CLAMP ON POWER LOGGER
PW3360-20, PW3360-21
Power Measuring Instruments

Handy and Easy to Use  
– Power Management Support

Reliable measurements start with proper wiring.

The QUICK SET function guides you in making the right connections.

■ Supports single to three-phase, 4-wire circuits
  - Simultaneously measure up to three single-phase, 2-wire circuits (in the same power system).

■ Measure up to 780V with a 1000V display range

■ Broadly applicable for many jobs, including leakage current measurement
  - An optional clamp-on leakage sensor supports measurements as low as 50 mA.

■ Store months of data on SD cards

Now with QUICK SET Convenience

Visit us at www.TestEquipmentDepot.com
Begin with QUICK SET Convenience

Select your Wiring Type, Clamp and Destination, and Connect

Select wiring type (example: 3P4W) and connect

1. Connect the leads to the PW3360-20.
   - Make proper connections simply by observing the colors of the displayed leads.
   - Point the arrow toward the load side

2. Connect the voltage clips.
   - Double checks your voltage input and phase
   - Proceed to the next step when PASS appears

3. Connect the clamp sensors.
   - Select the current range
   - Corrective action tips appear

Miswiring Example (Clamp Orientation)

Correct Orientation
- Power supply side
- Load side
- Point the arrow toward the load side

Wiring Screen Display Examples

FAIL
- The I vector's phase direction is opposite the determination area.
- Affected measurement values:
  - Examples: P (Power) displayed value is too low P: 6.5kW

PASS
- The I vector's phase direction is within the determination area.
- Changed Clamp 13
- Examples: P: 20.6kW
Reveal Power Consumption State! Graph Display Functions

**Demand Graph Display**
Shows the demand value transitions useful for managing power consumption. Check maximum demand values and times while recording.

- **Read values at cursor**
- One-day graph showing 48 thirty-minute intervals

**Trend Graph Display**
From all measurement items, select one for display. Check states such as power fluctuations of devices in on-site operating conditions.

- **Read values at cursor**
- Graph showing intervals of up to 200 points

*Except for demand and harmonics*

**Evaluate Photovoltaic Generation Capabilities**

- **Power Purchased**
  Active power demand value (consumption) $P_{dem+}$
  
- **Power Sold**
  Active power demand value (regeneration) $P_{dem-}$

**Capture and record all fluctuations**
To conveniently record fluctuations even over long periods, select "All" saving items to record maximum, minimum and average values within each recording interval.

- Continuous calculation at 200 ms intervals without gaps
- Graph showing intervals of up to 200 points

**Create a Graph to Clearly Grasp Power Consumption**
Record power consumption on an SD Card* at specific intervals. Load the data into the PC.

*Store up to one year’s data acquired at one minute intervals. Performance cannot be guaranteed on storage media other than Hioki-specified SD card options.*

**Use Excel graph processing for before and after comparisons.**

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* SD Card*
Accommodates All Worksites

- **Tight spaces**

  - Compact
  - In dim environments
    - Easy-to-see color LCD

- **Where no AC power is available**

  - Battery* power provides about eight hours of continuous operation. In addition, a Voltage Line Power Adapter* is available to power the PW3360-20 from the measurement lines.

  * Battery Set PW9002 and Voltage Line Power Adapter PW9003 options are sold separately.

- **In severe temperature environments**

  - The operating temperature range extends from \(-10{^\circ}\text{C} (14{^\circ}\text{F})\) to \(50{^\circ}\text{C} (122{^\circ}\text{F})\).
  
  Even under battery operation, measurements can be performed from \(0{^\circ}\text{C} (32{^\circ}\text{F})\) to \(40{^\circ}\text{C} (104{^\circ}\text{F})\) (\(0{^\circ}\text{C} (32{^\circ}\text{F})\) to \(50{^\circ}\text{C} (122{^\circ}\text{F})\) when using LAN communication).

- **Magnetic voltage adapters for hard-to-clip terminals**

  - Magnetic voltage adapters convertible with the Voltage Cords L9438-53 let you accurately detect voltage when the circuit terminals are too shallow for alligator clips to latch on.

  * Magnetic Adapter 9804 option sold separately.

