



Daystar DS-1000 Specifications



Doc Version 1200
Jan 2022

Raydec, Inc.
10255 Corona Ave. NE
Albuquerque, NM 87122

(505) 292-5002
info@raydec.com
www.raydec.com

Measurement Accuracy

PV Voltage Accuracy

Range	Error @ 25 C	Error 0-50 C	Resolution
1000 V	$\pm 0.4 \text{ V} (.4 \text{ V}) \pm 0.01\% (0.1\%)$	$\pm 0.4 \text{ V} (.4 \text{ V}) \pm 0.05\% (0.2\%)$	30 mV
100 V	$\pm 40 \text{ mV} (50 \text{ mV}) \pm 0.01\% (0.1\%)$	$\pm 40 \text{ mV} (80 \text{ mV}) \pm 0.05\% (0.2\%)$	3 mV
10 V	$\pm 4 \text{ mV} (17 \text{ mV}) \pm 0.01\% (0.1\%)$	$\pm 7 \text{ mV} (50 \text{ mV}) \pm 0.15\% (0.4\%)$	300 μV

PV Current Accuracy

Range	Error @ 25 C	Error 0-50 C	Resolution
100 A	$\pm 50 \text{ mA} (50 \text{ mA}) \pm 0.05\% (0.2\%)$	$\pm 50 \text{ mA} (50 \text{ mA}) \pm 0.1\% (0.2\%)$	3 mA
10 A	$\pm 5 \text{ mA} (5 \text{ mA}) \pm 0.05\% (0.2\%)$	$\pm 5 \text{ mA} (50 \text{ mA}) \pm 0.2\% (0.4\%)$	300 μA
1 A	$\pm 0.5 \text{ mA} (0.5 \text{ mA}) \pm 0.07\% (0.2\%)$	$\pm 0.5 \text{ mA} (0.5 \text{ mA}) \pm 0.35\% (0.9\%)$	30 μA

Irradiance and Aux Input Accuracy

Range	Error @ 25 C	Error 0-50 C	Resolution
5 V	$\pm 500 \text{ uV} (550 \text{ uV}) \pm 0.01\% (0.015\%)$	$\pm 500 \text{ uV} (800 \text{ uV}) \pm 0.05\% (0.1\%)$	150 μV
500 mV	$\pm 50 \text{ uV} (60 \text{ uV}) \pm 0.01\% (0.02\%)$	$\pm 50 \text{ uV} (120 \text{ uV}) \pm 0.05\% (0.1\%)$	15 μV
50 mV	$\pm 5 \text{ uV} (10 \text{ uV}) \pm 0.01\% (0.02\%)$	$\pm 5 \text{ uV} (70 \text{ uV}) \pm 0.05\% (0.1\%)$	1.5 μV
5 mV	$\pm 0.5 \text{ uV} (5 \text{ uV}) \pm 0.03\% (0.05\%)$	$\pm 1.1 \text{ uV} (60 \text{ uV}) \pm 0.05\% (0.1\%)$	0.15 μV

Temperature Accuracy

Error @ 25 C	Error 0-50 C
$\pm 1 \text{ C max}^*$	$\pm 2.5 \text{ C max}^*$

*Does not include error of attached thermocouple.

Accuracy = \pm typ. absolute error (max. abs. error) \pm typ. % of reading error (max. % error)

General Specifications

Power	85 Vac to 264 Vac 50/60 Hz
Battery	5 A-Hr, sealed lead acid (EnerSys #0809-0020)
Hours of Use	Up to 12 Hrs on full battery charge
Charge Time	Less than 8 hours
Size	46 cm x 36 cm x 20 cm (18" x 14" x 8")
Weight	14.4 kg (31.8 lbs)

END