

HIOKI

2007 - 2008

Field Measuring Instruments



ISO 9001
JMI-0216



ISO14001
JQA-E-90091



www.hioki.com

HIOKI company overview, new products, environmental considerations and other information are available on our website.

DROP PROOF

3280-10 AC



DROP PROOF

3280-20 AC True RMS



Ultra-thin 10mm clamp and compact body lets you get into even the narrowest of spaces

No metal exposure to ensure safety

Only 100 grams light

- ▶ 42 to 1000 AC A
- ▶ 4.2 to 600 AC V
- ▶ 420m to 600 DC V
- ▶ Continuity and Resistance



3287 AC/DC True RMS



Ultra-thin 10mm clamp

Advanced core technology eliminates magnetization-induced heat and noise, even in heavy-current

Single-handed switching

- ▶ 10 to 100 AC A and DC A (3287)
- ▶ 100 to 1000 AC A and DC A (3288)
- ▶ 4.2 to 600 AC V
- ▶ 420m to 600 DCV
- ▶ Continuity and Resistance



3288 AC/DC



3291

AC True RMS

FLiP
CLAMP

3293

AC True RMS + LEAKAGE

Resolution down to 10uA



Simply grip handles to power on

9mm thin clamp lets you get around the narrowest of spaces



Flip cover to read display from any angle



Super strong hinge resists tough handling

- ▶ Innovative Flip Design
- ▶ View readings from any angle
- ▶ 6 to 1000A (3291)
- ▶ 30m to 1000A (3293)

3282

AC True RMS

Highly sensitive core provides up to 10uA of resolution

- ▶ 10m to 200A
- ▶ Frequency
- ▶ Bar Graph

3281

AC True RMS

Tough and durable body built for long use



CATIV 600V/
CATIII 1000V Safe

Peak Hold

3283

AC True RMS + LEAKAGE

Wide 10mA to 200A range for leakage testing



Analog Output of data and waveforms

- ▶ 30 to 1000 AC A (3282)
- ▶ 30 to 600 AC A (3281)
- ▶ 300 to 600 AC V
- ▶ Resistance and Frequency
- ▶ Continuity and Temperature

3284

AC/DC True RMS



Inrush Current
Crest Factor

AC, DC, AC+DC

Analog Output

- ▶ 20 to 200 AC A/20 to 2000 DC A (3284)
- ▶ 200 to 2000 AC A/200 to 2000 DC A (3285 & 3285-20)
- ▶ 30 to 600 AC V
- ▶ 30 to 600 DC V
- ▶ Frequency
- ▶ Max/Min/Avg/RMS modes



3285

AC/DC True RMS



3285-20

AC/DC True RMS



Economical version
of the 3285 with
resistance range

3286-20

AC True RMS + Power



Handheld
Power Meter

High
Performance
for Single-
phase to
balanced
3-Phase
circuits

Check for
harmonic
suppression and
level, power factor,
and much more

- ▶ 20 to 1000 AC A
- ▶ 150 to 600 AC V
- ▶ 3kW to 1200kW
- ▶ Frequency
- ▶ Reactivity, phase angle



RS-232C Output

3127-10

DROP
PROOF



3128-10



Tough & durable
analog clamps for a
quick assessment
voltage and current

- ▶ 6 to 300 AC A (3127-10)
- ▶ 15 to 1500 AC A (3128-10)
- ▶ 150 to 750 AC V and 75 DC V (No CE)



3197

Power Quality Analyzer

4MB of Internal Memory

USB interface for PC Networking

Large, Brilliant LCD Screen lets you view Event list and Waveforms in a Single Window



- ▶ 1P2W to 3P4W
- ▶ Monitor Inrush current, Voltage swell, Voltage dips, Transient over-voltage, Interruptions
- ▶ Measure and record Power and Power factor, Active/Reactive energy, Demand, Load changes (with graph display), Voltage and current
- ▶ Optional software



13MB of Internal Memory

3196

Power Quality Analyzer

RS-232C and LAN interfaces

Store more data in PC Card

- ▶ 1P2W to 3P4W
- ▶ 400Hz Measurement
- ▶ GPS Clock Synchronization
- ▶ Power factor, sags, swells, flicker, transients
- ▶ Harmonics to the 50th
- ▶ Accurate High Speed Transient at 2MHz sampling
- ▶ Detection and waveform display
- ▶ Four current and Four voltage channels
- ▶ Optional software



