

HIOKI

CLAMP ON HiTESTER Series

A Full Line-up of Digital and Analog
Clamp Meters to Suit Any Need



From Basic Testing to
High Performance Analysis



Please see www.hioki.com for
list of supported regions.

Selection Guide

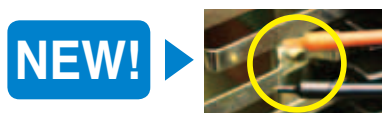
A Complete HIOKI Digital & Analog Clamp Tester

| | 3291-50 True RMS | 3280-10F MEAN value 3280-20F True RMS | 3281 True RMS 3282 True RMS | 3287 True RMS 3288 MEAN value 3288-20 True RMS | 3284 True RMS 3285 True RMS |
|------------------------------------|---------------------------------------|---|---|--|---|
| AC Current ranges | 60.00/600.0/1000 A AC | 42.00/420.0/1000A AC 420.0/4200A AC (Using the CT6280) | 3281: 30.00/300.0/600A AC 3282: 30.00 /300.0/1000A AC | 3287: 10.00/100.0A AC/ 3288/-20: 100.0/1000A AC | AC, AC+DC (True RMS or Peak value) 3284: 20.00/200.0A 3285: 200.0/2000A |
| Other current ranges | None | None | Wave peak value at AC Current 3281: 75.0 to 1000A peak, 3 ranges 3282: 75.0 to 1700A peak, 3 ranges | DC current range 3287: 10.00/ 100.0 A DC 3288/-20: 100.0/ 1000 A DC | DC (Average or Peak value) 3284: 20.00/200.0A DC 3285: 200.0/2000A DC |
| AC Voltage ranges | None | 4.200/42.00/420.0/600V AC | 300.0/600V AC | 4.200/42.00/420.0/600V AC | AC, AC+DC (True RMS or Peak value) 30.00/300.0/600V |
| Other voltage ranges | None | DC voltage range: 420.0m/4.200/42.00/420.0/600V DC | Wave peak value at AC voltage up to 750/1000V peak | DC voltage range: 420.0m/4.200/42.00/420.0/600 V DC | DC (Average or Peak value) 30.00/300.0/600V DC |
| Other functions | None | Resistance: 420.0 to 42.00 MΩ, 6 ranges Accuracy: ±2.0 % rdg. ±4 dgt. (at 420 to 420 kΩ range) Continuity: 420.0Ω (Buzzer sounds less than approx. 50Ω ±40Ω) | Distortion check: 1 to 5 Crest factor Resistance: 1k or 10kΩ range Frequency: 30.0 to 1000 Hz Mode: Slow/Peak/C.F./RMS Record mode/Auto-off/Conduction | Resistance: 420.0Ω/4.200Ω/42.00kΩ/ 420.0kΩ/4.200MΩ/42.00MΩ Accuracy: ±2.0% rdg. ±4 dgt. (at 420 to 420kΩ range) Continuity: 420.0Ω (Buzzer sounds less than approx. 50Ω ±40Ω) | Frequency: 10/100/1000 Hz |
| Analog output Printer output | None | None | None | None | DC, or AC 1V / f.s. Level output with REC mode Waveform output with MON mode |
