



# POWER METER KEW 6305



- 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: ±0.3%rdg±0.2%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 Cost Savings through Energy monitoring

# As easy as $1 \rightarrow 2 \rightarrow 3!$

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**



Good ...

Error is found

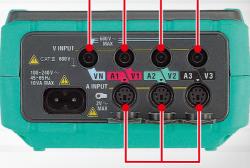
Shows "Err" (Error) e.g.: Err PH A

→ Current phase (orientation of sensor) may be incorrect.

# 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)** 





0

### <u>Datacan be saved on SD card or transferred to a PG</u>

#### 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<br>memory |
|-------------------------------------------|---------|-----------------|--------------------|
| apacity                                   |         | 2GB             | 3MB                |
| stantaneous measurement                   |         | 6,670,000       | 10,000             |
| tegration / demand<br>easurement interval | 1 sec.  | 17 days         | 33 minutes         |
|                                           | 1 min.  | 992 days        | 33 hours           |
|                                           | 30 min. | 3 years or more | 42 days            |
| ax number of file                         |         | 511             | 4                  |

KEW Windows

\*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® 7(32/64bit)/Vista/XP
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.

## Various measurements by using applications for PCs and Android devices

#### 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.





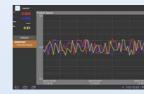
Combined values will be displayed on a graph in real-time.

#### Real time & remote measurements using Android application

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 - 3.2 Bluetooth is a registered trademark of the Bluetooth SIG, Inc. Android and Android Market are registered trademark of the Google SIG, Inc.



Real-time display





#### **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 (cose), 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

#### Load current clamp sensors

#### **MODEL 8128**



# **MODEL 8127**







#### Load current flexible clamp sensors

#### **KEW 8129**

8129-01 (for 1ch) 8129-02 (for 2ch) 8129-03 (for 3ch)

FLEXIBLE CLAMP SENSOR WITH 3 RANGES AC300, 1000, 3000A







#### 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**

Calibration certificate

KFW 6305 x 1 MODEL 8125 x 3 7141B(Voltage test lead set: 4pcs) × 1 7148(USB cable) × 1 7170(Power cord)  $\times$  1 8326-02(SD card [2GB]) × 1 9125(Carrying case)  $\times$  1 PC Software × 1 Battery × 6 Quick manual × 1



| 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                            | 150.0/300.0/600.0V                                                                                                                                                                                   |  |
| Voltage accuracy                         | ±0.2%rdg±0.2%f.s. (sine wave, 45~65Hz)                                                                                                                                                               |  |
| Current range                            | 10.00/50.00/100.0/250.0/500.0A/Auto (with clamp sensor MODEL812                                                                                                                                      |  |
| Current accuracy                         | $\pm 0.2\% {\rm rdg} \pm 0.2\% {\rm f.s.} +$ 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)<br>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                    | ±0.3%rdg±0.2%f.s.+ Accuracy of Clamp sensor<br>*+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                 | ±3dgt                                                                                                                                                                                                |  |
| Accuracy precondition                    | PF=1, Sine wave, 45~65Hz, 23°C±5°C                                                                                                                                                                   |  |
| Display update period                    | 1 second                                                                                                                                                                                             |  |
| Operating temperature and humidity range | 0~+50℃, less than 85% RH (without condensation)                                                                                                                                                      |  |
| Storage temperature and humidity range   | -20~+60℃, less than 85% RH (without condensation)                                                                                                                                                    |  |
| PC communication interface               | USB, Bluetooth                                                                                                                                                                                       |  |
| PC card interface                        | SD card (2GB)                                                                                                                                                                                        |  |
| Safety standard                          | IEC61010-1 CAT.Ⅲ 600V                                                                                                                                                                                |  |
| Power supply (AC Line)                   | AC100~240V±10%(50/60Hz)                                                                                                                                                                              |  |
| Power supply (DC battery)                | LR6 or Ni-MH(HR-15-51)×6 (Battery charger not included), Battery life approx. 15h (LR6)                                                                                                              |  |
| Power consumption                        | 10VA (max.)                                                                                                                                                                                          |  |
| Dimension<br>Weight                      | 175(L) ×120(W) ×65(D) mm<br>Approx. 800g (including batteries)                                                                                                                                       |  |
| Included accessories                     | 7141B (Voltage test lead set: 4pcs), 7148 (USB cable), 7170(Powercord), 9125(Carrying case), 8326-02 (SD card 2GB), KEW WINDOWS (PC Software), Battery(LR6)×6, Quick manual, Calibration certificate |  |
| Optional accessories                     | 8124, 8125, 8126, 8127, 8128 (Clamp sensor),<br>8129 (Flexible clamp sensor),<br>8129 (Power supply adoptor), 9132 (Magnetic corp.ing cost)                                                          |  |

## 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.

8312 (Power supply adaptor), 9132 (Magnetic carrying case)

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