3290/3290-10

AC/DC True RMS

3169-20/-21

True RMS Power Meter

Detachable clamp measurement system ideal for hard to reach places

RS-232C Interface

PC Card slot

Switch between 3 advanced clamp sensors

Up to 100 meter cable length available

Record from a minimum of 1 cycle up to 60 minute intervals

- ▶ Super wide range according to clamp sensor
- ▶ 20 to 2000 AC and DC A, up to 3000A Peak
- ▶ Harmonics filter
- ▶ Monitor and record demand and inrush current
- ▶ Output effective value, frequency & waveforms
- 3290-10:**
- ▶ Record integrated current, max/min/avg & duty
- ▶ Operating time/duty measurement

- ▶ 3P4W from 0.5A up to 1000A, and 75W to 9MW
- ▶ Power factor, integrated power, harmonics, demand
- ▶ Active power, reactive power, apparent power, frequency
- ▶ Optional advanced PC software
- ▶ 3169-21 with D/A output



	AC					AC Leak
	3291	3280-10	3280-20	3281	3282	3293
Rectification Method	TRMS	Mean	TRMS	TRMS	TRMS	TRMS
AC Current	60.00/600.0/ 1000A	42.00/420.0/ 1000 A	42.00/420.0/ 1000 A	30/300/600A	30/300/1000A	30.00m/300.0m/6.000/ 60.00/600.0/1000A
Best Accuracy	±1.5% rdg. ±5dgt.	±1.5% rdg. ±5dgt.	±1.5% rdg. ±5dgt.	±1.0% rdg. ±5dgt.	±1.0% rdg. ±5dgt.	±1.5% rdg. ±5dgt.
DC Current	--	--	--	--	--	--
Best Accuracy	--	--	--	--	--	--
Leakage Current Min Range	--	--	--	--	--	1.00mA
AC Voltage	--	4.200/42.00/ 420.0/600V	4.200/42.00/ 420.0/600V	300/600V	300/600V	--
Best Accuracy	--	±2.3%rdg.±8dgt.	±2.3%rdg.±8dgt.	±1.0% rdg.±3dgt.	±1.0% rdg.±3dgt.	--
DC Voltage	--	420.0 m/4.200/ 42.00/420.0/ 600V	420.0 m/4.200/ 42.00/420.0/ 600V	--	--	--
Best Accuracy	--	1.3%rdg.±4dgt.	1.3%rdg.±4dgt.	--	--	--
Peak Value - Inrush Current	--	--	--	yes	yes	--
Maximum Crest Factor	--	--	--	2.5	2.5	--
Power - Single & 3-Phase	--	--	--	--	--	--
Single Phase Accuracy	--	--	--	--	--	--
3 Phase Accuracy	--	--	--	--	--	--
Phase Detection	--	--	--	--	--	--
Power Factor	--	--	--	--	--	--
Phase Angle	--	--	--	--	--	--
Harmonics	--	--	--	--	--	--
Accuracy to 20th order for current	--	--	--	--	--	--
Resistance	--	420.0/4.200k/ 42.00k/420.0k/ 4.200M/ 42.00MΩ	420.0/4.200k/ 42.00k/420.0k/ 4.200M/ 42.00MΩ	1k/10kΩ	1k/10kΩ	--
Best Accuracy	--	±2.0%rdg.±4dgt.	±2.0%rdg.±4dgt.	±1.5%rdg.± 5dgt.	±1.5%rdg.± 5dgt.	--
Frequency	--	--	--	100/1000Hz	100/1000Hz	--
Best Accuracy	--	--	--	±0.3%rdg. ±1dgt.	±0.3%rdg.±1dgt.	--
Temperature	--	--	--	-50 to 150°C	-50 to 150°C	--
Best Accuracy	--	--	--	±2.0%rdg.±2dgt.	±2.0%rdg.±2dgt.	--
Continuity	--	420.0Ω, Beeper <=50Ω ±30Ω	420.0Ω, Beeper <=50Ω ±30Ω	1kΩ, Beeper <=30Ω	1kΩ, Beeper <=30Ω	--
Sampling Rate	2 times/s	2.5 times/s	2.5 times/s	4 times/s	4 times/s	2 times/s
Display Hold	yes	--	--	yes	yes	yes
Min/Max	--	--	--	yes	yes	--
Data Output	--	--	--	--	--	--
Jaw Capacity - Max Diameter	30mm	33mm	33mm	33mm	46mm	24mm
Jaw Capacity - Max Busbar	--	--	--	--	--	--
Display	5999	4199	4199	3000	3000	5999
Bar Graph	yes	--	--	yes	yes	yes
Safety Category	CATIII 600V	CATIII 600V	CATIII 600V	CATIII 600V	CATIV 600V	CATIII 300V

