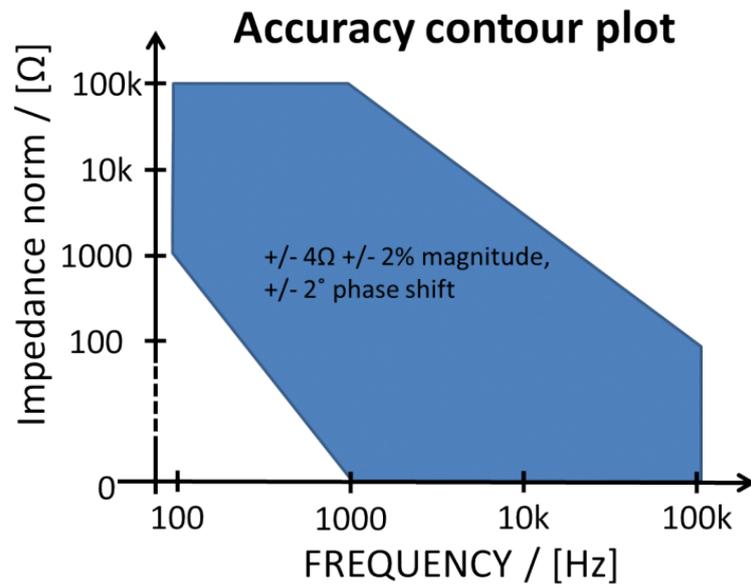


Figure 1: In this graph we see the impedance accuracy contour plot for the Z300 PVT

Mechanical	
Enclosure	HPRC 2300
External dimensions	external dimension 335x289x155(mm)
Connectors for DUT	3 x case-side mounted shrouded 4mm banana sockets. Rated: 1kV CAT III
Environmental	
Storage Temperature	-10° C to 55 °C (limited by battery)
Operating Temperature	0 °C to 35 °C (limited by battery)
Operating Altitude	up to 2000 meters
Battery	
Battery model	RCC2054
Technology	Li-Ion, DC 15 V, 3200 mAh, 48.0 Wh
Operating time	8-10 hours
Standby/Sleep time	max. 150 hours in sleep mode
Recharge time	

Measurement feature	Z300 PVT
Frequency coverage	100 Hz to 100 kHz
Frequency accuracy	+/- 2 %
Measurement feature	Z300 PVT
Frequency drift with temperature (° C to 35 ° C)	>0.1
Measurement of short circuit current I_{SC}	Z300 PVT
DC current range	0-30 A
Measurement of open circuit voltage V_{OC}	Z300 PVT
Analysis	Checks for correct polarity and voltage in-range.
Range	0-1500V
Measurement of resistance towards ground R_{ISO}	Z300 PVT
Range	0 Ω - 40 M Ω
Measurement time	about 20 sec.
Conditions	Irradiation > 100 $\frac{W}{m^2}$ and string V_{OC} > 100V
Precision (stable light conditions)	+/- 50 k Ω +/- 10%
Analysis	Above 40M Ω , R_{ISO} is returned as R_{ISO} > 40M Ω . Below 100k Ω , R_{ISO} is returned as R_{ISO} < 100k Ω
Detection and localization of ground isolation fault R_{ISO}	Z300 PVT
Threshold for localization of a ground fault	3 M Ω
Localization precision (stable light conditions)	+/- 0.5 PV module
Localization resolution	0.1 PV modules
Conditions	Irradiation > 100 $\frac{W}{m^2}$ String V_{OC} > 100V
Analysis	Fault indicated (with text in user interface) if R_{ISO} < 1 M Ω
Detection and localization of series resistance fault external to the PV modules	Z300 PVT
Localization of singular series fault > 10 k Ω e.g. disconnect	✓ (when external to module/solar cells)
Localization precision	+/- 1 PV module
Localization resolution	0.1 PV modules
Conditions	Irradiation > 100 $\frac{W}{m^2}$

1.1 Shipment information

H Shipment dimensions: (cm: 35 x 35 x 30)

Shipment weight: 7 kg

HS code: 9030.3100.