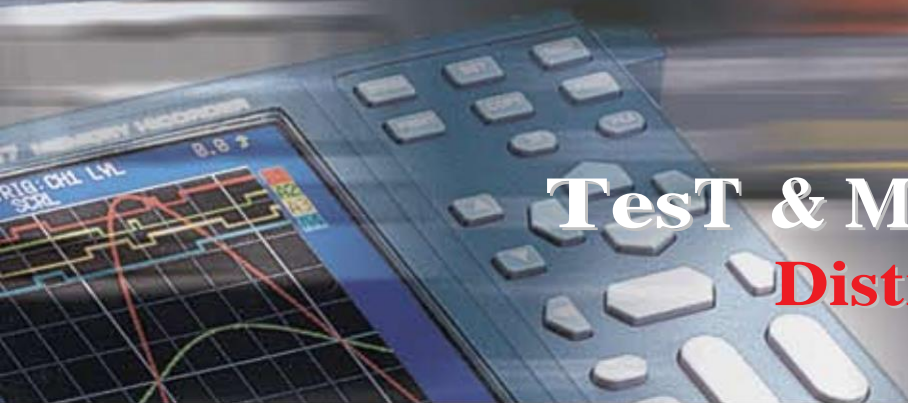


# POWER PARAMETERS

QUALITY AND PRECISION IN POWER

# 2008



**Test & MeasureMent**  
**Distributor Products**

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## Parameters Pa3001

### ac, analogue clamp tester

#### 34 mm max. conductor

- 6, 15, 60, 150, 300 Amps AC
- 150, 300, 750 Volts AC maximum
- 0-75 Volts DC maximum
- 2 k, 200 k $\Omega$  maximum
- 3% typical accuracy
- Cat. II 600 V safety standard



## hiOKi 3282

### trMS ac, digital clamp tester

#### 46 mm conductor digital and bargraph display Multi-function

- 30, 300, 1000 Amps AC maximum
- 300, 600 Volts AC maximum
- 1 k, 10 k $\Omega$  resistance
- 1 k $\Omega$ , continuity beeper sounds
- 100, 1000 Hz frequency
- 3000 count display
- 1 % typical accuracy
- Cat. IV 600 V safety standard



## Parameters Pa

### ac, digital clamp tester

#### 30 mm max. conductor auto power-off, auto range, data hold frequency

- 40, 400 Amps AC maximum
- 400, 600 Volts AC/DC maximum
- 0-400  $\Omega$  resistance
- 0-40 MHz frequency
- Continuity beeper
- 3 3/4 digit display
- 2% typical accuracy
- Cat. II 600 V safety standard



## aPPa 33ii

### ac, digital clamp tester

#### 34 mm conductor display hold, auto-ranging

- 200, 600 Amps AC maximum
- 0-600 Volts AC maximum
- 0-2000  $\Omega$  resistance
- Continuity beeper
- 3 1/2 digit display
- 2.5 % typical accuracy
- Cat. III 600 V/Cat II 1000 V safety standard



## Parameters Pa2

### ac, digital clamp tester

#### 50 mm max. conductor

- 200, 1000 Amps AC maximum
- 200, 750 Volts AC maximum
- 200 mV; 2, 20, 200, 1000 Volts DC maximum
- 200  $\Omega$ ; 2 k, 20 k, 200 k, 2 M $\Omega$  resistance
- Continuity beeper
- 3 1/2 digit display
- 2 % typical accuracy



## aPPa 33rii

### trMS ac, digital clamp tester

#### 34 mm conductor display hold, auto-ranging

- 200, 600 Amps AC maximum
- 0-600 Volts AC maximum
- 0-2000  $\Omega$  resistance
- Continuity beeper
- 3 1/2 digit display
- 2.5 % typical accuracy
- Cat. III 600 V/Cat II 1000 V safety standard



## hiOKi 3280-10

### ac, digital clamp tester

#### 33mm max. conductor,

#### slim body design, rugged and versatile

- 42, 420, 1000 Amps AC maximum
- 0-420 mV DC; 4.2, 42, 420, 600 Volts AC/DC
- 420  $\Omega$ ; 4.2 k, 42 k, 420 k, 4.2 M, 42 M $\Omega$  resistance
- 420  $\Omega$ , continuity beeper sounds
- 4199 count display
- 1.5% typical accuracy
- Cat. III 600 V AC Amps; Cat II 600 V AC/DC Volts safety standard



## aPPa a7

### ac, digital clamp tester

#### 12 mm conductor, diode test, auto-ranging

- 0-200 Amps AC maximum
- 0-600 Volts AC/DC maximum
- 0-2000  $\Omega$  resistance
- Continuity beeper
- 2000 count display
- 3 % typical accuracy
- Cat. III 600 V safety standard





## aPPa a9

**ac, digital clamp tester**  
27 mm conductor, display hold,  
auto-selection ac/dc Volts and current

- 0.3-400 Amps AC maximum
- 1.0-600 Volts AC maximum
- 1.5-600 Volts DC maximum
- 0-2000  $\Omega$  resistance
- Continuity beeper
- 6000 count display
- 1.8 % typical accuracy
- Cat. III 600 V safety standard



## aPPa 30

**ac and dc digital clamp tester**  
22 mm conductor, Maximum hold  
display hold, auto-ranging

- 40, 300 Amps AC/DC maximum
- 400 mV to 600 Volts AC/DC maximum
- 400  $\Omega$  to 4k $\Omega$  resistance
- Continuity beeper
- 4000 count display
- 3 % typical accuracy
- Cat. II 600 V safety standard



## aPPa 17

**Pen-type multimeter**

Suitable for ac current with optional  
appa 15 current transducer (see page 14)  
Digital and bargraph display, display hold,  
auto-off

