Current Sensors Designed for High Accuracy and Wide Bandwidth, from DC to High-frequency Currents

Optimize the Performance of Your a Power Analyzer, Memory HiCorder, or Oscilloscope
Application Specific Selection Map

At Hioki, we have refined our current sensing and probe technologies over many years in order to deliver a wide selection of advanced performance instruments. Choose from a diverse array of highly reliable products to meet your power industry needs.

* The dotted lines are an approximation.
* In the case of the high accuracy pass-through types and high accuracy clamp types, use of the aggregation function of the CT9557 SENSOR UNIT for meeting the operating current and frequency ranges above is included.

### High Accuracy Pass-Through Type
- Application 1: For development of inverters for EV/HEV/FCV, bullet trains, or airplanes
- Application 2: Conversion efficiency evaluation of PV power conditioners

### Ultra-High Accuracy Pass-Through Type
- Application 1: High-precision power measurement for SiC or GaN inverters with high switching frequencies
- Application 2: Loss evaluation of transformers or reactors

### High Accuracy Clamp-type
- Application 1: Evaluation of WLTC and automotive new fuel economy (electricity cost) standards
- Application 2: Measuring a wire that cannot be cut

### Wideband Clamp-type
- Application 1: Current waveform measurement of control signal lines for automobiles and industrial robots
- Application 2: Measurement of standby and leakage current for wireless or medical devices
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<tr>
<td>Ultra-high accuracy pass-through</td>
<td></td>
<td>CT6904</td>
<td>500 A</td>
<td>4 mV/A DC to 4 MHz</td>
<td>±0.02% rdg. ±0.007%f.s.</td>
<td>Within ±0.08°</td>
<td>-10°C to 50°C (14°F to 122°F)</td>
<td>32 mm (1.26 in)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>CT6904-60</td>
<td>800 A</td>
<td>2 mV/A DC to 4 MHz</td>
<td>±0.025% rdg. ±0.009%f.s.</td>
<td>Within ±0.08°</td>
<td>-10°C to 50°C (14°F to 122°F)</td>
<td>32 mm (1.26 in)</td>
<td></td>
</tr>
<tr>
<td>High accuracy pass-through</td>
<td></td>
<td>CT6862-05</td>
<td>50 A</td>
<td>40 mA DC to 1 MHz</td>
<td>±0.05% rdg. ±0.01% f.s.</td>
<td>Within ±0.2°</td>
<td>-30°C to 85°C (-22°F to 185°F)</td>
<td>24 mm (0.94 in)</td>
<td>φ 32 mm (1.26 in)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CT6863-05</td>
<td>200 A</td>
<td>10 mA DC to 500 kHz</td>
<td>±0.05% rdg. ±0.01% f.s.</td>
<td>Within ±0.2°</td>
<td>-30°C to 85°C (-22°F to 185°F)</td>
<td>24 mm (0.94 in)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>CT6875</td>
<td>500 A</td>
<td>4 mA DC to 2 MHz</td>
<td>±0.04 %rdg. ±0.008 %f.s.</td>
<td>Within ±0.1°</td>
<td>-40°C to 85°C (-40°F to 185°F)</td>
<td>36 mm (1.42 in)</td>
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<tr>
<td></td>
<td></td>
<td>CT6876</td>
<td>1000 A</td>
<td>2 mA DC to 1.5 MHz</td>
<td>±0.04 %rdg. ±0.008 %f.s.</td>
<td>Within ±0.1°</td>
<td>-40°C to 85°C (-40°F to 185°F)</td>
<td>36 mm (1.42 in)</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>CT6877</td>
<td>2000 A</td>
<td>1 mA DC to 1 MHz</td>
<td>±0.04% rdg. ±0.008% f.s.</td>
<td>Within ±0.1°</td>
<td>-40°C to 85°C (-40°F to 185°F)</td>
<td>80 mm (3.15 in)</td>
<td></td>
</tr>
<tr>
<td>High accuracy clamp</td>
<td></td>
<td>CT6841-05</td>
<td>20 A</td>
<td>100 mA DC to 1 MHz</td>
<td>±0.3% rdg. ±0.01% f.s.</td>
<td>Within ±0.1°</td>
<td>-40°C to 85°C (-40°F to 185°F)</td>
<td>20 mm (0.79 in)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>CT6843-05</td>
<td>200 A</td>
<td>10 mA DC to 500 kHz</td>
<td>±0.3% rdg. ±0.01% f.s.</td>
<td>Within ±0.1°</td>
<td>-40°C to 85°C (-40°F to 185°F)</td>
<td>20 mm (0.79 in)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>CT6844-05</td>
<td>500 A</td>
<td>4 mA DC to 200 kHz</td>
<td>±0.3% rdg. ±0.01% f.s.</td>
<td>Within ±0.1°</td>
<td>-40°C to 85°C (-40°F to 185°F)</td>
<td>20 mm (0.79 in)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>CT6845-05</td>
<td>500 A</td>
<td>4 mA DC to 100 kHz</td>
<td>±0.3% rdg. ±0.01% f.s.</td>
<td>Within ±0.1°</td>
<td>-40°C to 85°C (-40°F to 185°F)</td>
<td>50 mm (1.97 in)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>CT6846-05</td>
<td>1000 A</td>
<td>2 mA DC to 20 kHz</td>
<td>±0.3% rdg. ±0.01% f.s.</td>
<td>Within ±0.1°</td>
<td>-40°C to 85°C (-40°F to 185°F)</td>
<td>50 mm (1.97 in)</td>
<td></td>
</tr>
<tr>
<td>High accuracy direct connection</td>
<td></td>
<td>PW9100-03</td>
<td>50 A</td>
<td>40 mA DC to 3.5 MHz</td>
<td>±0.02% rdg. ±0.005% f.s.</td>
<td>Within ±0.1°</td>
<td>0°C to 40°C (32°F to 104°F)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High accuracy clamp</td>
<td></td>
<td>PW9100-04</td>
<td>50 A</td>
<td>40 mA DC to 3.5 MHz</td>
<td>±0.02% rdg. ±0.005% f.s.</td>
<td>Within ±0.1°</td>
<td>0°C to 50°C (32°F to 122°F)</td>
<td>Measurement terminals M6 screws</td>
<td></td>
</tr>
<tr>
<td>Wideband clamp</td>
<td></td>
<td>9272-05</td>
<td>20 A</td>
<td>100 mA, 10 mA DC to 10 kHz</td>
<td>±0.3% rdg. ±0.01% f.s.</td>
<td>Within ±0.2°</td>
<td>0°C to 50°C (32°F to 122°F)</td>
<td>46 mm (1.81 in)</td>
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<tr>
<td></td>
<td></td>
<td>CT6710</td>
<td>0.5 A,</td>
<td>10 V/A, 1 V/A, 0.1 V/A DC to 50 MHz</td>
<td>Typical ±1.0%rdg. ±1 mV (30 A range /5 A range)</td>
<td>–</td>
<td>0°C to 40°C (32°F to 104°F)</td>
<td>5 mm (0.20 in)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>CT6711</td>
<td>0.5 A,</td>
<td>10 V/A, 1 V/A, 0.1 V/A DC to 120 MHz</td>
<td>Typical ±1.0%rdg. ±1 mV (30 A range /5 A range)</td>
<td>–</td>
<td>0°C to 40°C (32°F to 104°F)</td>
<td>5 mm (0.20 in)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>CT6700</td>
<td>5 A</td>
<td>1 V/A DC to 50 MHz</td>
<td>Typical ±1.0% rdg. ±1 mV</td>
<td>–</td>
<td>0°C to 40°C (32°F to 104°F)</td>
<td>5 mm (0.20 in)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>CT6701</td>
<td>5 A</td>
<td>1 V/A DC to 120 MHz</td>
<td>Typical ±1.0% rdg. ±1 mV</td>
<td>–</td>
<td>0°C to 40°C (32°F to 104°F)</td>
<td>5 mm (0.20 in)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>3273-50</td>
<td>30 A</td>
<td>0.1 V/A DC to 50 MHz</td>
<td>±1.0% rdg. ±1 mV</td>
<td>–</td>
<td>0°C to 40°C (32°F to 104°F)</td>
<td>5 mm (0.20 in)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3276</td>
<td>30 A</td>
<td>0.1 V/A DC to 100 MHz</td>
<td>±1.0% rdg. ±1 mV</td>
<td>–</td>
<td>0°C to 40°C (32°F to 104°F)</td>
<td>5 mm (0.20 in)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3274</td>
<td>150 A</td>
<td>0.01 V/A DC to 10 MHz</td>
<td>±1.0% rdg. ±1 mV</td>
<td>–</td>
<td>0°C to 40°C (32°F to 104°F)</td>
<td>20 mm (0.79 in)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3275</td>
<td>500 A</td>
<td>0.01 V/A DC to 2 MHz</td>
<td>±1.0% rdg. ±5 mV</td>
<td>–</td>
<td>0°C to 40°C (32°F to 104°F)</td>
<td>20 mm (0.79 in)</td>
<td></td>
</tr>
</tbody>
</table>
AC/DC CURRENT SENSOR CT6904

Ideal for Motor and Inverter R&D such as Power Analysis and Efficiency Measurement

Recommended measuring instrument: CT6904 + POWER ANALYZER PW6001

High-Precision and Efficiency Testing of SiC/GaN Inverters

A wide range and small voltage current phase error are essential for the highly precise measurement of switching frequency power during PWM output.

The CT6904 features flat frequency characteristics over a wide range to provide accurate measurement of not only fundamental wave current, but also switching frequency current.

Since the CT6904 achieves both wide-range and highly accurate measurement performance, it can be used in combination with a power analyzer for more precise measurements of inverter input/output power and efficiency than ever before.

