

# HIOKI

2003



|   |   |                          |
|---|---|--------------------------|
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# FIELD MEASURING INSTRUMENTS



<http://www.hioki.co.jp>



ISO14001  
JQA-E-90091



ISO 9001  
JMI-0216

3280-10•3280-20 DIGITAL CLAMP ON HI TESTER

All In One (Durability, Versatility, Accuracy)



- Slim body design allows easy clamping even for narrow spaces
- Independent-opening double-lever design
- Eliminates magnetization-induced heat and noise, even in heavy-current measurement
- 3280-20 True RMS measurement



CE  
CAT III 600V (A range)  
CAT II 600V (V range)  
UL LISTED  
RMS  
3280-20 only

- AC A: -10; 42/420/1000A (50/60Hz;  $\pm 1.5\%$  rdg.  $\pm 5$  dgt.), -20; 42/420/1000A (45 to 66Hz;  $\pm 1.5\%$  rdg.  $\pm 5$  dgt., 40 to 45Hz or 66Hz to 1kHz;  $\pm 2.0\%$  rdg.  $\pm 5$  dgt.) ● DC V: 420m/4.2/42/420/600V ( $\pm 1.3\%$  rdg.  $\pm 4$  dgt.)
- AC V: 4.2/42/420/600V (50 to 500Hz,  $\pm 2.3\%$  rdg.  $\pm 8$  dgt.)
- $\Omega$ : 420/4.2k/42k/420k $\Omega$  ( $\pm 2.0\%$  rdg.  $\pm 4$  dgt.), 4.2M $\Omega$  ( $\pm 5.0\%$  rdg.  $\pm 4$  dgt.)
- Continuity: 420 $\Omega$  ( $\pm 2.0\%$  rdg.  $\pm 6$  dgt./Buzzer sounds at approx. 50 $\Omega$  or less)
- Max. core jaw dia.:  $\varnothing$  33mm ● Max. usable circuit voltage: 600Vrms
- Max. allowable current: 2000A AC rms cont.
- Overload protection: DCV/ACV 600V DC/AC rms;  $\Omega$ /continuity 250V DC/AC rms
- Power supply: CR2032(1), continuous use 150 hours [3280-10]/50 hours [3280-20]
- Accessories: 9208 TEST LEADS, 9398 CARRYING CASE
- OPTION: 9209 TEST LEADS HOLDER

3281•3282 DIGITAL CLAMP ON HI TESTER

Compatible with Distorted Waveforms



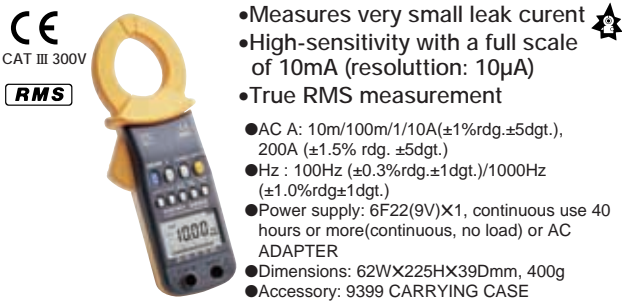
- Wave peak value, Waveform distortion check
- True RMS measurement



CE  
CAT IV 600V  
RMS

- AC A: 30/300/600A (3281), 30/300/1000A (3282) ( $\pm 1\%$  rdg.  $\pm 5$  dgt. 300/600, 1000A)
- AC V: 300/600V ( $\pm 1\%$  rdg.  $\pm 3$  dgt.)
- Hz: 100/1000Hz ( $\pm 1\%$  rdg.  $\pm 3$  dgt.)
- $\Omega$ : 1k/10k $\Omega$
- -50 to 150°C, -58 to 302°F (9462 temperature probe required)
- Continuity (buzzer sounds at approx. 30 $\Omega$  or less)
- Crest factor display for showing crest values or the state of distortion
- Power supply: 6F22(9V)X1, continuous use 50 hours max.
- Dimensions: [3281] 62WX218HX39Dmm, 350g, [3282] 62WX230HX39Dmm, 400g
- Accessories: 9207-01 TEST LEADS, 9399 CARRYING CASE

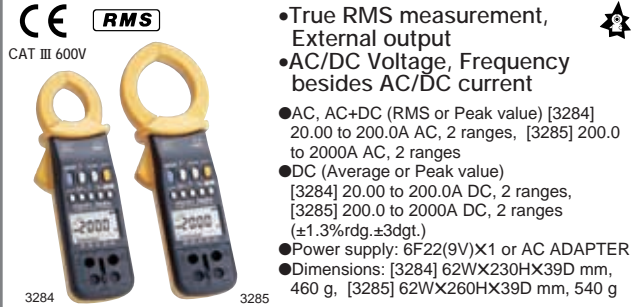
3283 CLAMP ON LEAK HI TESTER



- Measures very small leak current
  - High-sensitivity with a full scale of 10mA (resolution: 10 $\mu$ A)
  - True RMS measurement
- AC A: 10m/100m/1/10A ( $\pm 1\%$  rdg.  $\pm 5$  dgt.), 200A ( $\pm 1.5\%$  rdg.  $\pm 5$  dgt.)
  - Hz: 100Hz ( $\pm 0.3\%$  rdg.  $\pm 1$  dgt.)/1000Hz ( $\pm 1.0\%$  rdg.  $\pm 1$  dgt.)
  - Power supply: 6F22(9V)X1, continuous use 40 hours or more (continuous, no load) or AC ADAPTER
  - Dimensions: 62WX225HX39Dmm, 400g
  - Accessory: 9399 CARRYING CASE

CE  
CAT III 300V  
RMS

3284 • 3285 CLAMP ON AC/DC HI TESTER



- True RMS measurement, External output
- AC/DC Voltage, Frequency besides AC/DC current



