



Quality and reliability is our tradition

**KYORITSU**

## POWER METER KEW 6305

# **Compact Power meter for cost savings through Energy monitoring**



CE

- **Comprehensive real-time monitoring, recording and analysis of single and 3-phase systems**
- **Voltage, Current, Power Factor and Frequency measurements**
- **Power analysis (Active, Apparent and Reactive power)**
- **Energy analysis (Active, Apparent and Reactive energy)**
- **Active power accuracy:  $\pm 0.3\% \text{rdg} \pm 0.2\% \text{f.s.}$**
- **Automatic wiring check function to prevent incorrect connections**
- **Large memory capability (2 GB) using built-in SD card interface**
- **Real time & remote measurements using Android™ application**
- **Windows software for data analysis and setting via USB port or Bluetooth®**
- **Synchronous measurements between two units of KEW6305**
- **Wide selection of clamp sensors allow measurements from 0.1A to 3000A**
- **The instrument automatically recognizes what kind of clamp sensor is connected to it**

# A simple and inexpensive way for Cos

## As easy as 1 → 2 → 3!

Starting from OFF position and rotating the Rotary switch clockwise, KEW6305 is ready to use in 3 simple steps

### 1. SET UP

Rotate the Rotary switch to SET UP. All the instrument settings can be easily selected by using instrument buttons. All the settings can also be selected by connecting KEW6305 to a PC via USB or Bluetooth®.

### 2. WIRING CHECK

Rotate the Rotary switch to WIRING CHECK. The Automatic Wiring check function will prevent incorrect connections, check the connections and display the results on the LCD. Error messages appear on display to indicate wrong orientation of Clamp sensors or incorrect connections.

Everything is OK



Shows "Good"

Error is found

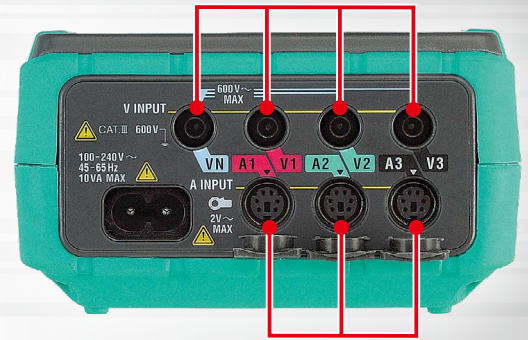


Shows "Err" (Error) e.g.: Err PH A  
→ Current phase (orientation of sensor) may be incorrect.

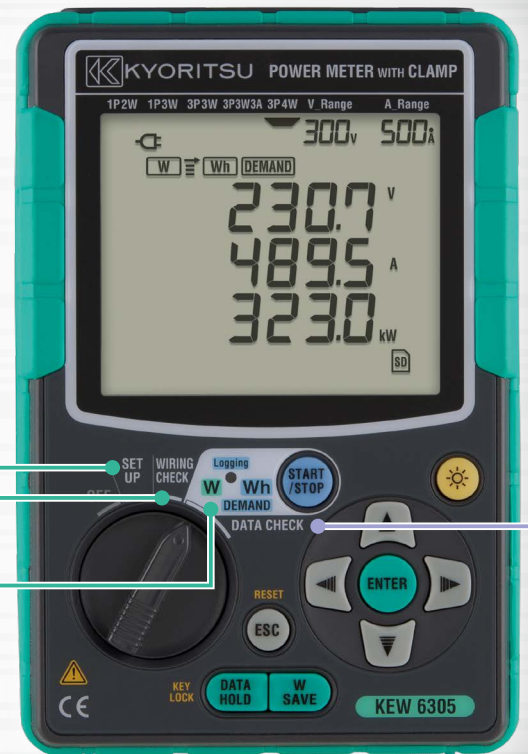
### 3. W/Wh/DEMAND Measurements

Rotate the Rotary switch to W/Wh/DEMAND. The instrument can perform Instantaneous, Integration and DEMAND measurements. START / STOP button to start / stop recording

Voltage Input Terminals



Current Input Terminals (With cover)



## Various measurements by using applications for PCs and And

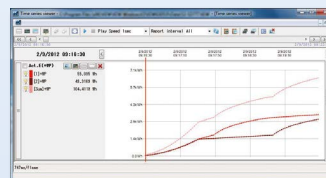
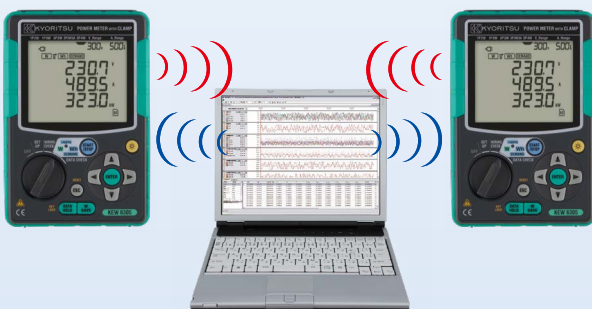
### PC software application to check synchronous measurements on 2 power lines

Two units of KEW6305 can be used simultaneously and perform synchronous measurements on 2 power lines. PC software application can synchronize recording intervals and internal clocks of two KEW6305 via Bluetooth® communication or USB port. Measurements will be transmitted to the PC. Parameters such as active, reactive and apparent power; active, reactive and apparent energy and demand will be graphically displayed in real-time. \* For wireless communication, a PC with Bluetooth® function is required.