AC Leak	AC/DC		AC/DC, AC+DC		AC Power
3283	3287	3288	3284	3285(-20)	3286-20
TRMS	TRMS	Mean	TRMS	TRMS	TRMS
10m/100m/1/10/200A	10.00/100.0A	100.0/1000A	20.00/200.0A	200.0/2000A	20.00/200.0/1000A
±1.0% rdg. ±5dgt.	±1.5% rdg. ±5dgt.	±1.5% rdg. ±5dgt.	±1.3% rdg. ±3dgt.	±1.3% rdg. ±3dgt.	±1.3% rdg. ±3dgt.
--	10.00/100.0A	100.0/1000A	20.00/200.0A	200.0/2000A	--
--	±1.5%rdg.±5dgt.	±1.5%rdg.±5dgt.	±1.3% rdg.±3dgt.	±1.3% rdg.±3dgt.	--
10.00mA	--	--	--	--	--
--	4.200/42.00/420.0/600V	4.200/42.00/420.0/600V	30.00/300.0/600V	30.00/300.0/600V	150.0/300.0/600.0V
--	±2.3%rdg.±8dgt.	±2.3%rdg.±8dgt.	±1.0% rdg.±3dgt.	±1.0% rdg.±3dgt.	±1.0% rdg.±3dgt.
--	420.0 m/4.200/42.00/420.0/600V	420.0 m/4.200/42.00/420.0/600V	30.00/300.0/600V	30.00/300.0/600V	--
--	1.3%rdg.±4dgt.	1.3%rdg.±4dgt.	±1.0% rdg.±3dgt.	±1.0% rdg.±3dgt.	--
--	--	--	yes	yes	yes
2.5	2.5	--	2.5	2.5	2.5
--	--	--	--	--	600kW
--	--	--	--	--	±2.3% ± 5dgt.
--	--	--	--	--	±3.0% ± 10dgt.
--	--	--	--	--	yes
--	--	--	--	--	±3° ±2 dgt.
--	--	--	--	--	±3°
--	--	--	--	--	up to 20th
--	--	--	--	--	±3.0%rdg.±10dgt. ...±10%±10dgt.
--	420.0/4.200k/42.00k/420.0k/4.200M/42.00MΩ	420.0/4.200k/42.00k/420.0k/4.200M/42.00MΩ	--	1k/10kΩ (3285-20 only)	--
--	±2.0%rdg.±4dgt.	±2.0%rdg.±4dgt.	--	±1.5%rdg.5dgt.	--
100/1000Hz	--	--	10/100/1000Hz	10/100/1000Hz	30-1000Hz
±0.3%rdg.±1dgt.	--	--	±0.3%rdg.± 1dgt.	±0.3%rdg.± 1dgt.	±0.3%rdg. ± 1dgt.
--	--	--	--	--	--
--	--	--	--	--	--
--	420.0Ω, Beeper <=50Ω ±30Ω	420.0Ω, Beeper <=50Ω ±30Ω	--	1kΩ, Beeper <=30Ω ±5Ω	--
4 times/s	2.5 times/s	2.5 times/s	4 times/s	4 times/s	1 time/s
yes	yes	yes	yes	yes	yes
yes	--	--	yes	yes	yes
Analog	--	--	--	Analog (3285 only)	Optical RS-232C
40mm	35mm	35mm	33mm	55mm	55mm
--	--	--	--	--	80x20mm
1000	4199	4199	2000	2000	6000
yes	--	--	yes	yes	--
CATIII 300V	CATIII 600V	CATIII 600V	CATIII 600V	CATIII 600V	CATIII 600V