CE  
CAT III 600V  
RMS

- AC, AC+DC (RMS or Peak value) [3284] 20.00 to 200.0A AC, 2 ranges, [3285] 200.0 to 2000A AC, 2 ranges
- DC (Average or Peak value) [3284] 20.00 to 200.0A DC, 2 ranges, [3285] 200.0 to 2000A DC, 2 ranges ( $\pm 1.3\%$  rdg.  $\pm 3$  dgt.)
- Power supply: 6F22(9V)X1 or AC ADAPTER
- Dimensions: [3284] 62WX230HX39D mm, 460 g, [3285] 62WX260HX39D mm, 540 g

3287•3288 CLAMP ON AC/DC HI TESTER

Compact AC/DC Clamp



- [3288 1000 A rms max. MEAN Value] & [3287 100 A max. True RMS]
- A slim core of only 10 mm, allows easy clamping even in crowded wiring
- Independent-opening double-lever design
- No metal (iron core) exposure, ensuring enhanced safety



CE  
CAT III 600V (A range)  
CAT II 600V (V range)  
RMS  
3287 only  
UL LISTED

- DC•AC A: [3288] 100/1000A, [3287] 10/100A (DC and 30 to 500Hz,  $\pm 1.5\%$  rdg.  $\pm 5$  dgt.)
- DC V: 420m/4.2/42/420/600V ( $\pm 1.3\%$  rdg.  $\pm 4$  dgt.)
- AC V: 4.2/42/420/600V (30 to 500Hz,  $\pm 2.3\%$  rdg.  $\pm 8$  dgt.)
- $\Omega$ : 420/4.2k/42k/420k/4.2M/42M $\Omega$  ( $\pm 2.0\%$  rdg.  $\pm 4$  dgt.)
- Continuity: 420 $\Omega$  ( $\pm 2.0\%$  rdg.  $\pm 6$  dgt./Buzzer sounds at approx. 50 $\Omega$  or less)
- Max. core jaw dia.:  $\varnothing$  35mm ● Max. usable circuit voltage: 600Vrms
- Crest factor (3287 only): 2.5 or less (150Amax. 1000Vmax.)
- Overload protection: DCV/ACV 600V DC/AC rms;  $\Omega$ /conductance 250V DC/AC rms
- Power supply: CR2032(1), continuous use 60 hours (3287: 25 hours) max.
- Accessories: 9208 TEST LEADS, 9398 CARRYING CASE

3286-20 CLAMP ON POWER HI TESTER

TRMS Clamp-On Power Meter



- Supports power checks for three-phase power lines
- True RMS measurement
- For harmonic suppression
- Data can be output to the optional printer or PC using an RS-232C interface.



New  
CE  
CAT III 600V  
RS-232C  
RMS

- AC A: 20/200/1000A ( $\pm 1.3\%$  rdg.  $\pm 3$  dgt.)
- AC V: 150/300/600V ( $\pm 1\%$  rdg.  $\pm 3$  dgt.)
- W: 3kW(1 $\phi$ ) to 1200kW(3 $\phi$ ) ( $\pm 2.3\%$  rdg.  $\pm 5$  dgt.)
- Hz: 100/1000Hz ● Max. core jaw dia.:  $\varnothing$  55mm, 80mm X 20mm busbar max.
- Other functions: power factor, reactivity, phase angle, frequency, phase detection (3-phase), voltage/current harmonic levels to 20th order
- Power supply: 6LR61(9V)X1 (continuous use 25 hours max.) 6F22(9V)X1 (continuous use 10 hours max)
- Dimensions: 100WX287HX39Dmm, 650g
- Accessories: 9635 VOLTAGE CORD, 9245 CARRYING CASE, HAND STRAP
- OPTIONS: 9635-01 VOLTAGE CORD, 9636-01 RS-232C PACKAGE, 9442 PRINTER, 9443 AC ADAPTER (For 9442 printer), 9636 RS-232C CABLE

## 3196 POWER QUALITY ANALYZER

Complete instrument for power quality troubleshooting

**New** CE **RMS** **RS-232C** STANDARD **LAN** CAT III 600V

9624 PQA-HiVIEW

Use with 9624 PQA-HiVIEW, for complete data management on a PC

Measurement is not possible with the 3196 alone. Order the 9660, 9661, 9667, 9669, 9694 CLAMP ON SENSOR or 9290 CLAMP ON ADAPTER required for measurement.

- Monitor and record the quality of power to analyze the cause of trouble when it occurs!
- Measure Dips, Swells, Flicker, Transients, Harmonic to the 50th order
- High frequency transient, detection and waveform display
- 4 current and 4 voltage channels
- Measurement functions:
  1. Transient voltage, Voltage swell, Voltage dip, Voltage interruption
  2. Frequency, Voltage, Current, Voltage/Current peak, Active/Reactive/Apparent power, Power factor
  3. Voltage unbalance ratio, Current unbalance ratio
  4. Harmonic voltage/current/power, Inter harmonic voltage/current, Harmonic voltage/current phase angle, Total harmonic/interharmonic distortion
  5. IEC flicker (Pst, Plt) /  $\Delta V_{10}$ (Japan)

## 3169-20/21 CLAMP ON POWER HiTESTER

Portable Power Measurement

**New** CE **RMS** **RS-232C** STANDARD CAT III 600V

Measurement is not possible with the 3169 alone. Order the 9660, 9661, 9667, 9669, 9694 CLAMP ON SENSOR or 9290 CLAMP ON ADAPTER required for measurement.