  9804-01 Magnetic Adapter (red) usage example

- **In dim environments**

  - Easy-to-see color LCD

- **Compact**

  - 48 mm (1.89”)
  - 100 mm (3.94”)
  - 180 mm (7.09”)

- **Battery Set PW9002**

- **Voltage Line Power Adapter**

- **Obtains power from the measurement lines**

- **Magnet in the tip**

- **Generally compatible with M6 pan screws**
Loaded with More Useful Functions

Simultaneous Measurements
Simultaneously measures three single-phase 2-wire circuits in the same system.

Pulse Input
The pulse input function can be used to record power data and production volume counts simultaneously. The power data and pulse volume (production volume) information are useful for unit cost production management.

Pulse Output
Use the Pulse Output function to acquire temperature and pulse (electrical energy) data simultaneously with a data logger. Evaluate the relationship between air conditioner temperature control settings and power consumption.

Leakage Current Measurement
With the optional leakage current clamp on sensors, turn the instrument into a 3-channel leakage current logger to help identify trouble spots.

Options
Leak Clamp on Sensor

Ideal for quick investigation of intermittent leakage by continuous calculation processing every 200 ms. (Select to save the average, maximum and/or minimum at every interval.)

Data Logger Series LR8400
Built-in 30-point input

Options
Leak Clamp on Sensor

Ideal for quick investigation of intermittent leakage by continuous calculation processing every 200 ms. (Select to save the average, maximum and/or minimum at every interval.)
Harmonic Measurement Model

PW3360-21 NEW

Analyze voltage and current harmonics on a 50/60 Hz power line from the fundamental waveform to the 40th order.

- Displays the RMS value, content, and phase angle (numerical list or graph display) for each harmonic order.
- Vector display of power phase angle

Maximum, average, and minimum values can be saved in binary format to SD card at each interval.

Power Logger Viewer SF1001 is required to display the data on a PC.

Harmonic Graph Screen

Harmonic power phase angle graph screen

SF1001 Display Example

Harmonic Time Series Display

Select and display a time series graph of fundamental, third- and fifth-order current harmonics.

HTTP Server Function

Use a LAN cable to connect the PW3360-20 or PW3360-21 to a personal computer for real-time remote monitoring and measurement display in a web browser.

Remote Monitor

Files recorded in the Clamp On Power Logger’s internal memory or SD card are accessible via a LAN or USB connection, and are downloadable using the free PW3360 Setup and Download Software.

Enter the IP address in the browser.

Click the on-screen keys to operate remotely.
Efficient Power Analysis on the PC

**Freeware for Model PW3360-20, PW3360-21** (free download from the Hioki website)

**PW3360 Setup and Download Software**

Use with a LAN or USB connection to download data recorded in the PW3360’s internal memory or SD Card to a PC, and to change instrument settings from the PC.

**PW3360 Excel Graph Auto-Creation Software**

Install the PW3360 Excel Graph Auto-Creation Software to create graphs in Excel automatically using recorded measurement data.

**Power Logger Viewer SF1001** (option, sold separately)

Data saved to an SD card or internal memory can be loaded into a PC for expanded display, aggregation and analysis.

Supported models: [PW3360] [PW3365, 3169-20]*2  *2 Supported from Ver. 3.00.0 on.

- Trend graph display function
- Summary display function
- Waveform display
- Harmonic display
- Copy function
- Print function
- Report printing

**Simultaneously measure and record separate loads using three PW3360-20s**

Use the [Stacked Display] to confirm at a glance comparative power consumption at multiple locations simultaneously.