3246 Pencil HiTESTER

Ultra-bright diode light lets you find hard-to-reach spots in dark locations



- ▶ 4.2 to 600V AC V
- ▶ 420m to 600 DC V
- ▶ Resistance
- ▶ 150 hours of continuous use on a single battery

600V circuit protection - no fuse required

Bright LCD backlight



Test probe fits neatly in the back

3801-50 True RMS

1ms Peak Hold

AC+DC



USB or RS-232C PC interface

Dual display with bright LCD backlight

CATIV 600V/
CATIII 1000V Safe

3802-50 True RMS



3801-50 & 3802-50

- ▶ 51m to 1000 AC and DC V
- ▶ 510 μ to 10 AC and DC A
- ▶ Resistance, Conductance, Frequency, Continuity, Diode, Capacitance and Temperature
- ▶ Peak hold, duty pulse width and decibel conversion

3803



Basic economy model

200 hours of continuous use on a single battery

3803

- ▶ 400m to 1000 AC and DC Voltage
- ▶ 400 μ to 10 AC and DC Current
- ▶ Resistance, Continuity and Diode

3804



9999 display

Capacitance & 4-20mA%

Check for harmonic distortion

RS-232C PC interfaces

3804 & 3805

- ▶ 1 to 1000 AC and DC V
- ▶ 400 μ to 10 AC and DC A
- ▶ Resistance, Continuity, Diode, Max/Min/Avg
- ▶ Temperature on the 3805

3805 True RMS



3256-51



High-speed response and bar graph display

Terminal shutter interlock mechanism exposes only the correct terminals for connection in the currently selected function

- ▶ 420m to 1000 AC and DC V
- ▶ 42μ to 10 AC and DC A
- ▶ Resistance and Frequency
- ▶ Continuity and Diode Check

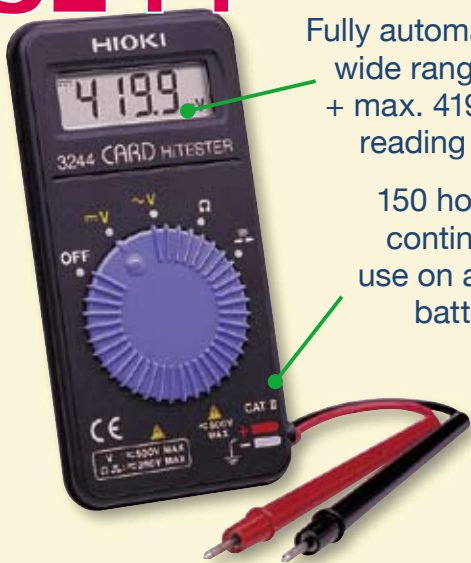
3257-51

True RMS



CATIV 600V/
CATIII 1000V Safe

3244



Fully automatic wide range + max. 4199 reading

150 hours of continuous use on a single battery

- ▶ Handy Card-sized DMM backed by HIOKI Quality
- ▶ 420m to 500 DC V
- ▶ 4.2 to 500 AC V
- ▶ Resistance and Continuity

3255-50



- ▶ Built-in current limiter and fuse capable of withstanding 600V to prevent short-circuit accidents
- ▶ Dust-proof, water-proof construction - perfect for industrial power lines
- ▶ 420m to 600 AC and DC V + Resistance

3245



- ▶ Hybrid power system supporting environmental conservation
- ▶ 4.2 to 600 AC V
- ▶ 420m to 600 DC V
- ▶ Resistance

3030-10



- ▶ Tough & Durable Analog Multimeter for Quick Readings
- ▶ 12 to 600 AC V
- ▶ 0.3 to 600 DC V
- ▶ 60μA to 300m DC A
- ▶ Resistance

3008



- ▶ Basic Analog Multimeter with wide range
- ▶ 6 to 600 AC and DC V
- ▶ 10k to 1MΩ Resistance (No CE)