- Measurement function: Current, Voltage, Active power, Reactive power, Power factor, Apparent power, Frequency, Integrated power (with simultaneous integration of active/reactive/apparent power)
- Wide range of 0.5A to 1000A/75W (single phase two wire) to 9MW (three phase four wire)
- Power factor, integrated power measurements display polarity (±)
- Analytical software allowing the analysis of harmonics
- Data gathering by demand function
- Power supply: 100 to 240V AC
- Dimensions : 210Wx160HX60Dmm, 1.2kg
- Accessories: 9438-03 VOLTAGE CABLE SET, voltage cord, ground adapter, 9441 connection cable(for the 3169-21 only)
- OPTIONS:
  - 9660 CLAMP ON SENSOR (100A AC max.), 9661 CLAMP ON SENSOR(500A AC max.), 9667 FLEXIBLE CLAMP ON SENSOR (5000A AC max.), 9669 CLAMP ON SENSOR (1000A AC max.), 9694 CLAMP ON SENSOR (5A AC max.), 9440 CONNECTION CABLE(for external I/O), 9612 RS-232C CABLE, 9442 PRINTER, 9443 AC ADAPTER(for the 9442), 9721 RS-232C CABLE(for connection to the 9442), 1196 RECORDING PAPER, 9720 CARRYING CASE, 9625 POWER MEASUREMENT SUPPORT SOFTWARE, 9626/9627/9726/9727/9728 PC CARD(32/64/128/256/512M)

## 3290 CLAMP ON AC/DC HiTESTER

## 3127-10 • 3128-10 CLAMP ON HiTESTER

**New** CE CAT III 600V

- Switchable among three measurement response times
- Filters out unnecessary harmonics (fc=500Hz)

| Model | Measurable conductor diameter | Rated input | Measurement range on 3290 | Maximum display    |                  |
|-------|-------------------------------|-------------|---------------------------|--------------------|------------------|
|       |                               |             |                           | Normal measurement | Peak measurement |
| 9691  | ∅35mm                         | 100Arms     | 20.00A                    | 25.00A             | 50.0A            |
|       |                               | 150Apeak    | 200.0A                    | 105.0A             | 150.0A           |
| 9692  | ∅33mm                         | 200Arms     | 20.00A                    | 25.00A             | 50.0A            |
|       |                               | 300Apeak    | 200.0A                    | 210.0A             | 300.0A           |
| 9693  | ∅55mm                         | 2000Arms    | 200.0A                    | 250.0A             | 500A             |
|       |                               | 2840Apeak   | 2000A                     | 2100A              | 3000A            |

- AC/DC A: 20/200A(3290+9691, 3290+9692), 200/2000A(3290+9693)
- Hz: 10/100/1000Hz
- Power supply: Four type 3 alkaline dry cells (LR6) or AC adapter
- Dimensions: 155Wx98HX47Dmm, 545g
- Accessories: strap
- OPTIONS: 9691 CLAMP ON AC/DC SENSOR(100A), 9692 CLAMP ON AC/DC SENSOR(200A), 9693 CLAMP ON AC/DC SENSOR(2000A), 9445 AC ADAPTER, 9094 OUTPUT CORD, 9400 CARRYING CASE

3127-10 [3127-10] 78Wx190HX34Dmm, 340g  
3128-10 [3128-10] 99Wx237HX34Dmm, 570g

- AC A: [3127-10] 6/15/60/150/300A [3128-10] 15/60/150/600/1500A
- AC V: 150/300/750V DC V: 75V Accuracy: ±3% of f.s.(A, V)
- Ω: 1k/100kΩ (±3% of scale length)
- Temperature scale: -50 to 200°C
- Power supply: R6P(AA)X1
- Accessories: 9067 TEST LEADS, carrying case
- OPTIONS: 9021-01 THERMISTOR TEMPERATURE PROBE, 9131 CLAMP ON ADAPTER (for large AC current), CT101A LINE SPLITTER

## CLAMP ON SENSORS

CE CAT III 1000V

9667 FLEXIBLE CLAMP ON SENSOR (for 3196, 3169, 8800 MEMORY HiCORDER Series)  
Rated primary current: 500A/5000A AC(2range)  
500 mV AC range f.s. output  
∅254mm core jaw dia.

CE CAT III 600V

9668 CLAMP ON SENSOR (for 8205-10/8206-10)  
Rated current: Primary: 1000A AC  
Secondary: 1000 mA AC  
∅55mm core jaw dia. 80 × 20mm busbar

**New** CE CAT III 600V

9669 CLAMP ON SENSOR (for 3196, 3169, 8800 MEMORY HiCORDER Series)  
Rated primary current: 1000A AC  
500 mV AC range f.s. output  
∅55mm core jaw dia. 80 × 20mm busbar

## CLAMP ON PROBES and CLAMP ON ADAPTERS

CE

9010, 9010-02  
40Hz to 1kHz, 10A to 500A range  
200mV / range output  
∅46mm core jaw dia.

CE

9018  
40Hz to 3kHz, 10A to 500A range  
200mV / range output  
∅46mm core jaw dia.

9132

40Hz to 1kHz, 20A to 1000A range  
200mV / range output  
∅55mm core jaw dia.

