



**Optimized for a variety of applications Current Sensors and Current Probes** 

CE





**Current probes for automotive** certification testing

With its compact design, these sensors easily connect to cables in tight motor compartments, significantly reducing setup-time and enhancing overall efficiency.

Current rating: 200 A (CT6833), 500 A (CT6834)

Frequency range: DC to 50 kHz

Accuracy: ±0.07% of reading

Operating Temperature: -40°C to +85°C

50% smaller than the previous model

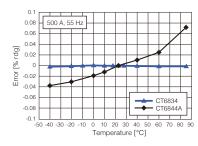




with a single finger

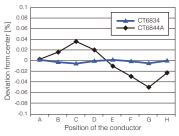
### Advanced fluxgate technology that redefines measurement performance

#### Superior temperature stability





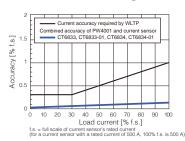
#### High reproducibility regardless of conductor position







#### **Exceptional accuracy for WLTP** across all current ranges





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# The future standard in a compact size.

The CT6830, CT6831, CT7812, and CT7822 were developed with the concept of "easily clamp wires in tight spaces."

As the world's smallest zero-flux AC/DC current probes and sensors, these offer high accuracy with a lightweight design.

Current rating: 2 A (CT6830, CT7812), 20 A (CT6831, CT7822)

Frequency range: DC to 100 kHz

For precision power analyzer

Accuracy: ±0.3% of reading

Operating Temperature: -40°C to +85°C

### For multichannel data logger

CT7812

CT7822

Maximum conductor

diameter

**Φ5** mm





### **Application**

#### Pinpoint ECU issues in completed-vehicle testing

The compact CT7812 (2 A) and CT7822 (20 A) sensors access intricate wiring with ease and ensure stable, high-accuracy current measurements. Combined with the LR8450 Data Logger, they record CAN signals and current data simultaneously, enabling quick issue identification.



### Application-optimized current sensors and current probes

Hioki offers lineup of current sensors and current probes to accommodate current measurement requirements in a variety of applications, from development and evaluation in advanced fields to quality control of commercial power supplies.



#### Evaluating power conversion efficiency in EVs

Evaluate vehicles' overall power conversion efficiency in order to develop automobiles that run further with less energy.

CT6904A, CT687xA series + PW8001

CT6872, CT6872-01 CT6873, CT6873-01

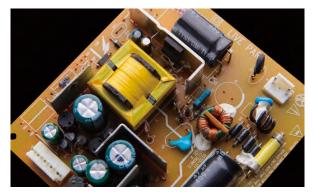


#### Evaluating the fuel (energy) efficiency of finished vehicles

Measure fuel efficiency based on the international standard (WLTP) in order to evaluate the fuel efficiency of finished vehicles.

CT6833, CT6833-01 CT6834, CT6834-01

CT683x series, CT684xA series + PW4001 CT6844A, CT6845A CT6846A



#### Evaluating power devices in power supply circuits

Observe the inputs and outputs of the current waveform in order to evaluate whether power devices are providing the required level of performance

CT67xx series, 327x series + MR6000

3273-50, 3276



#### Maintaining power quality

Continuously monitor power quality and analyze the causes of power supply issues in order to maintain stable power quality.

CT7xxx series, CT9667-0x series + PQ3198, PQ3100

CT7636, CT7631, CT7642, CT7642 CT7731, CT7736, CT7742 CT9667-01 CT9667-02 CT9667-03



Evaluating systems used to control accessory

depending on the state of the device in question, including dark current, inrush current, and drive current, in order to evaluate accessory control.

Observe current waveforms of various magnitudes that fluctuate

3273-50, 3276,

CT67xx series, 327x series + MR6000

components in automobiles

#### Assessing the power consumption of equipment and systems

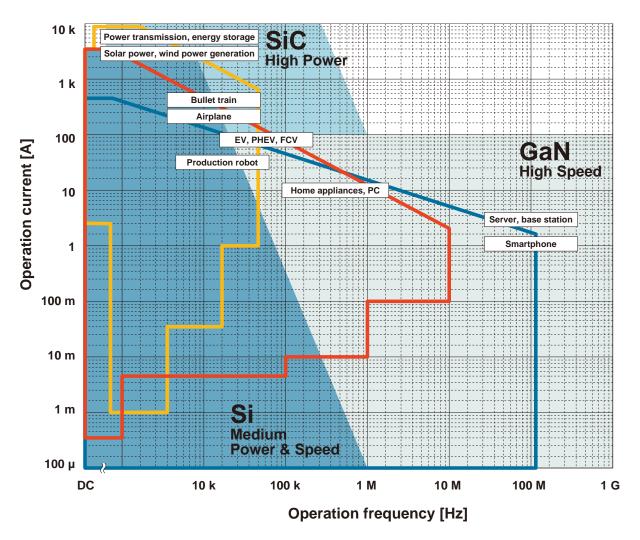
Assess the power consumption of devices and systems in order to pursue energy-saving activities and achieve the goals of the UN's Sustainable Development Goals (SDGs).

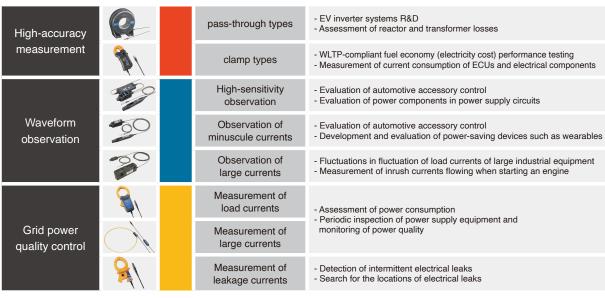
CT7xxx series, CT9667-0x series + PW3365

CT7636, CT7631, CT7642, CT7642,

1.800.561.8187

### Applications by operating current and operating frequency







## **Current Sensors Current Probes** Lineup

Hioki's first current sensor was a magnetic current sensor developed in-house in 1971. We've pursued sensing technologies over the past 50 years, providing a variety of current sensors for the full range of measurement applications.

### **High-accuracy measurement**

These models, rated for 20 A to 2000 A, measure currents in a frequency band from DC to 10 MHz with a high degree of accuracy. They're used in applications that require high measurement accuracy, for example evaluation of inverter equipment and evaluation of loss in reactors and transformers.

#### Pass-through types

Pass-through sensors deliver the ultimate level of accuracy and stability. With a broadband measurement at up to 10 MHz and measurement of large currents of up to 2000 A, they're used in state-of-the-art research and





EV inverter system R&D

Evaluation of reactor and transformer losses

#### Clamp types

Clamp-type sensors are quick and easy to connect, and used for testing finished products, an application where it is difficult to cut wires. Capable of functioning at temperatures from -40°C to 85°C, they're used in high-temperature environments such as engine compartments.







WLTP-compliant fuel economy(electricity cost) performance testing

Measurement of current consumption of ECUs and electrical components

#### **Direct-wired types**

Directly wired current sensors deliver world-class accuracy and frequency band characteristics (50 A model) by Hioki's proprietary DCCT (Direct Connection Current Transducer) method





Evaluation of reactor and transformer losses



### Waveform observation

These models, rated from 0.5 A to 500 A, measure current waveforms in a frequency band of DC to 120 MHz. They're used to analyze fluctuations during operation of various types of equipment operation, including standby current, inrush current, load current, and control current.

#### **High-sensitivity observation**

These models can measure current waveforms that range in magnitude from miniscule to large. With the high-sensitivity ranges and an output rate of 10 V/A, minuscule currents that fluctuate at high speeds can be clearly observed.





**Evaluation of automotive accessory control** 

Evaluation of power devices in power supply circuits

#### Observation of minuscule currents

These models can measure miniscule current waveforms, including control currents flowing in control circuits and fluctuations in the current consumption of compact electronic devices that operate at small currents.