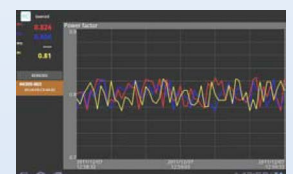
### Real time & remote measurements u

Measurements can be displayed in graphic or numeric forms on Android™ devices in real-time via Bluetooth® communication. Remote checking of measurements is possible without accessing KEW6305.

Max communication distance: 10m  
Supporting Android™ ver. 3.0 or higher.  
Bluetooth® is a registered trademark of the Bluetooth SIG, Inc.  
Android™ and Android Market are registered trademark of the Google SIG, Inc.



Combined values will be displayed on a graph in real-time.



Real-time display

# Cost Savings through Energy monitoring

Data can be saved on SD card or transferred to a PC

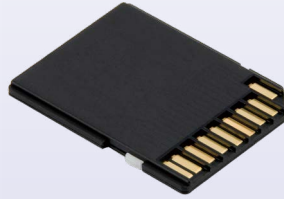


## Data transmission via USB

Data saved on an SD card or internal memory of KEW6305 can be directly transferred to a computer via USB. USB ver. 2.0 is supported.

## SD card Interface

SD cards up to 2GB can be used.



## Max amount of data (reference)

Data saved on:	SD card	Internal memory
Capacity	2GB	3MB
Instantaneous measurement	6,670,000	10,000
Integration / demand measurement interval	1 sec.	17 days
	1 min.	992 days
	30 min.	3 years or more
Max number of file	511	4

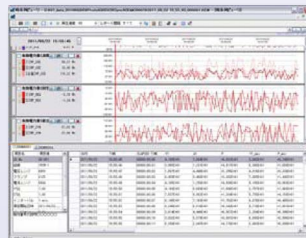
\*in case the SD card is empty

## Data check

The last 10 measurements saved on SD card or internal memory are displayed on the LCD. This function allows quick checks of the recorded data without using a PC.

## Windows software for data analysis and setting via USB port

Automatic creation of graph and list from recorded data. Uniform management of setting and recorded data acquired from multiple devices. Data can be expressed in crude oil and CO<sub>2</sub> equivalent values in the report.



### [System requirements]

OS: Windows® 8/10  
 Display: XGA(Resolution 1024×768 dots) or more  
 Hard-disk: space required 1Gbyte or more  
 Other: With CD-ROM drive and USB port  
 .NET Framework (3.5 or more)

\* Windows® is a registered trademark of Microsoft in the United States.

## Android™ devices

### Using Android™ application



Tablet device



## Features

### Power and Energy measurements

Voltage (True RMS), Current (True RMS), active power, apparent power, reactive power, active energy, apparent energy, reactive energy, power factor (cosθ), frequency, demand measurement, current flowing on the neutral line (only on 3phase 4 wire measurement)

### Recording interval can be set between 1 second and 1 hour

1/2/5/10/15/20/30 second/seconds 1/2/5/10/15/20/30 minute/minutes 1hour

### Power and the power factor for each phase are shown

Not only the total power and power factor are shown but also the breakdown related to each phase

### Double power supply system via AC line and batteries

In case of a mains blackout, the power to the instrument is automatically supplied by the Alkaline batteries (Max continuous measurement: 15 hours)

In the case of both power supplies to the instrument being interrupted, recorded data just before the event of the interruption will be saved.