- 320 mV to 600 Volts DC maximum
- 3.2 V to 600 Volts AC maximum
- 320  $\Omega$  to 30 M $\Omega$  resistance
- Continuity beeper
- 3200 count display
- 1.7 % typical accuracy
- Cat II 600 V safety standard



## Ki 3291

**trMS ac digital clamp tester**  
30 mm maximum conductor  
diameter Slim body, reversible  
("Flip design") display maximum  
hold

- 60, 600, 1000 Amps AC max. ranges
- 3000 Count Display
- 2% typical accuracy
- Cat IV 300 V safety standard



## PrOVa aFLeX 3002

**trMS Flexible ac clamp tester**  
170 mm Maximum conductor diameter,  
digital display, display hold, maximum  
and minimum, and peak

- 300, 999.9, 3000 Amps AC max. ranges
- 4.0 - 600 Volts AC max.
- 45 - 65 Hz frequency measurement range
- 1% typical accuracy
- Cat III 600 V safety standard



## aPPa 36ii

**ac and dc, digital clamp tester**  
35 mm conductor display and  
maximum hold, auto-ranging

- 400, 600 Amps AC/DC
- 0.4-600 Volts AC/DC maximum
- 0-400  $\Omega$ /40 M $\Omega$  resistance
- Continuity beeper
- 4000 count display
- 1.9 % typical accuracy
- Cat. III 600 V safety standard



## hiOKi 3285

**trMS ac and dc, digital clamp tester**  
55 mm conductor Bar graph/digital display;  
display and peak hold, frequency

- 20, 200, 2000 Amps AC/DC maximum
- 30, 300, 600 Volts AC/DC maximum
- 0-400  $\Omega$  resistance
- 10, 100, 1000 Hz frequency range
- 2000 count display
- 1.3 % typical accuracy
- Cat. III 600 V safety standard



## aPPa 36rii

**trMS ac and dc, digital clamp tester**  
35 mm conductor display and  
maximum hold, auto-ranging

- 400, 600 Amps AC/DC
- 0.4-600 Volts AC/DC maximum
- 0-400  $\Omega$ /40 M $\Omega$  resistance
- Continuity beeper
- 4000 count display
- 1.9 % typical accuracy
- Cat. III 600 V safety standard



## hiOKi 3287

### trMS ac and dc, digital clamp tester 35 mm conductor digital display; display hold

- 10, 100 Amps AC/DC maximum
- 420 mV DC; 4.2, 42, 420, 600 Volts AC/DC maximum
- 420  $\Omega$ ; 4.2 k, 42 k, 420 k, 4.2 M, 42M  $\Omega$  resistance range
- Continuity beeper
- 4199 count display
- 1.5 % typical accuracy
- Cat. III 600 V AC/DC Amps; Cat II 600 V AC/DC Volts safety standard



## aPPa a16r

### trMS ac and dc, digital clamp tester 51 mm conductor Bar graph/digital display; display and peak hold, frequency counter

- 400, 1000 Amps AC/DC maximum
- 0-400/750 Volts AC maximum
- 0-400/1000 Volts DC maximum
- 0-400  $\Omega$  resistance
- 0-4 kHz/10 kHz frequency range
- Continuity beeper
- 4000 count display
- 1.9 % typical accuracy
- Cat. IV 600 V/Cat III 1000 V safety standard



## hiOKi 3288

### ac and dc, digital clamp tester 35 mm conductor digital display

- 100, 1000 Amps AC/DC maximum
- 420 mV DC; 4.2, 42, 420, 600 Volts AC/DC maximum
- 420  $\Omega$ ; 4.2 k, 42 k, 420 k, 4.2 M, 42 M $\Omega$  resistance range
- Continuity beeper
- 4199 count display
- 1.5 % typical accuracy
- Cat. III 600 V AC/DC Amps; Cat II 600 V AC/DC Volts safety standard



## aPPa a16hr

### trMS ac and dc, digital clamp tester 51 mm conductor, low residual magnetism clamp, Bar graph/digital display; display and peak hold, frequency counter

- 400, 1000 Amps AC/DC maximum
- 0-400/750 Volts AC maximum
- 0-400/1000 Volts DC maximum
- 0-400  $\Omega$  resistance
- 0-4 kHz/10 kHz frequency range
- Continuity beeper
- 4000 count display
- 1.9 % typical accuracy
- Cat. IV 600 V/Cat III 1000 V safety standard



## hiOKi 3030-10

### analogue Multimeter drop-proof (1 metre)

- 0.3 V DC, 3 V DC; 12, 30, 120, 300, 600 Volts AC/DC maximum
- 60  $\mu$ A; 30/300 mA DC
- 3 k, 30 k, 300 k, 3 M $\Omega$  resistance range
- -50°C to +150°C temperature range (optional probe)
- 20 k $\Omega$ /Volt sensitivity
- 2.5 % typical accuracy
- Cat. III 600 V safety standard



## aPPa a10 PLUs

### appa a10 PLuS ac digital clamp tester 32 mm Maximum conductor diameter, Backlit display, display hold, auto Power-off

- 400, 600 Amps AC max. ranges; 4000  $\mu$ A DC max
- 4 - 750 Volts AC max., 4 - 1000 Volts DC max
- 0 - 400 $\Omega$ /40 M $\Omega$  resistance
- 4 nF - 4000  $\mu$ F capacitance range
- -40°C - +400°C temperature range
- Continuity and diode test
- 4000 count display
- 1.5% typical accuracy
- Cat III 600 V safety standard



## Parameters P

### digital Multimeter

#### Non-contact ac Volts indicator.

#### Maximum hold, data hold

- 0-200 mV; 2, 20, 600 Volts AC/DC maximum
- 200  $\mu$ A; 20, 200 mA; 10 Amps AC/DC
- 0-200  $\Omega$ ; 20 k, 200 k, 20 M $\Omega$  resistance range
- Continuity test
- Diode test
- 1999 count display
- 2 % typical accuracy
- Cat. III 600 V safety standard



