

# HIOKI

**3284** [200A rms,  $\phi$  33mm(1.30") max.]

**3285/-20** [2000A rms,  $\phi$  55mm(2.17") max.]

## CLAMP ON AC/DC HITESTER

Field measuring instruments



# 2000 A analysis

(3285 /3285-20)



3285



3285-20

Analysis for  
**DC to distorted**  
waves

CAT III 600 V



ISO14001  
JQA-E-90091



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

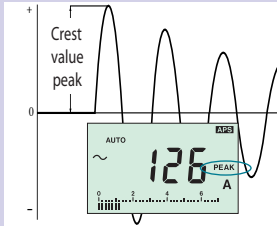
HIOKI company overview, new products, environmental considerations and other information are available on our website.

# Analysis applications

Supporting a wealth of functions

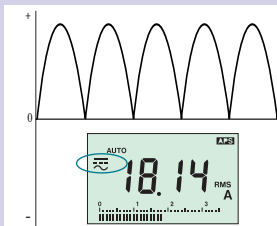
## Inrush current crest value

The peak hold function displays the crest 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.



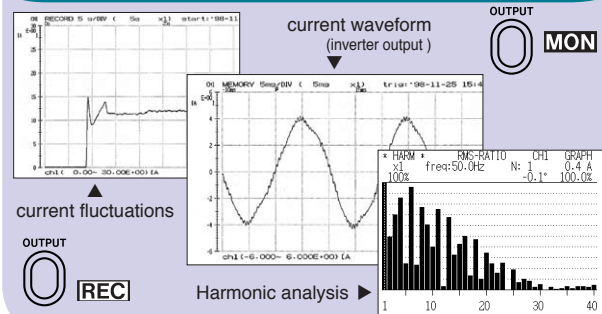
## Waveform and harmonic analysis

Model 3284 and 3285 only



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. The monitor output (MON) spans a wide frequency range from DC to 20 kHz (15 kHz in the case of 3285), which allows the units to be used for electric current analysis in various fields ranging from batteries to inverters.

### Example of analysis using the MEMORY HiCORDER



## 3284 / 3285 Specifications

[ ] in the Specification :3285,3285-20 Accuracy at 23 °C ± 5 °C (73 °F ± 9 °F), 80% rh or less. Measurement accuracy applies to input of at least 5% of the current range, and at least 10% of the voltage/frequency range.

Function	Mode	Display Switch*	Range	Accuracy at DC or 45 to 66 Hz	10 to 45Hz or 66 to 2 [1] kHz	PEAK accuracy at DC or 45 to 66 Hz	Notes
Current (A)	DC	Average / PEAK	20.00 / 200.0	±1.3%rdg.±3dgt.	—	±1.3%rdg.±7dgt.*6	<b>Max. allowable current</b> 200Arms cont. 300A peak max. [2000Arms cont. 2840A peak max.]
	AC	RMS / PEAK	[200.0 / 2000]	±1.3%rdg.±3dgt.*2	±2.0%rdg.±5dgt.*3*4	±1.3%rdg.±7dgt.*6	
	AC+DC	RMS / PEAK	Resolution is 0.1 [1] A during PEAK	±1.3%rdg.±13dgt.*2	±2.0%rdg.±7dgt.*3*4	±1.3%rdg.±7dgt.*6	
Voltage (V)	DC	Average / PEAK	30.00 / 300.0 / 600	±1.0%rdg.±3dgt.	—	±1.0%rdg.±7dgt.	<b>Max. allowable voltage</b> 600Vrms cont. 1000V peak max.
	AC	RMS / PEAK	Resolution is decreased by 1 digit except in the 600 V range during PEAK	±1.0%rdg.±3dgt.	±1.5%rdg.±5dgt.	±1.0%rdg.±7dgt.*7	
	AC+DC	RMS / PEAK		±1.0%rdg.±7dgt.*5	±1.5%rdg.±7dgt.*5	±1.0%rdg.±7dgt.*7	
Frequency (Hz)	—	—	10.00 / 100.0/1000	±0.3%rdg.±1dgt.	±1.0%rdg.±1dgt. (at 1000Hz)	—	Effective in the V and A functions
Resistance(Ω) <sup>8</sup>	—	—	1000/10.00k	±1.5%rdg.±5dgt.	—	—	Open terminal Voltage 3.1V DC or less
Continuity Check <sup>9</sup>	—	—	1000	Threshold level 30Ω ±5Ω or less	—	—	