| Basic accuracy | AC current: ±1.5 % rdg. ±5 dgt. | AC current: ±1.5 % rdg. ±5 dgt. AC voltage: ±1.8 % rdg. ±7 dgt. DC voltage: ±1.0 % rdg. ±3 dgt. | AC current: ±1.0% rdg. ±5 dgt. AC voltage: ±1.0% rdg. ±3 dgt. Peak: ±3% rdg. ±5 dgt. Frequency: ±0.3% rdg. ±1 dgt. | AC current: ±1.5 % rdg. ±5 dgt. AC voltage: ±2.3 % rdg. ±8 dgt. DC current: ±1.5 % rdg. ±5 dgt. DC voltage: ±1.3 % rdg. ±4 dgt. | AC current: ±1.3% rdg. ±3 dgt. AC voltage: ±1.0% rdg. ±3 dgt. DC current: ±1.3 % rdg. ±3 dgt. DC voltage: ±1.0 % rdg. ±3 dgt. Frequency: ±0.3% rdg. ±1 dgt. |
| Frequency characteristics | 45 to 400Hz | AC voltage: 45 to 500Hz AC current: 50 or 60Hz (3280-10F) 40 to 1kHz (3280-20F) | 40 to 1 kHz | DC, 10 to 1 kHz (3287) DC, 10 to 500 Hz (3288/-20) AC voltage: 30 to 500 Hz | DC, 10 to 2 kHz (3284) DC, 10 to 1 kHz (3285) |
| Sampling rate | Maximum 1.1 sec | 400 ms | 2 or 4 times /sec (Slow: 1 time /3 sec) | 2.5 times /sec | 2 or 4 times /sec (Slow: 1 time /3 sec) |
| Crest factor (RMS) | 2.8 or less (1.68 at 1000 A range) | 3280-10F: Not defined 3280-20F: 2.5 or less (1.5 or less at 4200 counts) | 3281: 2.5 (1.7 at 600A range) 3282: 2.5 (1.7 at 1000A range) | 3287: 2.5 (150A, 100V maximum) 3288: Not defined 3288-20: 3 (2 at 1000A range, 1.5 at voltage) | 3284: 2.5 (1.5 at 200A, 1.7 at 600V) 3285: 2.5 (1.42 at 2000A, 1.7 at 600V) |
| Effect of external magnetic fields | Yes; level not defined | Yes; level not defined | 3281: 1.5A equivalent max. at 400 A/m 3282: 0.2A equivalent max. at 400 A/m | Yes; level not defined | 3284: 0.5A equivalent max. at 400 A/m 3285: 2.0A equivalent max. at 400 A/m |
| Max. rated voltage to earth | 600 V AC rms | 600V AC rms | 600V AC rms | 600 V AC rms | 600V AC rms |
| Measurement categories (A) | CAT IV 300V CAT III 600V | CAT IV 300V CAT III 600V | CAT III 600V (3281) CAT IV 600V (3282) | CAT III 600V | CAT III 600V |
| Measurement categories (V) | None | CAT III 300V/ CAT II 600V | CAT IV 600V | CAT III 300V/ CAT II 600V | CAT III 600V |
| Core jaw dia | φ30 mm | φ33 mm (3280-10F/-20F) φ130 mm (CT6280) | 3281: φ33 mm 3282: φ46 mm | φ35 mm | 3284: φ33 mm 3285: φ55 mm |
| Power supply | CR2032 (3VDC) × 1 | CR2032 (3 VDC) × 1 | 6F22 (006P) × 1 | CR2032 (3VDC) × 1 | 6F22 (006P) × 1 or AC adapter |
| Dimensions and mass | 50W × 136H × 26D mm /115 g | 57W × 175H × 16D mm /100 g | 3281: 62W × 216.5H × 39D mm/350 g 3282: 62W × 231H × 39D mm/400 g | 3287: 57W × 180H × 16D mm/170 g 3288/-20: 57W × 180H × 16D mm/150 g | 3284: 62W × 230H × 39D mm, 460 g 3285: 62W × 260H × 39D mm, 540 g |