Basic

	3244	3246	3030-10	3255-50	3256-50/51
True RMS	--	--	--	--	--
DC Voltage	420mV to 500V 5 ranges	420.0mV to 600V 5 ranges	0.3 to 600V 7 ranges	420.0mV to 1000V 5 ranges	420.0mV to 1000V 5 ranges
Best Accuracy	±0.7% rdg. ±4dgt.	± 1.3% rdg. ±4dgt.	±2.5% f.s.	±0.5% rdg. ±4dgt.	±0.5% rdg. ±2dgt.
AC Voltage	4.200V to 500V 4 ranges	4.200V to 600V 4 ranges	12V to 600V 5 ranges	420.0mV to 1000 V 5 ranges	420.0mV to 1000V 5 ranges
Best Accuracy	±2.3% rdg. ±8 dgt.	± 2.3% rdg. ± 8dgt.	±2.5% f.s.	±1.2% rdg. ±4dgt.	±1.2% rdg. ±3 dgt.
Frequency Characteristics at ACV	50 to 500 Hz	50 to 500 Hz	--	50 to 500 Hz	50 to 500 Hz
AC+DC Voltage	--	--	--	--	--
Best Accuracy	--	--	--	--	--
DC Current	--	--	60µA/30m/ 300mA	--	42.00µA to 10.00A 6 ranges
Best Accuracy	--	--	±3% f.s.	--	±1.5% rdg. ±4dgt.
AC Current	--	--	--	10.00A to 1000A with optional clamp, 7 ranges	42.00µA to 10.00A 6 ranges
Best Accuracy	--	--	--	±2.0% rdg. ±4dgt.	±2.5% rdg. ±5dgt.
Frequency Characteristics at ACA	--	--	--	--	50 to 500 Hz
AC+DC Current	--	--	--	--	--
Best Accuracy	--	--	--	--	--
Resistance	420.0Ω to 42.00MΩ 6 ranges	420.0Ω to 42.00MΩ 6 ranges	0 to 3kΩ 4 ranges	420.0Ω to 42.00MΩ 6 ranges	420.0Ω to 42.00MΩ 6 ranges
Best Accuracy	±2.0% rdg. ±4dgt.	± 2.0% rdg. ±4dgt.	±3% of scale length	±0.7% rdg. ±4dgt.	±0.7% rdg. ±2dgt.
Frequency	--	--	--	--	0.50 Hz to 500.0 kHz
Best Accuracy	--	--	--	--	±0.02% rdg. ±1dgt.
Frequency Counter	--	--	--	--	--
Temperature	--	--	yes	--	--
Continuity	50Ω ±30Ω	50Ω ±30Ω	--	45Ω ±35Ω	50Ω ±30Ω
Diode Check	--	yes	--	yes	yes
Voltage Detector	--	--	--	--	yes
Capacitance	--	--	--	--	--
Best Accuracy	--	--	--	--	--
Sampling Rate (V & A)	2.5 times/s	2.5 times/s	--	2.5 times/s	2.5 times/s
Display Hold	--	yes	--	yes	yes
Min/Max	--	--	--	--	yes
Data Output	--	--	--	--	--
Display	4199	4199	Analog	4199	4200
Bar Graph	--	--	yes	--	yes
Safety Category	CATII 500V	CATIII 600V	CATIII 600V	CATIII 600V	CATIII 600V

