

## CLAMP ON HiTESTER SERIES

Field measuring instruments



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



From Basic Testing to

# Selection Guide

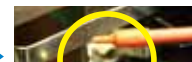
## A Complete HIOKI Digital & Analog Clamp Tester

	3291-50 True RMS	3280-10 MEAN value 3280-20 True RMS	3281 True RMS 3282 True RMS	3287 True RMS 3288 MEAN value 3288-20 True RMS	3284 True RMS 3285 True RMS 3285-20 True RMS
AC Current ranges	60.00/600.0/1000 A AC	42.00/420.0/1000A AC	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 AC 3285/3285-20: 200.0/2000A AC
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 or 100.0 A DC, 2 ranges 3288/-20: 100.0 or 1000 A DC, 2 ranges	DC (Average or Peak value) 3284: 20.00/200.0A DC 3285/3285-20: 200.0/2000A DC
AC Voltage ranges	None	4.200/42.00/420.0/600V AC	300.0/600V AC	3287: 4.200/42.00/420.0/600V AC 3288/-20: 4.200/42.00/420.0/600V AC	AC, AC+DC (True RMS or Peak value) 30.00/300.0/600V AC
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)	Resistance: 1k or 10kΩ range (3285-20 only)
Analog output Printer output	None	None	None	None	DC, or AC 1V / f.s. Level output with REC mode Waveform output with MON mode (except for 3285-20)
Basic accuracy (at 50 or 60Hz)	AC current: ±1.5 % rdg. ±5 dgt.	AC current: ±1.5 % rdg. ±5 dgt. AC voltage: ±2.3 % rdg. ±8 dgt. DC voltage: ±1.3 % rdg. ±4 dgt. Continuity: ±2.0 % rdg. ±6 dgt.	AC current: ±1% rdg. ±5 dgt. AC voltage: ±1% 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. Continuity: ±2.0 % rdg. ±6 dgt.	AC current: ±1.3% rdg. ±3 dgt. AC voltage: ±1.0% rdg. ±3 dgt. Frequency: ±0.3% rdg. ±1 dgt.
Frequency characteristics AC current / voltage	45 to 400Hz	AC voltage: 50 to 500Hz AC current: 50 or 60Hz (3280-10) 40 to 1kHz (3280-20)	40 to 1000 Hz	AC current: 3287 DC, 10 to 1kHz AC current: 3288/-20 DC, 10 to 500Hz AC voltage: 30 to 500Hz	3284: DC, 10 to 2kHz 3285/3285-20: DC, 10 to 1kHz
Display	Digital /LCD, maximum 6000 dgt. Bar graph / 91 seg.	Digital /LCD, maximum 4199 dgt.	Digital /3000 dgt. Bar graph /35 seg.	Digital /LCD, maximum 4199 dgt.	Current / 2500 dgt. Voltage / 3750 dgt. Bar graph /35 seg.
Sampling rate	Maximum 1.1 sec	2.5 times /sec or 1 time /3 sec	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)	3280-10: Not defined 3280-20: 2.5 or less	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 (1000A/2 max, voltage/1.5 max.)	3284: 2.5 (1.5 at 200A range) 3285/3285-20: 2.5 (1.42 at 2000A range)
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/ 3285-20: 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 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	3281: φ33 mm 3282: φ46 mm	φ35 mm	3284: φ33 mm 3285/3285-20: φ55 mm
Power supply	CR2032 (3VDC) × 1	CR2032 (3 VDC) × 1	6F22 (006P) × 1	CR2032 (3VDC) × 1	6F22 (006P) × 1 or AC adapter (except for 3285-20)
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 3285/3285-20: 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.

Find Quality Products Online at:

[www.GlobalTestSupply.com](http://www.GlobalTestSupply.com)

[sales@GlobalTestSupply.com](mailto:sales@GlobalTestSupply.com)

## DIGITAL CLAMP ON HiTESTER 3281 3282

The true RMS is shown in the distorted waveform

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

### Accessories

TEST LEAD L9207-10 x1  
CARRYING CASE 9399 x1  
Hand strap x1  
Instruction manual x1



## CLAMP ON AC/DC HiTESTER 3284 3285 3285-20

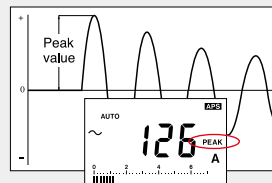
Analysis for DC to distorted waves

- 3284: 200 Arms, clamp aperture: 33 mm dia.
- 3285: 2000 Arms, clamp aperture: 55 mm dia.
- 3285-20: With resistance measurement range  
No analog output  
Cannot be used with AC adapter
- Inrush current peak value
- RMS value of full-wave rectified waveforms
- Waveform and harmonic analysis



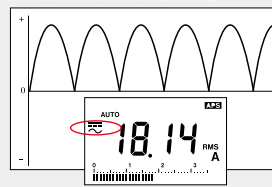
### Inrush current peak value

The peak hold function displays the peak value of the inrush current occurring when electrical equipment is started.



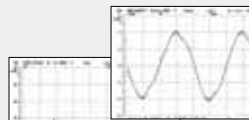
### RMS value of full-wave rectified waveforms

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



### Accessories

TEST LEAD L9207-10 x1  
CARRYING CASE (for 3284) 9399 x1  
CARRYING CASE (for 3285, 3285-20) 9345 x1  
Hand strap x1  
Instruction manual x1

### Options

AC ADAPTER (for USA) 9445-02  
AC ADAPTER (for EU) 9445-03  
CLAMP ON ADAPTER 9290-10  
OUTPUT CORD (Not CE marked) 9094  
CONNECTOR ADAPTER 9199