New insulated sleeves prevent short-circuits

No sleeves attached to the tip of test leads?
DANGER of short-circuit accident!!

With sleeve attached to the tip of test leads,
short-circuit accidents can be prevented.



**Conforms to safety standard
IEC61010-031 (revised) for hand-held probes**

What are the new and additional requirements of the international safety standards?

1. "Exposed metal part must be 4mm or shorter" (Previously, 19mm max.) for CAT III and IV environments to prevent short-circuits from occurring.
2. Double-coating with different colors enables you to identify the wear condition of the test leads. (Previously, single-coated)

Line-up to Suit Your Needs

| CM4371, CM4373 True RMS CM4372, CM4374 True RMS, with Bluetooth® Smart | Discontinued 3290 True RMS, 3290-10 True RMS | 3293-50 True RMS | 3283 True RMS 3283-20 True RMS | Discontinuation scheduled 3286-20 True RMS |
|--|---|---|---|--|
| AC, AC+DC (Measurement value, Peak value) CM4371/ 72: 20.00/600.0A CM4373/ 74: 600.0/2000A | 3290/-10+CT9691: 20.00A/100.0A AC 3290/-10+CT9692: 20.00A/200.0A AC 3290/-10+CT9693: 200.0A/2000A AC AC+DC, AC True RMS, AC MEAN | 30.00 m/300.0 m/ 6.000/60.00/600.0/1000 A AC | 10.00m/100.0m/ 1.000/10.00/200.0 A AC | 20.00/200.0/1000 A AC |
| DC (Measurement value, Peak value) CM4371/ 72: 20.00/600.0A AC CM4373/ 74: 600.0/2000A AC | 3290/-10+CT9691: 20.00A/100.0A DC 3290/-10+CT9692: 20.00A/200.0A DC 3290/-10+CT9693: 200.0A/2000A DC | None | None | None |
| AC, AC+DC (Measurement value, Peak value) 6.000/60.00/600.0/1000V | None | None | None | 150.0/300.0/600 V AC |
| DC (Measurement value, Peak value) 600.0m/6.000/60.00/600.0/1500V DC | None | None | None | None |
| Resistance: 600.0 Ω to 600.0 k Ω Electrostatic capacity: 1.000 μ F to 1000 μ F Frequency: 9.999 Hz to 999.9 Hz Continuity: 600.0 Ω (Buzzer sounds less than approx. 25 Ω \pm 10 Ω) Temperature (K): -40.0 to 400.0 $^{\circ}$ C Diode check AC Voltage detection DC Power: 0.0 VA to 1020 kVA(CM4371/ 72) 0.000 kVA to 3400 kVA(CM4373/ 74) | Frequency : 10.00/100.0/1000 Hz | None | Frequency: 30.0 to 1000 Hz | Power (Single-phase or 3 phase): 3kW to 600kW(Single-phase) 6kW to 1200kW(3-phase) Power factor, Phase angle: Frequency: 30.0 to 1000Hz Voltage/current harmonic levels |
| None | DC, or AC Current : 2V/f.s. Level output with REC mode Waveform output with MON mode Integ./Frequency : 1V/f.s. | None | 3283: DC, or AC 1V / f.s. (200A range: 2V / f.s.) Level output with REC mode Waveform output with MON mode 3283-20: None | None |