**Evaluation of automotive accessory control** 

Development and evaluation of power-saving devices such as wearables

#### Observation of large currents

These models can measure large current waveforms, including fluctuations in load current from the operation of industrial equipment and inrush currents when power supplies are activated.





Fluctuations of load currents of large industrial equipment

Measurement of inrush currents flowing at engine start

#### **Grid power quality control**

These models are engineered primarily to measure current at commercial frequencies (50/60 Hz). They're used in applications such as power quality checks and power consumption assessments. We offer models with specifications suitable for a range of measurement locations, from leakage currents to large currents.

#### Measurement of load current

These sensors are primarily designed to measure commercial power supplies. They're used to monitor and analyze power quality and to measure power consumption.





Assessment of power consumption

Periodic inspection of power supply equipment and monitoring of power quality

#### Measurement of large currents

These sensors can measure large currents of up to 6000 A. Their slim, flexible form make them easy to insert into narrow gaps and between wires.





Assessment of power consumption

Periodic inspection of power supply equipment and monitoring of power quality

#### Measurement of leakage currents

These sensors are used to measure minuscule currents such as leakage currents.

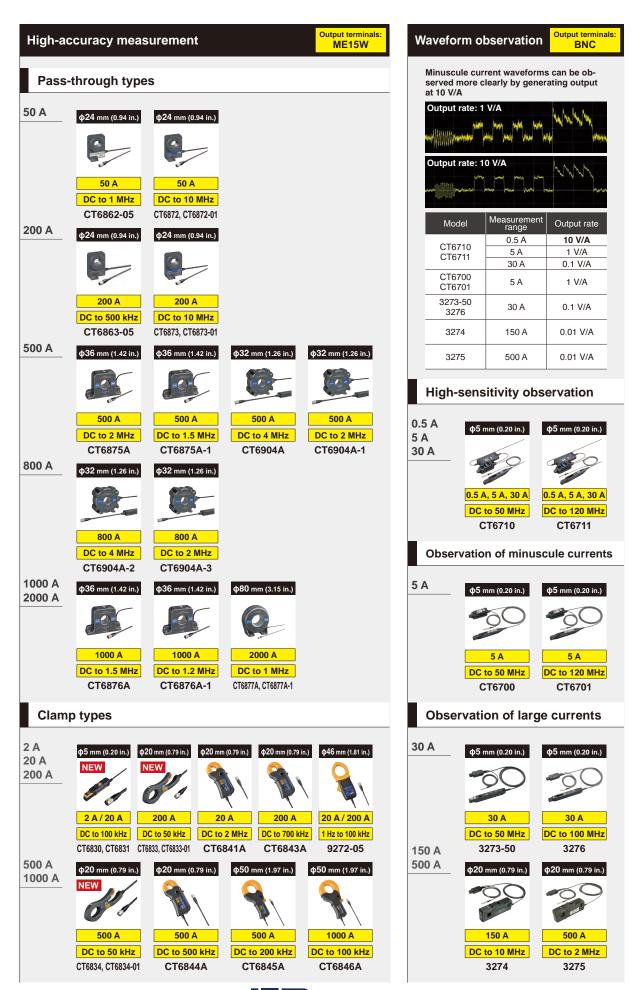




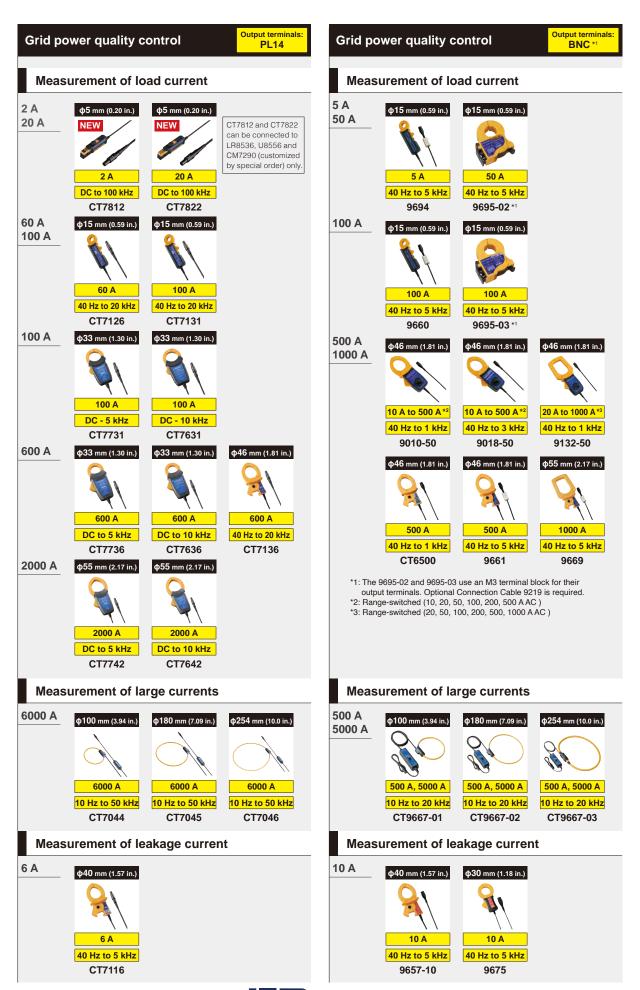
**Detection of intermittent electrical leaks** 