## Parameters Pa 8020

### ruggedised digital Multimeter continuity and diode test

- 400 mV; 4, 40, 400, 1000 Volts DC maximum
- 400 mV; 4, 40, 400, 750 Volts AC maximum
- 40, 400  $\mu$ A; 20 Amps AC/DC
- 400  $\Omega$ ; 4 k, 40 k, 400 k, 4 M, 40 $\Omega$  resistance range
- 4 nF, 40 nF, 400 nF; 4, 40  $\mu$ F capacitance range
- Continuity test
- Diode test
- Hfe transistor test (0-1000)
- 3 <sup>3</sup>/<sub>4</sub> digit display
- 2 % typical accuracy
- Cat. II 600 V safety standard



## hiOKi 3244

### Pocket Multimeter

#### auto-power save

- 420 mV; 4.2, 42, 420, 500 Volts DC maximum
- 4.2, 42, 420, 450 Volts AC maximum
- 420 Ω; 4.2 k, 42 k, 420 k, 4.2 M, 42 MΩ resistance range
- Continuity test
- 4199 count display
- 2.3 % typical accuracy
- Cat. II 500 V safety standard



## hiOKi 3803

### digital Multimeter

#### Bar graph and digital display, rS 232 optional software

- 400 mV; 4, 40, 400, 1000 Volts AC/DC maximum
- 400 μA; 4, 40, 400 mA; 10 Amps AC/DC
- 400 Ω; 4 k, 40 k, 400 k, 4 M, 40 MΩ resistance range
- Continuity test
- 2 % typical accuracy
- Cat. III 600 V safety standard



## aPPa 62t

### digital Multimeter

#### auto/manual, data hold, 2000 count display Minimum/Maximum function

- Non-contact Voltage Indication
- 0 - 200 mV/1000 Volts DC max., 0 - 200 mV/750 Volts AC max
- 2/10 Amps AC/DC
- 0-200 Ω/20 MΩ resistance ranges
- 2 nF - 2000 μF capacitance range
- 2 kHz - 20 MHz frequency range
- -20°C - +800°C temperature range
- 1.5% typical accuracy
- Cat III 600 V safety standard



## hiOKi 3246

### Pencil-type digital Multimeter

#### Inbuilt pen light

- 420 mV; 4.2, 42, 420, 600 Volts DC
- 4.2, 42, 420, 600 Volts AC
- 0-420Ω; 4.2 k, 42 k, 420 k, 4.2 M, 42 MΩ
- Continuity test
- 4199 count display
- 2.3 % typical accuracy
- Cat.III 600 V safety standard



## aPPa 75

### digital Multimeter

#### Bar graph and digital display, auto/manual, data hold, minimum and maximum functions, fast response and 4000 count display

- 0 - 400 mV/1000 Volts DC max., 0 - 400 mV/750 Volts AC max
- 0 - 400 μA/4000 μA DC
- 0 - 400Ω/40 MΩ resistance ranges
- 4 nF - 40,000 μF capacitance range
- 4 kHz/40 MHz frequency range
- continuity and diode test
- 0.9 % typical accuracy
- Cat IV 600 V / Cat III 1000 V safety standard



## aPPa 77

### trMS digital Multimeter

#### Bar graph and digital display, auto/manual, data hold, minimum and maximum functions, fast response, 4000 count display

- 0 - 400 mV/1000 Volts DC max., 0 - 400 mV/750 Volts AC max
- 0 - 400 Ω/40 MΩ resistance ranges
- 0 - 400 μA/10 Amps AC/DC
- 4 nF - 40,000 μF capacitance range
- 4 kHz/40 MHz frequency range
- continuity and diode test
- 0.9 % typical accuracy
- Cat IV 600 V / Cat III 1000 V safety standard



## aPPa 97ii

### digital Multimeter

#### Bar graph and digital display, multifunction

- 0-300 mV/1000 Volts DC maximum
- 0-3 V/750 Volts AC maximum
- 30 mA/10 Amps AC/DC
- 0-300 Ω/30 MΩ resistance range
- Continuity test
- Diode test
- 3 kHz/30 MHz frequency
- 3400 count display
- 1.3 % typical accuracy
- Cat. III 600 V/Cat II 1000 V safety standard



## aPPa 79

### trMS digital Multimeter

#### Bar graph and digital backlit display, auto/manual, data hold, minimum and maximum functions, fast response, optical rS 232 interface, 4000 count display

- 0 - 400 mV/1000 Volts DC max., 0 - 400 mV/750 Volts AC max
- 0 - 400 μA/ 10 Amps AC/DC ranges
- 0-400 Ω/40 MΩ resistance ranges, 4 nF - 40,000 μF capacitance range continuity and diode test
- 4 kHz/40 MHz frequency range
- 0.9 % typical accuracy
- Cat IV 600 V / Cat III 1000 V safety standard





## hiOKi 3120

### Non-MS digital Voltage Indicator Backlit graphic and digital display

- auto-ranging on all functions
- 900 V/3000 V DC maximum
- 0.4 V/750 V AC (max voltage)
- 40 mA/10 A AC/DC
- Audible signal
- 0-400 MΩ resistance range
- Cat IV 600 V safety standard
- 4 nF/40/400 μF capacitance range
- Continuity test
- Diode test
- 4 kHz/40 MHz frequency
- 4000 count display
- 1.3 % typical accuracy
- Cat. III 600 V/Cat II 1000 V safety standard



## aPPa 51

### digital thermometer

Suitable for environmental test and measurement

- Range from -50°C to +1300°C (with K-probes optional)
- Measuring rate 2.5/sec
- Large LCD (18.5 mm)
- Maximum- and display-hold function
- Protective holster/tilt stand
- Bead probe (model 50BK) included as standard
- 50BK probe -40°C to +204°C
- Resolution 0.1°C to 1.0°C
- 0.3 % typical accuracy