| AC current: \pm 1.3% rdg. \pm 3 dgt. AC voltage: \pm 0.9% rdg. \pm 3 dgt. DC current: \pm 1.3 % rdg. \pm 3 dgt. DC voltage: \pm 0.5 % rdg. \pm 3 dgt. Frequency: \pm 0.1% rdg. \pm 1 dgt. | AC/DC/AC+DC Current: \pm 1.3 % rdg. \pm 3 dgt. (Typical) Frequency: \pm 0.3 % rdg. \pm 1 dgt. (Typical) | AC current: \pm 1.5 % rdg. \pm 5 dgt. | 10m to 10A range: \pm 1.0 % rdg. \pm 5 dgt. 200A range: \pm 1.5 % rdg. \pm 5 dgt. Frequency: \pm 0.3 % rdg. \pm 1 dgt. | AC current: \pm 1.3 % rdg. \pm 3 dgt. AC voltage: \pm 1.0 % rdg. \pm 3 dgt. Power: \pm 2.3% rdg. \pm 5 dgt.(1f) \pm 3.0% rdg. \pm 10 dgt.(3f) (Accuracy guaranteed only for 50/60Hz cos ϕ =1) |
| AC current: 10 to 1 kHz AC voltage: 15 to 1 kHz | DC to 500 Hz (CT9691) DC to 1 kHz (CT9692, CT9693) \pm 2.3 % rdg. + 8 dgt. | 45 to 400 Hz | 40 to 2 kHz | AC current: 45 to 1 kHz AC voltage: 30 to 1 kHz |
| 5 times/s (excluding electrostatic capacity, frequency, and temperature) | 3290 FAST: 4 times/sec (3290-10 AC, AC+DC FAST: 10 times/sec) Normal : 2 times/ s, Slow : 1 time / 3s | Maximum 1.1 sec | 2 or 4 times /sec (Slow: 1 time /3 sec) | Normal: 1 time /sec (Slow: 1 time /3 sec) |
| CM4371/ 72 [20 A range]: 7.5 CM4371/ 72/ 73/ 74 [600 A range]: 3 (greater than 500 A and less than or equal to 600 A: 2.5) CM4373/ 74 [2000 A range]: 2.84 (greater than 1000 A and less than or equal to 2000 A: 1.42) | 2.5 or less | 2.8 or less (1.68 at 1000 A range) | 2.5 (1.5 at 200A range) | 2.5 (1.7 at 1000 A, 600 V range) |
| CM4371/ 72: 2.00A or less at 400 A/m CM4373/ 74: 2.0A or less at 400 A/m | CT9691 : 0.5 A equivalent max. at 400 A/m CT9692 : 0.7 A equivalent max. at 400 A/m CT9693 : 2.0 A equivalent max. at 400 A/m | 7.5 mA equivalent max. at 400 A/m | 7.5 mA equivalent max. at 400 A/m | 1.00 A equivalent max. at 400 A/m |
| 1000V AC rms | 600 V AC rms | 300 V AC rms | 300 V AC rms | 600 V AC rms |
| CAT IV 600V CAT III 1000V | CAT III 600V (Sensor rating) | CAT III 300V | CAT III 300V | CAT III 600V |
| CAT IV 600V/ CAT III 1000V | None | None | None | CAT III 600V |
| CM4371/ 72: ϕ 33 mm CM4373/ 74: ϕ 55 mm | CT9691 : ϕ 35 mm CT9692 : ϕ 33 mm CT9693 : ϕ 55 mm | ϕ 24 mm | ϕ 40 mm | ϕ 55 mm or 80mm busbar |
| LR03 Alkaline battery \times 2 | LR6 (AA) alkaline batteries \times 4 or AC adapter or +8.4 to 15.6 VDC external power (3290-10 only) | CR2032 (3VDC) \times 1 | 3283: 6F22 (006P) \times 1 or AC adapter 3283-20: 6LR61 \times 1 or 6F22 (006P) \times 1 | 6LR61/6LF22 (006P) \times 1 |
| CM4371/ 72: 65W \times 215H \times 35D mm, 340 g CM4373/ 74: 65W \times 250H \times 35D mm, 530 g | 3290/-10: 155W \times 98H \times 47D mm/545 g CT9691 : 53W \times 129H \times 18D mm/230 g CT9692 : 62W \times 167H \times 35D mm/410 g CT9693 : 62W \times 196H \times 35D mm/500 g | 50W \times 130H \times 26D mm/135 g | 62W \times 225H \times 39D mm/400 g | 100W \times 287H \times 39D mm /650 g |