**Indication example**

**Simple Operation and Easy Graph Creation**
**Specifications in orange available in Model PW3360-20 only**

### Measurement items

**Voltage**
- RMS value, fundamental wave value, waveform peak (absolute value), fundamental wave phase angle, frequency (1)

**Current**
- RMS value, fundamental wave value, waveform peak (absolute value), fundamental wave phase angle

**Power**
- Active power, reactive power (with lag/lead display), apparent power, power factor, (with lag/lead display) or displacement power factor (with lag/lead display), active energy (consumption, regeneration, regener), reactive energy(lag, lead)  
  
**Demand**
- Active demand power value (consumption, regeneration), reactive power demand value (lag, lead), active power demand quantity *(consumption, regeneration), reactive power demand quantity *(lag, lead), power factor demand value, pulse input  
  * Only data output to SD card

### Harmonic

- Harmonic voltage, current, power level, content , phase angle  
  Total harmonic distortion factor (THD-F or THD-R)

### Measurement screen

**List**
- Voltage RMS value, current RMS value, frequency, total active power, total reactive power, apparent power, power factor or displacement power factor, active energy (consumption), elapsed time

**UI**
- Voltage RMS value, voltage fundamental wave value, voltage waveform peak, voltage fundamental wave phase angle, current RMS value, current fundamental wave value, current waveform peak, current fundamental wave phase angle

**Power**
- Per-channel and total active power, apparent power, reactive power, power factor or displacement power factor

**Integ**
- Active energy (consumption, regeneration), reactive energy (lag, lead), recording start time, recording stop time, elapsed time, energy cost

**[Demand]**
- Active power demand value (consumption, regeneration), reactive power demand value (lag, lead), power factor demand value, or pulse input  
  Displays the maximum active power demand value and the time at which it occurred (this information is not saved).  
  (data from up to 48 intervals is internally stored, then refreshed oldest-first).  

**[Energy cost display (per-kWh price × power consumption)]**
- For one selected measurement item (except demand and harmonics), displays maximum, average and minimum values, with cursor calculations available (Note: with Trend display, there is no power-off backup function).

### External interfaces Specifications

**SD card Interface**
- Settings data, measurement data, screen data, [waveform data]*1

**LAN interface**
- 10BASE-T/100BASE-TX IEEE802.3 Compliance  
  - HTTP server function  
  - Download settings and data by communication application program

**USB interface**
- USB Ver 2.0, Windows 8 (32/64bit)/Windows 7 (32/64bit) / Vista (32bit) /XP  
  - When connected to a computer, the SD Card and internal memory are recognized as removable storage devices.  
  - Download settings and data by communication application program

### Pulse output

**Function**
- Output pulse rate is proportional to active power consumption  
  (WP+) when measuring integral power consumption

**Pulse rate**
- OFF/1Wh/10Wh/100Wh/1kWh/10kWh/100kWh/100kWh  
  (Default: 1 kWh)

**Pulse width**
- approx. 100 ms

**Output signal**
- open-collector 30 V, 5 mA max (photocoupler isolated)  
  - Active Low

*1 Supported from Ver. 2.00 on.  
*2 Supported from Ver. 2.10 on.

### WIRE SPECIFICATIONS

Electric wires that conform with:

- single line: 40.65 mm (AWG22)  
  twisted wire: 0.32 mm² (AWG22)  
  strand diameter: 0.12 mm or more

Supported electric wires:

- single line: 40.32 mm to 60.65 mm (AWG22 to AWG22)  
  twisted wire: 0.08 mm² to 0.32 mm² (AWG28 to AWG22)  
  strand diameter: 0.12 mm or more  
  exposed wire length: 8 mm
### General Specifications

