

# HIOKI

## 3245 SOLAR HiTESTER

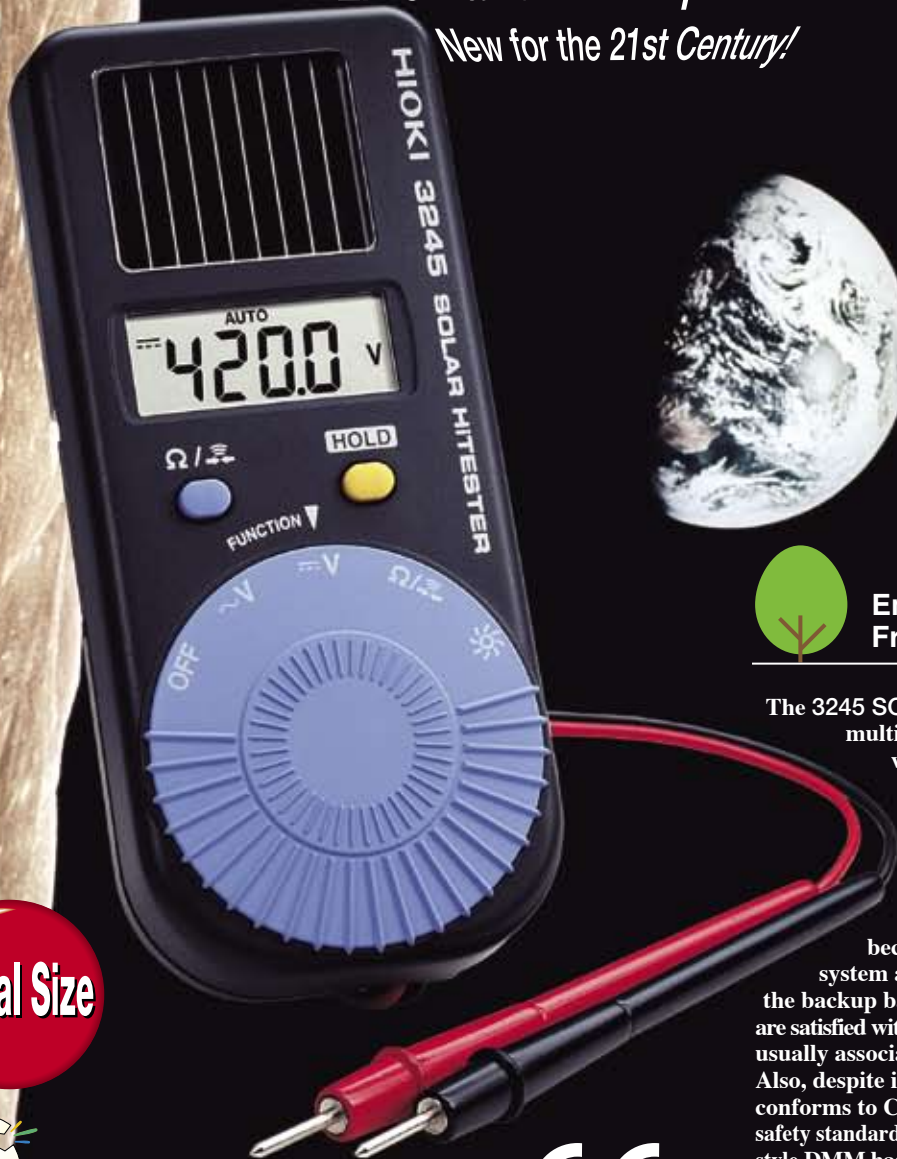
Field measuring instruments

# 3245 SOLAR HiTESTER

Solar Charging *DMM with*

*Li-Ion and Backup Batteries*

*New for the 21st Century!*



ISO14001  
JQA-E-90091



Environmentally  
Friendly DMM

Actual Size

The 3245 SOLAR HiTESTER digital multimeter has been 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. So 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(600V) and CAT IV(300V) 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 CATIII (600V) and CATIV (300V) 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 CATIII (600V) and CATIV (300V) conformance

Measuring only 60 (2.4") x 145 (5.7") x 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 (600V) and CAT IV (300V) 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.

### Illumination measurement function

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

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

As an improvement over former models, the test probe was separated for easier storage and removal from the rear door that opens 180°, minimized 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.<br>(50 to 500 Hz)  | (input impedance)<br>11 MΩ±5%<br>10 MΩ±5%<br>10 MΩ±5%<br>10 MΩ±5%                                     |
|              | 42.00 V  |   |   |
|              | 420.0 V  |   |   |
|              | 600 V    |   |   |
| DC Voltage   | 420.0 mV | ±1.3%rdg. ±4dgt.  | Above 100 MΩ<br>11 MΩ±5%<br>10 MΩ±5%<br>10 MΩ±5%<br>10 MΩ±5%  |
|              | 4.200 V  |   |   |
|              | 42.00 V  |   |   |
|              | 420.0 V  |   |   |
|              | 600 V    |   |   |
| Resistance   | 420.0 Ω  | ±2.0%rdg. ±4dgt.<br>±2.0%rdg. ±4dgt.<br>±2.0%rdg. ±4dgt.<br>±2.0%rdg. ±4dgt.<br>±5.0%rdg. ±4dgt.<br>±10.0%rdg. ±4dgt. | (open circuit voltage)<br>less than 3.4 V<br>about 0.7 V<br>about 0.5 V<br>about 0.5 V<br>about 0.5 V |
|              | 4.200 kΩ |   |   |
|              | 42.00 kΩ |   |   |
|              | 420.0 kΩ |   |   |
|              | 4.200 MΩ |   |   |
|              | 42.00 MΩ |   |   |
| Continuity   | 420.0 Ω  | ±2.0%rdg. ±4dgt.  | open circuit voltage less than 3.4 V<br>Threshold: < 50 ±30 Ω   |
| Illumination | 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-condensating) ● **Storage temperature and humidity range:** -20 to 50°C (-4 to 122°F) 70% rh or less (non-condensating)
- **Environmental condition:** indoors, up to 2000m 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 (3V) backup battery
- **Charging and operating time characteristics:** charges in about 3h with 50,000 lux, providing about 8h operation (measuring VDC)
- **Backup battery life:** 150h (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 (5.7") H × 23 (0.9") D mm, 140 g (4.9 oz)
- **Supplied accessories:** carrying case (1) ● **Safety standards:** [Safety]: EN61010-1:2001, EN61010-031:2002 pollution factor 2, Measurement category CATIII 600V, CATIV 300V (anticipated transient overvoltage 6 KV), [EMC]: EN61326:1997+A1:1998+A2:2001

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(Test lead and carrying case included)

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