Accessories : TEST LEAD L9208/ L9207-10/ L9207-30

| | | |
|--------------------|---------------|--|
| Sleeve attached | CAT IV 600V | When the CAT (measurement category) rating of the main unit is lower than that of test leads, the CAT of the main unit takes precedence. When measuring in a CAT IV or CAT III environment, be sure to attach the sleeve to the test leads. |
| | CAT III 1000V | |
| No sleeve attached | CAT II 1000V | |

Sleeve attached

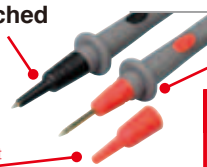
CAT III, CAT IV

No sleeve attached

CAT I, CAT II

Sleeve

included as a standard accessory
(This sleeve cannot be attached to previous products)

**Detachable!**

When a sleeve is not attached, the test leads can only be used in a CAT II environment.

Pocket size CLAMP SERIES

AC CLAMP METER

3280-10F 3280-20F

Rugged & Compact

New

- 3280-10F: MEAN Value / 3280-20F: True RMS
- AC 1000 A clamp aperture: 33 mm dia.
- Slim body allows easy clamping even for narrow conductors
- Expanded -25 °C to 65 °C operating temperature range
- Connect the CT6280 flexible sensor to measure up to 4199 A in thick or paired wires

Order Code

| | |
|-----------------------|--|
| 3280-10F (MEAN value) | The 3280-70F and 3280-90F includes both the meter and an AC Flexible Current Sensor. 1: AC CLAMP METER 3280-10F×1 (3280-70F) or 3280-20F×1 (3280-90F) 2: AC FLEXIBLE CURRENT SENSOR CT6280×1 3: CARRYING CASE C0205×1 |
| 3280-20F (True RMS) | |
| 3280-70F (MEAN value) | |
| 3280-90F (True RMS) | |

Accessories (3280-10F, 3280-20F)

TEST LEAD L9208 ×1
CARRYING CASE 9398 ×1
Instruction manual ×1
Coin type lithium battery (CR2032) ×1

Options

AC FLEXIBLE CURRENT SENSOR CT6280
CARRYING CASE C0205
TEST LEADS HOLDER 9209
CONTACT PIN SET L4933
SMALL ALLIGATOR CLIP SET L4934



Use with an AC Clamp Meter to measure large wires and currents.

3 year
Guarantee

CE

DROP PROOF

True RMS
3280-20F



3280-10F

CLAMP ON AC/DC HiTESTER

3287 3288

Compact & easy, one-touch maintenance on all types of AC/DC equipment

- New Model 3288-20 True RMS AC/DC pocket clamp meter measuring up to 1000 A further expands the HIOKI lineup
- The 3287 can handle even cogenerator / inverter energy-saving equipment (10/ 100A)
- Use the 3288 for high current measurements such as UPS emergency batteries and train motors (100/ 1000A)
- A slim core of only 10 mm (0.39") for easy clamping even in crowded wiring

Order Code

3287 (True RMS, 100 A AC/DC)
3288 (MEAN value, 1000 A AC/DC)
3280-20 (True RMS, 1000 A AC/DC)

Accessories

TEST LEAD L9208 ×1
CARRYING CASE 9398 ×1
Instruction manual ×1

3288-20

3 year
Guarantee

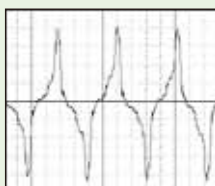
CE

True RMS
3287/ 3288-20



True RMS vs. MEAN Value

Two ways to convert alternating current to RMS are "true RMS response" and "average rectified RMS response" (averaging). Both display the same value for a sine wave, but can display very different values for distorted waveforms.



When measuring current waveforms distorted by inverters...

True RMS

AUTO
~ 8.56 A

High-frequency waveform components are included in the calculated RMS display value.

MEAN Value

AUTO
~ 7.35 A

The measured waveform is treated as a single-frequency (undistorted) sine wave, and the calculated average of the AC signal is converted to an RMS display value. Measurement error increases with waveform distortion.

■ As inverters and switching power supplies proliferate, the need for the capability to measure distorted current waveforms grows.

A true RMS clamp-on current meter is the proper tool for accurate measurements.

HIGH PERFORMANCE CLAMP SERIES

DIGITAL CLAMP ON HiTESTER

3281 3282

The true RMS is shown in the distorted waveform

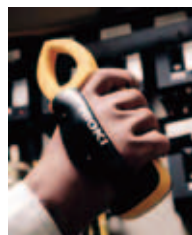
- 3281: 600A ACrms, $\Phi 33$ mm dia.
- 3282: 1000A ACrms, $\Phi 46$ mm dia.
- Non-fuse type protects up to 600VAC

Order Code

3281 (True RMS, 600 A AC)
3282 (True RMS, 1000 A AC)

Accessories

TEST LEAD L9207-10 $\times 1$
CARRYING CASE 9399 $\times 1$
Hand strap $\times 1$
Instruction manual $\times 1$
Stacked manganese battery (6F22) $\times 1$