## hiOKi 3446-01

### High-Precision Temperature Logging

Hand-type digital thermometer data range hold, auto power off interface

- Suitable for type K, type J, type E, type S, type B, type R, type N, type T, type C, type E, type F, type G, type H, type L, type M, type P, type Q, type R, type S, type T, type U, type V, type W, type X, type Y, type Z, type AA, type AB, type AC, type AD, type AE, type AF, type AG, type AH, type AI, type AJ, type AK, type AL, type AM, type AN, type AO, type AP, type AQ, type AR, type AS, type AT, type AU, type AV, type AW, type AX, type AY, type AZ, type BA, type BB, type BC, type BD, type BE, type BF, type BG, type BH, type BI, type BJ, type BK, type BL, type BM, type BN, type BO, type BP, type BQ, type BR, type BS, type BT, type BU, type BV, type BW, type BX, type BY, type BZ, type CA, type CB, type CC, type CD, type CE, type CF, type CG, type CH, type CI, type CJ, type CK, type CL, type CM, type CN, type CO, type CP, type CQ, type CR, type CS, type CT, type CU, type CV, type CW, type CX, type CY, type CZ, type DA, type DB, type DC, type DD, type DE, type DF, type DG, type DH, 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type YV, type YW, type YX, type YZ, type ZA, type ZB, type ZC, type ZD, type ZE, type ZF, type ZG, type ZH, type ZI, type ZJ, type ZK, type ZL, type ZM, type ZN, type ZO, type ZP, type ZQ, type ZR, type ZS, type ZT, type ZU, type ZV, type ZW, type ZX, type ZY, type ZZ



## Parameters 352

### Infrared digital thermometer

Laser targeting

- LCD readout with backlight
- -20°C to +500°C (-4°F to +932°F)
- Display hold and auto power off
- 2 % typical accuracy



## aPPa 11

### Voltage/continuity tester for digital multimeter

- Range 1 to 650 V, 100 to 1300°C
- Output volt AC/DC display scales
- Continuity (model 50BK)
- Phase rotation 4-pole
- Inrush current principle
- Cat III 1000 V safety standard
- IP 65
- 3% typical accuracy



## aPPa 50PK

### Piercing Probe

Suitable for food, liquids and gels

- Range from -196°C to +800°C



## Parameters yF-180

### Voltage/continuity tester

- Suitable for high-current tester with lead pen
- Range 1 to 650 V, 100 to 1300°C
- Continuity (model 50BK)
- Phase rotation 4-pole
- Inrush current principle
- Backlit display
- 3 1/2 digit display
- Cat III 1000 V safety standard
- IP 65

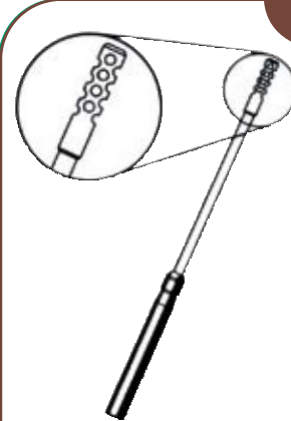


## aPPa 50aK

### air Probe

Suitable for air and gases

- Range from -196°C to +500°C
- Not for immersion in liquids



## aPPa 50iK

### Immersion Probe

Suitable for liquids

- Range from -196°C to +800°C
- Protected by Inconel sheath

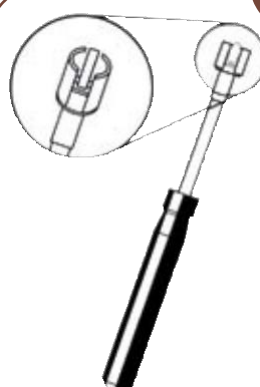


## aPPa 50sK

### Surface Probe

Suitable for flat or slightly convex surfaces  
Ideal for hot rollers and plates

- Range from 0°C to +400°C
- Protected by Inconel sheath



## Parameters Pa -191

### circuit Breaker Identifier

Locates circuit breakers and fuses

- 220 - 240 V AC operation voltage
- 50/60 Hz operation frequency
- optical and acoustical indication
- complete with carry case



## beha 2032

### cable Locator

tracing cables in walls, location of interruptions, short circuits, fuses and their assignment to circuits. tracing metallic water and heater pipes

Led display for intensity

- 7 segment display for transmitter code
- 0 - 40 cms tracing depth
- 250 Volt maximum
- live or dead circuits
- Cat II 250 Volt safety standard



## Parameters yF-

### digital Lux Meter

Silicon photodiodes, data hold, large 3½ digit Lcd

- 200 2000 20,000 50,000 Lux ranges
- 20 200 2000 5000 Foot-candles
- Calibrated to standard incandescent lamp 2865 °K
- Data hold function
- 3½ digit display
- 7 % typical accuracy



## Parameters Ds-101

### digital Sound Level Meter

ac/dc analogue output suitable for spectrum analysis, etc

- Alarm, Max/Min and data hold functions
- Electret condensor microphone
- 30-80 dB; 50-100 dB; 80-130 dB ranges
- 31.5 Hz-8 kHz frequency range
- 50 dB dynamic range
- 3½ digit display
- 1.5 dB typical accuracy



## beha 9048

### digital tachometer

Measurement of rpm. Surface speed, and length

- 1-99,999 rpm rotational speed ranges
- 0.1-1,999 metres/min; 0.3-6500 feet/min; 4-78,000 inch/min
- 0.02-99,999 metres; 0.01-99,999 feet; 1-99,999 inches
- Optical and mechanical contact measurement
- 5 digit display
- 0.02 % typical accuracy standard



## Cem CO180

carbon Monoxide Meter (digital)  
data/maximum hold, audible function, auto power off