<table>
<thead>
<tr>
<th>Display device</th>
<th>3.5 inch TFT color LCD (120 × 240 pixel)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japanese, English, Chinese</td>
<td>Backlight auto-off function (after 2 minutes)</td>
</tr>
<tr>
<td>When AUTO OFF is active, the Power LED blinks</td>
<td>Operating environment</td>
</tr>
<tr>
<td>Indoors, Pollution degree 2, altitude up to 2000 m (6562-ft.)</td>
<td>Operating temperature and humidity (no condensation)</td>
</tr>
<tr>
<td>-10°C to 50°C (14°F to 122°F), 80% RH or less</td>
<td>During LAN communication: 0°C to 40°C (32°F to 104°F), 80% RH or less</td>
</tr>
<tr>
<td>During battery operation: 0°C to 40°C (32°F to 104°F), 80% RH or less</td>
<td>During battery charging: 5°C to 40°C (41°F to 104°F), 80% RH or less</td>
</tr>
<tr>
<td>Storage temperature and humidity (no condensation)</td>
<td>20°C to 60°C (68°F to 140°F), 80% RH or less</td>
</tr>
<tr>
<td>The battery’s storage temperature range is -20°C to 30°C (-4°F to 86°F), 80% RH or less</td>
<td>Dielectric strength</td>
</tr>
<tr>
<td>4.29 kVrms AC (1 mA sense current) between voltage input terminals and external terminals, 50 / 60 Hz for 60 sec.</td>
<td>Applicable standards</td>
</tr>
<tr>
<td>Safety: EN61010, EMC: EN61326, EN61000-3-2, EN61000-3-3</td>
<td></td>
</tr>
<tr>
<td>Power supply</td>
<td>CHZ1006 AC Adapter (12 V, 1.25 A), Rated supply voltage 100 VAC to 240 VAC. Rated power supply frequency 50 / 60 Hz</td>
</tr>
<tr>
<td>+Model 9459 Battery Pack (Ni-MH DC7.2 v 2700mAh)</td>
<td>Charge function</td>
</tr>
<tr>
<td>Charges the battery regardless of whether the instrument is on or off. Charge time: Max. 6 hr. 10 min. (reference value 27°C)</td>
<td>Maximum rated power</td>
</tr>
<tr>
<td>+When the 2006 AC Adapter is used: 40 VA (including AC adapter), 13 VA (PW3360-21 instrument only)</td>
<td>+When the 9459 Battery Pack is used: 3 VA</td>
</tr>
<tr>
<td>Continuous battery operation time</td>
<td>Approx. 8 hr. (Continuous, backlight off) (using the battery pack)</td>
</tr>
<tr>
<td>Backup battery life</td>
<td>Clock and settings (Lithium battery), Approx. 10 years (23°C (73.4°F))</td>
</tr>
<tr>
<td>Dimensions</td>
<td>Approx. 180(W) × 70(H) × 48(D) mm (without PW9002)</td>
</tr>
<tr>
<td>Approx. 180(W) × 70(H) × 54(D) mm (with PW9002)</td>
<td>Mass</td>
</tr>
<tr>
<td>Approx. 550(g) (without PW9002), Approx. 680(g) (28 oz) (with PW9002)</td>
<td>Accessories</td>
</tr>
<tr>
<td>Voltage Cord/L9207-5V set, AC Adapter Z906 (1), USB cable (1), instruction manual (1), measurement guide (1), color spiral tubes (1 set): red, yellow, blue/two each, for color-coding clamp sensors, spiral tubes for grouping clamp sensor cords (5)</td>
<td></td>
</tr>
</tbody>
</table>

### Harmonic Specifications (PW3360-21 only)

| Standard | IEC61000-4-7:2002 compliant, but without interharmonics |
| Window width | 10 cycles at 50 Hz, and 12 cycles at 60 Hz (with interpolation) |
| Points per window | Rectangular, 2048 points |

### Analysis orders

Up to the 40th order

### TDH calculation selection

TDH-F / TDH-R

### Measurement accuracy

| Harmonic level | 1st to 15th orders : ±5% rdg. ±0.2% f.s. |
| 16th to 20th orders | ±10% rdg. ±0.2% f.s. |
| 21st to 40th orders | ±20% rdg. ±0.3% f.s. |

For voltage and current, add accuracy of clamp sensor.

### Harmonic power phase angle

| 1st to 3rd orders | ±3°×k + clamp sensor accuracy |
| 4th to 40th orders | ±1°×k + clamp sensor accuracy |

For each harmonic order at 6 V, harmonic current level is regulated at 1% f.s.

### Total harmonic distortion factor: Accuracy unspecified

### POWER LOGGER VIEWER SF1001 Specifications

#### General Specifications

- **Supported models**: PW3360-20, PW3360-21, PW3365, 3169-20, 3169-21
- **Supported computer operating systems**: Windows 8.1 (32/64bit), Windows 7 SP1 or later (32/64bit), Windows Vista SP2 or later (32bit), Windows XP SP3 or later (32bit)

#### Functions Specifications

#### Trend graph display function

- **Display items**: Voltage, current, active power, reactive power, apparent power, power factor, frequency, integrated active power, integrated reactive power, demand volume, demand value, voltage unbalance factor, [pulse, harmonics, level, content, phase angle, total value, THD] |

#### Summary display function

- **Daily**, **weekly** and **monthly report displays**: Accumulates and displays data daily, weekly and monthly reports over specified period.

