

# HIOKI

## AC CLAMP POWER METER CM3286-50

*Quickly check current, voltage, power, and power factor*

### Broad measurement ranges

Current: 60 mA to 600 A

Active power: 5W to 360 kW

### Fast response

Shorten test times by identifying all of the necessary data on a single screen

Automatically transfer data with Bluetooth wireless technology



\*Harmonic can be displayed with the Gennect Cross dedicated application software.



# Delivering a broad range of measurements at sites from manufacturing plants to households

## Broad measurement range 60 mA (5 W) to 600 A (360 kW)

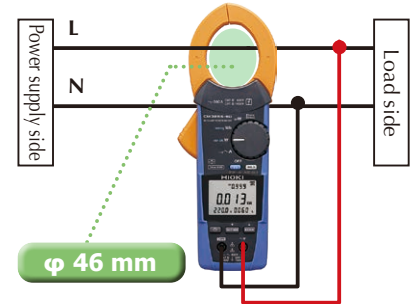
- Accurately measure power from 5 W at a current as low as 60 mA to 360 kW at a maximum of 600 A (single-phase power measurement).
- In addition to current, voltage, and power, measure simple integral power consumption and phase sequence.
- Obtain accurate readings with true RMS measurement.

### Measurement line

Measure power in single-phase to balanced three-phase circuits (with estimated values) (1-phase/ 2-wire, 1-phase/ 3-wire, balanced 3-phase/ 3-wire, and balanced 3-phase/ 4-wire).

\*The instrument generates estimated power values when measuring 3-phase circuits.

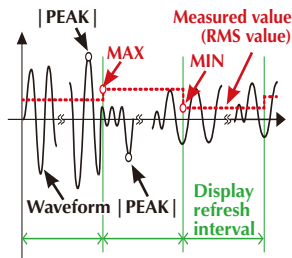
Example: Single-phase AC measurement (1P2W)



### Easily check power supply fluctuations

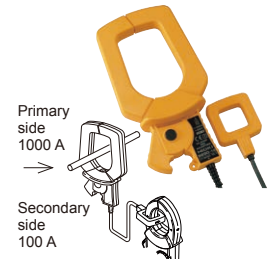
Since it can display maximum (MAX), minimum (MIN), and average (AVG) values, the CM3286 is useful when you need to ascertain the magnitude of fluctuations.

And since it can also measure crest (PEAK) values, you can use it to check fluctuations at the crest value level.



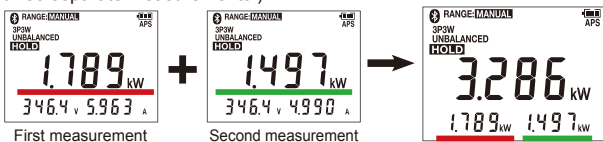
### Support for large-diameter, high-current measurement

The CM3286 can be used with the optional Clamp On Adapter 9290-10 to measure busbars of up to 55 mm in diameter or 80 × 20 mm. Measure high currents of up to 1000 A AC (or 1500 A for up to 5 min.).



### Quickly check for unbalance

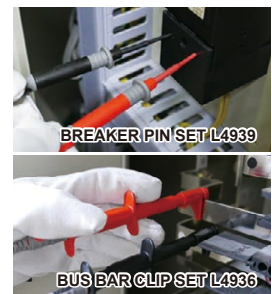
The CM3286 can measure unbalanced power in a 3-phase/ 3-wire circuit by measuring the single-phase power twice and then automatically adding the results. (The instrument can also measure 3-phase/4-wire circuits in three separate measurements.)



### Choose from an extensive selection of probe tips

Select the type of probe that best suits your measurement location, letting you measure in areas that can't be reached with conventional probes and busbars that you wish to clamp between probes.

\*Probe tips: Sold separately



## Functionality and performance that enable a broad range of measurements

### White backlight



A white backlight makes the measured values stand out, even in dim locations. Owing to wide viewing angle display, high quality screen lets you read measurements from any angle.

### Easily operate with one hand



Turn the rotary switch while holding the instrument in the same hand. Grooves on the switch make it easy to rotate even while wearing work gloves.

### CAT IV 600 V



The CM3286 can safely measure service wires with a wire-to-ground voltage of up to 600 V as well as wires found in distribution panels. The clamp meters also feature a safe design that can withstand a transient overvoltage of 8 kV in case of a lightning strike.