Current Sensor Phase Shift with the Power Analyzer

Enter current sensor phase characteristic representative value as phase compensation value

The Hioki Power Analyzer PW6001 and PW3390 incorporate proprietary virtual oversampling technology. Perform current sensor phase compensation with a 0.01° resolution, and measure power more accurately. With the Current Sensor Phase Shift Function, you can now achieve even more accurate high frequency, low power factor power measurements.
Clamp for quick and easy connections.

**Recommended measuring instrument: CT6843-05 + POWER ANALYZER PW3390**

Test Automobile Fuel Economy

Easily connect high accuracy clamp-type sensors without cutting the cables. Sensors operate over a temperature range of -40°C to 85°C (-40°F to 185°F), characteristics that enable highly accurate measurements even inside the engine room of a car.

**Key features**
1. Accurately measure recharge and discharge power with excellent basic accuracy and DC accuracy.
2. 4 built-in channels, standard. Support for multiple recharge and discharge measurements, including auxiliary batteries.
3. Easily achieve highly accurate measurements with clamp sensors, which can be used in a wide range of operating temperatures.
4. Easily link with other measuring instruments through integration control with an external control interface.

**Recommended measuring instrument: CT6843-05 + MEMORY HiCORDER MR6000**

Simple Connectivity for 3-phase Current Waveform Observing

The 3-channel Current Unit U8977, which allows three CT6843-05 probes to be connected to a waveform-observing Memory HiCorder MR6000, makes it easy to input 3-phase current. Scaling makes it possible to read current values for the observed waveforms.

**Automatic configuration of sensor scaling values**
When you connect a current sensor, the MR6000 will automatically detect the model and set the appropriate scaling value.

**Power supply**
Power is supplied from the current unit. Since current sensor power is supplied directly from the current unit, there’s no need to provide a sensor power supply.

**Technology that Supports the Evolution of Current Testing**

High-accuracy sensors use the "zero flux method (flux gate detection type)" as the measurement method. High-frequency currents are detected with the winding (CT method), and DC to low frequency currents are detected using a "flux gate."

**Flux gate detection**
Flux gate detection delivers excellent linearity and can measure currents across a wide range of magnitudes with a high degree of accuracy. The flux gate component, used in DC detection, has extremely small offset in a wide range of temperatures due to its operating principle and therefore achieves high precision and superior stability. Ideal for measurements that require high accuracy using instruments such as power analyzers and power meters. Highly applicable for testing inverter efficiency, inverter output power, reactor or transformer loss, as well as long-term DC measurements.

**Test Cycle Example**

**Example of DC Power Fluctuation**

**Scan QR Code to Watch Video Illustrating Fuel Economy Evaluation of an Automobile**

**Power supply**

Scan QR Code to Watch Video Illustrating Fuel Economy Evaluation of an Automobile
### Specifications

#### Pass-Through Type

**CT6904 500 A AC/DC**

- **Rated primary current**: 500 A AC/DC
- **Frequency band**: DC to 4 kHz (±3 dB Typical)
- **Diameter of measurable conductors**: <φ 32 mm (1.26 in) or less (conductors)

**Accuracy**

- **Amplitude**: ±0.06% rdg. ±0.007% f.s.
- **Phase**: ±0.1°

<table>
<thead>
<tr>
<th>Frequency</th>
<th>DC</th>
<th>45 Hz ≤ f ≤ 65 Hz</th>
<th>75 Hz ≤ f ≤ 100 Hz</th>
<th>120 Hz ≤ f ≤ 500 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC ≤ 16 Hz</td>
<td>±0.2% rdg. ±0.007% f.s.</td>
<td>±0.1% rdg. ±0.007% f.s.</td>
<td>±0.1°</td>
<td>±0.1°</td>
</tr>
<tr>
<td>16 Hz ≤ f &lt; 45 Hz</td>
<td>±0.5% rdg. ±0.007% f.s.</td>
<td>±0.12°</td>
<td>±0.2°</td>
<td></td>
</tr>
<tr>
<td>45 Hz ≤ f &lt; 65 Hz</td>
<td>±0.05% rdg. ±0.007% f.s.</td>
<td>±0.04°</td>
<td>±0.1°</td>
<td></td>
</tr>
<tr>
<td>65 Hz ≤ f &lt; 180 Hz</td>
<td>±0.05% rdg. ±0.007% f.s.</td>
<td>±0.08°</td>
<td>±0.2°</td>
<td></td>
</tr>
<tr>
<td>180 Hz ≤ f &lt; 500 Hz</td>
<td>±0.05% rdg. ±0.007% f.s.</td>
<td>±0.1°</td>
<td>±0.2°</td>
<td></td>
</tr>
</tbody>
</table>

- **Bandwidths**
  - 10 kHz ≤ f ≤ 50 kHz: ±0.05% rdg. ±0.007% f.s. ±0.12° ±0.2°
  - 50 kHz ≤ f ≤ 100 kHz: ±0.05% rdg. ±0.007% f.s. ±0.1° ±0.2°
  - 100 kHz ≤ f ≤ 300 kHz: ±0.05% rdg. ±0.007% f.s. ±0.1° ±0.2°
  - 300 kHz ≤ f ≤ 1 MHz: ±0.05% rdg. ±0.007% f.s. ±0.1° ±0.2°

**Output connector**: ME15W

**Cable length**: 10 m length also available

**Mass**: 1.1 kg (38.8 oz)

**Accessories**: Instruction manual, Carrying case, Color labels (for channel identification)

#### Pass-Through Type

**CT6904-60 800 A AC/DC**

- **Rated primary current**: 800 A AC/DC
- **Frequency band**: DC to 4 kHz (±3 dB Typical)
- **Diameter of measurable conductors**: <φ 32 mm (1.26 in) or less (conductors)

**Accuracy**

- **Amplitude**: ±0.06% rdg. ±0.007% f.s.
- **Phase**: ±0.1°

<table>
<thead>
<tr>
<th>Frequency</th>
<th>DC</th>
<th>45 Hz ≤ f ≤ 65 Hz</th>
<th>75 Hz ≤ f ≤ 100 Hz</th>
<th>120 Hz ≤ f ≤ 500 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC ≤ 16 Hz</td>
<td>±0.2% rdg. ±0.007% f.s.</td>
<td>±0.1% rdg. ±0.007% f.s.</td>
<td>±0.1°</td>
<td>±0.1°</td>
</tr>
<tr>
<td>16 Hz ≤ f &lt; 45 Hz</td>
<td>±0.5% rdg. ±0.007% f.s.</td>
<td>±0.12°</td>
<td>±0.2°</td>
<td></td>
</tr>
<tr>
<td>45 Hz ≤ f &lt; 65 Hz</td>
<td>±0.05% rdg. ±0.007% f.s.</td>
<td>±0.04°</td>
<td>±0.1°</td>
<td></td>
</tr>
<tr>
<td>65 Hz ≤ f &lt; 180 Hz</td>
<td>±0.05% rdg. ±0.007% f.s.</td>
<td>±0.08°</td>
<td>±0.2°</td>
<td></td>
</tr>
<tr>
<td>180 Hz ≤ f &lt; 500 Hz</td>
<td>±0.05% rdg. ±0.007% f.s.</td>
<td>±0.1°</td>
<td>±0.2°</td>
<td></td>
</tr>
</tbody>
</table>

- **Bandwidths**
  - 10 kHz ≤ f ≤ 50 kHz: ±0.05% rdg. ±0.007% f.s. ±0.12° ±0.2°
  - 50 kHz ≤ f ≤ 100 kHz: ±0.05% rdg. ±0.007% f.s. ±0.1° ±0.2°
  - 100 kHz ≤ f ≤ 300 kHz: ±0.05% rdg. ±0.007% f.s. ±0.1° ±0.2°
  - 300 kHz ≤ f ≤ 1 MHz: ±0.05% rdg. ±0.007% f.s. ±0.1° ±0.2°

**Output connector**: ME15W

**Cable length**: 10 m length also available

**Mass**: 1.1 kg (38.8 oz)

**Accessories**: Instruction manual, Carrying case, Color labels (for channel identification)
Pass-Through Type

**CT6862**

50 A AC/DC

Output connector: PL23

- Frequency range: DC to 1 MHz (3 dB)
- Diameter of measurable conductors: \( \phi \) 24 mm (0.94 in) or less
- Accuracy
  - Frequency: \( \pm 0.05\% \text{ rdg.} \pm 0.01\% \text{ f.s.} \)
  - Amplitude: \( \pm 10\% \text{ rdg.} \pm 0.05\% \text{ f.s.} \)
  - Phase: \( \pm 0.3^\circ \)

Frequency characteristics (example of typical characteristics)

<table>
<thead>
<tr>
<th>Frequency [Hz]</th>
<th>Gain [dB]</th>
<th>Phase [°]</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC &lt; f &lt; 16 Hz</td>
<td>( \pm 0.10% \text{ rdg.} \pm 0.02% \text{ f.s.} )</td>
<td>( \pm 0^\circ )</td>
</tr>
<tr>
<td>16 Hz &lt; f &lt; 400 Hz</td>
<td>( \pm 0.05% \text{ rdg.} \pm 0.01% \text{ f.s.} )</td>
<td>( \pm 0^\circ )</td>
</tr>
<tr>
<td>400 Hz &lt; f &lt; 1 kHz</td>
<td>( \pm 0.2% \text{ rdg.} \pm 0.05% \text{ f.s.} )</td>
<td>( \pm 0^\circ )</td>
</tr>
<tr>
<td>1 kHz &lt; f &lt; 5 kHz</td>
<td>( \pm 0.7% \text{ rdg.} \pm 0.02% \text{ f.s.} )</td>
<td>( \pm 1^\circ )</td>
</tr>
<tr>
<td>5 kHz &lt; f &lt; 10 kHz</td>
<td>( \pm 1% \text{ rdg.} \pm 0.05% \text{ f.s.} )</td>
<td>( \pm 1^\circ )</td>
</tr>
<tr>
<td>10 kHz &lt; f &lt; 50 kHz</td>
<td>( \pm 1.5% \text{ rdg.} \pm 0.07% \text{ f.s.} )</td>
<td>( \pm 1^\circ )</td>
</tr>
<tr>
<td>50 kHz &lt; f &lt; 100 kHz</td>
<td>( \pm 2% \text{ rdg.} \pm 0.1% \text{ f.s.} )</td>
<td>( \pm 1^\circ )</td>
</tr>
<tr>
<td>100 kHz &lt; f &lt; 300 kHz</td>
<td>( \pm 5% \text{ rdg.} \pm 0.2% \text{ f.s.} )</td>
<td>( \pm 1^\circ )</td>
</tr>
<tr>
<td>300 kHz &lt; f &lt; 700 kHz</td>
<td>( \pm 10% \text{ rdg.} \pm 0.5% \text{ f.s.} )</td>
<td>-</td>
</tr>
<tr>
<td>700 kHz &lt; f &lt; 1 MHz</td>
<td>( \pm 15% \text{ rdg.} \pm 1% \text{ f.s.} )</td>
<td>-</td>
</tr>
</tbody>
</table>