- 0 - 1000 ppm measurement range
- high quality sensor
- 5% typical accuracy





**hiOKi 3129-10**

**Phase Sequence tester**

**Four red LEDs indicate phase sequence**

- 70 - 1000 Volt range
- audible indication of correct sequence
- extra wide clips (10 - 40 mm)
- non-metallic contacts ensuring safety at the work site
- live wire check (R - S/S - T only)
- Cat IV 600 Volt safety standard



**seW st-860**

**combination Phase Sequence indicator**

**indicates open phase, phase sequence and motor rotation**

- 100 - 600 V AC input voltage
- 45 - 70 Hz frequency range
- large size alligator clips
- Cat III 600 Volt safety standard



**hiOKi 3423**

**digital Lux Meter**

**With analogue output**

- 20-200,000 Lux range
- 5 sec response time
- 4% typical accuracy
- 3½ digit display



**Parameters Pa 520**

**analogue Insulation tester**

**staut band movement and mirror-scale**

- 250 V 100MΩ
- 500 V 200MΩ
- 1000V 400MΩ
- 2-20 Ω resistance range
- 0-600 V AC live circuit voltage measurement
- 5 % typical accuracy
- Cat III 600 V safety standard



**Parameters Pa 3000**

**digital Insulation tester**

**discharge beeper, automatic lead nulling**

- 250 V 40 MΩ
- 500 V 400 MΩ
- 1000V 4000 MΩ
- 4, 40, 400, 4000 Ω resistance range
- 0-600 V AC/DC live circuit voltage measurement
- 3 % typical accuracy
- 4 digit display
- Cat III 600 V safety standard



**hiOKi 3452-13**

**analogue Insulation tester**

**Live line test, illuminated scales**

- 250 V 50 MΩ
- 500 V 100 MΩ
- 1000V 2000 MΩ
- 0-500 V AC live circuit voltage measurement
- 5 % typical accuracy
- Cat III 500 V safety standard



**hiOKi 3454-51**

**digital Insulation tester**

**auto discharge, live circuit warning**

- 250 V, 500 V, 1000 V testing voltages
- 4,40,400, 500, and 4000 MΩ (on 1000 V range only)
- 40, 400 Ω; 4 k, 40 k, 400 kΩ, 4 MΩ resistance ranges
- 0-750 V AC live circuit voltage measurement
- 4000 count display
- 3 % typical accuracy
- Cat III 600 V safety standard



**megger mit 310**

**digital Insulation tester**

**Locking test button, live circuit voltmeter**

- 500 V, 1000 V testing voltages
- MΩ test range
- 00 V AC/DC live circuit voltage measurement
- Continuity test
- 3 % typical accuracy
- Cat III 600 V safety standard



## megger mit 310a

### analogue Insulation tester

Locking test button, live circuit voltmeter and weather-proof case

- 250 V, 500 V, 1000 V testing voltages
- 0-999 M $\Omega$  test range
- 10  $\Omega$  to 2 k $\Omega$  resistance range
- 0-600 V AC/DC live circuit voltage measurement
- 2.5 % typical accuracy
- Cat III 600 V safety standard

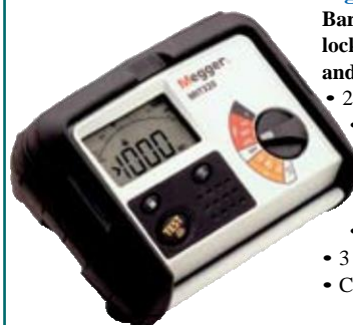


## megger mit 320

### digital Insulation tester

Bar graph and digital backlit display, locking test button, auto power down and live circuit voltmeter

- 250 V, 500 V, 1000 V testing voltages
- 0-999 M $\Omega$  test range
- 10  $\Omega$  to 1 M $\Omega$  resistance range
- 0-600 V AC/DC live circuit voltage measurement
- Continuity test
- 3 % typical accuracy
- Cat III 600 V safety standard



## megger mit

### digital Insulation tester

Live circuit warning, backlit display, digital and analogue display

- 250, 500, 1000 Volt testing voltages
- 0 - 1000 M $\Omega$  test range
- 100  $\Omega$  continuity range
- 3½ digit display
- 3% typical accuracy
- Cat III 600 Volt safety standard



## hiOKi 3455

**digital High Voltage Insulation tester**  
digital and analogue display, calculates PI and dar, backlit display, step voltage and temperature compensation, leakage current measurement

- 250, 500, 1000, 2500 and 5000 Volt testing voltages in 25 V steps
- 0 - 5 T $\Omega$  test range
- 3 digit display
- 5% typical accuracy
- USB with bundled software for data transfer
- Cat IV 600 Volt safety standard



## megger mit-400

### digital, Industrial Maintenance Insulation and continuity tester

digital and analogue display, live circuit warning, test lock button

- 250, 500, 1000 Volt testing voltages
- 0 - 200 G $\Omega$  test range
- 20 G $\Omega$  resistance range
- 200  $\Omega$  continuity range
- 3½ digit display
- 3% typical accuracy
- Cat IV 600 Volt safety standard



## megger mit-420

### digital, Industrial Maintenance Insulation and continuity tester

digital and analogue display, calculates PI and dar, live circuit warning and test lock button

- 50, 100, 250, 500, 1000 Volt testing voltages
- 0 - 200 G $\Omega$  test range
- 200 G $\Omega$  resistance range
- 200  $\Omega$  continuity range
- 3 1/2 digit display
- 3% typical accuracy
- Cat IV 600 Volt safety standard



## megger bm 15

### analogue Insulation tester

rechargeable battery-operated

- Loaded battery test
- 500, 1000, 2500 and 5000 V testing voltages
- 0-200 G $\Omega$  test range
- 100 k $\Omega$  to 20 G $\Omega$  resistance range
- Max. Capacitive load 5  $\mu$ F capacitance
- 2.5 % typical accuracy
- Cat III 300 V safety standard