High Performance

3257-50/51	3803	3804	3805	3802-50	3801-50
yes	--	--	yes	yes	yes
420.0mV to 1000V 5 ranges	400.0mV to 1000V 5 ranges	999.9mV to 999.9V 4 ranges	999.9mV to 999.9V 4 ranges	51.000mV to 1000.0V 7 ranges	51.000mV to 1000.0V 7 ranges
±0.5% rdg. ±2dgt.	±0.6% rdg. ±2dgt.	±0.3% rdg. ±2dgt.	±0.1% rdg. ±2dgt.	±0.03% rdg. ±5gt.	±0.025% rdg. ±5dgt.
420.0mV to 1000V 5 ranges	400.0mV to 1000V 5 ranges	999.9mV to 999.9V 4 ranges	999.9mV to 999.9V 4 ranges	51.000mV to 1000.0V 7 ranges	51.000mV to 1000.0V 7 ranges
±1.2% rdg. ±3 dgt.	±2.0 % rdg. ±2 dgt.	±1.2 % rdg. ±5 dgt.	±1.1 % rdg. ±5 dgt.	±0.6%rdg. ±25dgt.	±0.4%rdg. ±25dgt.
50 to 500 Hz	40 to 500Hz	40 to 500 Hz	40 to 2kHz	30 to 30kHz	20 to 100kHz
--	--	--	--	--	51.000mV to 1000.0V 7 ranges
--	--	--	--	--	±0.4%rdg.±30dgt.
42.00µA to 10.00A 6 ranges	400.0µA to 10.00A 5 ranges	400.0µA to 10.00A 6 ranges	400.0µA to 10.00A 6 ranges	510.00µA to 10.000A 6 ranges	510.00µA to 10.000A 6 ranges
±1.5% rdg. ±4dgt.	±1.5% rdg. ±2dgt.	±0.2% rdg. ±3dgt.	±0.1% rdg. ±3dgt.	±0.2% rdg. ±10dgt	±0.05% rdg. ±25dgt
42.00µA to 10.00A 6 ranges	400.0µA to 10.00A 5 ranges	400.0µA to 10.00A 6 ranges	400.0µA to 10.00A 6 ranges	510.00µA to 10.000A 6 ranges	510.00µA to 10.000A 6 ranges
±2.5% rdg. ±5dgt.	±2.0% rdg. ±2dgt.	±1.2% rdg. ±5dgt.	±1.0% rdg. ±5dgt.	±0.8% rdg. ±20dgt	±0.7% rdg. ±20dgt.
50 to 500 Hz	40 to 500 Hz	40 to 2 kHz	40 to 2 kHz	30 to 20kHz	20 to 100kHz
--	--	--	--	--	510.00µA to 10.000A
--	--	--	--	--	±0.8%rdg.±25dgt.
420.0Ω to 42.00MΩ 6 ranges	400.0Ω to 40.00MΩ 6 ranges	400.0Ω to 40.00MΩ 6 ranges	400.0Ω to 40.00MΩ 6 ranges	510.00Ω to 51.000MΩ, 510nS 6 ranges	510.00Ω to 510.00MΩ,510nS 7 ranges
±0.7% rdg. ±2dgt.	±0.6% rdg. ±3dgt.	±0.6% rdg. ±3dgt.	±0.5% rdg. ±3dgt.	±0.08% rdg. ±5dgt	±0.05% rdg. ±5dgt
0.50 Hz to 500.0 kHz	--	--	1 Hz to 50 kHz	99.999Hz to 999.99kHz	99.999Hz to 999.99kHz
±0.02% rdg. ±1dgt.	--	--	±0.05% rdg. ±4dgt.	±0.02% rdg. ±3dgt.	±0.02% rdg. ±3dgt.
--	--	--	--	--	yes
--	--	--	yes	yes	yes
50Ω ±30Ω	34.5Ω	10Ω	10Ω	10Ω	10Ω
yes	yes	yes	yes	yes	yes
--	--	--	--	--	--
--	--	4.000µF to 9999µF	4.000µF to 9999µF	9.999nF to 99.99mF	9.999nF to 99.99mF
--	--	±2.0% rdg. ±4dgt	±2.0% rdg. ±4dgt	±1.5% rdg. ±5dgt	±1.5% rdg. ±5dgt
2.5 times/s	1.3 times/s	3 times/s	3 times/s	3.75 times/s	3.75 times/s
yes	yes	yes	yes	yes	yes
yes	--	yes	yes	yes	yes
--	RS-232C	RS-232C	RS-232C	USB/RS-232C	USB/RS-232C
4200	3999	3999	3999	51000	51000
yes	yes	yes	yes	yes	yes
CATIV 600V	CATIII 600V	CATIII 600V	CATIII 600V	CATIV 600V	CATIV 600V

3455

5kV Insulation Tester



Bright LCD backlight

Safety shutter keeps temperature and power terminals away from high voltage contact