Search for the locations of electrical leaks









High-accuracy measurement							Output	terminals: ME15W	
Pass-through types									
Model	Appearance	Rated primary current	Maximum peak current	Withstand voltage *2	Output voltage	Frequency range	Linearity error	Offset error	Amplitude errors
CT6862-05		50 Arms	±141 A peak	AC 7.4 kV	40 mV/A	DC to 1 MHz	-	-	-
CT6872 CT6872-01		50 Arms	±200 A peak	AC 7.4 kV	40 mV/A	DC to 10 MHz	±2 ppm	±5 ppm	DC: 7 ppm 10 Hz to 100 Hz: 0.005% 100 Hz to 1 kHz: 0.01% 1 kHz to 50 kHz: 0.1% 50 kHz to 100 kHz: 0.3% 100 kHz to 300 kHz: 1% 300 kHz to 1 MHz: 3%
CT6863-05		200 Arms	±565 A peak	AC 7.4 kV	10 mV/A	DC to 500 kHz	-	-	-
CT6873 CT6873-01		200 Arms	±350 A peak *1	AC 7.4 kV	10 mV/A	DC to 10 MHz	±2 ppm	±5 ppm	DC: ±7 ppm 10 Hz to 500 Hz: ±0.005% 500 Hz to 3 kHz: ±0.01% 3 kHz to 30 kHz: ±0.1% 30 kHz to 100 kHz: ±0.4% 100 kHz to 400 kHz: ±1% 400 kHz to 1 MHz: ±3%
CT6875A CT6875A-1		500 Arms	±1500 A peak* <sup>1</sup>	AC 7.4 kV	4 mV/A	DC to 2 MHz DC to 1.5 MHz	±5 ppm	±5 ppm	DC: ±10 ppm 10 Hz to 100 Hz: ±0.005% 100 Hz to 1 kHz: ±0.02% 1 kHz to 20 kHz: ±0.08% 20 kHz to 100 kHz: ±0.5% 100 kHz to 300 kHz: ±1% 300 kHz to 10 MHz: ±5%
CT6904A CT6904A-1		500 Arms	±1000 A peak *1	AC 7.4 kV	4 mV/A	DC to 4 MHz DC to 2 MHz	±5 ppm	±10 ppm	-
CT6904A-2 CT6904A-3		800 Arms	±1200 A peak *1	AC 7.4 kV	2 mV/A	DC to 4 MHz DC to 2 MHz	±12.5 ppm	±10 ppm	-
CT6876A CT6876A-1		1000 Arms	±1800 A peak *1	AC 7.4 kV	2 mV/A	DC to 1.5 MHz DC to 1.2 MHz	±5 ppm	±5 ppm	DC: ±10 ppm 10 to 100 Hz: ±0.005% 100 to 1 kHz: ±0.03% 1 k to 10 kHz: ±0.2% 10 k to 100 kHz: ±1% 100 k to 300 kHz: ±3% 300 k to 1 MHz: ±15%
CT6877A CT6877A-1		2000 Arms	±3200 A peak *1	AC 7.4 kV	1 mV/A	DC to 1 MHz	±10 ppm	±5 ppm	DC: ±15 ppm 10 Hz to 100 Hz: ±0.01% 100 Hz to 1 kHz: ±0.04% 1 kHz to 10 kHz: ±0.25% 10 kHz to 100 kHz: ±1% 100 kHz to 300 kHz: ±2% 300 kHz to 700 kHz: ±10%
Clamp typ	es								
9272-05	<b>Q</b> 1	20 Arms, 200 Arms	±71 Apeak, ±430 Apeak	AC 5.4 kV	100 mV/A, 10 mV/A	1 Hz to 100 kHz	-	-	-
CT6830		2 Arms	±4.3 A peak	-	1 V/A	DC to 100 kHz	-	-	-
CT6831		20 Arms	±43 A peak	-	0.1 V/A	DC to 100 kHz	-	-	-
CT6833 CT6833-01	del	200 Arms	±600 A peak	AC/DC 1kV*3	10 mV/A	DC to 50 kHz	±10 ppm	-	10 Hz - 100 Hz: ±50 ppm 100 Hz - 500 Hz: ±0.04% 500 Hz - 1 kHz: ±0.08% 1 kHz - 20 kHz: ±(0.1 x [ [kHz])%
CT6834 CT6834-01	de/	500 Arms	±800 A peak	AC/DC 1kV*3	4 mV/A	DC to 50 kHz	±10 ppm	-	10 Hz - 100 Hz: ±50 ppm 100 Hz - 500 Hz: ±0.04% 500 Hz - 1 kHz: ±0.08% 1 kHz - 20 kHz: ±(0.1 x f [kHz])%
CT6841A	1	20 Arms	±60 A peak *1	AC 4.26 kV	100 mV/A	DC to 2 MHz	±20 ppm	-	-
CT6843A	1	200 Arms	±600 A peak*1	AC 4.26 kV	10 mV/A	DC to 700 kHz	±20 ppm	-	-
CT6844A		500 Arms	±800 A peak*1	AC 4.26 kV	4 mV/A	DC to 500 kHz	±20 ppm	-	-
CT6845A	9	500 Arms	±1500 A peak*1	AC 4.26 kV	4 mV/A	DC to 200 kHz	±20 ppm	-	-
CT6846A	8	1000 Arms	±1900 A peak *1	AC 4.26 kV	2 mV/A	DC to 100 kHz	±20 ppm	-	-
Direct-wire	ed types								
PW9100A-3	mmm	50 Arms	±200 A peak*1	AC 5.4 kV	40 mV/A	DC to 3.5 MHz	-	-	-
PW9100A-4	in in in in	50 Arms	±200 A peak*1	AC 5.4 kV	40 mV/A	DC to 3.5 MHz	-	-	-
		L						L	<u> </u>



High-ac	High-accuracy measurement					Output terminals: ME15W			
pass-throu	igh types								
Model	Amplitude DC	50/60 Hz	Phase Shift Values	Delay times	Diameter of measurable conductors	Cable length	Operating temperature	Maximum rated voltage to earth	Automatic phase correction*
 CT6862-05	±0.05 % rdg ±0.01 % f.s.	±0.05 % rdg ±0.01 % f.s.	300 kHz, -10.96 °	101 ns	ф24 mm (0.94 in.)	3 m (9.84 ft.)	-30°C to 85°C -22°F to 185°F	1000 V CAT III	-
CT6872 CT6872-01	±0.03 % rdg ±0.002 % f.s.	±0.03 % rdg ±0.007 % f.s.	100 kHz, -1.28° 100 kHz, -2.63°	46 ns 82 ns	φ24 mm (0.94 in.)	3 m (9.84 ft.) 10 m (32.81 ft.)	-40°C to 85°C -40°F to 185°F	1000 V CAT III	Yes
 CT6863-05	±0.05 % rdg ±0.01 % f.s.	±0.05 % rdg ±0.01 % f.s.	100 kHz, -4.60 °	128 ns	ф24 mm (0.94 in.)	3 m (9.84 ft.)	-30°C to 85°C -22°F to 185°F	1000 V CAT III	-
CT6873 CT6873-01	±0.03 % rdg ±0.002 % f.s.	±0.03 % rdg ±0.007 % f.s.	100 kHz, -0.75° 100 kHz,-2.10°	36 ns 69 ns	ф24 mm (0.94 in.)	3 m (9.84 ft.) 10 m (32.81 ft.)	-40°C to 85°C -40°F to 185°F	1000 V CAT III	Yes
CT6875A CT6875A-1	±0.04 % rdg ±0.008 % f.s.	±0.04 % rdg ±0.008 % f.s.	200 kHz,-10.45 ° 200 kHz, 12.87 °	145 ns 179 ns	ф36 mm (1.42 in.)	3 m (9.84 ft.) 10 m (32.81 ft.)	-40°C to 85°C -40°F to 185°F	1000 V CAT III	Yes
 CT6904A CT6904A-1	±0.025 % rdg ±0.007 % f.s.	±0.02 % rdg ±0.007 % f.s.	300 kHz, -9.82 °	91 ns	ф32 mm (1.26 in.)	3 m (9.84 ft.) 10 m (32.81 ft.)	-10°C to 50°C 14°F to 122°F	1000 V CAT III	Yes
 CT6904A-2 CT6904A-3	±0.030 % rdg. ±0.009 % f.s.	±0.025 % rdg ±0.009 % f.s.	300 kHz, -9.82 °	91 ns	ф32 mm (1.26 in.)	3 m (9.84 ft.) 10 m (32.81 ft.)	-10°C to 50°C 14°F to 122°F	1000 V CAT III	Yes
CT6876A CT6876A-1	±0.04 % rdg ±0.008 % f.s.	±0.04 % rdg ±0.008 % f.s.	200 kHz,-12.96 ° 200 kHz,-14.34 °	180 ns 199 ns	ф36 mm (1.42 in.)	3 m (9.84 ft.) 10 m (32.81 ft.)	-40°C to 85°C -40°F to 185°F	1000 V CAT III	Yes
 CT6877A CT6877A-1	±0.04 % rdg ±0.008 % f.s.	±0.04 % rdg ±0.008 % f.s.	100 kHz,-2.63 ° 100 kHz,-3.34 °	73 ns 93 ns	ф80 mm (3.15 in.)	3 m (9.84 ft.) 10 m (32.81 ft.)	-40°C to 85°C -40°F to 185°F	1000 V CAT III	Yes
 clamp type	es								
 9272-05	-	±0.3 % rdg ±0.01 % f.s.	50 kHz, -3.34 ° 50 kHz, -4.18 °	186 ns/ 232 ns	φ46 mm (1.81 in.)	3 m (9.84 ft.)	0°C to 50°C 32°F to 122°F	600 V CAT III	-
CT6830	±0.3% rdg ±0.1% f.s.	±0.3 % rdg ±0.05 % f.s.	10 kHz, -6.9 °	1.9 µs	φ5 mm (0.20 in.)	4 m, 0.2 m <sup>-4</sup> (13.12 ft., 0.66 ft.)	-40°C to 85°C -40°F to 185°F	-	Yes
 CT6831	±0.3% rdg ±0.1% f.s.	±0.3 % rdg ±0.01 % f.s.	10 kHz, -4.4 °	1.2 µs	φ5 mm (0.20 in.)	4 m, 0.2 m <sup>-4</sup> (13.12 ft., 0.66 ft.)	-40°C to 85°C -40°F to 185°F	-	Yes
CT6833 CT6833-01	±0.07% rdg ±0.01% f.s.	±0.07% rdg ±0.007% f.s.	1 kHz, -0.64 °	1.8 µs	ф20 mm (0.79 in.)	5 m (16.40 ft.) 10 m (32.81 ft.)	-40°C to 85°C -40°F to 185°F	-	Yes
 CT6834 CT6834-01	±0.07% rdg ±0.01% f.s.	±0.07% rdg ±0.007% f.s.	1 kHz, -0.64 °	1.8 µs	ф20 mm (0.79 in.)	5 m (16.40 ft.) 10 m (32.81 ft.)	-40°C to 85°C -40°F to 185°F	-	Yes
 CT6841A	±0.2 % rdg ±0.05 % f.s.	±0.2 % rdg ±0.01 % f.s.	100 kHz, -3.59 °	100 ns	ф20 mm (0.79 in.)	3 m (9.84 ft.)	-40°C to 85°C -40°F to 185°F	-	Yes
 CT6843A	±0.2 % rdg ±0.02 % f.s.	±0.2 % rdg ±0.01 % f.s.	100 kHz, -3.96 °	110 ns	ф20 mm (0.79 in.)	3 m (9.84 ft.)	-40°C to 85°C -40°F to 185°F	-	Yes
 CT6844A	±0.2 % rdg ±0.02 % f.s.	±0.2 % rdg ±0.01 % f.s.	100 kHz, -3.92 °	109 ns	ф20 mm (0.79 in.)	3 m (9.84 ft.)	-40°C to 85°C -40°F to 185°F	-	Yes
 CT6845A	±0.2 % rdg ±0.02 % f.s.	±0.2 % rdg ±0.01 % f.s.	10 kHz, -0.94 °	261 ns	ф50 mm (1.97 in.)	3 m (9.84 ft.)	-40°C to 85°C -40°F to 185°F	-	Yes
 CT6846A	±0.2 % rdg ±0.02 % f.s.	±0.2 % rdg ±0.01 % f.s.	10 kHz, -1.05 °	292 ns	φ50 mm (1.97 in.)	3 m (9.84 ft.)	-40°C to 85°C -40°F to 185°F	-	Yes
 direct-wire	d types								
 PW9100A-3	±0.02 % rdg ±0.007 % f.s.	±0.02 % rdg ±0.005 % f.s.	300 kHz, -2.80 °	26 ns	M6 screw terminals	3 ch	0°C to 40°C 32°F to 104°F	1000 V CAT II 600V CAT III	Yes
 PW9100A-4	±0.02 % rdg ±0.007 % f.s.	±0.02 % rdg ±0.005 % f.s.	300 kHz, -2.80 °	26 ns	M6 screw terminals	4 ch	0°C to 40°C 32°F to 104°F	1000 V CAT II 600V CAT III	Yes
			*0.14	h a n	DW0001 *4. D	lotwoon concor to			