## megger mJ 15

### analogue Insulation tester

Battery-and hand cranked operation

- Loaded battery test
- 500, 1000, 2500 and 5000 V testing voltages
- 0-200 G $\Omega$  test range
- 100 k $\Omega$  to 20 G $\Omega$  resistance range
- Max. Capacitive load 5  $\mu$ F capacitance
- 2.5 % typical accuracy
- Cat III 300 V safety standard



## Nieaf-smitt irt-s

### digital Insulation tester

Stores 500 test results, rS 232 interface

- 100, 250, 500 and 1000 V testing voltages
- 0-199.9 MΩ test range
- 20 Ω partial earth bond test
- 440 V voltmeter
- 3 digit display
- 2 % typical accuracy
- Cat III 300 V safety standard



## rameters Pa 140

### digital Leakage clamp tester

40 mm clamp and automatic zero

- 30/300 mA leakage current
- 30/300 A AC current
- Data hold and auto power off
- 3200 count display
- 1.2 % typical accuracy
- Cat II 600 V safety standard



## hiOKi 3283

### trMS digital Leakage clamp tester

40 mm clamp

- 10, 100 mA; 1,10, 200 Amps AC current
- 100, 1000 Hz frequency
- 1% accuracy
- 2000 count display and bar graph
- Cat III 300 V safety standard



## ameters Pa 235

### digital Leakage clamp tester

28 mm clamp auto ranging with peak and data hold

- 100/1000mA leakage current
- 10/100 Amps AC current
- 600 Volts AC/DC
- 1000 Hz frequency
- 4 digit display
- 2 % typical accuracy
- Cat III 600 V safety standard



## Nieaf-smitt rCt-s

### digital rcd tester

Stores 500 test results, displays current and trip times

- 10/30/100/300/500 mA trip current
- 100/1000msec time range
- 250 V live circuit voltage
- 25-50/499 Hz frequency
- 3 digit display
- Cat III 300 V safety standard



## iOKi 3293

### rMS ac digital Leakage clamp tester

4 mm maximum conductor diameter  
im body, reversible ("Flip design") display  
aximum hold

- 30 mA, 300 mA; 6, 60, 600, 1000 Amps AC max. ranges
- 3000 count Display
- 2% typical accuracy
- Cat III 600 V safety standard



## megger rCD t320

### digital rcd tester

three-phase safe, backlit display

- 10/30/100/300/500/1000 mA trip current
- Ramp test
- 0°/180° polarity selection
- 25/250 V touch voltage
- 1 % typical accuracy
- Remote testing cycles through tests and records results
- Cat III 300 V safety standard



## megger rCD t310

### rcd tester

ase safe

- 0/300/500 mA trip current
- 80° polarity selection
- 250 V touch voltage
- % typical accuracy
- t III 300 V safety standard





# earth Testers, Loop Testers, Multi-Function

## hiOKi 3151

### earth tester

two and three-wire method, test frequency selectable to reduce harmonic interference

- 0-10/1000  $\Omega$  ground resistance ranges
- 0-30 Volts AC voltage range
- 2.5 % typical accuracy
- Cat II 500 V safety standard



## megger Det 4tD

### digital earth tester

two, three and Four-wire testing method, complete with lead and stake kit

- 0.01  $\Omega$  - 2k $\Omega$  resistance range
- 0 - 100 V earth voltage range
- 3½ digit display
- 2% typical accuracy
- IP 54 case
- Cat IV 100 Volt safety standard



## megger Det 3tD

### digital earth tester

two and three-wire testing method, complete with lead and stake kit

- 0.01  $\Omega$  - 2k $\Omega$  resistance range
- 0 - 100 V earth voltage range
- 3½ digit display
- 2% typical accuracy
- IP 54 case
- Cat IV 100 Volt safety standard



## smitt ert-s

### digital earth tester

two and three-point method, stores up to 500 measurements, rS 232 interface

- Specific earth resistance: 0 to 1999 k $\Omega$  resistance range
- Earth resistance: 0 to 50 k $\Omega$  resistance range (2- and 3- point method)
- Utility resistance: 0.5 to 2 k $\Omega$  resistance range
- Cat II 600 V/Cat III 300 V safety standard



## NieaF-smitt eLt-s

### earth Loop resistance tester

Phase-phase, phase-neutral, phase-earth, and neutral-earth resistance measurements; stores 500 test results, rS 232 interface

- Impedance: 0 to 1999  $\Omega$  resistance range
- 440 V live circuit voltage
- 25-500 Hz frequency
- 0-40 kA short circuit current
- 3 digit display
- Cat II 600 V/Cat III 300 V safety standard



## er Lt 320

### earth Loop resistance tester

Suitable for three-phase and single-phase supply systems

- Two-wire test (high current)
- Single phase loop testing
- Phase to phase loop testing
- Clarity indication
- Phase rotation indication
- 5 % typical accuracy
- Cat III 300 V safety standard



## megger LrCD 220

### digital Loop and rcd tester

Non tripping loop tester, pfc calculation and display, phase-to-phase testing, automatic rcd testing

- 0.01  $\Omega$ - 2k $\Omega$  loop measurement
- high current loop testing
- 10/30/100/300/500/1000 mA ranges (RCD)
- 0° - 180° phase selection (RCD)
- ramp testing (RCD)
- 3 digit display
- 5% typical accuracy
- Cat III 300 V safety standard



## megger mFt 1501/2

### Insulation, rcd and Loop tester

combination tester with visible and audible warning and shutter system to prevent misconnections