\*1 The peak hold function works automatically during PEAK measurement. \*2 Add ±1.0% rdg. in the 1800 to 2000 A interval for the 3285. \*3 Add ±1.0% rdg. in the 1k to 2kHz interval for the 3284. \*4 No assured accuracy in the 1800 to 2000 A interval for the 3285. \*5 Add 6 dgt. in the 30 V range. \*6 Add ±4.7% rdg. in the 2300 to 2840 A interval for the 3285. \*7 Add ±1.0%rdg.±13dgt when measuring 700 V to 1000V with Model 3285-20. \*8 Model 3285-20 only.

Measurable conductor diameter : ϕ33 (1.30") mm, [ϕ55 (2.17") mm] max.

Max. usable circuit voltage : 600Vrms (insulated conductor)

Functions : recording (MAX. MIN. AVE), data hold, auto power-off, auto zero

Display update rate : digital indication FAST approx. 4 times/second, NORMAL approx. 2 times/second, SLOW 1 time/3 seconds; bar graph indication approx. 4 times/second

Display response time : 1 sec or less

Range switching : Auto/Manual (Except resistance.)

Frequency characteristic : 40 Hz to 2 [1] kHz accuracy

External output : A/Hz only: recording output DC1V/f.s. ±1.3% rdg.±10mV, Response: 250ms (Except model 3285-20) or less (at 0→90%) MON A only : Waveform output 1Vrms/f.s. ±1.3% rdg.±5mV, Frequency band: DC to 20 [15] kHz ±3dB

Effect of conductor position : within ±0.5[0.7] % in any direction from the center of sensor

Effect of external magnetic field : 400 A/m corresponds to 0.5 [2] A max.

Crest factor : 2.5 or less, 1.7 or less in the 600 V range, 3284 is 1.5 or less in the 200 A range [1.42 or less in the 2000 A range]

Safety standard : EN61010-1 CAT III 600V, EN61010-2-032, EN60529 IP40 EMC : EN61326, EN61000-3-2, EN61000-3-3

Ambient temperature of use : 0 to 40°C (32°F to 104°F), 80%rh or less (no condensation)

Storage temperature range : -10 to 50°C (14°F to 122°F) or less (no condensation)

Power supply : 9445 AC ADAPTER(Except Model 3285-20.) or 6F22 manganese battery×1 (continuous operation : Model 3284/3285-25 hours, Model 3285-20-20 hours)

Dimensions and mass : Approx. 62W×230[260]H×39D mm, 460 [540]g (Approx 2.45" W×9.06[10.3]" H×1.54" D, 16.3 [19.1] oz.)

Options

9445-02 AC ADAPTER (UL)

9445-03 AC ADAPTER (EU)

An AC Adapter can only be used with Models 3284 and 3285.

\* 9094 OUTPUT CORD(Jack to banana plug) \*No CE marking

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

(All include 9207-10 TEST LEADS, 9399 CARRYING CASE(3284), 9345 CARRYING CASE(3285/3285-20), HAND STRAP)

# HIOKI

HIOKI E. E. CORPORATION

HEAD OFFICE :

81 Koizumi, Ueda, Nagano, 386-1192, Japan  
 TEL +81-268-28-0562 / FAX +81-268-28-0568  
 E-mail: os-com@hioki.co.jp

HIOKI USA CORPORATION :

6 Corporate Drive, Cranbury, NJ 08512 USA  
 TEL +1-609-409-9109 / FAX +1-609-409-9108  
 E-mail: hioki@hiokiusa.com

Shanghai Representative Office :

1704 Shanghai Times Square Office  
 93 Huaihai Zhong Road  
 Shanghai, 200021, P.R.China  
 TEL +86-21-6391-0090, 0092  
 FAX +86-21-6391-0360  
 E-mail: info@hioki.cn

DISTRIBUTED BY

www.SignalTestInc.com <http://www.SignalTestInc.com>  
 1529 Santiago Ridge Way  
 San Diego, CA 92154 USA.  
 Sales@SignalTestInc.com

**SIGNAL TEST™**  
 New & Used Test Equipment