Wavef	Waveform observation Output terminals: BNC								
Model	Appearance	Rated current: output rate	Frequency range	Rise time (10% to 90%)	Delay time	Amplitude accuracy	Diameter of measurable conductors	Cable length*1	Operating temperature
High-sens	sitivity observ	ation of currents	ranging in m	agnitude from	minuscul	e to large			
CT6710 CT6711	***	0.5 Arms: 10 V/A 5 Arms: 1 V/A 30 Arms: 0.1 V/A	DC to 50 MHz DC to 120 MHz	7.0 ns or less 2.9 ns or less	12 ns *2	±3.0% rdg ±1mV	φ5 mm (0.20 in.)	1.5 m, 1 m (4.92 ft., 3.28 ft.)	0°C to 40°C 32°F to 104°F
Observati	on of minusc	ule currents							
CT6700 CT6701	90	5 Arms: 1 V/A	DC to 50 MHz DC to 120 MHz	7.0 ns or less 2.9 ns or less	13 ns 12 ns	±3.0% rdg ±1mV	φ5 mm (0.20 in.)	1.5 m, 1 m (4.92 ft., 3.28 ft.)	0°C to 40°C 32°F to 104°F
Observation of large currents									
3273-50 3276	300	30 Arms: 0.1 V/A	DC to 50 MHz DC to 100 MHz	7.0 ns or less 3.5 ns or less	16 ns 14 ns	±1.0 % rdg ±1 mV	φ5 mm (0.20 in.)	1.5 m, 1 m (4.92 ft., 3.28 ft.)	0°C to 40°C 32°F to 104°F
3274 3275	20	150 Arms: 0.01 V/A 500 Arms: 0.01 V/A	DC to 10 MHz DC to 2 MHz	35 ns or less 175 ns or less	40 ns 66 ns	±1.0 % rdg,±1 mV ±1.0 % rdg,±5 mV	ф20 mm (0.79 in.)	2.0 m, 1 m (6.56 ft., 3.28 ft.)	0°C to 40°C 32°F to 104°F

<sup>\*1:</sup> Sensor cable: cable between relay box and sensor for models with relay boxes (i.e. CT6710, CT6711), power supply cable for other models \*2: When using 0.5 A range: 13 ns

Grid p	Grid power quality control Output terminals: PL14							
Model	Appearance	Rated current	Frequency range	Amplitude accuracy	Diameter of measurable conductors	Cable length	Operating temperature	CAT
Measuren	nent of load co	urrent						
CT7126 CT7131	*	60 A AC 100 A AC	40 Hz to 20 kHz	±0.3% rdg ±0.01% f.s. ±0.3% rdg ±0.02% f.s.	ф15 mm (0.59 in.)	2.5 m (8.20 ft.)	-10°C to 50°C 14°F to 122°F	CAT III 300 V
CT7731 CT7631	91	100 A AC/DC	DC to 5 kHz DC to 10 kHz	±1.0% rdg ±0.5% f.s.	ф33 mm (1.30 in.)	2.5 m (8.20 ft.)	-25°C to 65°C -13°F to 149°F	CAT IV 600 V
CT7736 CT7636		600 A AC/DC	DC to 5 kHz DC to 10 kHz	±2.0% rdg ±0.5% f.s.	ф33 mm (1.30 in.)	2.5 m (8.20 ft.)	-25°C to 65°C -13°F to 149°F	CAT IV 600 V CAT III 1000 V
CT7136	<b>A</b> /	600 A AC/DC	40 Hz to 20 kHz	±0.3 % rdg ±0.01 % f.s.	ф46 mm (1.81 in.)	2.5 m (8.20 ft.)	-10°C to 50°C 14°F to 122°F	CAT IV 600 V CAT III 1000 V
CT7742 CT7642	9	2000 A AC/DC	DC to 5 kHz DC to 10 kHz	±1.5% rdg ±0.5% f.s.	φ55 mm (2.17 in.)	2.5 m (8.20 ft.)	-25°C to 65°C -13°F to 149°F	CAT IV 600 V CAT III 1000 V
CT7812*3		2 Arms	DC to 100 kHz	±0.3% rdg ±0.1% f.s.	φ5 mm (0.20 in.)	4 m, 0.2 m *4 (13.12 ft., 0.66 ft.)	-40°C to 85°C -40°F to 185°F	-
CT7822*3		20 Arms	DC to 100 kHz	±0.3% rdg ±0.1% f.s.	φ5 mm (0.20 in.)	4 m, 0.2 m *4 (13.12 ft., 0.66 ft.)	-40°C to 85°C -40°F to 185°F	-
Measuren	nent of large o	urrents						
CT7044		6000 A AC	10 Hz to 50 kHz	±1.5 % rdg ±0.25% f.s.	ф100 mm (3.94 in.)	2.3 m, 0.2 m *5 (7.55 ft., 0.66 ft.)	-25°C to 65°C -13°F to 149°F	CAT IV 600 V CAT III 1000 V
CT7045		6000 A AC	10 Hz to 50 kHz	±1.5 % rdg ±0.25% f.s.	ф180 mm (7.09 in.)	2.3 m, 0.2 m *5 (7.55 ft., 0.66 ft.)	-25°C to 65°C -13°F to 149°F	CAT IV 600 V CAT III 1000 V
CT7046		6000 A AC	10 Hz to 50 kHz	±1.5 % rdg ±0.25% f.s.	ф254 mm (10.00 in.)	2.3 m, 0.2 m *5 (7.55 ft., 0.66 ft.)	-25°C to 65°C -13°F to 149°F	CAT IV 600 V CAT III 1000 V
Measuren	nent of leakag	e current						
CT7116	9/	6 A AC	40 Hz to 5 kHz	±1.0% rdg ±0.05% f.s.	ф40 mm (1.57 in.)	2.5 m (8.20 ft.)	-25°C to 65°C -13°F to 149°F	-