**CT6862-05**

50 A AC/DC

Output connector: ME15W

- Frequency range: DC to 500 kHz (3 dB)
- Diameter of measurable conductors: \( \phi \) 24 mm (0.94 in) or less
- Accuracy
  - Frequency: \( \pm 0.05\% \text{ rdg.} \pm 0.01\% \text{ f.s.} \)
  - Amplitude: \( \pm 200 mA \text{ or less} \)
  - Phase: \( \pm 11 V \text{ or less} \)

Frequency characteristics (example of typical characteristics)

<table>
<thead>
<tr>
<th>Frequency [Hz]</th>
<th>Gain [dB]</th>
<th>Phase [°]</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC</td>
<td>( \pm 0.05% \text{ rdg.} \pm 0.01% \text{ f.s.} )</td>
<td>-</td>
</tr>
<tr>
<td>16 Hz</td>
<td>( \pm 0.10% \text{ rdg.} \pm 0.02% \text{ f.s.} )</td>
<td>( \pm 3^\circ )</td>
</tr>
<tr>
<td>400 Hz</td>
<td>( \pm 0.05% \text{ rdg.} \pm 0.01% \text{ f.s.} )</td>
<td>( \pm 2^\circ )</td>
</tr>
<tr>
<td>1 kHz</td>
<td>( \pm 0.2% \text{ rdg.} \pm 0.05% \text{ f.s.} )</td>
<td>( \pm 0^\circ )</td>
</tr>
<tr>
<td>5 kHz</td>
<td>( \pm 0.7% \text{ rdg.} \pm 0.02% \text{ f.s.} )</td>
<td>( \pm 1^\circ )</td>
</tr>
<tr>
<td>10 kHz</td>
<td>( \pm 1% \text{ rdg.} \pm 0.05% \text{ f.s.} )</td>
<td>( \pm 1^\circ )</td>
</tr>
<tr>
<td>50 kHz</td>
<td>( \pm 1.5% \text{ rdg.} \pm 0.07% \text{ f.s.} )</td>
<td>( \pm 1^\circ )</td>
</tr>
<tr>
<td>100 kHz</td>
<td>( \pm 2% \text{ rdg.} \pm 0.1% \text{ f.s.} )</td>
<td>( \pm 1^\circ )</td>
</tr>
<tr>
<td>300 kHz</td>
<td>( \pm 5% \text{ rdg.} \pm 0.2% \text{ f.s.} )</td>
<td>( \pm 1^\circ )</td>
</tr>
<tr>
<td>500 kHz</td>
<td>( \pm 10% \text{ rdg.} \pm 0.5% \text{ f.s.} )</td>
<td>-</td>
</tr>
</tbody>
</table>

Pass-Through Type

**CT6863**

200 A AC/DC

Output connector: PL23

- Frequency range: DC to 500 kHz (3 dB)
- Diameter of measurable conductors: \( \phi \) 24 mm (0.94 in) or less
- Accuracy
  - Frequency: \( \pm 0.05\% \text{ rdg.} \pm 0.01\% \text{ f.s.} \)
  - Amplitude: \( \pm 50 \text{ mA or less} \)

Frequency characteristics (example of typical characteristics)

<table>
<thead>
<tr>
<th>Frequency [Hz]</th>
<th>Gain [dB]</th>
<th>Phase [°]</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC</td>
<td>( \pm 0.05% \text{ rdg.} \pm 0.01% \text{ f.s.} )</td>
<td>-</td>
</tr>
<tr>
<td>16 Hz</td>
<td>( \pm 0.10% \text{ rdg.} \pm 0.02% \text{ f.s.} )</td>
<td>( \pm 3^\circ )</td>
</tr>
<tr>
<td>400 Hz</td>
<td>( \pm 0.05% \text{ rdg.} \pm 0.01% \text{ f.s.} )</td>
<td>( \pm 2^\circ )</td>
</tr>
<tr>
<td>1 kHz</td>
<td>( \pm 0.2% \text{ rdg.} \pm 0.05% \text{ f.s.} )</td>
<td>( \pm 0^\circ )</td>
</tr>
<tr>
<td>5 kHz</td>
<td>( \pm 0.7% \text{ rdg.} \pm 0.02% \text{ f.s.} )</td>
<td>( \pm 1^\circ )</td>
</tr>
<tr>
<td>10 kHz</td>
<td>( \pm 1% \text{ rdg.} \pm 0.05% \text{ f.s.} )</td>
<td>( \pm 1^\circ )</td>
</tr>
<tr>
<td>50 kHz</td>
<td>( \pm 1.5% \text{ rdg.} \pm 0.07% \text{ f.s.} )</td>
<td>( \pm 1^\circ )</td>
</tr>
<tr>
<td>100 kHz</td>
<td>( \pm 2% \text{ rdg.} \pm 0.1% \text{ f.s.} )</td>
<td>( \pm 1^\circ )</td>
</tr>
<tr>
<td>300 kHz</td>
<td>( \pm 5% \text{ rdg.} \pm 0.2% \text{ f.s.} )</td>
<td>( \pm 1^\circ )</td>
</tr>
<tr>
<td>500 kHz</td>
<td>( \pm 10% \text{ rdg.} \pm 0.5% \text{ f.s.} )</td>
<td>-</td>
</tr>
</tbody>
</table>
Pass-Through Type

CT6875, CT6875-01
500 A AC/DC

Output connector: ME15W
Cable length: CT6875 3 m
CT6875-01 10 m

Frequency band
- CT6875: DC to 2 MHz (±3 dB Typical)
- CT6875-01: DC to 1.5 MHz (±3 dB Typical)

Diameter of measurable:
- φ36 mm (1.42 in) or less conductors

Accuracy

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Amplitude</th>
<th>Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC</td>
<td>±0.04% rdg, ±0.008% f.s. (f.s. = PW6001 Range)</td>
<td>-</td>
</tr>
<tr>
<td>DC &lt; f &lt; 16 Hz</td>
<td>±0.01% rdg, ±0.002% f.s.</td>
<td>±0.1°</td>
</tr>
<tr>
<td>16 Hz ≤ f &lt; 45 Hz</td>
<td>±0.05% rdg, ±0.01% f.s.</td>
<td>±0.1°</td>
</tr>
<tr>
<td>45 Hz ≤ f &lt; 68 Hz</td>
<td>±0.04% rdg, ±0.01% f.s.</td>
<td>±0.1°</td>
</tr>
<tr>
<td>68 Hz ≤ f &lt; 100 Hz</td>
<td>±0.05% rdg, ±0.01% f.s.</td>
<td>±0.1°</td>
</tr>
<tr>
<td>100 Hz ≤ f &lt; 500 Hz</td>
<td>±0.02% rdg, ±0.01% f.s.</td>
<td>±0.4°</td>
</tr>
<tr>
<td>500 Hz ≤ f &lt; 1 kHz</td>
<td>±0.02% rdg, ±0.01% f.s.</td>
<td>±0.2°</td>
</tr>
<tr>
<td>1 kHz ≤ f &lt; 5 kHz</td>
<td>±0.04% rdg, ±0.02% f.s.</td>
<td>±0.8°</td>
</tr>
<tr>
<td>5 kHz ≤ f &lt; 10 kHz</td>
<td>±0.05% rdg, ±0.01% f.s.</td>
<td>±0.1 X 1(4kHz)°</td>
</tr>
<tr>
<td>10 kHz ≤ f &lt; 50 kHz</td>
<td>±0.15% rdg, ±0.05% f.s.</td>
<td>±0.1 X 1(4kHz)°</td>
</tr>
<tr>
<td>50 kHz ≤ f &lt; 100 kHz</td>
<td>±0.5% rdg, ±0.02% f.s.</td>
<td>±0.1°</td>
</tr>
<tr>
<td>100 kHz ≤ f &lt; 1 MHz</td>
<td>±0.01% rdg, ±0.01% f.s.</td>
<td>±0.1 X 1(4kHz)°</td>
</tr>
</tbody>
</table>

Combined accuracy with PW6001 POWER ANALYZER
- Amplitude accuracy: ±(0.005 × f kHz)% rdg.
- Phase accuracy: ±(0.015 × f kHz)°

For other measurement parameters, add the PW6001 accuracy and the sensor accuracy (consider the sensor rating when calculating the f.s. error).