### -25°C to +65°C



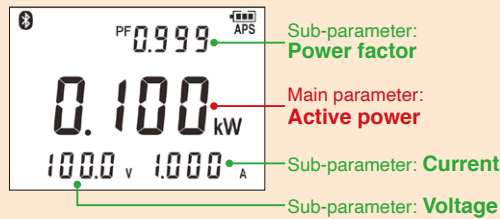
The CM3286 can be used in freezing temperatures or on the hottest summer days

# Powerful features and functions deliver fast and efficient testing

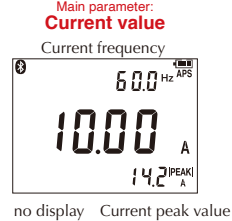
## Easy-to-see display Related parameters shown on the display at once

Related parameters and connection locations shown on the display at once (Main parameter×1, Sub-parameter×3)

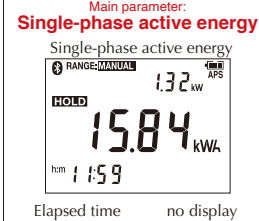
### [Power display]



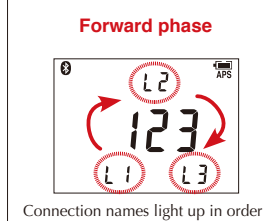
### [Current Measurement display]



### [Integrated Measurement display]



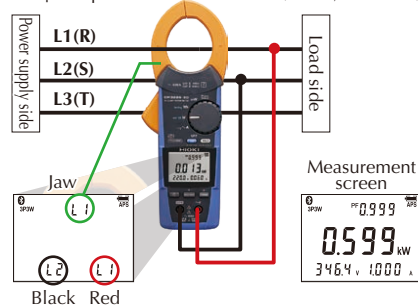
### [Phase Detection display]



## Simple wiring guide

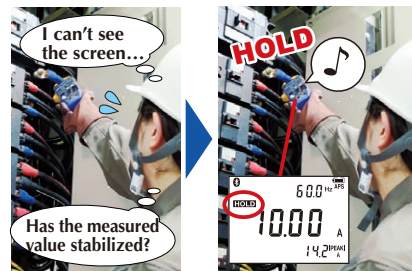
The CM3286 provides a simple on-screen guide indicating how to connect it to a 3-phase circuit.

Example: 3-phase AC measurement (3P3W, balanced)



## AUTO HOLD

The clamp meters beep when the measured value stabilizes and then automatically hold the display value. This is useful when using the instrument in locations where it is difficult to see the display or press the hold button.



## Double warnings with sound and light

When the clamp power meter detects excessively over current or voltage input during a continuity check, it alerts you with a red backlight and beeping tone in order to help prevent accidents.



## Quick and easy data recording Using Bluetooth® communication with the Z3210

### Bluetooth®



WIRELESS  
ADAPTER  
Z3210 (Option)



Attach to enable  
Bluetooth® wireless  
technology



### Transport to the Excel® file

Open an Excel® file and select a cell. The measured value being held on the instrument's display will be transferred to the computer and entered into the selected cell.



Learn more  
Z3210

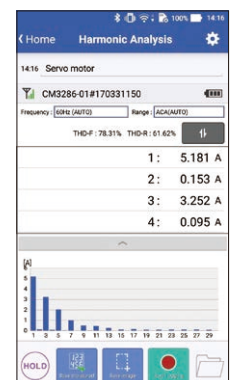


### Transport to Gennect Cross

Gennect Cross, a free app designed specifically for use with Hioki measuring instruments, lets you check and manage measurement results and create reports. The software provides a range of functionality that helps manage data in the field, including photographing measurement sites, placing measurement results on photographs, and saving hand written memos.



Learn more  
Gennect Cross



### Measuring harmonics with Gennect Cross

Gennect Cross can measure the harmonic level, content percentage, and total harmonic distortion of voltage or current for the 1st through 30th orders.