<sup>\*3:</sup> Can be connected to LR8536, U8556, CM7290 only

\*4: Sensor to relay box, relay box to output connector

\*5: Between sensor to circuit box, between circuit box to output connector

Grid p	ower qua	lity contro	ol				Output term	inals: BNC
Model	Appearance	Rated current	Frequency range	Amplitude accuracy	Diameter of measurable conductors	Cable length	Operating temperature	CAT
Measuren	nent of load c	urrent						
9694	1	5 A AC	40 Hz to 5 kHz	±0.3% rdg ±0.02% f.s.	ф15 mm (0.59 in.)	3 m (9.84 ft.)	0°C to 50°C 32°F to 122°F	300 V CAT III
9695-02*1		50 A AC	40 Hz to 5 kHz	±0.3% rdg ±0.02% f.s.	ф15 mm (0.59 in.)	-	0°C to 50°C 32°F to 122°F	300 V CAT III
9660	1	100 A AC	40 Hz to 5 kHz	±0.3% rdg ±0.02% f.s.	ф15 mm (0.59 in.)	3 m (9.84 ft.)	0°C to 50°C 32°F to 122°F	300 V CAT III
9695-03 *1		100 A AC	40 Hz to 5 kHz	±0.3% rdg ±0.02% f.s.	ф15 mm (0.59 in.)	-	0°C to 50°C 32°F to 122°F	300 V CAT III
9010-50	<b>%</b>	10 A to 500 A AC	40 Hz to 1 kHz	±2% rdg ±1% f.s.	ф46 mm (1.81 in.)	3 m (9.84 ft.)	0°C to 50°C 32°F to 122°F	600 V CAT III
9018-50	<b>%</b>	10 A to 500 A AC	40 Hz to 3 kHz	±1.5% rdg ±0.1% f.s.	ф46 mm (1.81 in.)	3 m (9.84 ft.)	0°C to 50°C 32°F to 122°F	600 V CAT III
9132-50	8	20 A to 1000 A AC	40 Hz to 1 kHz	±3 % rdg ±0.2 % f.s.	ф55 mm (2.17 in.)	3 m (9.84 ft.)	-10°C to 50°C 14°F to 122°F	600 V CAT III
CT6500	91	500 A AC	40 Hz to 1 kHz	±1.5 % rdg ±0.03 % f.s.	φ46 mm (1.81 in.)	3 m (9.84 ft.)	0°C to 50°C 32°F to 122°F	600 V CAT III
9661	91	500 A AC	40 Hz to 5 kHz	±0.3% rdg ±0.01% f.s.	φ46 mm (1.81 in.)	3 m (9.84 ft.)	0°C to 50°C 32°F to 122°F	600 V CAT III
9669	Q	1000 A AC	40 Hz to 5 kHz	±1.0% rdg ±0.01% f.s.	φ55 mm (2.17 in.)	3 m (9.84 ft.)	0°C to 50°C 32°F to 122°F	600 V CAT III
Measuren	nent of large o	currents						
CT9667-01		500 A, 5000 A AC	10 Hz to 20 kHz	±2 % rdg ±0.3 % f.s.	φ100 mm (3.94 in.)	2 m, 1 m* <sup>2</sup> (6.56 ft., 3.28 ft.)	-25°C to 65°C -13°F to 149°F	600 V CAT IV 1000 V CAT II
CT9667-02		500 A, 5000 A AC	10 Hz to 20 kHz	±2 % rdg ±0.3 % f.s.	ф180 mm (7.09 in.)	2 m, 1 m* <sup>2</sup> (6.56 ft., 3.28 ft.)	-25°C to 65°C -13°F to 149°F	600 V CAT IV 1000 V CAT II
CT9667-03		500 A, 5000 A AC	10 Hz to 20 kHz	±2 % rdg ±0.3 % f.s.	ф254 mm (10.00 in.)	2 m, 1 m* <sup>2</sup> (6.56 ft., 3.28 ft.)	-10°C to 50°C 14°F to 122°F	600 V CAT IV 1000 V CAT II
Measuren	nent of leakag	je current						
9657-10	91	10 A AC	40 Hz to 5 kHz	±.1.0 % rdg ±0.05 % f.s.	φ40 mm (1.57 in.)	3 m (9.84 ft.)	0°C to 50°C 32°F to 122°F	-
9675	81	10 A AC	40 Hz to 5 kHz	±.1.0 % rdg ±0.005 % f.s.	ф30 mm (1.18 in.)	3 m (9.84 ft.)	0°C to 50°C 32°F to 122°F	-

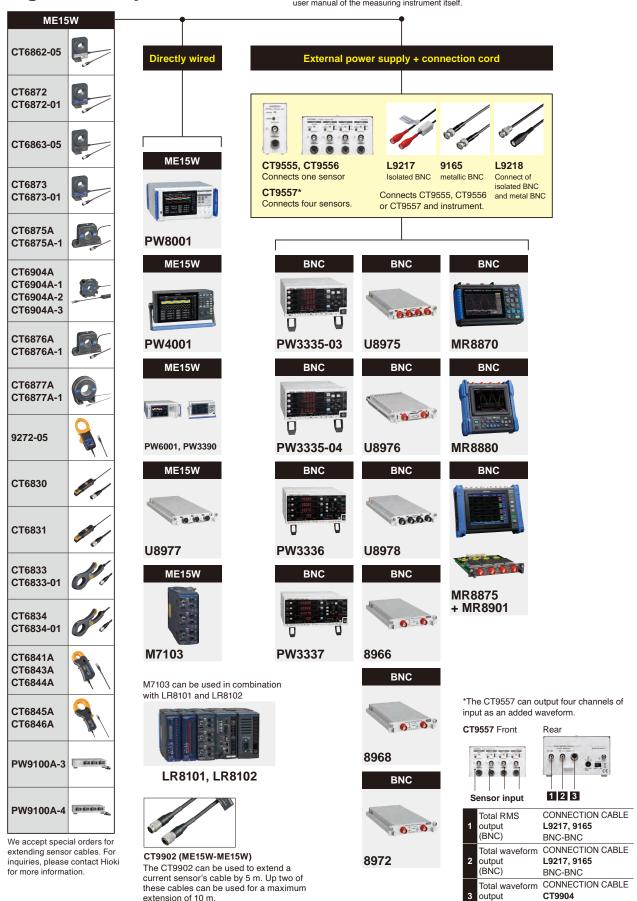
<sup>\*1:</sup> The 9695-02 and 9695-03 use an M3 terminal block for their output terminals. The extra purchase of the connection cable 9219 is required.

\*2: Sensor cable: between flexible loop and circuit box for flexible sensors (e.g. CT9667-01), output cable for others.



## **High-accuracy measurement**

\* Depending on the measuring instrument being connected, the characteristics of each sensor may not be fully utilized. For more details, please refer to the user manual of the measuring instrument itself.



