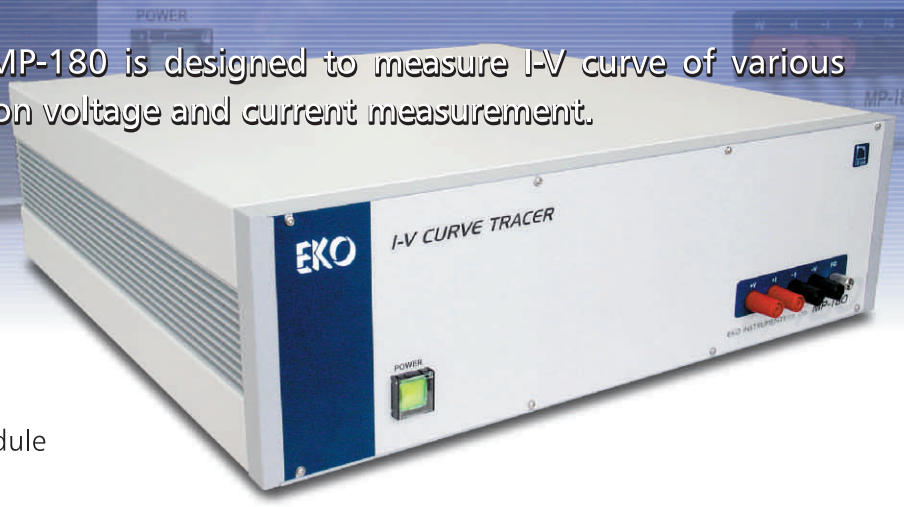
EKO INSTRUMENTS CO., LTD.

NEW

Precision I-V Curve Tracer

Photovoltaic Cell Tester

Precision I-V curve tracer MP-180 is designed to measure I-V curve of various solar cells with high precision voltage and current measurement.



Target PV cells are;

- Large size solar cell or sub-module
  c-Si cell or its sub-module,
  Thin-film sub-module
- Low current solar cell
  DSC (Dye-Sensitizedsolar Cell)
  OPV (Organic Photovoltaic) cells
  Experimental thin-film cell

I-V curve measurement of MP-180 with stepped reverse bias method gives accurate current measurement with low current measurement circuit. Bias step conditions can be set by user and it enables precise I-V curve measurement for various solar cells.

Rs(Series resistance) and Rsh(Shunt resistance) are calculated from tangent at Voc and Isc with one I-V curve. Rs calculation of multi I-V curve method can be used.

External trigger input/output are used for the starting I-V curve measurement in pulsed solar-simulator application, and used for shutter control of solar simulator.

Specifications

Voltage range	20V, 2V
Current range	20A, 2A, 200mA, 20mA, 2mA, 200μA, 20μA
Input voltage	1mV – 20V
Input current	10μA – 16A
Input power	100W max
Bias voltage	±20V@below 2A range, −2 – 20V@20A range
I-V points	20 – 4096 points
A/D sampling	21.333μs
Step duration	0.03 – 3000 ms
Sweep time	5 msec – 300 sec
Ref.cell input	10 μA – 200 mA
Pyranometer input	1 ch
Pt100 input	2 ch
Voltage input	1 ch
External trigger	Input : Start measurement
	Output : Shutter open/close
Interface	RS-232C, USB, LAN
I-V parameters	I-V and P-V curves, Voc, Isc, Pmax, Vpm, Ipm, FF, Eff(η), STC correction (IEC 60891 ed1, JIS C 8913), Rs, Rsh (tangent at Isc and Voc), Rs (IEC 60891 ed1, JIS C 8913, Multi I-V), Irradiance, Temperature
Power	AC100 – 240V, 50/60Hz, 125VA max.
Size	450x459x133mm
Weight	9kg

IQNet ISO9001 CERTIFIED ISO14001 CERTIFIED

EKO INSTRUMENTS CO., LTD.
1-6 Sasazuka Center Bldg., 2-chome Sasazuka,Shibuya-ku Tokyo 151-0073,Japan
PHONE: 81-3-5352-2913 FAX: 81-3-5352-2917
http://www.eko.co.jp E-mail: info@eko.co.jp

EKO-MP180-11-02E (0-000)