- 200 mA continuity testing from 0.01 $\Omega$ -99.9k $\Omega$
- 250 V, 500 V, and 1000 V insulation testing
- Two-wire test (high current)
- Phase-neutral & phase-earth loop testing
- Non-tripping 0.01 $\Omega$  loop test
- 10mA - 1000 mA RCD ranges
- RCD ramp test to measure RCD trip current
- Illuminated switched probe (optional)
- Phase to phase loop testing
- 2 % typical accuracy
- Cat III 300 V safety standard



## megger Pat 32/eLt-1

### appliance tester

**universal tester for 110 V and 240 V tools and appliances**

- Digital and analogue display
- Automatic pass bands
- Fuse and continuity test
- Extension lead test (ELT-1 option)
- Circuit and earth bond test (10 A and 25 A)
- Insulation testing
- 2.5 % typical accuracy
- Cat II 300 V safety standard



## megger Pat 4DV/3

### appliance tester

**universal tester earthed (class 1) and double insulated (class 2) tools**

- Dual voltage; 110 V and 240 V
- Fuse and continuity test
- Extension lead test
- Circuit and earth bond test (10 A and 25 A)
  - Insulation testing
  - Operation test
  - Earth leakage test
- Internal memory for 1000 test results
- RS 232 port for downloading to PCs
- 5 % typical accuracy
- Cat III 300 V safety standard



## megger m 863

### Barcode label printer for Pat 4dV/3

- Prints bar code labels on-site
- Reduces re-test times
- Small size; fits in PAT 4 Case
- Rechargeable battery and mains adaptor included
- 6220-610 clear vinyl label covers, available as accessory
- 6121-570 labels available as accessory



## megger 6231-623

### Barcode Scanner for Pat 4dV/3

- Allows rapid retrieval of stored asset details
- Simple connection via serial port
- No setting to use



## PrOVa aFLeX 3005

### Flexible Power Quality tester Suitable for single phase and balanced three phase supplies

- 3000 Amps flexible clamp
- measures voltage, current, apparent power, harmonics, reactive power, energy, power factor, phase angle
- TRMS volts and amps
- 4 digit display
- 2% typical accuracy
- Cat III 600 Volts safety standard



## hiOKi 8205-10 & 8206-10

### 5 1ch & 8206 2ch recorder ords voltage and current with optional clamp)

- 0.1 V to 500 Volts full scale (12 ranges)
- 20 Hz to 30 kHz frequency band
- Single channel for voltage, or (with optional clamp-on sensor) cm/min to 2 cm/hour paper speed
- % typical accuracy
- at III 500 V safety standard

### optional accessories

- 50 100 Amps clamp
- 51 500 Amps clamp
- 68 1000 Amps clamp



## hiOKi 3641

### temperature and Humidity Logger (Haccp)

**records temperature and humidity on two channels using 9680 sensor provided.**

- -40°C to +85°C temperature range
- 0.0-100% rh relative humidity range
- 5% rh, ±0.5°C typical accuracy
- storage capacity 16,000 data points (8000 x 2 channels)
- recording interval 2/5/10/15/20/30 seconds 1/2/5/10/15/20/30/60 minutes
- requires 3912-20 communication base (USB) for data transfer complete with software



## hiOKi 3169-20

### clamp on Power tester

**Suitable for three-phase three- and four-wire, and single phase supplies (optional clamps required)**

- 00 Volts line voltage
- measures voltage, current, active/reactive power, ent power consumption, power factor, ncy and harmonics
- 600 V safety standard

### optional accessories

- 9660 100 Amps clamp
- 9661 500 Amps clamp
- 9669 1000 Amps clamp
- 9667 Flexible clamp-on sensor, 5000 Amps clamp
- 9290-10, 10:1 ratio clamp adapter (1500 Amps rating)



## hiOKi 3636-20

### clamp on current Logger

Suitable for measurement of current on two channels (clamps required)

- 50/500 Amps ranges
- Clamps supplied separately (models 9650, 9651)
- Stores 32000 data points
- Optional 3912-20 communication base and software
- Cat I 300 V safety standard

### optional accessories

- 9650 100 Amps clamp
- 9651 500 Amps clamp



## hiOKi 3637-20

### trMS Single channel Voltage Logger

- 600 Volts AC range
- Stores 32000 data points
- Optional 3912-20 communication base and software
- Cat III 600 V safety standard



## hiOKi 3197

### Power Quality analyser

Suitable for three phase 3 and 4-wire supplies as well as single phase circuits

- monitor for: inrush current, voltage swells, voltage dips, interruptions and transients
- measure and record: power and power factor, active and reactive energy, voltage, current and demand, energy consumption and harmonic distortion
- TRMS measurement
- Cat IV 300 Volt safety standard
- optional accessories
  - 9660 100 Amps clamp
  - 9661 500 Amps clamp
  - 9669 1000 Amps clamp
  - 9667 5000 Amps flexible clamp-on sensor
  - 9694 5 Amps clamp



## hiOKi 3554

### Battery tester

Instantaneous determination of battery deterioration auto hold/auto memory, ideal for testing UPS batteries

- 3 mΩ-3 Ω resistance range
- 6, 60 Volt range
- -10°C-+60°C temperature range
- 1 kHz frequency measurement
- 1.5 mA, 15 mA, 150 mA measurement current range
- 1 % typical accuracy
- USB with bundled software for data transfer
- Cat I safety standard



## aPPa a18 PLUS

### trMS digital Power clamp tester

35 mm conductor, display and peak hold, backlit display, power factor, watts, total harmonic distortion measurements, phase rotation indication, inrush current measurement

- 600 Amps AC/DC
- 60, 600, 750 Volts AC, 60, 600, 1000 Volts DC
- 0-20 kΩ resistance range, continuity/diode test
- 20 Hz-4 kHz frequency range
- -50°C-+1000°C temperature range
- 6000 count display, 1.9% typical accuracy
- Cat III 600 V safety standard