Rechargeable nickel-hydrogen batteries can be used

## Optional

### Load current clamp sensors

MODEL 8128 MODEL 8127 MODEL 8126 MODEL 8125 MODEL 8124



MAX 50A  $\phi$ 24



MAX 100A  $\phi$ 24



MAX 200A  $\phi$ 40



MAX 500A  $\phi$ 40



MAX 1000A  $\phi$ 68

### KEW 6305 Specifications

Wiring connections	1P2W, 1P3W, 3P3W, 3P3W3A, 3P4W
Measurements	Voltage, Current, Frequency, Active power
Parameters	Apparent power, Reactive power, Active energy, Apparent energy, Reactive energy, Power factor (cos $\theta$ ), Neutral current
Voltage range	<b>TRUE RMS</b> 150.0/300.0/600.0V
Voltage accuracy	$\pm 0.2\%rdg \pm 0.2\%f.s.$ (sine wave, 45 - 65Hz)
Current range	<b>TRUE RMS</b> 10.00/50.00/100.0/250.0/500.0A/Auto (with clamp sensor MODEL8125)
Current accuracy	$\pm 0.2\%rdg \pm 0.2\%f.s.$ + Accuracy of Clamp sensor (sine wave, 45 - 65Hz) *+1%f.s. at the lowest range.
Effective input range	10 - 110% of rating range
Display range	5 - 130% of each range (Voltage) 1 - 130% of each range (Current)
Crest factor	Voltage : up to 2.5, Current : up to 3.0 (with 90% fs or less)
Active power accuracy	$\pm 0.3\%rdg \pm 0.2\%f.s.$ + Accuracy of Clamp sensor *+1%f.s. when the lowest current ranges is selected.
Effect of power factor	Active power: $\pm 1.0\%rdg \cos \theta = \pm 0.5$ (PF=1)
Frequency meter range	40.0 - 70.0Hz
Frequency meter accuracy	$\pm 3dgt$
Accuracy precondition	PF=1, Sine wave, 45 - 65Hz, 23°C $\pm 5$ °C
Display update period	1 second
Operating temperature and humidity range	0 - +50°C, less than 85% RH (without condensation)
Storage temperature and humidity range	-20 - +60°C, less than 85% RH (without condensation)
PC communication interface	USB, Bluetooth®
PC card interface	SD card (2GB)
Safety standard	IEC 61010-1 CAT III 600V
Power source (AC Line)	AC100 - 240V $\pm 10\%$ (50/60Hz)
Power source (DC battery)	LR6 or Ni-MH (HR-15-51) $\times 6$ (Battery charger not included), Battery life approx. 15h (LR6)
Power consumption	10VA (max.)
Dimension	175 (L) $\times$ 120 (W) $\times$ 65 (D) mm
Weight	Approx. 800g (including batteries)
Included accessories	7141B (Voltage test lead set: 4pcs), 7148 (USB cable), 7170 (Powercord), 9125 (Carrying case for KEW 6305, KEW 6305-01), 9135 (Carrying case for KEW 6305-03, KEW 6305-05), 8326-02 (SD card 2GB), KEW Windows (PC Software), Battery (LR6) $\times 6$ , Quick manual
Optional accessories	8124, 8125, 8126, 8127, 8128 (Clamp sensor), 8130, 8133, 8135 (Flexible clamp sensor), 8312 (Power supply adaptor), 9132 (Magnetic carrying case)

### Load current flexible clamp sensors

KEW 8135 KEW 8130 KEW 8133



MAX 50A  $\phi$ 75



MAX 1000A  $\phi$ 110



MAX 3000A  $\phi$ 170

Before connecting with the sensors KEW 8133 or KEW 8135, confirm that the internal firmware version is later than the one listed in the table below.

MODEL	Firmware version
KEW 8133	V1.10 or later
KEW 8135	V2.00 or later

The latest firmware is available on our website.

When using the sensor KEW 8135, confirm the serial number of the tester KEW 6305 is later than that is listed in the table below.

Supported serial numbers	8369312 or later
--------------------------	------------------

If your KEW 6305 has an earlier serial number than the one listed above, accuracy will not be guaranteed when two or more KEW 8135 are connected with KEW 6305.

### Can you close your distribution board door during surveys?

The KEW6305 facilitates safe testing by being extremely compact and with two clever option extras: a magnetic case for attaching it to the sides of metal enclosures and a power supply adaptor which takes the power for the instrument from the supply being measured.

### Power supply adaptor

#### MODEL 8312

For taking single phase supply (100-240V) from the test leads to power the instrument



### Magnetic carrying case

#### MODEL 9132

For mounting inside metal distribution boards



### Set Model

#### KEW 6305-01

MODEL 8125 (500A)  $\times 3$   
(Carrying case 9125)

#### KEW 6305-03

KEW 8130 (1000A)  $\times 3$   
(Carrying case 9135)

#### KEW 6305-05

KEW 8133 (3000A)  $\times 3$   
(Carrying case 9135)



Photo: KEW6305-03



### Safety Warnings :

Please read the "Safety Warnings" in the instruction manual supplied with the instrument thoroughly and completely for correct use. Failure to follow the safety rules can cause fire, trouble, electrical shock, etc. Therefore, make sure to operate the instrument on a correct power supply and voltage rating marked on each instrument.

For inquires or orders :



**KYORITSU ELECTRICAL INSTRUMENTS WORKS, LTD.**

2-5-20, Nakane, Meguro-ku, Tokyo, 152-0031 Japan

Phone:+81-3-3723-0131

Fax:+81-3-3723-0152

E-mail:info-eng@kew-ltd.co.jp

[www.kew-ltd.co.jp](http://www.kew-ltd.co.jp)