3282

Not CE Marked

3281

True RMS



AC/ DC CLAMP METER

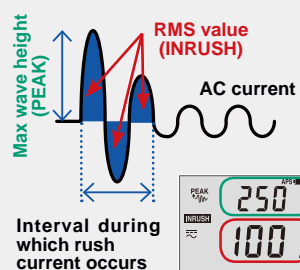
CM4371 CM4372 CM4373 CM4374

Rugged clamp meters for the toughest situations

- CM4371, CM4372: 600 Arms, clamp aperture: 33 mm dia.
- CM4373, CM4374: 2000 Arms, clamp aperture: 55 mm dia.
- The CM4372 and CM4374 will be able to send measured values to a smart phone or tablet using Bluetooth® wireless technology.
- Multiple measurement functions such as current, voltage, resistance, frequency, and voltage detection
- Expanded -25 °C to 65 °C operating temperature range
- IP54 dustproof and waterproof enclosure *Jaws (current sensor portion): IP50
- Remain alert to hazards with a red backlight and beeping tone

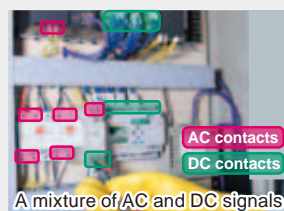
Inrush (Rush current)

The CM4370 series can simultaneously measure inrush current in RMS as well as maximum crest values at motor startup and for welding currents. The clamp meters automatically detect the duration of the inrush current (which can range from several dozen milliseconds to several hundred milliseconds).



Automatic AC/DC detection

Simply rotate the rotary switch to the CURRENT MEASUREMENT or VOLTAGE MEASUREMENT function to take measurements after automatically detecting whether the signal is AC or DC. Since this functionality eliminates the need to operate the rotary switch in locations where AC and DC wires are intermingled, it helps boost work efficiency.



True RMS



CM4372, CM4374



Order Code

CM4371 (True RMS, 600 A AC/DC)
CM4372 (True RMS, 600 A AC/DC, built in Bluetooth® wireless technology)
CM4373 (True RMS, 2000 A AC/DC)
CM4374 (True RMS, 2000 A AC/DC, built in Bluetooth® wireless technology)

Accessories

TEST LEAD L9207-10 $\times 1$
CARRYING CASE C0203 $\times 1$
LR03 Alkaline battery $\times 2$
Instruction manual $\times 1$

Options

TEST LEAD L9207-10 Options
CONTACT PIN SET L4933
SMALL ALLIGATOR CLIP SET L4934
THERMOCOUPLES(K) DT4910

CONNECTION CABLE L4930 Options
CONNECTION CABLE SET L4930
EXTENSION CABLE SET L4931
TEST PIN SET L4932
ALLIGATOR CLIP SET L4935
BUS BAR CLIP SET L4936
MAGNETIC ADAPTER SET L4937
TEST PIN SET L4938
BREAKER PIN SET L4939
GRABBER CLIP 9243

HIGH PERFORMANCE CLAMP and Detachable Designs

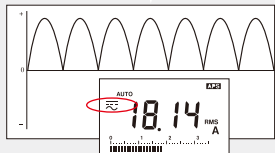
CLAMP ON AC/DC HiTESTER 3284 3285

Analysis for DC to distorted waves

- 3284: 200 Arms, clamp aperture: 33 mm dia.
- 3285: 2000 Arms, clamp aperture: 55 mm dia.
- Inrush current peak value
- RMS value of full-wave rectified waveforms
- Waveform and harmonic analysis

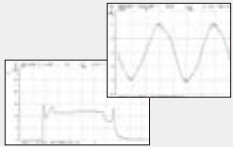
RMS value of **full-wave rectified waveforms**

The AC+DC mode enables measurement of the RMS value of full- or half-wave rectified waveforms used in electrical machinery.



Easily monitor current fluctuations

Using the external output functions of the 3284 or 3285 in combination with a HIOKI Memory HiCorder enables recording of current and frequency fluctuations and recording and harmonic analysis of instantaneous waveforms.