### Load factor calculation display

Calculates and displays load factor and demand factor results with daily, weekly and monthly reports.

### Time span aggregation

Aggregates data into up to four specified time spans

### CO2 equivalent display

Uses the specified conversion rate to display CO2 equivalent values

### Harmonic display

- **List display**: Displays a list of harmonic data at specified date and time

#### Graph display

- **Graph display**: Displays a bar graph of harmonic data at specified date and time

#### Cursor calculation

- **Calculates** measurement data at cursors in waveform and graph displays

#### Copy function

- **Captures** any display image to the clipboard

#### Print function

- **Print (static)** contents over a specified time period

### Report printing

- **Output contents**: Standard or selected output items

#### Available output items

- **Trend graph**, **summary**, **daily report**, **harmonic list**, **harmonic graph, waveform**

### Report creation method

- **Standard print**
### CLAMP SENSOR Specifications

#### CLAMP ON SENSOR

<table>
<thead>
<tr>
<th>9694</th>
<th>9660</th>
<th>9661</th>
<th>9669</th>
<th>9695-02</th>
<th>9695-03</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insulated conductor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measurable conductor diameter</td>
<td>φ15mm (0.59&quot;)</td>
<td>φ15mm (0.59&quot;)</td>
<td>φ46mm (0.81&quot;)</td>
<td>φ55mm (2.17&quot;)</td>
<td>φ15mm (0.59&quot;)</td>
</tr>
<tr>
<td>Primary current rating</td>
<td>5A AC</td>
<td>100A AC</td>
<td>50A AC</td>
<td>1000A AC</td>
<td>50A AC</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±0.3% rdg.</td>
<td>±0.3% rdg.</td>
<td>±0.3% rdg.</td>
<td>±0.3% rdg.</td>
<td>±0.3% rdg.</td>
</tr>
<tr>
<td>Phase</td>
<td>Within ±2°</td>
<td>Within ±1°</td>
<td>Within ±0.5°</td>
<td>Within ±1°</td>
<td>Within ±2°</td>
</tr>
<tr>
<td>Frequency characteristic</td>
<td>40kHz to 5kHz (deviation from accuracy)</td>
<td>Within ±1.0%</td>
<td>Within ±2.0%</td>
<td>Within ±1.0%</td>
<td></td>
</tr>
<tr>
<td>Effect of external magnetic field</td>
<td>Equivalent to 0.1 A or less</td>
<td>Equivalent to 0.1 A or less</td>
<td>Equivalent to 0.1 A or less</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effect of conductor position</td>
<td>Within ±0.5%</td>
<td>Within ±1.5%</td>
<td>Within ±0.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum rated voltage to earth</td>
<td>CAT III 300Vrms</td>
<td>CAT III 300Vrms</td>
<td>CAT III 600Vrms</td>
<td>CAT III 600Vrms</td>
<td>CAT III 300Vrms</td>
</tr>
<tr>
<td>Maximum input (45 to 69Hz)</td>
<td>50A continuous</td>
<td>130A continuous</td>
<td>550A continuous</td>
<td>1000A continuous</td>
<td>60A continuous</td>
</tr>
<tr>
<td>Dimensions</td>
<td>40W (1.18&quot;) × 135H (5.31&quot;) × 21D (0.83&quot;) mm</td>
<td>60W (1.18&quot;) × 155H (5.94&quot;) × 21D (0.83&quot;) mm</td>
<td>77W (3.03&quot;) × 151H (5.94&quot;) × 40D (1.65&quot;) mm</td>
<td>99.5W (3.92&quot;) × 188H (7.40&quot;) × 42D (1.65&quot;) mm</td>
<td>50.5W (2.28&quot;) × 58D (2.28&quot;) × 18.7D (0.74&quot;) mm</td>
</tr>
<tr>
<td>Mass</td>
<td>230g (8.1 oz)</td>
<td>230g (8.1 oz)</td>
<td>380g (13.4 oz)</td>
<td>590g (20.8 oz)</td>
<td>50g (1.8 oz)</td>
</tr>
</tbody>
</table>