9290

20Hz to 4kHz  
Up to 1500A, CT ratio 10:1  
80X20mm busbar

### 3237 • 3238 • 3239 DIGITAL HiTESTER

High-speed DMM (3.3ms/sample)



CAT II 600V  
CAT I 1000V  
Hi terminal

**GP-IB**  
3237-01  
3238-01  
3239-01

**RS-232C**  
STANDARD

- Samples at rates of up to 300 samples/sec. (3.3ms/sample)
- Minimizing tact time with sequence control at a truly affordable price(3237)
- High-accuracy, multi-functional models(3238 & 3239)



215WX80HX265D mm, 2.6kg

**Common features**

- LCD max.: 199999 ●Sampling rate: 300 samples/s, 8 to 9 samples/s, 1 samples/s
- Functions: Comparator, Average, Zero adjust, Trigger and the Save/Load functions
- Power supply: AC 100V/120V/220V/240V, 50/60Hz

**Features of the 3237**

- DCV: 200mV Ranges up to 1000V/±0.025%rdg.±2dgt./2V
- ACV: 2V Ranges up to 750V/±0.2%rdg.±100dgt./45 to 3kHz, True RMS
- Ω: 200Ω Ranges up to 100MΩ/±0.05%rdg.±2dgt./2k to 200kΩ

**Common Features of the 3238 and the 3239**

- DCV: 200mV Ranges up to 1000V/±0.01%rdg.±2dgt./2V
- ACV: 2V Ranges up to 750V/±0.1%rdg.±100dgt./45 to 10kHz, True RMS
- DC·ACA: 200mA and 2A/±0.1%rdg.±6dgt.(DC200mA) / ±0.3%rdg. ±100dgt.(AC200mA), True RMS
- Frequency: 100 Hz Ranges up to 300 kHz/±0.015%rdg.±2dgt./10 to 300kHz
- Ω: 200Ω Ranges up to 100MΩ/±0.02%rdg.±2dgt./2k to 200kΩ

**Feature of the the 3239**

- Ω (4-terminal measurement): 200Ω Ranges up to 2000MΩ/±0.02%rdg.±2dgt./2k to 200kΩ

### 3801 • 3802 DIGITAL HiTESTER

High-accuracy DMM with RS-232C Communication



CAT II 1000V  
CAT III 600V

**RMS**

**RS-232C**  
OPTIONS

**Abundant Measurement Functions**

In addition to basic functions such as measurement of DC and AC voltage and current, resistance, diode checking, and continuity checking, these handy DMMs can also measure frequency and capacitance.

**Common Features of the 3801 and 3802**

- DC-ACV: 40mV Ranges up to 1000V(AC:750V)/±0.06%rdg.±3dgt.(DC)/±0.7%rdg.±5dgt.(AC)
- DC-ACA: 400μA Ranges up to 10A/±0.2%rdg.±3dgt.(DC)/±1%rdg.±5dgt.(AC)
- Ω: 400Ω Ranges up to 40 MΩ/±0.2%rdg.±3dgt. ●C: 4nF Ranges up to 9999μF/±2%rdg.±4dgt.
- Continuity/diode check ●Hz: Measurement range: 10 Hz to 200 kHz/±0.02%rdg.±1dgt.
- Power supply: 6F22(9V)X1, continuous use 50 hours max.

**Additional Functions of the 3801**

- AC+DC measurement function ●Peak hold function ●LCD panel with backlight
- Hz (frequency): measurement range: 1Hz to 10MHz ●Duty: measurement range: 0.1% to 99.9%
- Pulse width: measurement range: 0.1ms to 1999ms ●dBm: measurement range: -80.79 to 81.48 dBm
- Pulse output: setting range: 0.5Hz to 4800Hz ●Timer output: setting range: 1s to 99.999s
- Temperature: meter measurement range: -40°C to 1372°C / probe (option)



3801

3802

90WX192HX37Dmm, 640g

### 3256-51 • 3257-51 DIGITAL HiTESTER

DMM with terminal shutter interlock mechanism



3256-51

**CE**  
CAT II 1000V  
CAT III 600V

- The terminal shutter interlock mechanism exposes only the correct terminals for connection in the currently selected function.
- High-speed response, bar graph display
- Conforms with IEC 1010
- 3256-50 (without holster)  
3256-51 (with holster)



3257-51

**CE**  
CAT III 1000V  
**RMS**

- True RMS measurement supports distorted waveforms
- Outstanding safety features, CE marking, 1000V Bussmann fuse, fail-safe shutter mechanism
- Enhanced functions, duty factor measurement and relative function
- 3257-50 (without holster)  
3257-51 (with holster)

- DC V: 420m/4.2/42/420/1000V( ±0.5%rdg.±2dgt.) ●AC V: 420m/ 4.2/42/420/1000V( ±1.2%rdg.±3dgt.) ●AC-DC A: 42μ/420μ/4200μ/42m/420m/10A (DC A: ±1.5%rdg.±4dgt. / AC A: ±2.5%rdg.±5dgt.) ●Ω: 420/4.2k/42k/420k/4.2M/42MΩ (±0.7%rdg.±2dgt.) ●Hz: 0.5Hz to 500kHz 5 ranges (±0.02%rdg.±1dgt.)
- Frequency characteristics: 50 to 500Hz (AC V, AC A) ●Continuity: 50Ω±30Ω ●Diode check: 3.4V open terminal voltage
- Power supply: R03(AAA)X2 dry batteries (Continuous use approx. 100hours) ●Dimensions: 76WX167HX33Dmm, 260g (without holster)
- Accessories: 9170 TEST LEADS, HOLSTER (3256-51, 3257-51), 9378 CARRYING CASE (3256-50, 3257-50)
- OPTIONS: 3853 CARRYING CASE (3256-51, 3257-51), 9014 30kV DC HIGH VOLTAGE PROBE

### 3803 • 3804 • 3805 DIGITAL HiTESTER

Compact and basic DMM with RS-232C Communication



CAT II 1000V  
CAT III 600V

**RS-232C**  
OPTIONS

**RMS**  
3805 only

**The economically priced 3803**

- 4000 count display full scale
- The versatile 3804 adds recording and capacitance.