3284

3285



Not CE Marked

True RMS

Order Code

3284 (True RMS, 200 A AC/DC, Not CE marked)
3285 (True RMS, 2000 A AC/DC, Not CE marked)

Accessories

TEST LEAD L9207-10 ×1
CARRYING CASE (for 3284) 9399 ×1
CARRYING CASE (for 3285) 9345 ×1
Hand strap ×1
Instruction manual ×1

Options

| | |
|------------------------------|---------|
| AC ADAPTER (for USA) | 9445-02 |
| AC ADAPTER (for EU) | 9445-03 |
| CLAMP ON ADAPTER | 9290-10 |
| OUTPUT CORD | |
| (Connect to Banana terminal) | L9094 |
| OUTPUT CORD | |
| (Connect to BNC terminal) | L9095 |
| OUTPUT CORD | |
| (Connect to terminal block) | L9096 |

CLAMP ON AC/DC HiTESTER 3290 CLAMP ON AC/DC SENSOR CT9691 CT9692 CT9693

All the Functions You Need for Measurement at DC or 1Hz and Up

- Choice of three sensors (Example combinations)
3290/-10 +CT9691 : Measure up to 100A (φ35mm)
3290/-10 +CT9692 : Measure up to 200A (φ33mm)
3290/-10 +CT9693 : Measure up to 2000A (φ55mm)
- Choice of measurement methods
DC (for battery measurement)
AC+DC RMS (for full-/ half-wave rectification measurement)
AC RMS (for current distortion measurement)
PEAK (for peak value measurement of inrush current, etc.)
- Choice of output (Simultaneous output)
RMS value output, frequency output, waveform output
- Choice of response times (Switchable among three response times)
- LPF function (filters out unnecessary harmonics : fc=550Hz)
- 3290-10 Functions
Current integral measurement (obtain polarity-specific integrated DC values)
Operating time/duty measurement

3290-10

CT9692

3290

CT9691



Measurement is not available with only the **CLAMP-ON AC/DC HiTESTER 3290** or **3290-10**. A **CLAMP-ON AC/DC SENSOR** (Model CT9691, CT9692 or CT9693) must also be purchased separately.

Order Code

3290
3290-10 (with integral current measurement)

Accessory

Hand strap ×1 Instruction manual ×1
LR6(AA)alkaline batteries ×4

Options

| | | | |
|-------------------------------|---------|-------------------------|------|
| CLAMP ON AC/DC SENSOR (100A) | CT9691 | OUTPUT CORD | 9094 |
| CLAMP ON AC/DC SENSOR (200A) | CT9692 | (Not CE marked) | |
| CLAMP ON AC/DC SENSOR (2000A) | CT9693 | CARRYING CASE | 9400 |
| AC ADAPTER (for USA) | 9445-02 | CONNECTOR ADAPTER | 9199 |
| AC ADAPTER (for EU) | 9445-03 | (BNC to banana[female]) | |

Flip CLAMP and Leak CLAMP SERIES

CLAMP ON HiTESTER 3291-50 CLAMP ON LEAK HiTESTER 3293-50

Easily read measured values from all heights with the adjustable display

3291-50 Overview

- Innovative flip clamp design
- Flip display to see measurement readings from any angle
- Max. 1000A, 3 ranges, Bar graph display
- Filter out high frequency noises for a clean signal

3293-50 Overview

- Measure for leakage current and load all with the same device
- Innovative flip clamp design
- Flip display to see measurement readings from any angle
- 1mA to 1000A accuracy guaranteed, 6 ranges and bar graph display
- Measure and display only the leakage current of commercial frequency components using the filter function

3291-50

3293-50

FLIP CLAMP CE True RMS



Order Code

3291-50
3293-50

Accessories

CARRYING CASE 9757 ×1
Hand strap ×1
Instruction manual ×1
Coin type lithium battery (CR2032) ×1

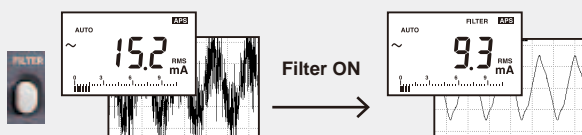
CLAMP ON LEAK HiTESTER 3283

1mA to 200A AC Leakage Current Clamp Meter with 10 μ A Resolution to Analyze Distorted Waveforms

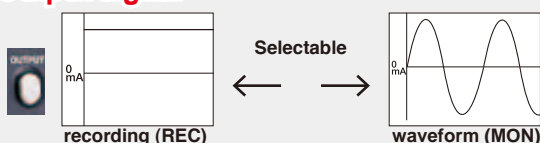
- Measure leak current using highly sensitive 10 μ A resolution (at 10.00 mA range)
- Indicate 50/60 Hz leak current components with the filtering function
- Monitor leak current conditions in combination with a Memory HiCorder (monitor output, Model 3283 only)
- 3283-20: EN 61010-2-032:2012 Type A to measure uninsulated hazardous live conductors such as busbars

Filtering

Sharp Low-pass filter reduces harmonic currents.