- For 10 A range and 20 A range, apply ±0.2% f.s. (f.s. = PW6001 Range)

Temperature and humidity range for guaranteed accuracy
- 0°C to 40°C (32°F to 104°F), 80% RH or less

Accuracy guarantee period
- 1 year

Effect of temperature
- In ranges from -40°C to 0°C (140°F to 32°F) and 40°C to 85°C (104°F to 185°F)
- Amplitude sensitivity: ±0.003 ppm of f.s./°C
- Offset voltage: ±0.0005 f.s./°C

Magnetic susceptibility
- 10% or less (scaled value, after input of 1000 A DC)
- Common-mode voltage rejection ratio (CMRR)
- 100:1 or greater (100 Hz)

Effect of conductor
- DC, 50 Hz/60 Hz: ±0.01% rdg or less (100 A Input)
- 10 kHz: ±0.4% rdg or less (100 A Input)
- 100 kHz: ±0.25% rdg or less (10 A Input)

Effect of external magnetic field
- 20 mT or less (scaled value, in a DC and 60 Hz magnetic field of 400 A/m)

Output voltage
- 4 mA (±2% to 5000 A)

Operating temperature and humidity range
- -40°C to 85°C (40°F to 185°F), 80% RH or less (no condensation)

Storage temperature and humidity range
- -40°C to 85°C (40°F to 185°F), 80% RH or less (no condensation)

Maximum rated voltage to ground
- 1000 V CAT III Expected transient overvoltage: 8000 V

Dimensions
- 180 mm (6.30 in) W × 112 mm (4.41 in) H × 50 mm (1.97 in) D

Mass
- Approx. CT6875: 0.8 kg (2.8 lb) CT6875-01: 1.1 kg (3.8 lb)

Pass-Through Type

CT6876, CT6876-01
1000 A AC/DC

Output connector: ME15W
Cable length: CT6876 3 m
CT6876-01 10 m

Frequency band
- CT6876: DC to 1.5 MHz (±3 dB Typical)
- CT6876-01: DC to 1.2 MHz (±3 dB Typical)

Diameter of measurable:
- φ36 mm (1.42 in) or less conductors

Accuracy

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Amplitude</th>
<th>Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC</td>
<td>±0.04% rdg, ±0.008% f.s. (f.s. = PW6001 Range)</td>
<td>-</td>
</tr>
<tr>
<td>DC &lt; f &lt; 16 Hz</td>
<td>±0.1% rdg, ±0.002% f.s.</td>
<td>±0.1°</td>
</tr>
<tr>
<td>16 Hz ≤ f &lt; 45 Hz</td>
<td>±0.05% rdg, ±0.01% f.s.</td>
<td>±0.1°</td>
</tr>
<tr>
<td>45 Hz ≤ f &lt; 68 Hz</td>
<td>±0.04% rdg, ±0.01% f.s.</td>
<td>±0.1°</td>
</tr>
<tr>
<td>68 Hz ≤ f &lt; 100 Hz</td>
<td>±0.05% rdg, ±0.01% f.s.</td>
<td>±0.1°</td>
</tr>
<tr>
<td>100 Hz ≤ f &lt; 500 Hz</td>
<td>±0.1% rdg, ±0.02% f.s.</td>
<td>±0.2°</td>
</tr>
<tr>
<td>500 Hz ≤ f &lt; 1 kHz</td>
<td>±0.2% rdg, ±0.02% f.s.</td>
<td>±0.4°</td>
</tr>
<tr>
<td>1 kHz ≤ f &lt; 5 kHz</td>
<td>±0.5% rdg, ±0.02% f.s.</td>
<td>±0.5°</td>
</tr>
<tr>
<td>5 kHz ≤ f &lt; 10 kHz</td>
<td>±0.5% rdg, ±0.02% f.s.</td>
<td>±0.1 X 1(4kHz)°</td>
</tr>
<tr>
<td>10 kHz ≤ f &lt; 50 kHz</td>
<td>±2% rdg, ±0.05% f.s.</td>
<td>±0.1 X 1(4kHz)°</td>
</tr>
<tr>
<td>50 kHz ≤ f &lt; 100 kHz</td>
<td>±0.3% rdg, ±0.01% f.s.</td>
<td>±0.1°</td>
</tr>
<tr>
<td>100 kHz ≤ f &lt; 1 MHz</td>
<td>±0.05% rdg, ±0.01% f.s.</td>
<td>±0.1 X 1(4kHz)°</td>
</tr>
</tbody>
</table>

Combined accuracy with PW6001 POWER ANALYZER
- Amplitude accuracy: ±(0.005 × f kHz)% rdg.
- Phase accuracy: ±(0.015 × f kHz)°

For other measurement parameters, add the PW6001 accuracy and the sensor accuracy (consider the sensor rating when calculating the f.s. error).

- For 10 A range and 20 A range, apply ±0.2% f.s. (f.s. = PW6001 Range)

Temperature and humidity range for guaranteed accuracy
- 0°C to 40°C (32°F to 104°F), 80% RH or less

Accuracy guarantee period
- 1 year

Effect of temperature
- In ranges from -40°C to 0°C (140°F to 32°F) and 40°C to 85°C (104°F to 185°F)
- Amplitude sensitivity: ±0.003 ppm of f.s./°C
- Offset voltage: ±0.0005 f.s./°C

Magnetic susceptibility
- 20 mA or less (scaled value, after input of 1000 A DC)
- Common-mode voltage rejection ratio (CMRR)
- 100:1 or greater (100 Hz)

Effect of conductor
- DC, 50 Hz/60 Hz: ±0.01% rdg or less (1 A Input)
- 10 kHz: ±0.1% rdg or less (5 A Input)
- 100 kHz: ±0.3% rdg or less (1 A Input)
- 1 MHz: ±0.5% rdg or less (1 A Input)

Effect of external magnetic field
- 40 mT or less (scaled value, in a DC and 60 Hz magnetic field of 400 A/m)

Output voltage
- 2 mA (±2% to 2000 A)

Operating temperature and humidity range
- -40°C to 85°C (40°F to 185°F), 80% RH or less (no condensation)

Storage temperature and humidity range
- -40°C to 85°C (40°F to 185°F), 80% RH or less (no condensation)

Maximum rated voltage to ground
- 1000 V CAT III Expected transient overvoltage: 8000 V

Dimensions
- 160 mm (6.30 in) W × 112 mm (4.41 in) H × 50 mm (1.97 in) D

Mass
- Approx. CT6876: 0.30 kg (1.09 lb) CT6876-01: 0.44 kg (1.59 lb)

Frequency characteristics (example of typical characteristics)

Gain (dB)

Phase (°)

Frequency (Hz)

Frequency derating

- TA ≤ 40°C (104°F) (continuous)
- TA > 40°C (104°F) (1 minute)

CT6875, CT6875-01
500 A AC/DC

Frequency characteristics (example of typical characteristics)

Gain (dB)

Phase (°)

Frequency (Hz)
Pass-Through Type

CT6877, CT6877-01
2000 A AC/DC

Frequency characteristics (example of typical characteristics)

Pass-Through Type

10 mm

position

Effect of conductor

(CMRR)

voltage rejection ratio

10 mA or less (scaled value, after input of 2000 A DC)

In ranges from -40°C to 0°C (-40°F to 32°F) and 40°C to 85°C

Effect of temperature

period

Accuracy guarantee

guaranteed accuracy

humidity range for guaranteed accuracy

10 kHz: ±0.2% rdg. or less (10 A input)

1 kHz: ±0.05% rdg. or less (10 A input)

5 mA or less (scaled value, after input of ±50 A)

Amplitude accuracy and phase accuracy are defined for input of 110% f.s. or less that falls within the derating range.

- Amplitude accuracy and phase accuracy are defined for input of 110% f.s. or less that falls within the derating range.
- Values provided for frequencies of DC < 10 Hz are design values.
- Add ±0.1% to the amplitude accuracy for input of ±10% f.s. to ±110% f.s.
- For the CT6877-01, add the following for frequencies of 1 kHz < f ≤ 700 kHz: frequency accuracy: ±0.015% (f/s Hz)2

Combined accuracy with the PW6001 POWER ANALYZER

Terminals-to-ground voltage: 0 V

- Unit for f in accuracy calculations: Hz
- Amplitude accuracy and phase accuracy are defined within the accuracy guarantee range shown in the derating table.
- However, the accuracy defined for the frequency range of DC < 10 Hz is the design value.

Combined accuracy with the PW6001 POWER ANALYZER

- To calculate the phase accuracy, add the PW6001 accuracy and the sensor accuracy (consider the sensor rating when calculating f.s. error).
- For 40 A range and 80 A range, apply ±0.2% f.s. (f.s. = PW6001 range)

- Temperature and humidity range for guaranteed accuracy

Temperature and humidity range for guaranteed accuracy

23°C ±2°C (73°F ±2°F), 80% RH or less

Accuracy guarantee period 1 year

- Effect of temperature

In ranges from 0°C to 18°C (32°F to 64°F) and 28°C to 30°C (82°F ±2°F), 100 kHz < f ≤ 1 MHz

50 Hz / 60 Hz: 120 dB or greater, 100 kHz: 120 dB or greater

Offset voltage: ±0.005% f.s./°C

- Common-mode voltage: ±0.005% f.s./°C

Phase: ±0.1% V

- Power

50 Hz / 60 Hz: 120 dB or greater, 100 kHz: 120 dB or greater

Output connector: ME15W

Output voltage: ±0.1% f.s. ±0.05% f.s.