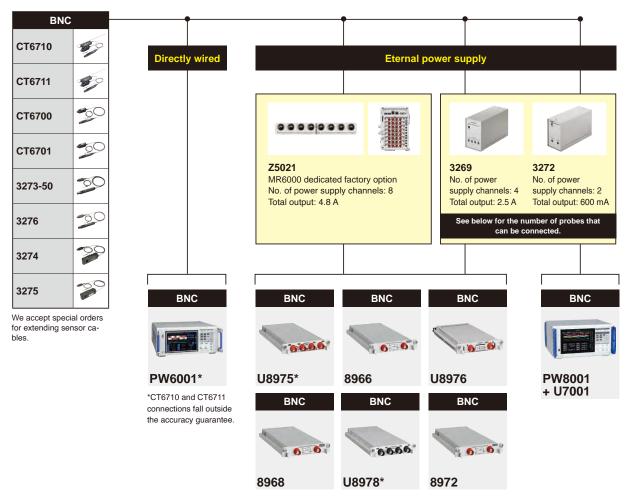
www ith com

\*When using the CT9902, an addition must be

ME15W-ME15W

(MĖ15W)

\* Depending on the measuring instrument being connected, the characteristics Waveform observation of each sensor may not be fully utilized. For more details, please refer to the user manual of the measuring instrument itself.



<sup>\*</sup>Special-order cables are required when using three or more probes simultaneously. Please contact Hioki for details.

#### The following products can be used with the U8975, U8976, U8978, 8966, 8968, and 8972



#### Current consumption per probe and number of probes per power supply

Current consumption varies by probe. The following table indicates how many probes can be utilized when using one type of probe per power supply.

Sensor	Consumption current*	Z5021	3269	3272
CT6710	approx. 650 mA	4	2	-
CT6711	approx. 650 mA	4	2	-
CT6700	approx. 250 mA	8	4	2
CT6701	approx. 250 mA	8	4	2
3273-50	approx. 450 mA	8	4	1
3274	approx. 450 mA	8	4	1
3275	approx. 600 mA	8	4	1
3276	approx. 450 mA	8	4	1

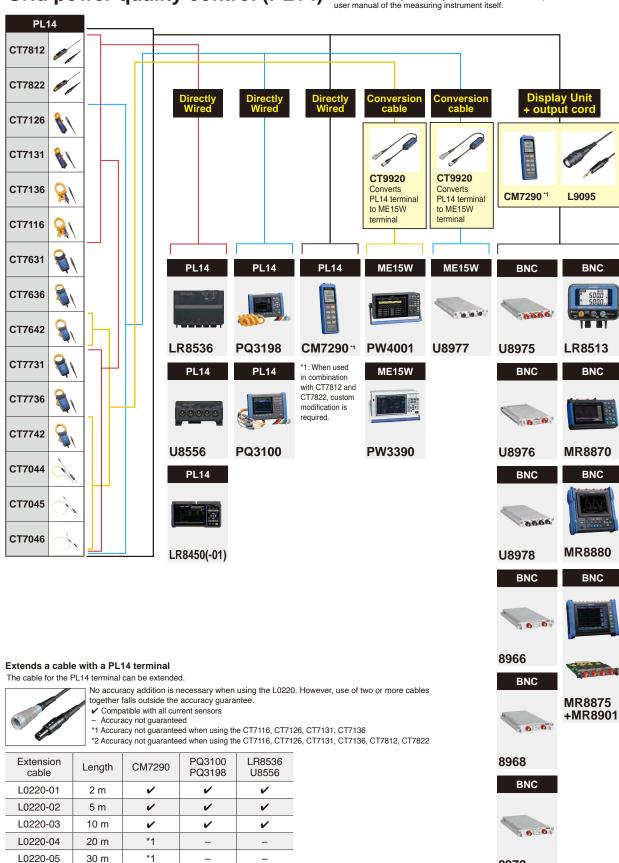
\*When measuring the rated current.



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### Grid power quality control (PL14)

\* Depending on the measuring instrument being connected, the characteristics of each sensor may not be fully utilized. For more details, please refer to the user manual of the measuring instrument itself





L0220-06

L0220-07

50 m

100 m

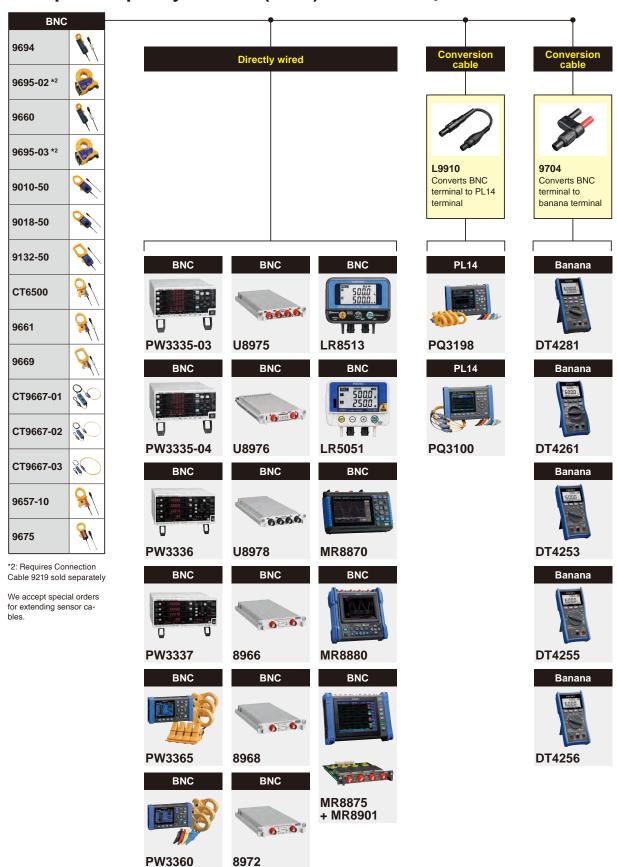
\*2

\*2

8972

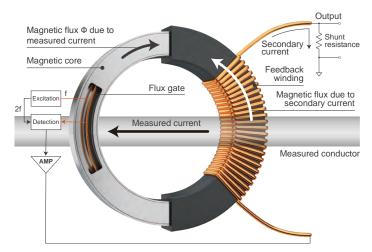
Grid power quality control (BNC)

\* Depending on the measuring instrument being connected, the characteristics of each sensor may not be fully utilized. For more details, please refer to the user manual of the measuring instrument itself.

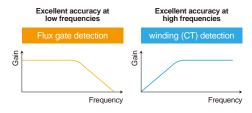


## Accurately evaluating power conversion efficiency

Improving power conversion efficiency is a key part of the effort to facilitate the effective use of energy. Devices that operate at high frequencies are increasingly being used to improve efficiency, and evaluation processes undertaken during the development of such devices requires accurate measurement of power at the low frequencies used by in previous devices as well as at high frequencies. Additionally, sensors that can resist noise are necessary since noise becomes stronger as the frequency increases. Hioki offers current sensors that can measure power accurately while providing robust noise resistance over a broad band of frequencies.



High-frequency currents are detected by a winding (CT), while DC to low-frequency currents are detected by a flux gate. Zero-flux method: achieving stable, wideband measurement from DC to high frequencies





Frequency

#### Zero-flux method (flux gate) current sensors



CT6830, CT6831 CT7812, CT7822



CT6834, CT6834-01



CT6833, CT6833-01 CT6841A, CT6845A, CT6843A, CT6846A CT6844A



CT6862-05. CT6863-05 CT6872, CT6873



CT6875A. CT6876A



CT6877A

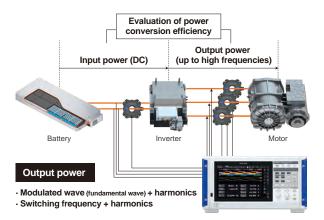


CT6904A

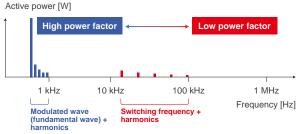
#### Application

#### Evaluating the power conversion efficiency of an inverter

When evaluating the power conversion efficiency of an inverter, the inverter's input and output power are measured and its efficiency is checked. PWM (pulse width modulated) inverter output, which has been widely used in recently years, contains a modulated wave (fundamental wave) and a switching frequency along with their respective harmonic components. Since switching frequencies tend to be high, the process requires wide frequency band current sensors.