#### FLEXIBLE CLAMP ON SENSOR

| CT9667 | |
|--------||
| Appearance | |
| Measurable conductor diameter | φ254mm |
| Primary current rating | 500A AC/5,000A AC |
| Accuracy | ±2.0% rdg. | ±0.3% f.s. |
| Frequency characteristic | Within ±1° |
| Effect of external magnetic field | 1.5% / f.s. or less. |
| Effect of conductor position | Within ±0.5% |
| Maximum rated voltage to earth | CAT III 1000Vrms, CAT IV 600Vrms |
| Maximum input (45 to 69Hz) | 10000A continuous |
| Dimensions | Circuit box: 35W (1.38") × 120H (4.74") × 34D (1.34") mm |
| Mass | 470g (16.6 oz) (Sensor + Circuit Box, w/battery) |
| Power supply | 186P alkaline battery x 2 (continuous operation max. 7 days) or AC ADAPTER 9445-02/9445-03 (optional) |

#### CLAMP ON LEAK SENSOR (Leakage Current Measurement Only)

<table>
<thead>
<tr>
<th>9657-10</th>
<th>9675</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td></td>
</tr>
<tr>
<td>Measurable conductor diameter</td>
<td>φ40mm (1.57&quot;)</td>
</tr>
<tr>
<td>Primary current rating</td>
<td>10A AC*</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±1.0% rdg.</td>
</tr>
<tr>
<td>Frequency characteristic</td>
<td>Within ±5°</td>
</tr>
<tr>
<td>Effect of external magnetic field</td>
<td>7.5 mA max.</td>
</tr>
<tr>
<td>Effect of conductor position</td>
<td>Within ±0.1°</td>
</tr>
<tr>
<td>Maximum rated voltage to earth</td>
<td>CAT III 300Vrms</td>
</tr>
<tr>
<td>Maximum input (45 to 69Hz)</td>
<td>30 A continuous</td>
</tr>
<tr>
<td>Dimensions</td>
<td>74W (2.91&quot;) × 145H (5.71&quot;) × 42D (1.65&quot;)</td>
</tr>
<tr>
<td>Mass</td>
<td>380g (13.4 oz)</td>
</tr>
<tr>
<td>Notes</td>
<td>Not used for power measurements</td>
</tr>
</tbody>
</table>

* Maximum AC measurement range with PW3360-20 is 5A.

### Available Recording Time

PW3360-20 and PW3360-21 with Z4001 2-GB SD card, measuring 3P3W2M wiring

Saved items: ALL data (Saves all data: average, maximum, and minimum values)

Screen save: OFF  Waveform save: OFF

<table>
<thead>
<tr>
<th>Interval time</th>
<th>Save Time</th>
<th>Save Time</th>
<th>Save Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 seconds</td>
<td>PW3360-20</td>
<td>PW3360-21</td>
<td>PW3360-21</td>
</tr>
<tr>
<td>2 seconds</td>
<td>PW3360-20</td>
<td>PW3360-21</td>
<td>PW3360-21</td>
</tr>
<tr>
<td>3 seconds</td>
<td>PW3360-20</td>
<td>PW3360-21</td>
<td>PW3360-21</td>
</tr>
<tr>
<td>5 seconds</td>
<td>PW3360-20</td>
<td>PW3360-21</td>
<td>PW3360-21</td>
</tr>
<tr>
<td>10 seconds</td>
<td>PW3360-20</td>
<td>PW3360-21</td>
<td>PW3360-21</td>
</tr>
<tr>
<td>15 seconds</td>
<td>PW3360-20</td>
<td>PW3360-21</td>
<td>PW3360-21</td>
</tr>
</tbody>
</table>

The maximum recording time based on the settings can be confirmed right on the Settings screen.

In any case, the maximum file size for measurement data is about 200 MB. When this is exceeded, a new file is created and saving continues.