- Magnetic susceptibility: 5 mA or less (scaled value, after input of ±50 A)

- Operating temperature and humidity range

0°C to 40°C (32°F to 104°F), 10% RH or less

- Maximum rated voltage to ground

1000 V (measured category II), 600 V (measured category III), Anticipated transient overvoltage: 6000 V

Dimensions

430 mm (16.93 in) W × 88 mm (3.46 in) H × 260 mm (10.24 in) D

Mass

PW9100-03: 3.7 kg (8.19 oz), PW9100-04: 4.3 kg (9.51 oz)

Frequency derating and guaranteed accuracy range

Frequency (Hz)

Decibel (dB)

Phase (°)

Frequency characteristics (example of typical characteristics)

Frequency derating and guaranteed accuracy range

Frequency (Hz)

Decibel (dB)

Phase (°)

Frequency characteristics (example of typical characteristics)
**CT6841**

<table>
<thead>
<tr>
<th>Rated current</th>
<th>20 A AC/DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency band</td>
<td>DC to 1 MHz (3 dB)</td>
</tr>
<tr>
<td>Diameter of measurable conductors</td>
<td>≤ 30 mm (0.79 in) or less</td>
</tr>
<tr>
<td>Accuracy</td>
<td></td>
</tr>
<tr>
<td>Frequency</td>
<td>Amplitude</td>
</tr>
<tr>
<td>DC</td>
<td>±0.3% rdg. ±0.05% f.s.</td>
</tr>
<tr>
<td>DC &lt; 100 Hz</td>
<td>±0.3% rdg. ±0.005% f.s.</td>
</tr>
<tr>
<td>100 Hz &lt; f ≤ 500 Hz</td>
<td>±0.3% rdg. ±0.002% f.s.</td>
</tr>
<tr>
<td>500 Hz &lt; f ≤ 1 kHz</td>
<td>±0.3% rdg. ±0.002% f.s.</td>
</tr>
<tr>
<td>1 kHz &lt; f ≤ 5 kHz</td>
<td>±1.5% rdg. ±0.002% f.s.</td>
</tr>
<tr>
<td>5 kHz &lt; f ≤ 10 kHz</td>
<td>±1.5% rdg. ±0.002% f.s.</td>
</tr>
<tr>
<td>10 kHz &lt; f ≤ 50 kHz</td>
<td>±2% rdg. ±0.002% f.s.</td>
</tr>
<tr>
<td>50 kHz &lt; f ≤ 100 kHz</td>
<td>±5% rdg. ±0.002% f.s.</td>
</tr>
<tr>
<td>100 kHz &lt; f ≤ 300 kHz</td>
<td>±10% rdg. ±0.005% f.s.</td>
</tr>
<tr>
<td>300 kHz &lt; f ≤ 1 MHz</td>
<td>±15% rdg. ±0.005% f.s.</td>
</tr>
</tbody>
</table>

**CT6843**

<table>
<thead>
<tr>
<th>Rated current</th>
<th>200 A AC/DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency band</td>
<td>DC to 500 kHz (3 dB)</td>
</tr>
<tr>
<td>Diameter of measurable conductors</td>
<td>≤ 30 mm (0.79 in) or less</td>
</tr>
<tr>
<td>Accuracy</td>
<td></td>
</tr>
<tr>
<td>Frequency</td>
<td>Amplitude</td>
</tr>
<tr>
<td>DC</td>
<td>±0.3% rdg. ±0.05% f.s.</td>
</tr>
<tr>
<td>DC &lt; 100 Hz</td>
<td>±0.3% rdg. ±0.005% f.s.</td>
</tr>
<tr>
<td>100 Hz &lt; f ≤ 500 Hz</td>
<td>±0.3% rdg. ±0.002% f.s.</td>
</tr>
<tr>
<td>500 Hz &lt; f ≤ 1 kHz</td>
<td>±0.5% rdg. ±0.002% f.s.</td>
</tr>
<tr>
<td>1 kHz &lt; f ≤ 5 kHz</td>
<td>±1.0% rdg. ±0.002% f.s.</td>
</tr>
<tr>
<td>5 kHz &lt; f ≤ 10 kHz</td>
<td>±1.5% rdg. ±0.002% f.s.</td>
</tr>
<tr>
<td>10 kHz &lt; f ≤ 50 kHz</td>
<td>±5.0% rdg. ±0.002% f.s.</td>
</tr>
<tr>
<td>50 kHz &lt; f ≤ 100 kHz</td>
<td>±10% rdg. ±0.005% f.s.</td>
</tr>
<tr>
<td>100 kHz &lt; f ≤ 300 kHz</td>
<td>±15% rdg. ±0.005% f.s.</td>
</tr>
<tr>
<td>300 kHz &lt; f ≤ 500 kHz</td>
<td>±20% rdg. ±0.005% f.s.</td>
</tr>
</tbody>
</table>

**Frequency derating**

- Ambient temperature
- Maximum input current [A rms]

**Frequency characteristics (example of typical characteristics)**

- Gain [dB]
- Phase [°]
- Frequency [Hz]
Frequency characteristics (example of typical characteristics)

**Frequency derating**

- DC < f ≤ 100 Hz
- 100 Hz < f ≤ 500 Hz
- 500 Hz < f ≤ 1 kHz
- 1 kHz < f ≤ 5 kHz
- 5 kHz < f ≤ 10 kHz
- 10 kHz < f ≤ 50 kHz
- 50 kHz < f ≤ 100 kHz
- 100 kHz < f ≤ 200 kHz
- 200 kHz < f ≤ 1 MHz

**Measuring instrument that has an input resistance of 1 MΩ or higher**

- Sine wave input; Conductor at center position; Not including each effect; The accuracy defined for the frequency range of DC < f ≤ 5 Hz is the design value

**Options**

- 400 g (14.1 oz)
- 3 m (9.84 ft), 7 VA or less
- Rated power ±300 mA or less
- Supply voltage 50 Ω
- Offset adjustable range ±2 mV
- Output voltage
  - 500 A ±(0.2 × f kHz)°

**Effect of external magnetic field**

- 100 mA or less (scaled value, in a DC and 60 Hz magnetic field of 400 A/m)
- Rated power 7.4 V or less
- Cable length 3 m (0.98 ft), cables can be extended on a custom-order basis
- Mass 400 g (1.41 oz)
- Accessories Instruction Manual, Mark band, Carrying case

**Options**

- CT6844-05: CONVERSION CABLE CT9900, EXTENSION CABLE CT9800, CONVERSION CABLE CT9600, CT6844-05: EXTENSION CABLE CT9800

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**Clamp Type**

CT6844

**500 A AC/DC**

Output connector: PL23

- Rated current 500 A AC/DC
- Frequency band DC to 200 kHz (±3 dB)
- Diameter of measurable conductors φ 20 mm (0.79 in) or less
- Accuracy
  - Frequency DC ±0.3% rdg. ±0.02% f.s.
  - Frequency 5 kHz < f ≤ 1 kHz ±0.5% rdg. ±0.02% f.s. ±0.5°
- Measuring instrument that has an input resistance of 1 MΩ or higher (no condensation)
- Mass 238 mm (9.37 in) W × 116 mm (4.57 in) H × 35 mm (1.38 in) D
- Temperature and humidity range 50 °C (122 °F), 80% RH or less
- Compliance standards Safety: EN61010, EMC: EN61326
- Supply voltage ±11 V to ±15 V
- Supply capacity ±50 mA or less

**Operating temperature and humidity range**

- +4°C to +60°C (+4°F to +140°F), 80% RH or less (no condensation)
- +4°C to +60°C (+4°F to +140°F), 80% RH or less (no condensation)
- Storage temperature and humidity range −40°C to +60°C (−40°F to +140°F), 80% RH or less (no condensation)
- Measurable conductors Insulated conductors
- Compliance standards Safety: EN61010, EMC: EN61326
- Mass 860 g (30.3 oz)
- Accessories Instruction Manual, Mark band, Carrying case

**Options**

- CT6844-05: CONVERSION CABLE CT9900, EXTENSION CABLE CT9800, CONVERSION CABLE CT9600, CT6844-05: EXTENSION CABLE CT9800

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**Clamp Type**

CT6845

**500 A AC/DC**

Output connector: ME15W

- Rated current 500 A AC/DC
- Frequency band DC to 100 kHz (±3 dB)
- Diameter of measurable conductors φ 20 mm (0.79 in) or less
- Accuracy
  - Frequency DC ±0.3% rdg. ±0.02% f.s.
  - Frequency 5 kHz < f ≤ 1 kHz ±0.5% rdg. ±0.02% f.s. ±0.5°
- Measuring instrument that has an input resistance of 1 MΩ or higher (no condensation)
- Mass 238 mm (9.37 in) W × 116 mm (4.57 in) H × 35 mm (1.38 in) D
- Temperature and humidity range 50 °C (122 °F), 80% RH or less
- Compliance standards Safety: EN61010, EMC: EN61326
- Supply voltage ±11 V to ±15 V
- Supply capacity ±50 mA or less

**Operating temperature and humidity range**

- +4°C to +60°C (+4°F to +140°F), 80% RH or less (no condensation)
- +4°C to +60°C (+4°F to +140°F), 80% RH or less (no condensation)
- Storage temperature and humidity range −40°C to +60°C (−40°F to +140°F), 80% RH or less (no condensation)
- Measurable conductors Insulated conductors
- Compliance standards Safety: EN61010, EMC: EN61326
- Mass 860 g (30.3 oz)
- Accessories Instruction Manual, Mark band, Carrying case

**Options**

- CT6845-05: CONVERSION CABLE CT9900, EXTENSION CABLE CT9800, CT6845-05: EXTENSION CABLE CT9800
Clamp Type

CT6846-05
1000 A AC/DC
Output connector: ME15W

9272-10
20 A / 200 A AC
Output connector: PL23

9272-05
20 A / 200 A AC
Output connector: ME15W

Frequency characteristics (example of typical characteristics)

CT6846
1000 A AC/DC
Output connector: PL23

9272-10
20 A Range: 20 Arms AC
200 A Range: 200 Arms AC

Frequency band
DC to 20 kHz (3 dB)