#### Inverter output: principal active power components

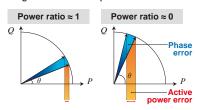


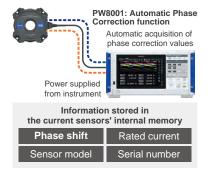
Since the power factor decreases with harmonics, current sensors' phase measurement accuracy becomes key (see right).

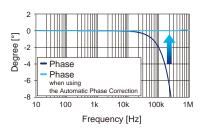
#### Phase measurement accuracy and correction: accurately measuring power at low power factors

For typical current sensors, phase measurement accuracy is not defined. However, phase measurement precision is important in applications where power must be measured with a high degree of accuracy. Power can be measured more accurately by selecting a current sensor for which phase measurement accuracy is defined in the measurement band.

At low power factors, phase error has a significant effect on power error.







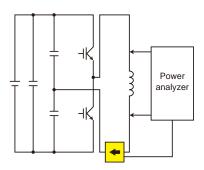
Example of the Automatic Phase Correction for the CT6904A AC/DC current sensor

The power factor decreases in the high-frequency range of the switching frequencies and other frequency components. At low power factors, phase error has a significant effect on power measured values.

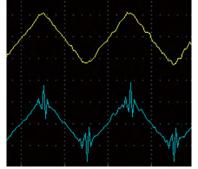
For typical sensors, phase error increases with frequency. Since Hioki has developed both current sensors and the measuring instruments, current sensors' phase characteristics can be corrected by the instruments, allowing accurate power values to be calculated.

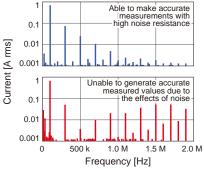
#### Common-mode voltage rejection ratio: measuring current values accurately in noisy environments

In high-frequency measurement, sensors' resistance to noise is critical. A sensor's ability to remove noise is expressed by its common-mode rejection ratio (CMRR). Sensors with a high CMRR reject more noise and therefore can make more accurate measurements.



For reactors, higher frequencies mean lower current values. The image to the right shows a waveform obtained by measuring reactor current at high frequency along with variations in current values that accompany variations in the frequency.



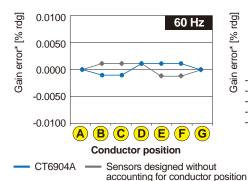


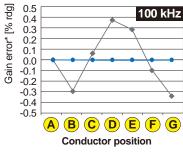
Top: CT6904A CMRR 120 dB or greater (100 Hz); bottom: sensor with a low CMRR

#### Effects of conductor position: stable, highly reproducible sensing

In general, speaking, the effects of conductor position increase with frequency. Since the position of the conductor inside the clamp core affects the measurement accuracy, resulting the reproducibility of measurement reduces. Sensors are designed the effects of conductor position, highly reproducible measurements are possible since conductor position does not affect measured values.







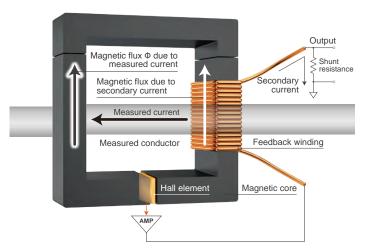
deviation from center

When using sensors designed to take into account the effects of conductor position, changes in conductor position have only a small effect on the measured value.



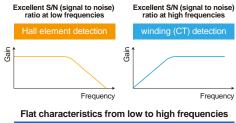
## Clearly observing current waveforms

The magnitude of the currents that flow in power-saving devices during operation and control currents that flow in automotive accessory components have reduced to 1 mA or less. At the same time, reliance on high-speed switching operation for device control is resulting in increased noise. Wideband current probes that are highly resistant to noise are essential in order to clearly observe low-current waveforms without losing them in noise. Hioki offers current probes that enable clear waveform observation while providing robust noise resistance over a broad band of frequencies.



High-frequency currents are detected by the winding (CT), while DC to low-frequency currents are detected by the Hall element.

### Zero-flux method: realizing stable, wideband measurement from DC to high frequencies



## Zero-flux method Hall element detection winding (CT) detection Frequency

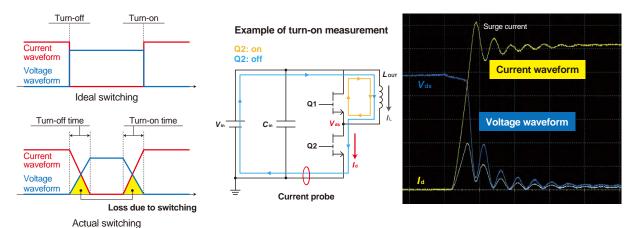
#### Zero-flux method (hall element) current probes



#### Application

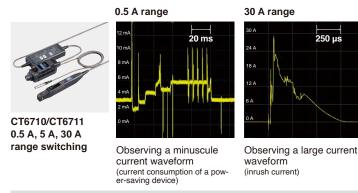
#### Evaluating the response performance of switching devices

Switching devices control equipment by turning the power on and off. The response performance of switching devices is evaluated by observing fluctuations of current and voltage when the device cycles the power on and off. Capturing current fluctuations caused by high-speed switching operation requires current probes with a broad frequency band. Additionally, noise resistance is important since switching operation generates noise.



#### Observing waveforms from minuscule currents to large currents: evaluating the control design of ECUs and accessory components

The control systems used in ECUs and accessory components carry currents of a variety of magnitudes according to the vehicle's operation, from control currents to inrush currents. Using a current probe that can switch current ranges makes it possible to observe current waveforms associated with an array of operating conditions with a single probe.

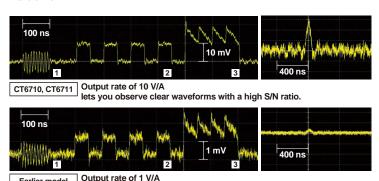


Observing currents of a variety of magnitudes,
from minuscule currents to large currents, with a single probe

Model	Freq. band	mesurement range	output rate
		0.5 A	10 V/A
CT6710	DC to 50 MHz	5 A	1 V/A
		30 A	0.1 V/A
		0.5 A	10 V/A
CT6711	DC to 120 MHz	5 A	1 V/A
		30 A	0.1 V/A
CT6700	DC to 50 MHz	5 A	1 V/A
CT6701	DC to 120 MHz	5 A	1 V/A
3273-50	DC to 50 MHz	30 A	0.1 V/A
3276	DC to 100 MHz	30 A	0.1 V/A
3274	DC to 10 MHz	150 A	0.01 V/A
3275	DC to 2 MHz	500 A	0.01 V/A

#### Clearly observing minuscule currents: operating currents of power-saving devices and control currents flowing to accessory components

The magnitude of the currents that flow during operation of power-saving devices like wearables and control currents that flow in automotive accessory components tend to decrease in to 1 mA or less. Using a current probe with a high output rate make you possible for clearly observing minuscule current waveforms



precludes observation of accurate waveforms as they are obscured by noise.

Noise resistance design: key to increasing output rate



ed inside the probe.



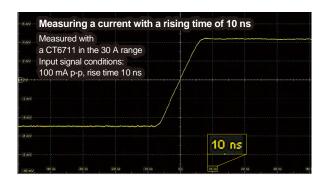


the amount of noise generat-sistance to environmental noise

- 1 Sine wave: f = 100 MHz, 1 mA peak-peak
- 2 Square wave: f = 10 MHz, 1 mA peak-peak 3 Sawtooth wave: f = 20 MHz, 1 mA peak-peak (offset +1 mA)

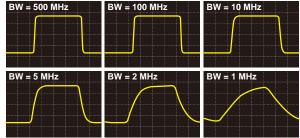
#### Observing waveforms across a broad band of frequencies: capturing waveforms and pulse waveforms that fluctuate at high speeds

Currents from switching operation of devices such as SiC and GaN inverters and currents that flow momentarily when a power supply is activated fluctuate at high speeds. Using a current probe with a wide frequency band allows you observe current waveforms that fluctuate at high speed. Additionally, such devices allow you observe current waveforms such as pulse waveforms that contain a variety of frequency components.