# Specifications

Accuracy guaranteed for 1 year, product warranty period for 3 years

Measurement line	Single-phase, Three-phase (should be balanced with no distortion)
Measurement items	Voltage, Current, Voltage/ current peak, Active/ reactive/ apparent power, Power factor, Phase angle*1, Frequency, Simple Active Energy Consumption (Single-phase), Voltage/ current harmonic levels
AC voltage	[Measurement range] 80.0 V to 600.0 V, Single range, Basic accuracy 45 Hz - 66 Hz: $\pm 0.7\%$ rdg. $\pm 3$ dgt. (Frequency characteristics: 45 Hz to 1 kHz, True RMS)
AC current	[Measurement range] 0.060 A to 600.0 A, 3 range, Basic accuracy 45 Hz - 66 Hz: $\pm 1.3\%$ rdg. $\pm 3$ dgt. (Frequency characteristics: 45 Hz to 1 kHz, True RMS)
Power	[Single phase] 0.005 kW to 360.0 kW Basic accuracy: $\pm 2.0\%$ rdg. $\pm 7$ dgt. (50/ 60 Hz, Power factor=1) [Balanced three-phase 3-wire] 0.020 kW to 623.5 kW Basic accuracy: $\pm 3.0\%$ rdg. $\pm 10$ dgt. (50/ 60 Hz, Power factor=1) [Balanced three-phase 4-wire] 0.040 kW to 1080 kW Basic accuracy: $\pm 2.0\%$ rdg. $\pm 3$ dgt. (50/ 60 Hz, Power factor=1)
Harmonic*2	Voltage/ current harmonic levels up to 30th, Content factor, Total harmonic distortion ratio
Other functions	[Phase angle *1] lead -180.0° to lag 179.9°, [Power factor] -1.000 to 1.000 [Frequency] 45.0 Hz to 999.9 Hz, PEAK, phase detection, max/min/avg value display, auto hold, electric meter comparison, unbalanced 3-phase power estimate display, etc.
Maximum rated voltage to earth Maximum rated voltage to terminal	600 V AC (Measurement category IV) 1000 V AC (Measurement category III)
Crest factor	6 A/ 60 A range 3 or less, 600 A/ 600 V range 1.6 or less
Operating and storage temperature and humidity ranges	-25°C to 65°C or less (-13.0°F to 149.0°F) 80% RH or less (no condensation, less than 40°C)
Dustproof and waterproof*3	Grip: IP50

Bluetooth® communication	Available When WIRELESS ADAPTER Z3210 (Option) is attached
Standards	Safety: EN61010, EMC: EN61326
Power supply	LR03 Alkaline battery x2
Continuous operating time	Approx. 25 hours (Backlight OFF, Bluetooth® OFF) Approx. 18 hours (Backlight OFF, Bluetooth® ON)
Core jaw diameter	φ 46 mm (1.81 in)
Dimensions and Mass	65 mm (2.56in) W × 241 mm (9.49in) H × 35 mm (1.38in) D, 450 g (15.9 oz)

\*1) Phase angle obtained from zero cross of current / voltage.

\*2) Harmonic can be displayed by dedicated application software (Gnect Cross).

WIRELESS ADAPTER Z3210 (Option) is required

\*3) While in storage, or when measuring an insulated conductor. Do not use when wet.

\*The indicated value for three-phase power is based on the assumption of a balanced condition and sine wave without distortion at 50/60 Hz. Accurate measurement is not possible on an unbalanced or inverter controlled three-phase line. Also, if the phase (zero cross) cannot be detected due to significant waveform distortion, it cannot be measured nor displayed.

\*The power factor / phase angle are values obtained from the zero cross of the current and voltage. If the phase (zero cross) cannot be detected due to significant waveform distortion, it cannot be measured nor displayed.

## Order code/ Options

Model No. (Order Code)
<b>CM3286-50</b>
<b>CM3286-90</b> Includes WIRELESS ADAPTER Z3210

### Accessories

- CONNECTION CORD L9257 x1
- CARRYING CASE C0203 x1
- LR03 Alkaline battery x2
- Instruction manual x1



L9257



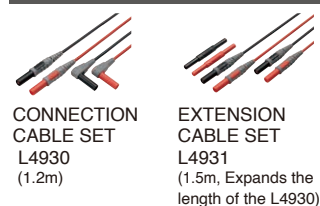
C0203



### WIRELESS ADAPTER Z3210

Model CM3286-90 Includes  
WIRELESS ADAPTER Z3210 as a set

### Options (Test leads)



CONNECTION  
CABLE SET  
L4930  
(1.2m)

EXTENSION  
CABLE SET  
L4931  
(1.5m, Expands the  
length of the L4930)

### Options (for L9257, L4930, L4931)

Tip options (Red/ Black: 1 each). Attaches to the tip of the banana plug cable.



### Options (Clamp adapter)



CLAMP ON ADAPTER  
9290-10  
(1000 A AC, φ55 mm,  
CT ratio of 10:1)

### Options (Test leads)



TEST LEAD  
L9300

\*The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by HIOKI E.E. CORPORATION is under license.  
Note: Company names and product names appearing in this brochure are trademarks or registered trademarks of various companies.

**HIOKI**  
HIOKI E. E. CORPORATION

### HEADQUARTERS

81 Koizumi,  
Ueda, Nagano 386-1192 Japan  
<https://www.hioki.com/>



Scan for all  
regional contact  
information

DISTRIBUTED BY