Diameter of measurable conductors
φ 46 mm (1.81 in) or less

Accuracy

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Amplitude</th>
<th>Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Hz ≤ f ≤ 5 Hz</td>
<td>±0.03% rdg. ±0.01% f.s.</td>
<td>±0.3°</td>
</tr>
<tr>
<td>5 Hz ≤ f ≤ 1 kHz</td>
<td>±0.05% rdg. ±0.02% f.s.</td>
<td>±0.5°</td>
</tr>
<tr>
<td>5 kHz ≤ f ≤ 10 kHz</td>
<td>±0.05% rdg. ±0.05% f.s.</td>
<td>±0.5°</td>
</tr>
<tr>
<td>10 kHz ≤ f ≤ 50 kHz</td>
<td>±0.05% rdg. ±0.10% f.s.</td>
<td>±1.0°</td>
</tr>
<tr>
<td>50 kHz ≤ f ≤ 100 kHz</td>
<td>±0.05% rdg. ±0.10% f.s.</td>
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Frequency band
DC to 20 kHz (3 dB)

Diameter of measurable conductors
φ 46 mm (1.81 in) or less

Accuracy

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Frequency derating

CT6846
1000 A AC/DC

Frequency derating

9272-10
20 A / 200 A AC

Frequency derating

9272-05
20 A / 200 A AC

Gain

Gain (20 A range)
Gain (200 A range)
Gain (Corrected 20 A range)
Gain (Corrected 200 A range)

Phases

Phase (Corrected) 20 A range
Phase (Corrected) 200 A range

CT6846-05
1000 A AC/DC
Output connector: ME15W

9272-10
20 A Range: 20 Arms AC
200 A Range: 200 Arms AC

Frequency band
DC to 20 kHz (3 dB)

Diameter of measurable conductors
φ 46 mm (1.81 in) or less

Accuracy

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<tr>
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Frequency band
DC to 20 kHz (3 dB)

Diameter of measurable conductors
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Frequency band
DC to 20 kHz (3 dB)

Diameter of measurable conductors
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Frequency band
DC to 20 kHz (3 dB)

Diameter of measurable conductors
φ 46 mm (1.81 in) or less

CT6846
1000 A AC/DC
Output connector: PL23

9272-10
20 A Range: 20 Arms AC
200 A Range: 200 Arms AC

Frequency band
DC to 20 kHz (3 dB)

Diameter of measurable conductors
φ 46 mm (1.81 in) or less

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</table>
Connecting High Accuracy Sensors to Other Devices

Below are the options necessary for connecting high-accuracy sensors to measurement devices.

### Options

**Connector Conversion**
- **CONVERSION CABLE CT9900** Converts PL23 (10 pin) to ME15W (12 pin)
- **CONVERSION CABLE CT9901** Converts ME15W (12 pin) to PL23 (10 pin)
- **CONVERSION CABLE 9318** For connecting PL23 (10 pin) terminals and CURRENT UNIT 8971, 38 cm (1.25 ft)

**SENSE UNIT**
- Offers waveform output and a current sensor power supply.

#### CT9557 SENSOR UNIT, 4 ch
- Waveform output (each channel), aggregated waveform output, aggregated RMS output
- Input connector: ME15W
- Output connector: ME15W (CT9557 dedicated), BNC (female)

#### CT9555, 9556 SENSOR UNIT, 1 ch
- Waveform output, RMS output (CT9556 only)
- Input connector: ME15W
- Output connector: BNC (female)

### Cable Extension
- **EXTENSION CABLE CT9902** 5 m (16.4 ft), ME15W (12 pin) - ME15W (12 pin) terminal
- **EXTENSION CABLE CT9903** 5 m (16.4 ft), PL23 (10 pin) - PL23 (10 pin) terminal
- Each extension cable allows a current sensor output cable to be extended 5 m, up to a maximum of 10 m extended.
- Up to two extension cables can be used (current sensor performance is not guaranteed if using three or more cables).
- Add the following values to each of the accuracy per cable.
  - Amplitude accuracy: ±0.1% rdg. (DC ± 1 kHz)
  - ±0.5% rdg. (1 kHz < f < 10 kHz)
- Phase accuracy: ±(0.1 x f kHz) deg. (1 kHz < f < 10 kHz)

---

### Sensor Unit Options
- **CONNECTION CABLE CT9904** ME15W (12 pin) terminal - ME15W (12 pin) terminal, 1 m (3.28 ft)
- **CONNECTION CORD L9217** Both cord ends are isolated BNC, 1.6 m (5.25 ft)
- **CONNECTION CORD 9165** Metallic BNC at both ends, for metallic BNC terminals, 1.5 m (4.92 ft)
Recommended measuring instrument: CT6711 + MEMORY HiCORDER MR6000, Oscilloscope

DC to 120 MHz, 1 mA
Minuscule to large currents, 500 A RMS currents

Observe micro current
Current consumption waveform for a Bluetooth Low Energy device while sending/receiving data

Inrush current waveform when an electric device is turned on

Observe inrush current

Application example

Observe load current and control current waveforms in industrial equipment
• Secondary side of inverters and motor load currents
• Electric pump solenoid control currents
• Solenoid valve operating current and control currents
• Actuator load currents
• Motor coil instantaneous current waveforms
• Fan consumed currents and inrush currents
• Power supply system load current waveforms

Evaluate current characteristics in circuit components and other parts
• Switching power supply board current waveforms
• Circuit board current waveforms
• Ripple current waveforms flowing to capacitors
• Current waveforms from short-circuit tests
• Evaluate EV batteries under abrupt load changes
• Inrush current waveforms

Evaluate high-speed switching characteristics
• Observe waveforms when switching LED driver control
• Observe waveforms of on/off cycles in semiconductor devices driven at high speeds
• Observe waveforms of control current and load current in light control circuits
• Observe waveforms of control current and load current in DC/DC converters or inverters

Confirm transient response waveforms during control switching
• Measure current in automotive electric components
• Measure switch and relay control currents
• Evaluate ECU and observe control signal currents
• Observe engine ignition timing
• Actuator control current waveforms
• Monitor solenoid valve control currents
• Confirm response during control changes

Observe micro current

Inrush current waveform when an electric device is turned on
Paired with the zero-flux method, a proprietary thin-film Hall element makes high-performance current sensing possible

Wideband current sensors
Wideband current sensors use the "zero flux method (Hall element detection type)" to measure. High-frequency currents are detected with the winding (CT method), and low frequency currents including DC are detected with the "Hall element."

Hall element detection
Hall element detection is characterized by a simple structure and a sensor section that can easily be downsized. Hikoki combines our own proprietary thin-film Hall elements with the zero flux method to deliver sensors that can conduct measurements over a wide range of frequencies, from DC to 100 MHz bands.

Ideal for waveform observations using a MEMORY HiCORDER or oscilloscope, Hall element detection achieves a high S/N ratio in the wideband range, making them particularly well-suited for design verification of electronic circuitry such as high-speed signal circuits.

Zero flux method
The zero flux method is a measurement method used in both high-accuracy and wideband sensors. As the principles the sensor is based on give it both low operating magnetic flux level and low insertion impedance, it is characterized by its lack of influence on the measured object and low instrument loss.

Operating principle
1. The current flowing in the measured conductor (primary side) generates a magnetic flux $\Phi$ in the magnetic core.
2. A secondary current flows to the secondary-side feedback winding to cancel out the magnetic flux occurring inside the magnetic core.
3. Residual magnetic flux is added to the secondary feedback current via an amplifier by the Hall element for DC currents and low-frequency AC currents being measured.
4. Output voltage proportional to the current flowing in the conductor being measured can be acquired by detecting the secondary current described in (2) and (3) above (CT current + current detected by the Hall element) with a shunt resistor.

Power supplies provide drive current to current probes.

<table>
<thead>
<tr>
<th>Specifications</th>
<th>3269</th>
<th>3272</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connectable current sensor</td>
<td>CT6700, CT6701, 3273-50, 3274, 3275, 3276×4 max.</td>
<td>CT6700, CT6701×2 max. 3273-50, 3274, 3275, 3276×1 max.</td>
</tr>
<tr>
<td>Number of supply channels</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Output voltage</td>
<td>12 V ±0.5 V, 2.5 A (sum of each channel)</td>
<td>12 V ±0.5 V, 600 mA (sum of each channel)</td>
</tr>
<tr>
<td>Power supply</td>
<td>100 V to 240 V AC, 50 Hz/60 Hz, 170 VA max.</td>
<td>100 V AC ±10%, 50 Hz/60 Hz, 220 VA max. (specification required for 120, 220, 240 V)</td>
</tr>
<tr>
<td>Dimensions, Mass</td>
<td>80 mm (3.15 in) W x 119 mm (4.69 in) H x 200 mm (7.87 in) D, 1.1 kg (38.8 oz)</td>
<td>73 mm (2.87 in) W x 110 mm (4.33 in) H x 186 mm (7.32 in) D, 1.1 kg (38.8 oz)</td>
</tr>
</tbody>
</table>
Wideband Sensor Specifications

Clamp Type

**CT6710**

- **30 A, 5 A, 0.5 A AC/DC**
- Output connector: BNC (One-touch connection/disconnection)

**Rated current**
- DC or 45 to 66 Hz sine wave within maximum peak current for each range
  - 30 A range: ±30 Arms
  - 5 A range: ±5 Arms
  - 0.5 A range: ±0.5 Arms

**Frequency band**
- DC to 50 MHz (-3dB)

**Diameter of measurable conductors**
- φ 5 mm (0.20 in) or less

**Amplitude accuracy**
- DC or 45 to 66 Hz sine wave, within maximum peak current for each range
  - 30 A range: ±3.0 %rdg. ±1 mV, Typical ±1.0 %rdg. ±1 mV (<10 A rms)
  - 5 A range: ±3.0 %rdg. ±1 mV, Typical ±1.0 %rdg. ±1 mV
  - 0.5 A range: ±3.0 %rdg. ±10 mV, Typical ±1.0 %rdg. ±10 mV