Store up to 100 sets of insulation data and send to PC via USB interface and free software

Automatically calculate and display PI (Polarization Index) and DAR (Dielectric Absorption Ratio)

Step voltage testing, temperature compensation, temperature measurement, and leakage current



3454

1kV Insulation Tester

Bright red light warns of live voltage

Store test leads while connected

3453

1kV Insulation Tester

Large, easy-to-read display



Innovative sliding cover system

3 ranges + 200mA continuity testing

Bar graph



4 ranges

Store up to 20 sets of data

3451

Single-range Analog

3452

Multi-range Analog

Choose from 3 models

Glow-in-the-dark scale











Choose from 5 models



Precise taut-band movement gives quick readings



Digital Multi-Range Insulation Testers				
				
	3455	3453	3454-11/51	3454-10
Insulation Testing				
50V				200.0MΩ
125V		20.00MΩ		200.0MΩ
250V	250GΩ	2000MΩ	500.0MΩ	2000.0MΩ
500V	500GΩ	2000MΩ	500.0MΩ	2000.0MΩ
1000V	1.00TΩ	4000MΩ	4000.0MΩ	
2500V	2.50TΩ			
5000V	5.00TΩ			
Short Circuit Current	2mA	1.2mA		1.2mA
Best Accuracy	±5% rdg. ±5dgt.	±2% rdg. ±3dgt.		±3% rdg. ±4dgt.
AC Voltage Testing	50 to 750V	0 to 600V		0 to 750V
DC Voltage Testing	±50V to 1.00kV			
Continuity Testing		yes		yes
Measurement Current		1mA		200mA
Open-circuit Voltage		4 DCV		5 DCV
Leakage Current Testing	yes			
Sampling rate	1 time/sec	2 times/sec		2 times/sec
Data Storage	100 sets	20 sets		
Display	999	4000		4000
Bar Graph	yes	yes		
Safety	CATIV 600V	CATIII 600V		CATIII 600V

Analog Single- & Multi-Range Insulation Testers					
		Multi-range		Single Range	
					
		3452-11	3452-12	3452-13	3451-XX
Insulation Testing	Center Scale				
25V/10MΩ	0.2 MΩ	✓			
50V/10MΩ	0.2 MΩ	✓			
100V/20MΩ	0.5 MΩ	✓			
125V/20MΩ	0.5 MΩ		✓		3451-11
250V/50MΩ	1MΩ		✓	✓	3451-12
500V/100MΩ	2MΩ		✓	✓	3452-13
500V/1000MΩ	20 MΩ				3452-14
1000V/2000MΩ	50 MΩ			✓	3452-15
Short Circuit Current		1.2mA (0.6mA max at 1000 V range)			1.2mA (0.6mA max at 500 and 1000 V range)
Best Accuracy		±5% of indicated value			
AC Voltage Testing		0 to 150V	0 to 500V		0 to 250/300/500V
Best Accuracy		±5% of maximum scale value			
Response Time		∞ to center, ∞ to 0MΩ within 3 seconds			
Transient Voltage Protection		200 AC V	600 AC V	1200 AC V	300 to 1200 AC V
Bar Graph		Taut band movement			
Safety		CATIII			

Safe and reliable - backed by the HIOKI guarantee



3120

AC Voltage Detector

- ▶ Sensitivity level catered to 120V installations
- ▶ 70 to 600 AC V

When applying any voltage detector, always test on known live before and after use



CATIV 600V/
CATIII 1000V Safe

Bright red light and clear buzzer warns of live voltage

Bright green light indicates sufficient power supply



3480-21

AC Voltage Detector

Advanced circuitry maintains constant sensitivity level even when battery is low

- ▶ Sensitivity level catered to 200V installations
- ▶ 90 to 600 AC V



Strong ABS, *not acrylic*, makes tip highly resistant to chips and cracks

3129-10

Phase Detector

Compact body fits neatly in the palm of your hands

CATIV 600V/
CATIII 1000V Safe



Bright Red LED and crystal clear buzzer

Extra-wide clips to clamp up to 40mm thick conductors



Absolutely NO metal exposure ensures safety at the worksite

- ▶ 70 to 1000 AC V (max 600V AC V on the 3129)
- ▶ Auto power off saves battery life



