

# HIOKI

1999

## 3245 SOLAR HiTESTER



Field measuring instruments

*Solar Charging DMM with  
Li-Ion and Backup Batteries  
New for the 21st Century!*  
3245 SOLAR HiTESTER



Actual Size



**New**

**Environmentally  
Friendly DMM**



**ISO14001**  
JQA-E-90091

The 3245 SOLAR HiTESTER digital multimeter was developed with an emphasis on ecological considerations and safe design.

The photovoltaic cell charges the lithium-ion main battery, which exhibits superb charging and discharging characteristics. Should the main battery charge become depleted, the hybrid power system automatically switches operation to the backup battery. Ecological considerations are satisfied without any of the typical inconveniences usually associated with solar-powered systems. Also, despite its vest-pocket size, the design conforms to CAT III safety standards for use on power lines. This new-style DMM has significant safety features and remarkably improved operability over previous designs.



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# Ecological and Safety Considerations

## Despite the compact size and low price, it satisfies CAT III safety standards



### Hybrid power system incorporates both a solar-charged main battery and a backup battery

The backup battery is used only when the main battery (charged by the solar cell) is discharged, until it is recharged by the solar cell and switched back into operation by the hybrid power system, resulting in both environmental friendliness and convenience.

### Vest-pocket sized CAT III conformance

Measuring only 60 (2.4") × 135 (5.3") × 23 (0.9") mm and weighing only 140 grams (4.9 oz), it fits easily in a pocket. Yet even at this size, the design satisfies CAT III safety standards for industrial power line measurements.



### Advanced functionality

Automatic power saving (after 30 minutes), auto and manual range selection and a display-hold function are included.

### Light meter function

An illumination level display of 1000 corresponds to about 50,000 lux, allowing approximate charging and usage time estimation.

### Neat test probe storage in the back of the unit

An improvement over former models, the test probe is separated for easier storage and removal from the rear door that opens 180°, minimizing projections around the storage area.



### Test probe attachment

The test probe can be attached to the unit for convenient two-handed measurements at the test site.



## 3245 Specifications

(accuracy at 23°C±5°C (73.4°F±9°F) and 80% rh or less)

Function	Range	Accuracy	Remarks
AC Voltage	4.200 V	±2.3%rdg. ±8dgt. (50 to 500 Hz)	(input impedance)
	42.00 V		11 MΩ±5%
	420.0 V		10 MΩ±5%
	600 V		10 MΩ±5%
DC Voltage	420.0 mV	±1.3%rdg. ±4dgt.	Above 100 MΩ
	4.200 V		11 MΩ±5%
	42.00 V		10 MΩ±5%
	420.0 V		10 MΩ±5%
	600 V		10 MΩ±5%
Resistance	420.0 Ω	±2.0%rdg. ±4dgt.	(open circuit voltage)
	4.200 kΩ		less than 3.4 V
	42.00 kΩ		about 0.7 V
	420.0 kΩ		about 0.5 V
	4.200 MΩ		about 0.5 V
	42.00 MΩ		about 0.5 V
Continuity	420.0 Ω	±2.0%rdg. ±4dgt.	open circuit voltage less than 3.4 V Threshold: < 50 ±30 Ω
Light meter	4200	-	"1000" equates to approx. 50,000 lx

Maximum input voltage: 600 Vrms AC/DC, or 3 × 10<sup>6</sup> V-Hz

●Measurement system: double integration ●AC measurement system: average value rectification ●Display: LCD with maximum 4199 counts ●Range selection: auto and manual ●Sampling rate: 2.5 samples/s ●Battery condition indicators: Main battery warning (battery icon lights - within guaranteed accuracy range); Backup battery warning (battery icon blinks - out of guaranteed accuracy range) ●Operating temperature and humidity range: 0 to 40 °C (32 to 104 °F) at 80% rh or less (non-condensation) ●Storage temperature and humidity range: -20 to 50 °C (-4 to 122 °F), 70% rh or less (non-condensating) ●Environmental condition: indoors, up to 2000 m altitude ●Temperature characteristic: (measurement accuracy) × 0.1 / °C (× 0.06 / °F) ●Noise elimination (50/60 Hz): NNMR; VDC 40 dB or better, CMRR; VDC 100 dB or better, VAC 60 dB or better ●Power supply: Lithium-ion main battery, and one CR2032 (3 V) backup battery ●Charging and operating time characteristics: charges in about 3 h with 50,000 lux, providing about 8h operation (measuring VDC) ●Backup battery life: 150 h (measuring VDC) ●Power consumption: 4.0 mVA (measuring VDC), 0.15 mVA (auto power save) ●Maximum rated power: 15 mVA (short-circuit continuity test) ●Insulation withstand voltage: 5550 Vrms AC sin (50/60 Hz, for 1 min.) between input terminals and case ●Dimensions and mass: 60 (2.4") W × 135 (5.3") H × 23 (0.9") D mm, 140 g (4.9 oz) ●Supplied accessories: carrying case (1) ●Safety standards: [Safety] EN61010-1:1993+A2:1995, EN61010-2-031:1994 pollution factor 2, overvoltage category (CAT) III (600V) (anticipated transient overvoltage 6 kV), [EMC]: EN61326-1:1997+A1:1998

## 3245 SOLAR HITESTER

(Test lead and carrying case included)

# HIOKI

HIOKI E. E. CORPORATION

HEAD OFFICE :

81 Koizumi, Ueda, Nagano, 386-1192, Japan  
TEL +81-268-28-0562 / FAX +81-268-28-0568  
E-mail: os-com@hioki.co.jp

HIOKI USA CORPORATION :

6 Corporate Drive, Cranbury, NJ 08512 USA  
TEL +1-609-409-9109 / FAX +1-609-409-9108

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