The 3805 features true RMS measurement, providing greater utility for facility maintenance

- 9999 count display full scale for voltage range
- Easy harmonic distortion check function (3805)

**Common Features of the 3803**

- DC-AC V: 400mV Ranges up to 1000V ●DC-AC A: 400μA Ranges up to 10A
- Ω: 400Ω Ranges up to 40MΩ ●Continuity/diode check
- Power supply: 6F22(9V)X1, continuous use 200 hours

**Common Features of the 3804 and 3805**

- DC-ACV: 1V Ranges up to 1000V ●DC · ACA: 400μA Ranges up to 10A
- Ω: 400Ω Ranges up to 40MΩ ●C: 4μF Ranges up to 9999μF
- Continuity/diode check ●Power supply: 6F22(9V)X1, continuous use 100 hours



3803

3805

3804

76WX167HX33Dmm, 400g

## 3246 PENCIL HiTESTER

Smart Design and Ease of Use

**New**

CE  
CAT III 600V



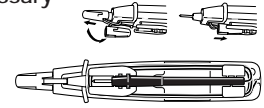
Penlight



Backlight LCD



- Pocket-size Pencil DMM
- Backlight LCD is highly visible, even in dark locations
- Penlight brightly illuminates test points
- 600V circuit protection makes fuses unnecessary
- Comes with protective probe tip cap
- Test lead fits neatly into back of instrument



- DC V: 420 m / 4.2 / 42 / 420 / 600 V (± 1.3 %rdg. ± 4 dgt.)
- AC V: 4.2 / 42 / 420 / 600 V (± 2.3 %rdg. ± 8 dgt.)
- Ω: 420 / 4.2k / 42k / 420k / 4.2M / 42MΩ (± 2.0 %rdg. ± 4dgt.)
- Measurement system: average value rectification
- Display: Max. 4199-count LCD
- Range switching: automatic or manual
- Ancillary functions: data hold function, auto power save function, battery life warning function, penlight, backlight LCD
- Sampling rate: 2.5 times/sec
- Overload protection: 600 Vrms (sin) or 3 X 10<sup>6</sup> VHz for all functions
- Applicable standards: Safety - EN61010 CAT III 600 V, EMC - EN61326
- Ambient temperature of use: 0 to 40°C (32°F to 104°F), 80 %rh (no condensation)
- Storage temperature range: -20 to 60°C (-4°F to 140°F), (no condensation)
- Power supply: CR2032 battery X 1 (3V DC)
- Continuous operating time: approx. 150 h (During DC voltage measurement), approx. 30 h (During DC voltage measurement, assuming 10 sec illumination alternating with 20 sec dark)
- Dimensions: 30 W X 182 H X 26.5 Dmm, 80 g
- Accessory: strap
- OPTIONS: 9081 10 A SHUNT(output: 100 mV/10 A)

## 3244 CARD HiTESTER

CE  
CAT II 500V



### CE Mark Compliant Card-size DMM

- Only 9.5mm thick and 60g in weight
- Wide range, maximum reading 4199 digit
- Full auto ranging
- Auto power save function

- DC V: 420m/4.2/42/420/500V (±0.7% rdg. ±4 dgt./4.2V)
- AC V: 4.2/42/420/500V (±2.3% rdg. ±8 dgt.)
- Ω: 420/4.2k/42k/420k/4.2M/42MΩ(±2.0% rdg. ±4 dgt./420 to 420kΩ)
- Power supply: CR2032(1), continuous use 150 hours
- Dimensions: 55W X 109H X 9.5Dmm, 60g
- Accessory: CARRYING CASE

## 3255-50 DIGITAL HiTESTER

**New**  
CE  
CAT III 600V



### Can be used on industrial power lines

- Built-in current limiter and fuse capable of withstanding 600V to prevent short-circuit accidents
- Dust-proof, water-proof construction

- AC - DC V: 419.9m/4.19/41.9/419/600V
- Ω: 420 to 42MΩ
- Display: 4199
- Power supply: R03(AAA)X2, LR03X2
- Dimensions: 70W X 145H X 31Dmm, 200g
- Accessory: 9207-10 TEST LEADS, 9371 CARRYING CASE
- OPTIONS: 9010 CLAMP ON PROBE(AC 500 A)  
9018 CLAMP ON PROBE(AC 500 A), 9132 CLAMP ON PROBE(AC 1000 A)

## 3243 DIGITAL HiTESTER

CE  
CAT III 500V



### CE Mark Compliant Pocket-size DMM

- Automatic AC/DC discrimination function

- AC - DC V: 320m(DC)/3.2/32/320/450V
- Ω: 320/3.2k/32k/320k/3200k/32MΩ
- Hz: 3.2k/32k/320kHz
- Power supply: LR44X2
- Dimensions: 68W X 120H X 19Dmm, 100g

## 3030-10 HiTESTER (20kΩ/V)

CE  
CAT III 600V



### Basic tester with improved safety features

- Over voltage protection up to 250V
- Drop-proof construction

- DC V: 0.3/3/12/30/120/300/600V
- DC A: (60μA)/ 30/300mA
- AC V: 12/30/120/300/600V
- Resistance: 3k/30k/300k/3MΩ
- Temperature: -50 to 150°C
- Power supply: R6P(AA)X2
- Dimensions: 95W X 141H X 39Dmm, 280g

## 3245 SOLAR HiTESTER

CE  
CAT III 600V



### Environmentally-friendly DMM

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

- DC V: 420m/4.2/42/420/600V(±1.3%rdg.±4dgt.)
- AC V: 4.2/42/420/600V (±2.3%rdg.±8dgt. /50 to 500Hz)
- Ω: 420/4.2k/42k/420k/4.2M/42MΩ (±2%rdg.±4dgt. /420 to 420kΩ)
- Power supply: Lithium-ion main battery, and CR 2032(3V) backup battery(1)
- Dimensions: 60W X 135H X 23Dmm, 140g
- Accessory: carrying case

## 3008 HiTESTER (20kΩ/V)



### High safety standard for electrical equipment inspection (for maintenance)

- Drop proof

- DC V: 6/30/60/300/600V
- AC V: 6/30/150/300/600V
- Ω: 10k/100k/1MΩ
- Power supply: R6P(AA)X2
- Dimensions: 94W X 134H X 56Dmm, 350g