**Rise time (10% to 90%)**
- 0.5 A range: Typical 13 ns
  - 5 A range: Typical 12 ns
  - 30 A range: Typical 12 ns

**Guaranteed accuracy period**
- 1 year (until the upper jaw has been retracted and locked up to 10,000 cycles)

**Guaranteed accuracy period after adjustment made by HioKI**
- 6 months

**Noise**
- 75 μVrms or less (typical 60 μVrms) (for current probe only)

**Delay time**
- (the time lag between the input signal with a rise time of 1 ns and the output signal)
  - 30 A range: Typical 12 ns
  - 5 A range: Typical 12 ns
  - 0.5 A range: Typical 13 ns

**Maximum peak current**
- 30 A range: ±50 A peak (Maximum 2 sec input)*
  - 5 A range: ±7.5 A peak
  - 0.5 A range: ±0.75 A peak (<10 MHz), ±0.3 A peak (≥10 MHz)

**Operating temperature and humidity range**
- 0°C to 40°C (32°F to 104°F), 80% RH or less (no condensation)

**Storage temperature and humidity range**
- -10°C to 50°C (14°F to 122°F), 80% RH or less (no condensation)

**Effect of external magnetic fields**
- 20 mV or less (DC or 60 Hz input, 400 A/m magnetic field)

**Measurable conductors**
- Insulated conductors

**Compliance standards**
- Safety: EN61010, EMC: EN61326

**Supply voltage**
- DC ±12 V ±0.5 V

**Rated power**
- 7.8 VA (for current probe only), (when measuring 30 A rms continuously)

**Cable length**
- Sensor cable (between sensor and junction box): 1.5m
  - Power cord: 1.0m

**Dimensions (excluding BNC connector or protrusions)**
- Sensor: 155W × 18H × 26D mm
  - Junction box: 45W × 120H × 25D mm
  - Termination unit: 29W × 83H × 40D mm

**Mass**
- Approx. 370 g (13.1 oz.)

**Accessories**
- Instruction Manual, Carrying case

**Option**
- Model 3269 Power Supply
  - (Up to two simultaneous sensor connections possible)

---

**Clamp Type**

**CT6711**

- **30 A, 5 A, 0.5 A AC/DC**
- Output connector: BNC (One-touch connection/disconnection)

**Rated current**
- DC or 45 to 66 Hz sine wave within maximum peak current for each range
  - 30 A range: ±30 Arms
  - 5 A range: ±5 Arms
  - 0.5 A range: ±0.5 Arms

**Frequency band**
- DC to 120 MHz (-3dB)

**Diameter of measurable conductors**
- φ 5 mm (0.20 in) or less

**Amplitude accuracy**
- DC or 45 to 66 Hz sine wave, within maximum peak current for each range
  - 30 A range: ±3.0 %rdg. ±1 mV, Typical ±1.0 %rdg. ±1 mV (<10 A rms)
  - 5 A range: ±3.0 %rdg. ±1 mV, Typical ±1.0 %rdg. ±1 mV
  - 0.5 A range: ±3.0 %rdg. ±10 mV, Typical ±1.0 %rdg. ±10 mV

**Rise time (10% to 90%)**
- 0.5 A range: Typical 13 ns
  - 5 A range: Typical 12 ns
  - 30 A range: Typical 12 ns

**Guaranteed accuracy period**
- 1 year (until the upper jaw has been retracted and locked up to 10,000 cycles)

**Guaranteed accuracy period after adjustment made by HioKI**
- 6 months

**Noise**
- 75 μVrms or less (typical 60 μVrms) (for current probe only)

**Delay time**
- (the time lag between the input signal with a rise time of 1 ns and the output signal)
  - 30 A range: Typical 12 ns
  - 5 A range: Typical 12 ns
  - 0.5 A range: Typical 13 ns

**Maximum peak current**
- 30 A range: ±50 A peak *
  - 5 A range: ±7.5 A peak
  - 0.5 A range: ±0.75 A peak (<10 MHz), ±0.3 A peak (≥10 MHz)

**Operating temperature and humidity range**
- 0°C to 40°C (32°F to 104°F), 80% RH or less (no condensation)

**Storage temperature and humidity range**
- -10°C to 50°C (14°F to 122°F), 80% RH or less (no condensation)

**Effect of external magnetic fields**
- 5 mV or less (DC or 60 Hz input, 400 A/m magnetic field)

**Measurable conductors**
- Insulated conductors

**Compliance standards**
- Safety: EN61010, EMC: EN61326

**Supply voltage**
- DC ±12 V ±0.5 V

**Rated power**
- 7.8 VA (for current probe only), (when measuring 30 A rms continuously)

**Cable length**
- Sensor cable (between sensor and junction box): 1.5m
  - Power cord: 1.0m

**Dimensions (excluding BNC connector or protrusions)**
- Sensor: 155W × 18H × 26D mm
  - Junction box: 45W × 120H × 25D mm
  - Termination unit: 29W × 83H × 40D mm

**Mass**
- Approx. 370 g (13.1 oz.)

**Accessories**
- Instruction Manual, Carrying case

**Option**
- Model 3269 Power Supply
  - (Up to two simultaneous sensor connections possible)

---

**Frequency derating (example of typical characteristics)**

**Maximum input current (A rms)**

0 5 10 15 20 25 30
DC 100 1 k 10 k 1 M 10 M 100 M 1 G

**Frequency characteristics (example of typical characteristics)**

Gain (dB)

- 30 A range
- 5 A range
- 0.5 A range

**Input impedance (example of typical characteristics)**

0.001 0.01 1
DC 100 1 k 10 k 1 M 10 M 100 M 1 G

---

**Frequency derating (example of typical characteristics)**

**Maximum input current (A rms)**

0 5 10 15 20 25 30
DC 100 1 k 10 k 1 M 10 M 100 M 1 G

**Frequency characteristics (example of typical characteristics)**

Gain (dB)

- 30 A range
- 5 A range
- 0.5 A range

**Input impedance (example of typical characteristics)**

0.001 0.01 1
DC 100 1 k 10 k 1 M 10 M 100 M 1 G
**Clamp Type**

**CT6700**

- **5 A AC/DC**
- Output connector: BNC (One-touch connection/disconnection)

**CT6701**

- **5 A AC/DC**
- Output connector: BNC (One-touch connection/disconnection)

### Frequency derating

- **Maximum input current (Arms)**
- **Frequency (Hz)**
  - DC
  - 100
  - 1 kHz
  - 10 kHz
  - 100 kHz
  - 1 M
  - 10 M
  - 100 M
  - 1 G

### Frequency characteristics (example of typical characteristics)

- **Gain (dB)**
- **Frequency (Hz)**
  - DC
  - 100
  - 1 kHz
  - 10 kHz
  - 100 kHz
  - 1 M
  - 10 M
  - 100 M
  - 1 G

### Input impedance (example of typical characteristics)

- **Input impedance (Ω)**
- **Frequency (Hz)**
  - DC
  - 100
  - 1 kHz
  - 10 kHz
  - 100 kHz
  - 1 M
  - 10 M
  - 100 M
  - 1 G

### Details

- **Rated current**: 5 Arms
- **Frequency band**: DC to 50 MHz (-3 dB)
- **Diameter of measurable conductors**: ø 5 mm (0.20 in) or less
- **Accuracy**: Amplitude accuracy: ±3.0% rdg. ±1 mV (typical ±1.0% rdg. ±1 mV)
  - DC, 45 Hz to 66 Hz, Sine wave input from 0 to 5 A rms
  - 29°C ±5°C (73°F ±9°F), with 50 Hz / 5 Arms input
- **Effect of temperature**: ±2% rdg. or less (when zero-adjustment is performed in the range excluding 23°C ±5°C)
  - 23°C ±5°C (73°F ±9°F), with 50 Hz / 5 Arms input
- **Guaranteed accuracy period**: 1 year
- **Guaranteed accuracy period after adjustment**: 6 months
- **Maximum peak current**: ±7.5 Apeak (non-continuous)
- **Delay time**: 2.9 ns or less
- **Rising time**: 2.9 ns or less
- **Output noise**: 75 µA rms or less (typical 60 µArms, with measurement made by Hioki)
  - 6 months
  - 1 year
- **Guaranteed accuracy**: 6 months
  - 1 year
- **Operating temperature and humidity range**: 0°C to 40°C (32°F to 104°F), 80% RH or less (no condensation)
  - Storage temperature and humidity range:
    - 0°C to 40°C (32°F to 104°F), 80% RH or less (no condensation)
    - 0°C to 50°C (14°F to 122°F), 80% RH or less (no condensation)
- **Rated power**: 3.2 VA or less
- **Supply voltage**: ±12 V ±10% 5 V
- **Output connector**: BNC connector
- **Dimensions**: Sensor: 155 mm (6.10 in) W × 18 mm (0.71 in) H × 26 mm (1.02 in) D, Termination section: 29 mm (1.14 in) W × 83 mm (3.27 in) H × 40 mm (1.57 in) D
- **Mass**: 250 g (8.8 oz)
- **Accessories**: Instruction Manual, Carrying case
- **Options**: POWER SUPPLY 3269, POWER SUPPLY 3272