<NOTE>
Regardless of the settings, the maximum save time of the PW3360-20, PW3360-21 is one year.
For the 9660 and 9695-03 sensors, the range of guaranteed accuracy is from 5 A to 100 A, and for the 9661, from 5 A to 500 A.

*1 For the 9694 sensor, the range of guaranteed accuracy is from 500 mA to 5 A, and for the 9695-02, from 500 mA to 50 A.

**Combined accuracy of PW3360-20 + clamp sensors**

- 50.000 mA
- 100.000 mA
- 200.000 mA
- 500.000 mA
- 1.0000 A
- 5.0000 A

**Display area**

- ±0.1% f.s.
- ±0.3% rdg.

**Frequency**

- ±1 dgt.

**Power factor**

- ±1 dgt.

**Energy**

- ±0.2% f.s.

**Voltage Connection**

- ±0.3% rdg.
- ±0.1% f.s.
- ±0.6% rdg.
- ±0.4% f.s.
- ±0.12% f.s.
- ±0.10% f.s.
- ±0.18% f.s.
- ±0.16% f.s.
- ±0.14% f.s.
- ±0.12% f.s.
- ±0.10% f.s.
- ±0.08% f.s.
- ±0.06% f.s.
- ±0.04% f.s.

**Current Display and Effective Measurement Ranges (typical)**

**Total display range**

- Voltage is displayed from 5 V to 1000 V, with less than 5 V displayed as 0 V.
- Current is displayed from 0% to 130% of the selected range, with less than 0.4% displayed as 0 A.
- Power is displayed from 0 to 130% of full scale, with 0 W displayed when voltage or current is zero.

The range configurations for apparent power (S) and reactive power (Q) are the same, with units of [VA] and [var], respectively.

When VT and CT ratios are set, the range configuration is the product (VT ratio × CT ratio).

**Effective measurement range**

For voltage, 90 to 780 V, with max. 1400 V peak.

For current, 5% to 110% of the selected range with peak ±400% of range, but maximum range is ±260%.

For power, 5% to 110% of the selected range.

For frequency, 45 to 66 Hz.

**Measurement accuracy**

- Voltage ±0.3% rdg. ±0.1% f.s.
- Current ±0.3% rdg. ±0.1% f.s. + clamp sensor accuracy
- Active power ±0.3% rdg. ±0.3% f.s. + clamp sensor accuracy (power factor = 1)
- Combined accuracy of PW3360-20 + clamp sensors

**Input Current**

- 0.0 A
- 1 A
- 10 A
- 100 A
- 0.1 A
- 0.01 A

**Frequency**

- ±0.1% f.s.
- ±0.2% f.s.
- ±0.3% f.s.
- ±0.4% f.s.
- ±0.5% f.s.

**Voltage**

- ±0.1% f.s.
- ±0.2% f.s.
- ±0.3% f.s.
- ±0.4% f.s.
- ±0.5% f.s.

**Effective measurement range**

- ±0.6% rdg.
- ±0.3% f.s.
- ±0.4% f.s.
- ±0.5% f.s.
- ±0.6% f.s.
- ±0.7% f.s.

**Power**

- ±0.2% f.s.
- ±0.3% f.s.
- ±0.4% f.s.
- ±0.5% f.s.
- ±0.6% f.s.
- ±0.7% f.s.

**Reactive power**

- Fundamental waveform calculations
- ±0.3% rdg. ±0.1% f.s. ± clamp-on sensor accuracy (w/power factor = 1)
- RMS calculations
- From each measurement applied to calculation ±1 dgt.

**Apparent power**

- ±1 dgt.

**Reactive power**

- Fundamental waveform calculations
- ±0.3% rdg. ±0.1% f.s. ± clamp-on sensor accuracy (w/power factor = 1)
- RMS calculations
- From each measurement applied to calculation ±1 dgt.

**Energy**

- Active and reactive power measurements ±1 dgt.

**Power factor**

- From each measurement applied to calculation ±1 dgt.

**Frequency**

- ±0.5% rdg. (with 90 to 370 V sine wave input)

**Demand value**

- Active and reactive power measurements ±1 dgt.

**Demand quantity**

- Active and reactive power measurements ±1 dgt.

**Pulse input**

- ±1 dgt.