CATIII 600V

3143

Earth Testing

No grounding rods required

- ▶ 20 to 500Ω
- ▶ Voltage comparison method
- ▶ 3.6m AC A measurement current



2-pole or 3-pole method for testing earth resistance

Selectable frequency range






- ▶ 10 to 1000Ω
- ▶ 2-wire measurement method on 100Ω & 1000Ω ranges
- ▶ 15m AC A measurement current

3151

Earth Testing



Temperature Testing

												
	3441	3442	3446-01	3447-01	3415-01	3416-01	3418	3443	3444	3445	3460-50	
Measurement Method	K type thermocouple		Pt 100	Non-contact infrared sensor			2-beam laser marker		LED spot marker		2-beam laser marker	Non-contact infrared sensor to Thermopile array
Range	-100 to 1300°C	-100 to 1000°C	-100 to 300°C	-50 to 500°C							-50 to 1000°C	
Best Resolution	0.1°C	0.1°C	0.1°C	1.0°C			0.1°C				0.1°C	
Best Accuracy	±0.1% rdg. ±0.8°C	±0.1% rdg. ±0.5°C	±0.1% rdg. ±0.4°C	±1.0% rdg.			±1.0%rdg.				± 2°C	
Sampling (Response time)	Twice/sec		Once/sec	Twice/sec (1.5 sec)			Once/0.8sec (1.6 sec)				Once/0.2sec	
Channels	1		1	2		1			1		1	
Field Diameter				Ø72mm at 1m	Ø2.5mm at 3cm	Ø72mm at 1m	Ø24mm at 1m	Ø2.5mm at 73mm			44m ² at 1m	
Water Resistance	IP54		IP67				IP54					
Data Recording	Max/Min		✓				✓				JPEG or CSV to PC Card	
PC Interface			RS-232C				RS-232C				RS-232C	
PC Software			Model 9674				Model 3909				Bundled	
Output to Printer			✓				✓				via PC	
Analog Output							✓					

3403·3404 Tacho Testing

Auto ranging from 30 to 100,000 r/min



Non-contact detection with optional contact adapter

3404:
 ▶ Best sampling: 120 to 99900 r/min, 2 to 1600 r/s, ±20dgt.
 ▶ Analog output, Total & period mode

3423 Lux Testing

20 to 200000lx range, 199,900 lx max. scale



Detachable sensor head using optional cord

Ultra-sensitive sensor offers ±4%rdg.±1dgt. accuracy

Analog output

3665-20 LAN Testing

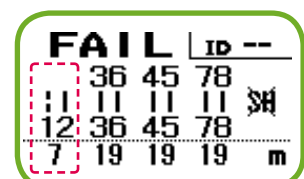
Check shielded and crossover Cables

Identify up to 21 cable connection destinations using coded terminators



Check for wire connection status, cable length, and connection destination of twisted pair cables

Detect Split Pairs that are usually the cause of bad connections



OPEN Fault at Pin 1

Quickly and accurately get a complete picture of the state of your backup power source

3554 Battery HiTESTER

Store up to 4800 sets of test data

Wide 60V range

Auto data hold and Auto data storage lets you test the deterioration state of your entire UPS battery bank quickly and efficiently

Comparator function

Extra-strong test probes

Download test results and upload comparator tables via USB interface and free software



Also Available: 3555 BATTERY HiTESTER for compact storage batteries



	3554	3555
Ideal for	UPS batteries	Compact batteries for mobile devices
Resistance Testing	3mΩ to 3Ω, 4 ranges	300mΩ to 30Ω, 3 ranges
Best Resolution	1 μΩ	100 μΩ
Voltage Testing	6 or 60 DC V, 2 ranges	3 or 30 DC V, 2 ranges
Best Resolution	1 mV	1 mV
Temperature Testing	-10 to 60 °C	
Best Resolution	0.1 °C	
Sampling	Once/sec	1.25 times/sec
Comparator Storage	200 sets	10 sets
Data Storage	4800 sets	
PC Interface	USB	
PC Software	✓	



All of the products appearing in this catalog are CE marked unless otherwise indicated. 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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