### 3660 LAN CABLE HiTESTER



- Measure Wire map, Cable length and Direction
- Measurable cable: UTP cable; Characteristic impedance 100Ω, CAT 3,4,5,5e
- Power supply: LR6(AA)X6
- Dimensions: 98WX160HX38Dmm, 290g

### 3661 OPTICAL POWER METER · 3662/63 LASER LIGHT SOURCE



#### Features of the 3661

- Measurement functions: Optical power measurement(dBm), Optical loss measurement(dB)
- Calibration wavelength: 850 nm, 1310 nm, 1550 nm
- Power supply: LR6(AA)X4
- Dimensions: 85WX192HX35Dmm, 300g

#### Common Features of the 3662 and the 3663

- Light-emitting element: Semiconductor laser diode
- Output connector: FC, SC(using optional connector adapter)
- Fiber type: Single mode
- Output wavelength: 1310 ±20 nm(3663), 1550 ±20 nm(3662)
- Power supply: LR6(AA)X2
- Dimensions: 76WX159HX35Dmm, 180g

### 3454-11 DIGITAL MΩ HiTESTER



#### Functions

- Insulation and low resistance mode-comparator
- Measurement value hold
- Insulation resistance mode-auto discharge
- Insulation and AC voltage mode-live wire warning (when voltage of 70V±10V exists across measurement terminals)
- Low resistance mode-zero adjust
- All measurement mode-battery indicators
- Auto power save

- Power supply: R6P(AA)X4 or LR6(AA)X4
- Dimensions: 176WX148HX56Dmm, 530g
- Accessories: 9294 TEST PROBE, Strap band
- OPTIONS: \*9288 BREAKER PIN, \*9289 TEST PROBES, 9257 CONNECTION CORD \*No CE marking

### 3453 DIGITAL MΩ HiTESTER



- Four ranges within one body, 125V/40MΩ, 250V/2000MΩ, 500V/2000MΩ, and 1000V/4000MΩ
- Recognizes variations of resistance
- Ability to measure AC voltage and low resistance (continuity), comparator, memory (20 data)
- Power supply: R6P(AA)X4 or LR6(AA)X4
- Dimensions: 155WX98HX80Dmm, 500g
- Accessories: 9294 TEST PROBE, display cover and suspension band

- OPTIONS: 9185 TEST LEAD, 9288 BREAKER PIN, 9257 CONNECTION LEAD

### 3451 · 3452 MΩ HiTESTER



- Luminous scales for easy use in dark locations
- Power supply : R6P(AA)X4
- Dimensions : 152WX95HX47Dmm, 420g
- Accessories : 9292 TEST PROBES, 9384 CARRYING CASE

- 3451-11 (125V/20MΩ)
- 3451-12 (250V/50MΩ)
- 3451-13 (500V/100MΩ)
- 3451-14 (500V/1000MΩ)
- 3451-15 (1000V/2000MΩ)
- 3452-11 (25V/10M, 50V/10M, 100V/20MΩ)
- 3452-12 (125V/20M, 250V/50M, 500V/100MΩ)
- 3452-13 (250V/50M, 500V/100M, 1000V/2000MΩ)

### 3403 · 3404 TACHO HiTESTER



- Auto ranging from 30 to 100,000 r/min

- Measurement range: at SLOW sampling: 30 to 99990 r/min, 0.5 to 1600r/s, ±1dgt.(typ.) / at FAST sampling (3404 only): 120 to 99900 r/min, 2 to 1600r/s, ±20dgt.(typ.)
- TOTAL mode (3404 only) : 0 to 599999
- PERIOD mode (3404 only) : 600μs to 2s ±1dgt.(typ.)
- Power supply: R6P(AA)X4 or AC ADAPTER (6V, 300mA)
- Dimensions: 62WX180HX38Dmm, 260g (3404: 260g)

### 3423 LUX HiTESTER *Maximum Scale of 199,900lx*



- Measurement ranges : 20/200/2000/ 20000/200000lx
- Accuracy : ±4%rdg.±1dgt.
- Analog output : 200mV DC of f.s. ±2.5% of f.s.
- Power supply : R6P(AA)X2, continuous use : Approx. 25 hours or AC adapter (6V, 300mA)
- Dimensions : 74WX170HX30D mm, 310g
- Accessories : sensor cap, 9376 CARRYING CASE

### 3126-01 PHASE DETECTOR



- Dependable and Compact

- Voltage range: 110V to 480V
- Time limit: 110V/continuous, 220V/30min., 480V/4min.
- Frequency: 40 to 70Hz
- Cord length: 1.2m
- Dimensions: 70WX96HX54Dmm, 280g
- Accessory : soft case

### 3143 EARTH HiTESTER *No Auxiliary Grounding rods required*



- Measurement ranges: 20 to 49.9Ω (±10% rdg.), 50 to 500Ω. (±5% rdg.) voltage comparison method
- Open terminal voltage: 1V AC peak typ.
- Measurement current: 3.6mA AC max.
- Measurement frequency: 100kHz to 1.5MHz
- Power supply: LR6(AA)X4
- Dimensions: 155WX98HX49Dmm, 380g
- Accessory: 9265 MEASURING CABLE

### 3151 EARTH HiTESTER



- Measurement ranges: 10Ω(0 to 11.5Ω), 100Ω(0 to 115Ω), 1000Ω( 0 to 1150Ω), 3 ranges(±2.5% of f.s.), 30V(0 to 30VAC ±3% of f.s.) \*Using two-wire measurement method; applied to 100Ω /1000Ω range only
- Measurement current : 15mA AC max.
- Measurement frequency : 575Hz or 600Hz selectable
- Power supply: R6P(AA)X6 or LR6(AA)X6
- Dimensions: 164WX119HX88Dmm, 800g
- Accessories: 9214 AUXILIARY EARTHING ROD, 9215 MEASURING CABLE(one earth; black 5m, yellow 10m, red 20m), 9216 CABLE WINDER, 9393 CARRYING CASE
- OPTION: 9050 EARTH NETS (set of two)