**Frequency characteristic**

- At 50/60 Hz fundamental waveform frequency, up to 1 kHz, ±3% rdg. ±0.2% ± 0.4% f.s.
- up to 3 kHz, ±10% rdg. ±0.2% ± 0.4% f.s.
- For current and active power, add clamp-on sensor accuracy.
- Note: only for 3P3W3M wiring, add ±0.5% rdg.

**Current Display and Effective Measurement Ranges (typical)**

**Display range**

- Effective measurement range

**Conditions of guaranteed accuracy**

- After 30 minute warm-up, with 50/60 Hz sine wave input

**Temperature and humidity for guaranteed accuracy**

- 23°C ±5°C (73 ± 9°F), 85%RH or less

**Display area of guaranteed accuracy**

- Effective measurement range

**Period of guaranteed accuracy**

- 1 year

**Real-time clock accuracy**

- ±0.3 sec/day (with power on, within specified operating temperature and humidity ranges)

**Effect of common mode voltage**

- ±0.2% f.s.

**Effect of external magnetic field**

- ±0.3 sec/day (in a magnetic field of 400 A/m rms AC, 50/60 Hz)

**Effect of phase**

- ±1.3° equivalent (with 50/60 Hz f.s. input)
CLAMP ON POWER LOGGER  PW3360-20

Harmonic Measurement Model  

CLAMP ON POWER LOGGER  PW3360-21

Accessories

VOLTAGE CORD L9438-53 (1 set) , AC ADAPTER Z1006 (1) , USB cable (1) , instruction manual (1) , measurement guide (1) , color spiral tubes (1 set: red, yellow, blue/two each, for color-coding clamp sensors, spiral tubes for grouping clamp sensor cords) (5)

Clamp-On Power Logger PW3360-20, PW3360-21 by itself does not support current and power measurements. Current and power measurements require clamp-on sensors, sold separately. Also, use only HIOKI-issued SD cards guaranteed to work for saving measurement data, (options, sold separately).

AC ADAPTER Z1006  
VOLTAGE CORD L9438-53

cord length: 3m (9.84 ft)

1 cord each of black, red, yellow, and blue, and five spiral tubes for bundling cords

Options

CLAMP ON SENSOR  
(for load current measurement)

CLAMP ON SENSOR 9694 (AC5A)
CLAMP ON SENSOR 9660 (AC100A)
CLAMP ON SENSOR 9661 (AC500A)
CLAMP ON SENSOR 9669 (AC1000A)
FLEXIBLE CLAMP ON SENSOR CT9667 (AC5000A)
CLAMP ON SENSOR 9695-02 (AC50A)
CLAMP ON SENSOR 9695-03 (AC100A)
CONNECTION CORD 9219 (for connection to 9695-02, 9695-03)
When purchasing the 9695-02 and 9695-03, we recommend also purchasing the separately sold 9219 Connection Cord.

CLAMP ON LEAK SENSOR  
(for leakage current measurement)

CLAMP ON LEAK SENSOR 9657-10
CLAMP ON LEAK SENSOR 9675

SD MEMORY CARD 2GB
Z4001

Stores up to one year’s data when acquired at one minute intervals. Performance cannot be guaranteed on storage media other than Hioki-specified SD card options.

VOLTAGE LINE POWER ADAPTER

PW9003  
(supplies power from measurement lines)
Rated voltage: 240 V AC
Operating temperature and humidity range: -30 to 50°C, 80% RH or less
CAT III 300V

BATTERY SET

PW9002
Battery Case and Battery Pack Set

BATTERY PACK 9459
For purchase as replacement battery pack

CARRYING CASE

C1005

Dimension:
Approx. 390W (15.4”)×275H (10.8”)×110D (4.3”) mm

MAGNET ADAPTER

9804-01 Red
9804-02 Black

φ11mm (0.43 in)
(generally compatible with M6 pan screws)
Magnetic tip for use with the standard VOLTAGE CORD L9438-53
Red and black adapters sold separately. Purchase the quantity and color appropriate for your application. (Example: 3P3W-3 adapters, 3P4W-4 adapters)

POWER LOGGER VIEWER

SF1001

LAN CABLE

9642

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