## hiOKi 3662-20/ 3663-20

### Laser light source

- 1550 nm wavelength (1310 nm for 3663-20)
- CW or 270 Hz, 1 kHz, and 2 kHz modulation
- FC, SC connectors (using optional connector adaptor)
- Single mode fibre
- -6 ± 2 dBm output level



## hiOKi 3665-

### LaN cable tester

Simple operation, large Lcd shows wiring status, suitable for twisted pair, shielded and unshielded cat 3, 4, 5, 5e, and 6

- wire map, detects opens, shorts, reversed, transposed and split pairs
- cable length (2 - 300 metres); measures cable length and distance to fault
- destination; tests multiple cables simultaneously using optional terminators

## hiOKi 3661-20

### optical Power Meter

Simple and intuitive operation; stores up to 1000 data points; USB interface

- 850 nm, 1310 nm, 1550 nm calibration wavelengths
- -60 dBm to +9 dBm
- FC, SC connectors (using optional connector adaptor)
- Single and multi-mode
- 5 % typical accuracy





# accessories

## Parameters PaLD2

### test Lead kit

- Heavy duty alligator clips
- Test probes with selection of 4 demountable tips
- Hook-on probes and test leads
- Cat III 1000 V, 10 A safety standard



## aL-30FL

### Fused lead Set

- Double insulated lead, 1 metre
- Spring shrouded, 4 mm brass caged, banana probe tip
- Straight input safety plug
- Interrupting capacity, 30 kA
- Cat III 1000 V, safety standard



## aPPa atL-3

### Lead Set

- Hard tips and comfort grip
- Safety shrouded, right-angle plug
- 1.2 metre lead length
- Suits Appa 70, 90, 100 series and most makes and models
- Cat III 1000 V safety standard



## aPPa 15 aDaPtOr

### ac current transducer

29 mm conductor Plugs into the appa 17 multimeter

- 0.1 to 300 Amps AC maximum
- 1.9 % typical accuracy



## aPPa aC-90

### carry case

- Zippered carry case
- Separate pocket for test leads
- Convenient belt loop
- Suits Appa 70, 90, 100 series and most makes and models



## eazyVOLt h1

### Holster

Suits Eazyvolt I / II and other Voltage Testers and Hand Tools



## aPPa 11h

### Humidity attachment for digital Multimeters

- 10-95 % RH range
- In-built polymer sensor
- Battery voltage check
- 3 % typical accuracy



## PD-20

### High Voltage Probe for use with Multimeters

- Measures AC/DC voltages
- DC Volts 0-30 kV
- AC Volts 0-20 kV
- Input impedance 500 MΩ
- Attenuation Ratio 1000:1
- Cable Length 1m



AL-30FL	14	HIOKI 3636-20	13
APPA 11	6	HIOKI 3637-20	13
APPA 11H	14	HIOKI 3641-20	12
APPA 15 ADAPTOR	14	HIOKI 3661-20	13
APPA 17	2	HIOKI 3662-20 / 3663-20	13
APPA 30	2	HIOKI 3665-20	13
APPA 33II	1	HIOKI 3803	4
APPA 33RII	1	HIOKI 8205-10/8206-10	12
APPA 36II	2	MEGGER 6231-623	12
APPA 36RII	2	MEGGER BM 15	9
APPA 50AK	6	MEGGER DET 3TD	11
APPA 50IK	7	MEGGER DET 4TD	11
APPA 50PK	6	MEGGER LRCD 220	11
APPA 50SK	7	MEGGER LT 320	11
APPA 51	6	MEGGER M 863	12
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APPA 75	4	MEGGER MIT 310	8
APPA 77	4	MEGGER MIT 310A	9
APPA 79	4	MEGGER MIT 230	9
APPA 97II	4	MEGGER MIT 320	9
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APPA A18 PLUS	13	MEGGER PAT 4DV/3	12
APPA A16HR	3	MEGGER PAT 32/ELT-1	12
APPA A16R	3	MEGGER RCD T310	10
APPA A7	1	MEGGER RCD T320	10
APPA A9	2	NIEAF INSTRUMENTS VOLT POINTER	5
APPA AC-90	14	NIEAF INSTRUMENTS VOLT SAFE	5
APPA ATL-3	14	NIEAF INSTRUMENTS VOLT SPOTTER	5
BEHA 2032	7	NIEAF-SMITT ELT-S	11
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CEM CO-180	7	NIEAF-SMITT IRT-S	10
EAZYVOLT H1	14	NIEAF-SMITT RCT-S	10
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HIOKI 3120	6	PARAMETERS DS-101	7
HIOKI 3151	11	PARAMETERS EAZYVOLT 1	5
HIOKI 3129-10	8	PARAMETERS EAZYVOLT 2	5
HIOKI 3169-20	12	PARAMETERS PA 61	1
HIOKI 3197	13	PARAMETERS PA 71	5
HIOKI 3244	4	PARAMETERS PA 140	10
HIOKI 3246	4	PARAMETERS PA 151	3
HIOKI 3280-10	1	PARAMETERS PA 191	7
HIOKI 3282	1	PARAMETERS PA 235	10
HIOKI 3283	10	PARAMETERS PA 260B	1
HIOKI 3285	2	PARAMETERS PA 520	8
HIOKI 3287	3	PARAMETERS PA 3000	8
HIOKI 3288	3	PARAMETERS PA 3001	1
HIOKI 3291	2	PARAMETERS PA 8020	3
HIOKI 3293	10	PARAMETERS PALD2	14
HIOKI 3423	8	PARAMETERS YF-180	6
HIOKI 3446-01	6	PARAMETERS YF-172	7
HIOKI 3452-13	8	PD-20	14
HIOKI 3454-51	8	PROVA AFLEX 3002	2
HIOKI 3455	9	PROVA AFLEX 3005	12
HIOKI 3554	13	SEW ST 860	8