## 3446-01•3447-01 TEMPERATURE HITESTER



3446-01:1ch 3447-01:2ch, Waterproof type

- Select from two memory modes, manual/interval recording
- Measurement range: -100 to 1000 °C K 1ch (3446-01), -100.0 to 300.0 °C Pt 100 2ch (3447-01)
- Resolution:3446-01; 0.1 °C (-100.0 to 300.0 °C) / 1 °C (-100 to 1000 °C), 3447-01; 0.1 °C
- Accuracy: ±0.1%rdg.±0.5 °C (0.1 °C resolution) (3446-01), ±0.1%rdg.±0.4 °C (3447-01)
- Functions: Clock , Display (Recording / Hold / Buzzer / Auto Power Save function ON/etc.), Comparator, Data back-up, RS-232C Interface
- Power supply: Four alkaline (LR03) batteries
- OPTIONS
- SHEATH TYPE TEMPERATURE PROBES: 9472-50,9478,9479 (up to 300 °C),9473-50 (up to 800 °C)
- SURFACE TYPE TEMPERATURE PROBE: 9476-50 (up to 500 °C)
- 9674 RS-232C PACKAGE (with PC Software), 9386-01 CARRYING CASE ,
- 9670 PRINTER (with 1 roll of Recording Paper),
- 9671 AC ADAPTOR for 9670,
- 9237 RECORDING PAPER (for 9670, 80mm)

## 3441•3442 TEMPERATURE HITESTER



3441

3442: Waterproof type

- Measurement range: -100°C to 1300°C K
- Resolution: 0.1°C(-100 to 199.9°C) 1°C(200 to 1300°C)
- Accuracy(23°C±5°C): ±0.1%rdg.±0.8°C(-100 to 200°C) ±0.2%rdg.±1°C(200 to 1300°C)
- OPTIONS
- SHEATH TYPE TEMPERATURE PROBES : 9180,9182,9183(up to 750°C) (Waterproof Probes): 9472,9474(up to 300°C),9473(up to 800°C)9475(up to 500°C)
- SURFACE TYPE TEMPERATURE PROBE : 9181(up to 400°C),9476(up to 500°C)

Also available with C/F display

## 8420/21/22-01 MEMORY HILOGGER



- 8420-01(8ch), 8421-01(16ch), 8422-01(32ch) All analog channels isolated
- Temperature (Thermocouples, Pt 100), voltage, humidity, cumulative pulses, rotations
- Functions: Waveform compression and magnification, Event search, Waveform scroll, cursor measurement, scaling, automatic save, start condition retention, setting save, comment entry, automatic set up, numerical calculation

## 3630 LOGGER series

Temperature/Humidity/Instrumentation/Voltage/Current



**3641-20**  
-40.0°C to 85.0°C  
0.0 to 100.0% rh  
(using the 9680 sensor)



**3632-20**  
-20.0°C to 70.0°C  
(internal sensor only)  
Waterproof construction



**3633-20**  
-40.0°C to 180.0°C  
(external/internal sensor)



**3634-20**  
0 to 20.00mA DC



**3635-24,-25,-26**  
-24: ±500.0mV DC  
-25: ±5.000V DC  
-26: ±50.00V DC



**3636-20**  
0 to 50.00/500.0A AC  
2ch AC current measurement with optional clamp sensor



**3637-20**  
0 to 600.0V AC  
1ch AC voltage measurement



**3638-20**  
AC Leak Current (2ch) with optional clamp-on leak sensor



**3639-20**  
Pulse Totalizer (1ch)  
9,999count/interval



**3640-20**  
Illumination (1ch)  
2000/20000/200000 lx



**3645-20**  
Multi-range Voltage logger with preheat signal function



- Up to 16,000 or 32,000 measurement data can be collected with the optional 3911-20/3912-20 for processing by PC
- Several types available for a wide variety of applications
- Special software bundled with the 3911-20/3912-20 enables storing of the recording time, interval, start, end, method and comments in the instruments memory
- Non-volatile memory preserves collected data even when the battery is depleted
- Power supply: [3631-20 to 3645-20] LR03(AAA)X2 or 4, [3911-20] LR03(AAA)X4, [3912-20] LR03(AAA)X4

## 3415-01•3416-01•3418 TEMPERATURE HITESTER

Non-contact, Quick and Easy Temperature Management & RS-232C Communication (3443, 3444, 3445 only)



3415-01 3416-01 3418

- Measurement ranges: -50°C to 500°C, 1°C resolution
- Measurement field diameter: ø72mm at a distance of 1 meter (3415-01,3418), ø2.5mm at a distance of 30 mm (3416-01)
- Accuracy : ±1% rdg. (at 201 to 500°C), ±2°C(at 0 to 200°C)
- Response time : 1.5 seconds
- Power supply : R03(AAA)X4
- Dimensions : 40WX170HX36Dmm, 140g

## 3443•3444•3445 TEMPERATURE HITESTER



3443 with memory 3444 with real-time output 3445

- Measurement ranges : -50°C to 500°C, 0.1°C resolution
- Measurement field diameter: [3443, 3444] ø24 mm at a distance of 1 m, [3445] ø2.5mm at a distance of 70mm
- Accuracy : ±1% rdg. (at 200 to 500°C), ±2°C(at 0 to 200°C)
- Response time : 1.6 seconds
- Power supply : 6F22(9V)X1, or AC adapter
- Dimensions: 47WX200HX48Dmm, 280g