---

**Clamp Type**

- **CT6700**

- **5 A AC/DC**
- **Frequency band**: DC to 100 MHz (-3 dB)
- **Diameter of measurable conductors**: ø 5 mm (0.20 in) or less
- **Accuracy**: Amplitude accuracy: ±3.0% rdg. ±1 mV (typical ±1.0% rdg. ±1 mV)
  - DC, 45 Hz to 66 Hz, Sine wave input from 0 to 5 A rms
  - 29°C ±5°C (73°F ±9°F), with 50 Hz / 5 Arms input
- **Effect of temperature**: ±2% rdg. or less (when zero-adjustment is performed in the range excluding 23°C ±5°C)
  - 23°C ±5°C (73°F ±9°F), with 50 Hz / 5 Arms input
- **Guaranteed accuracy period**: 1 year
- **Guaranteed accuracy period after adjustment**: 6 months
- **Maximum peak current**: ±7.5 Apeak (non-continuous)
- **Delay time**: 12 ns Typical
- **Rising time**: 2.9 ns or less
- **Output noise**: 75 µA rms or less (typical 60 µArms, with measurement made by Hioki)
  - 6 months
  - 1 year
- **Guaranteed accuracy**: 6 months
  - 1 year
- **Operating temperature and humidity range**: 0°C to 40°C (32°F to 104°F), 80% RH or less (no condensation)
  - Storage temperature and humidity range:
    - 0°C to 40°C (32°F to 104°F), 80% RH or less (no condensation)
    - 0°C to 50°C (14°F to 122°F), 80% RH or less (no condensation)
- **Rated power**: 1.5 VA
- **Supply voltage**: ±12 V ±10% 5 V
- **Output connector**: BNC connector
- **Dimensions**: Sensor: 155 mm (6.10 in) W × 18 mm (0.71 in) H × 26 mm (1.02 in) D, Termination section: 29 mm (1.14 in) W × 83 mm (3.27 in) H × 40 mm (1.57 in) D
- **Mass**: 250 g (8.8 oz)
- **Accessories**: Instruction Manual, Carrying case
- **Options**: POWER SUPPLY 3269, POWER SUPPLY 3272

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Clamp Type

3273-50
30 A AC/DC
Output connector: BNC

Rated current: 30 A rms
Frequency band: DC to 50 MHz (-3 dB)
Diameter of measurable conductors: φ 5 mm (0.20 in) or less
Accuracy:
- ±1.0% rdg. ±1 mV; to 30 A rms
- ±2.0% rdg.; to 50 A peak
23 ±5°C (73°F ±9°F), Warm-up time: 30 minutes, DC, 45 Hz to 66 Hz, Sine wave at input within continuous maximum input range
Accuracy guarantee period: 1 year
Guaranteed accuracy period after adjustment made by Hioki: 6 months
Output noise: 2.5 mArms or less (with measurement instrument of 20 MHz band)
Effect of temperature: Within ±2% (with input of 50 Hz / 30 Arms, in range of 0°C to 40°C [32°F to 104°F])
Output voltage: 0.1 V/A
Output connector: BNC connector
Input resistance: Refer to the input impedance characteristics table
Rising time: 7 ns or less (10% to 90%)
Delay time: 16 ns Typical
Maximum peak current: 50 A peak (non-continuous)
Operating temperature and humidity range: 0°C to 40°C (32°F to 104°F), 80% RH or less (no condensation)
Storage temperature and humidity range: -10°C to 50°C (14°F to 122°F), 80% RH or less (no condensation)
Measurable conductors: Insulated conductors
Compliance standards:
- Safety: EN61010
- EMC: EN61326
Supply voltage: ±12 V ±0.5 V
Rated power: 5.6 VA or less
Cable length:
- Sensor cable: 1.5 m (4.92 ft), Power supply cable: 1 m (3.28 ft)
Dimensions:
- Sensor: 175 mm (6.89 in) W × 18 mm (0.71 in) H × 40 mm (1.57 in) D
- Termination section: 27 mm (1.06 in) W × 55 mm (2.17 in) H × 18 mm (0.71 in) D
Mass: 230 g (8.1 oz)
Accessories: Instruction Manual, Soft case
Options: POWER SUPPLY 3269, POWER SUPPLY 3272

Clamp Type

3276
30 A AC/DC
Output connector: BNC

Rated current: 30 A rms
Frequency band: DC to 100 MHz (-3 dB)
Diameter of measurable conductors: φ 5 mm (0.20 in) or less
Accuracy:
- ±1.5% rdg. ±1.1% of 30 A rms
- ±2.0% rdg.; to 50 A peak
Accuracy at 23°C ±5°C (73°F ±9°F), within 30 minutes of turning the power on
DC, 45 Hz to 66 Hz, Sine wave at input within continuous maximum input range
Accuracy guarantee period: 1 year
Guaranteed accuracy period after adjustment made by Hioki: 6 months
Output noise: 2.5 mArms or less (with measurement instrument of 20 MHz band)
Effect of temperature: Within ±2% (with input of 50 Hz / 30 A rms, in range of 0°C to 40°C [32°F to 104°F])
Output voltage: 0.1 V/A
Output connector: BNC connector
Input resistance: Refer to the input impedance characteristics table
Rising time: 3.5 ns or less (10% to 90%)
Delay time: 14 ns Typical
Maximum peak current: 50 A peak (non-continuous)
Operating temperature and humidity range: 0°C to 40°C (32°F to 104°F), 80% RH or less (no condensation)
Storage temperature and humidity range: -10°C to 50°C (14°F to 122°F), 80% RH or less (no condensation)
Measurable conductors: Insulated conductors
Compliance standards:
- Safety: EN61010
- EMC: EN61326
Supply voltage: ±12 V ±0.5 V
Rated power: 5.3 VA or less
Cable length:
- Sensor cable: 1.5 m (4.92 ft), Power supply cable: 1 m (3.28 ft)
Dimensions:
- Sensor: 175 mm (6.89 in) W × 18 mm (0.71 in) H × 40 mm (1.57 in) D
- Termination section: 27 mm (1.06 in) W × 55 mm (2.17 in) H × 18 mm (0.71 in) D
Mass: 240 g (8.5 oz)
Accessories: Instruction Manual, Carrying case
Options: POWER SUPPLY 3269, POWER SUPPLY 3272

Frequency derating

Input impedance (example of typical characteristics)
Clamp Type

3274
150 A AC/DC
Output connector: BNC

Rated current: 150 A rms
Frequency band: DC to 10 MHz (-3 dB)
Diameter of measurable conductors: φ 20 mm (0.79 in) or less

Accuracy:
- To 150 A: ±1.0% rdg. ±1 mV
- 150 A to 300 A peak: ±2.0% rdg.

23°C± 5°C (73°F ±9°F), Warm-up time: 30 minutes
DC, Sine wave from 45 Hz to 66 Hz

Accuracy guarantee period: 1 year
Guaranteed accuracy period after adjustment made by Hioki: 6 months

Output noise: 25 mA rms or less (with measurement instrument of 20 MHz band)
Effect of temperature: Within ±2% (with input of 55 Hz / 150 A, in range of 0°C to 40°C [32°F to 104°F])
Output voltage: 0.01 V/A

Input impedance (example of typical characteristics)
Gain: 18 dB

Rising time: 35 ns or less (10% to 90%)
Delay time: 40 ns Typical

Maximum peak current: 300 Apeak (500 Apeak with pulse width ≤ 30 μs)
Operating temperature and humidity range: 0°C to 40°C (32°F to 104°F), 80% RH or less (no condensation)
Storage temperature and humidity range: -10°C to 50°C (14°F to 122°F), 80% RH or less (no condensation)

Measurable conductors: Insulated conductors
Compliance standards: Safety: EN61010, EMC: EN61326
Supply voltage: ±12 V ±1 V
Rated power: 5.5 VA or less
Cable length:
- Sensor cable: 2 m (6.56 ft)
- Power supply cable: 1 m (3.28 ft)

Dimensions:
- Sensor: 176 mm (6.93 in) W × 69 mm (2.72 in) H × 27 mm (1.06 in) D
- Termination section: 27 mm (1.06 in) W × 55 mm (2.17 in) H × 18 mm (0.71 in) D

Mass: 500 g (17.6 oz)
Accessories: Instruction Manual, Carrying case
Options: POWER SUPPLY 3269, POWER SUPPLY 3272

Clamp Type

3275
500 A AC/DC
Output connector: BNC

Rated current: 500 A rms
Frequency band: DC to 2 MHz (-3 dB)
Diameter of measurable conductors: φ 20 mm (0.79 in) or less

Accuracy:
- To 500 A: ±1.0% rdg. ±5 mV
- To 700 A peak: ±2.0% rdg.

23°C± 5°C (73°F ±9°F), Warm-up time: 30 minutes
DC, Sine wave from 45 Hz to 66 Hz

Accuracy guarantee period: 1 year
Guaranteed accuracy period after adjustment made by Hioki: 6 months

Output noise: 25 mA rms or less (with measurement instrument of 20 MHz band)
Effect of temperature: Within ±2% (with input of 50 Hz / 500 A, in range of 0°C to 40°C [32°F to 104°F])
Output voltage: 0.01 V/A

Input impedance (example of typical characteristics)
Gain: 18 dB

Rising time: 175 ns or less (10% to 90%)
Delay time: 66 ns Typical

Maximum peak current: 700 Apeak (non-continuous)
Operating temperature and humidity range: 0°C to 40°C (32°F to 104°F), 80% RH or less (no condensation)
Storage temperature and humidity range: -10°C to 50°C (14°F to 122°F), 80% RH or less (no condensation)

Measurable conductors: Insulated conductors
Compliance standards: Safety: EN61010, EMC: EN61326
Supply voltage: ±12 V ±0.5 V
Rated power: 7.2 VA or less
Cable length:
- Sensor cable: 2 m (6.56 ft)
- Power supply cable: 1 m (3.28 ft)

Dimensions:
- Sensor: 176 mm (6.93 in) W × 69 mm (2.72 in) H × 27 mm (1.06 in) D
- Termination section: 27 mm (1.06 in) W × 55 mm (2.17 in) H × 18 mm (0.71 in) D

Mass: 520 g (18.3 oz)
Accessories: Instruction Manual, Carrying case
Options: POWER SUPPLY 3269, POWER SUPPLY 3272

Frequency characteristics (example of typical characteristics)

Gain [dB]

Frequency [Hz]
1 k 10 k 100 k 1 M 10 M

Input impedance (example of typical characteristics)

Input impedance [Ω]

Frequency [Hz]
10 k 100 k 1 M 10 M
## Models & Options

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### High-Accuracy Sensor Options

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