

**3284** [200Arms, Ø33mm(1.30") max.] 2003

**3285** [2000Arms, Ø55mm(2.17") max.]

# CLAMP ON AC/DC HiTESTER

Field measuring instruments



# 2000 A analysis

(3285 only)



**3284**

Analysis for  
**DC to distorted  
waves**

CAT III 600 V



**3285**



**ISO14001**  
JQA-E-90091



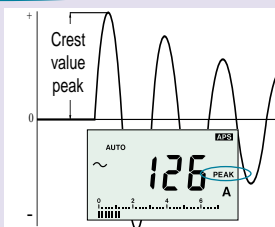
HIOKI company overview, new products, environmental considerations and other information are available on our website.

# Analysis applications

A wealth of functions supported.

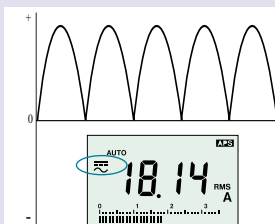
## Inrush current crest value

The peak hold function displays the crest value of the inrush current occurring when apparatus electrical 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.

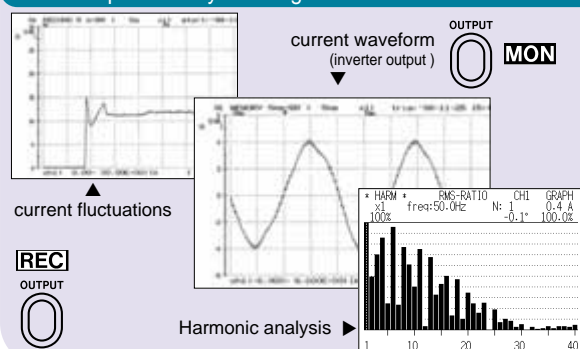


## Waveform and harmonic analysis



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 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  | Switches the display* | Range  | Accuracy at DC or 45 to 66 Hz | 10 to 45Hz or 66 to 2 [ ] kHz | PEAK accuracy at DC or 45 to 66 Hz | Notes   |
|----------------|-------|-----------------------|--|-------------------------------|-------------------------------|------------------------------------|---|
| Current (A)    | DC    | Average / PEAK        | 20.00 / 200.0 [200.0 / 2000]   | ±1.3%rdg.±3dgt.               | —                             | ±1.3%rdg.±7dgt.*6                  | <b>Max. allowable current</b><br>200Arms cont. 300A peak max.<br>[2000Arms cont. 2840A peak max.] |
|                | AC    | RMS / PEAK            | Resolution is 0.1 [1] A during PEAK                                  | ±1.3%rdg.±3dgt.*2             | ±2.0%rdg.±5dgt.*3*4           | ±1.3%rdg.±7dgt.*6                  |   |
|                | AC+DC | RMS / 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><br>600Vrms cont. 1000V peak max.                                    |
|                | AC    | RMS / PEAK            | Resolution is degraded 1 digit except in the 600 V range during PEAK | ±1.0%rdg.±3dgt.               | ±1.5%rdg.±5dgt.               | ±1.0%rdg.±7dgt.                    |   |
|                | AC+DC | RMS / PEAK            |  | ±1.0%rdg.±7dgt.*5             | ±1.5%rdg.±7dgt.*5             | ±1.0%rdg.±7dgt.                    |   |
| Frequency (Hz) | —     | —                     | 10.00 / 100.0/1000   | ±0.3%rdg.±1dgt.               | ±1.0%rdg.±1dgt. (at 1000Hz)   | —                                  | Effective in the V and A functions  |

\*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.

●Measurable conductor diameter: ø33 (1.30") mm, [ø55 (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 switch: Auto/Manual●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 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: 400A/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 200A range [1.42 or less in the 2000A range]●Safety standard: EN61010-1 CAT III 600V, EN61010-2, EN60529 IP40●EMC: EN55011, EN50082-1●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 or 6F22 manganese batteryX1 (continuous operation max. 25hours)●Dimensions and mass: Approx. 62WX230 [260]HX39D mm, 460 [540]g (Approx 2.45" WX 9.06 [10.3]" HX 1.54" D, 16.3 [19.1] oz.)

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

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

### Options

9445-01 AC ADAPTER (for EU type)

9445-02 AC ADAPTER (for America, Japan type)

\* 9094 OUTPUT CORD(Jack to banana plug)

\*No CE marking