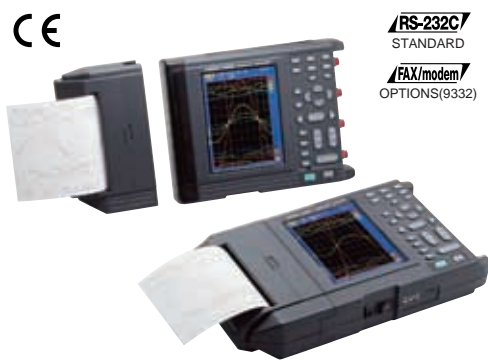
**3550 • 3551 • 3555 BATTERY HiTESTER** *Instantaneous determination of battery deterioration*



Get instantaneous results on the state of a battery, on a three-rank scale of Pass, Warning, or Fail, using a composite decision based on the internal resistance and the voltage. Select Model 3550 for medium-capacity alkali and lead-acid storage batteries, Model 3555 for compact storage batteries, and Model 3551 for high-capacity alkali and lead-acid storage batteries.

- Resistance measurement: [3550] 30mΩ to 3Ω, 3 ranges, 10μΩ resolution max.  
[3551] 3mΩ to 300mΩ, 3 ranges, 1μΩ resolution max.  
[3555] 300mΩ to 30Ω, 3 ranges, 100μΩ resolution max.
- Voltage Measurement: 3 or 30V DC, 2 ranges, 1mV resolution max.
- Power supply: LR6(AA)X6 or (9418-15 AC ADAPTER/ 3551 only)
- Dimensions: 196WX130HX50Dmm, 710g(3550), 680g(3555)  
196WX130HX65Dmm, 860g(3551)
- Accessories: [3550] 9460 CLIP-TYPE LEAD WITH TEMPERATURE SENSOR, 9382 CARRYING CASE, [3551] 9465 PIN-TYPE LEAD, 9466 REMOTE CONTROL SWITCH, 9377 CARRYING CASE, [3555] 9461 PIN-TYPE LEAD

**8807-01 • 8808-01 • 8807-51 • 8808-51 MEMORY HiORDER** *B5-sized handy high-speed recorders*



- Models 8807-51/8808-51 MEMORY HiORDERs with harmonic analysis function
- New concept incorporating detachable printer, B5-sized handy recorder
- Compact and thin body weighing in at under 1.2kg
- 5.7-inch STN color LCD display
- Measurement ranges: 10mV to 100V /division, 13 ranges(10 division f.s.) Resolution: 1/160 of range
- Frequency band: DC to 50 kHz, ±3dB
- Time axis at memory function: 200μs to 5 minutes/division, 19 ranges (1 division = 80 samples)
- Functions: Memory recorder, Recorder, RMS & memory recorder (50/60 Hz or DC only)
- Number of input channels: 8807-01/-51 2 analog channels +8 logic / 8808-01/-51 4 analog channels +8 logic
- Memory capacity: Total 256k words Data storage: PCMCIA Type-II flash ATA card
- Interfaces: RS-232C, Printer(8992 PRINTER UNIT can be connected)
- Power supply: 9418-15 AC ADAPTER, LR6(AA)X6 (Continuous use 1 hour without Printer), 9447 BATTERY PACK
- Dimensions: 203WX170HX52Dmm, 8807-01/-51: 1.1kg 8808-01/-51: 1.2kg (printer detached)

**8205-10 • 8206-10 MICRO HiORDER** *Easy data recording as convenient as a simple tester*



- Direct Measurement of Current up to 1000A (using optional 9668)
- Record voltage and current variations simply (Clamp-on sensor is optional)
- Paper feed speed: [8205-10] 20 cm/minute to 2 cm/hour, 5 ranges,  
[8206-10] 60 cm/hour to 2 cm/hour, 5 ranges
- No. of channels: [8205-10] Voltage or Current 1 ch,  
[8206-10] Voltage and Current 2 ch alternate recording
- Measurement ranges(1-2-5 steps):  
[8205-10] AC A; 10 to 1000A f.s. 7 ranges (using optional 9668)(±6.03% f.s.)  
AC/DC V: 0.1 to 500V f.s. 12 ranges  
[8206-10] AC A; 10 to 1000A f.s. 7 ranges (using optional 9668)(±6.03% f.s. reference value) AC V: 100/200/500 V f.s. 3 ranges
- Power supply: 100 to 240V AC (50/60Hz) or 9.5 to 14V DC, 2 way
- Dimensions: 250WX122HX94Dmm, 1.2kg
- OPTIONS: 9650 CLAMP ON SENSOR, 9651 CLAMP ON SENSOR, 9235 RECORDING PAPER, 9236-01 RECORDING PAPER (Climate resistant), 9668 CLAMP ON SENSOR

■ HIOKI products labeled with the CE marking are designed for fulfillment of these over-voltage category requirements. In order to ensure safe use of this instrument, please use a device showing the CAT marking that is appropriate for the place of use.



In some cases, power lines may carry voltage spikes of several times the normal supply voltage. For reasons of safety, ordinary testers should not be used to measure power lines carrying more than 250V. When measuring such power lines, always use a tester with built-in overcurrent protection to guard against short circuits, such as Model 3008 and a device showing the CAT III marking.

Note: The term "power line" refers to the entire electrical circuit providing power to factories, buildings and industrial machines. However, it does not include electrical circuits in ordinary dwellings. (lines protected by fuses or circuit breakers).



1. To avoid short circuits and electric shock accidents when using a clamp-on sensor, use only with power lines carrying voltages within the rating limit of the sensor.
2. To avoid short circuits and electric shock accidents when the clamp-on sensor is open, do not use on bare conductors.



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