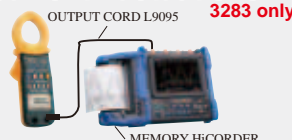


Output signal 3283 only



Easily monitor leakage current fluctuations

In combination with a HIOKI Memory HiCorder the 3283 can be used for long-term monitoring for leakage current fluctuations.



CE
3283-20

Not CE Marked

3283



Insulated conductor

True RMS



3283-20

Order Code

3283
(with analog/ waveform monitor output,
Not CE marked)
3283-20
(without analog/ waveform monitor output)

Accessories

CARRYING CASE 9399 ×1
Hand strap ×1 Instruction manual ×1
3283: Stacked manganese battery (6F22) ×1
3283-20: Alkaline battery (6LR61) ×1

Options

AC ADAPTER (for USA) 9445-02
AC ADAPTER (for EU) 9445-03
CLAMP ON ADAPTER 9290-10
OUTPUT CORD L9094
(Connect to Banana terminal)
OUTPUT CORD L9095
(Connect to BNC terminal)
OUTPUT CORD L9096
(Connect to terminal block)

CLAMP ON POWER HiTESTER 3286-20



**All powerful ! Easy operation !
True-RMS Clamp-on Power Meter !**

- Use as a single-phase power meter or power factor meter (3kW to 600kW range)
- Simple checking of three-phase lines (6kW to 1200kW range)
- Check power supply fluctuations
- 1000 A, 1000 Hz, peak and harmonic measurement
- True RMS (effective value) display method



Basic specifications

| | |
|--|---|
| Measurement lines | Single-phase/two-wires, Three-phase/three-wires (balanced load only) |
| Measurement items | Voltage, current, voltage/current peak, effective/reactive/apparent power(Single-phase or 3-phase), power factor, reactivity, phase angle, frequency, phase detection(3-phase), voltage/current harmonic levels(up to 20th) |
| Measurement ranges | Voltage: 150.0 V to 600 V, 3 ranges, Current: 20.00 to 1000 A, 3 ranges, Power: 3.000 kW to 1200 kW, 18 combination patterns, Note: 3-phase power is calculated and displayed on the basis of a balanced, 50/60 Hz, sine wave input. For apparent power and reactive power, the unit of watts in the above table is replaced by VA and var respectively. |
| Basic accuracy at 50/60 Hz, $\cos \phi=1$ | Power/single-phase: $\pm 2.3 \% \text{ rdg. } \pm 5 \text{ dgt.}$, Power/3-phase: $\pm 3.0 \% \text{ rdg. } \pm 10 \text{ dgt.}$ (at balanced load) Voltage: $\pm 1.0 \% \text{ rdg. } \pm 3 \text{ dgt.}$ (True RMS), Current: $\pm 1.3 \% \text{ rdg. } \pm 3 \text{ dgt.}$ (True RMS) |
| Frequency characteristics | AC current : 45 to 1 kHz AC voltage : 30 to 1 kHz |
| Other functions | Phase detection, Record (Max. value/Min. value), Battery capacity display, Data hold, Auto power off |

Order Code

3286-20

Accessories

VOLTAGE CORD L9635-01 $\times 1$
CARRYING CASE 9245 $\times 1$
Hand strap $\times 1$ Instruction manual $\times 1$
Stacked alkaline battery (6LF22) $\times 1$

⚠ WARNING Inspect the unit and check that it is operating correctly before use. When carrying out measurement on live lines, wear proper protective gear, insulating rubber gloves, insulating rubber boots and safety helmet, and use extreme caution to avoid electric shock accidents.

⚠ DANGER In order to prevent short-circuits and injury, use the clamp product on electrical circuits with a voltage less than the maximum operation circuit voltage.

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