Current probes with a wide frequency band can capture high-speed current fluctuations with a rising time of 10 ns.





Current probes with a wide frequency band can accurately capture pulse waveforms.



#### CT6862-05



Product warranty period: 3 years Guaranteed accuracy period: 1 year

Rated current	50 A AC/DC
Frequency band	DC to 1 MHz (-3 dB)
Diameter of measurable conductors	Max. φ 24 mm (0.94 in.)

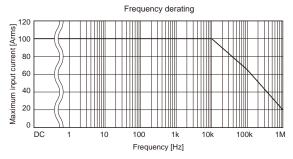
#### **Accuracy**

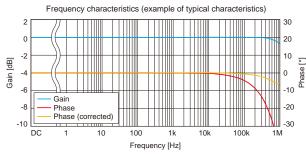
Frequency	Amplitude ±(% of reading + % of full scale)	Phase
DC	±0.05% ±0.01%	-
DC < f ≤ 16 Hz	±0.10% ±0.02%	±0.3°
16 Hz < f ≤ 400 Hz	±0.05% ±0.01%	±0.2°
400 Hz < f ≤ 1 kHz	±0.2% ±0.02%	±0.5°
1 kHz < f ≤ 5 kHz	±0.7% ±0.02%	±1.0°
5 kHz < f ≤ 10 kHz	±1% ±0.02%	±1.0°
10 kHz < f ≤ 50 kHz	±1% ±0.02%	± (0.5 + 0.1× f kHz)°
50 kHz < f ≤ 100 kHz	±2% ±0.05%	± (0.5 + 0.1× f kHz)°
100 kHz < f ≤ 300 kHz	±5% ±0.05%	± (0.5 + 0.1× f kHz)°
300 k Hz < f ≤ 700 kHz	±10% ±0.05%	-
700 kHz < f < 1 MHz	±30% ±0.05%	-

The values above are when the input is a sine wave, the conductor is in the center of the sensor opening, and the measurement instrument's input resistance is 1 M $\Omega$  or higher. Amplitude accuracy: defined at the rated value or less, or within the derating curve; DC < f < 5 Hz is the typical value by design.

Phase accuracy: defined at the rated value or less, or within the derating curve; DC < f <10 Hz is the typical value by design.

Temperature and humidity range for guaranteed accuracy	0°C to 40°C (32°F to 104°F), 80% RH or less
Effect of temperature	In ranges from -30°C to 0°C (-22°F to 32°F) and 40°C to 85°C (104°F to 185°F) Amplitude sensitivity: 20.005% of reading/°C or less Offset voltage: ±0.005% of full scale/°C or less
Effect of common mode voltage	0.05% of full scale or less (1000 Vrms, DC to 100 Hz)





Output voltage	40 mV/A (= 2 V/50 A)
Operating temperature and humidity range	-30°C to 85°C (-22°F to 185°F), 80% RH or less (no condensation)
Storage temperature and humidity range	-30°C to 85°C (-22°F to 185°F), 80% RH or less (no condensation)
Maximum rated voltage to ground	1000 V AC/DC (50/60 Hz), measurement category III, anticipated transient overvoltage: 8000 V
Standards	Safety: EN61010, EMC: EN61326
Cable length	3 m (9.84 ft.)
Dimensions	70 mm (2.76 in.) W $\times$ 100 mm (3.94 in.) H $\times$ 53 mm (2.09 in.) D (Excluding protruding parts and cables)
Weight	Approx. 340 g (12.0 oz.)

#### CT6872 CT6872-01



Product warranty period: 3 years Guaranteed accuracy period: 1 year

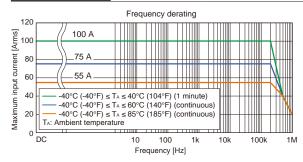
Rated current	50 A AC/DC
Frequency band	DC to 10 MHz (-3 dB)
Diameter of measurable conductors	Max. φ 24 mm (0.94 in.)

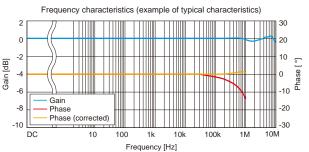
#### **Accuracy**

Frequency	Amplitude ±(% of reading + % of full scale)	Phase
DC	±0.03% ±0.002%	-
DC < f ≤ 16 Hz	±0.1% ±0.01%	±0.1°
16 Hz < f ≤ 45 Hz	±0.05% ±0.01%	±0.08°
45 Hz < f ≤ 66 Hz	±0.03% ±0.007%	±0.05°
66 Hz < f ≤ 100 Hz	±0.04% ±0.01%	±0.1°
100 Hz < f ≤ 500 Hz	±0.06% ±0.01%	±0.15°
500 Hz < f ≤ 1 kHz	±0.1% ±0.01%	±0.4°
1 kHz < f ≤ 5 kHz	±0.15% ±0.02%	±0.4°
5 kHz < f ≤ 10 kHz	±0.15% ±0.02%	±0.5°
10 kHz < f ≤ 1 MHz	(0.012 × f kHz)% + 0.05%	±(0.04 × f kHz)° ±0.1°

Combined accuracy with HIOKI power analyzer PW8001, PW6001, PW4001 and PW3390 is specified (DC, 45 Hz s f s 66 Hz). For details of combined accuracy, refer to the instruction manual. The values above are when the input is a sine wave, the measuring instrument has an input resistance of 1 M $\Omega$  ±10%, the voltage to ground is 0 V, there is no external magnetic field, and the conductor is in the center of the sensor opening. Amplitude accuracy defined 110% of full scale or less, or within the derating curve; DC <1 <10 Hz is the value by design. Phase accuracy: defined 110% of full scale or less, or within the derating curve; DC <1 <10 Hz is the value by design. Add 40.01% or reading to the amplitude accuracy for input from 100% of full scale to 110% of full scale. The CT6872-01 adds a phase accuracy of  $\pm$ (0.015 x f)\* at a frequency of 1 kHz <1 ≤ 1 MHz.

Temperature and humidity range for guaranteed accuracy	23°C ±5°C (73.4°F ±41°F), 80% RH or less	
Effect of temperature	In ranges from -40°C to 18°C (-40°F to 64.4°F) and 28°C to 85°C (82.4°F to 185°F) Amplitude sensitivity: ±20 ppm of of reading/°C Offset voltage: ±0.2 ppm of of full scale/°C	
Common-Mode Rejection Ratio (CMRR)	(effect on output voltage and common mode voltage) 150 dB or greater (DC to 1 kHz) 140 dB or greater (1 kHz to 10 kHz) 120 dB or greater (10 kHz to 100 kHz) 100 dB or greater (100 kHz to 1 100 kHz)	
Linearity error	±2 ppm	
Offset error	±5 ppm	
Amplitude errors	DC: 7 ppm 10 Hz to 100 Hz: 0.005% 100 Hz to 1 kHz: 0.01% 1 kHz to 50 kHz: 0.1%	50 kHz to 100 kHz: 0.3% 100 kHz to 300 kHz: 1% 300 kHz to 1 MHz: 3%





Output voltage	40 mV/A (= 2 V / 50 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 Anticipated transient overvoltage: 8000 V
Standards	Safety: EN61010, EMC: EN61326
Cable length	CT6872: 3 m (9.84 ft.) CT6872-01: 10 m (32.81 ft.)
Dimensions	70 mm (2.76 in.) W $\times$ 110 mm (4.33 in.) H $\times$ 53 mm (2.09 in.) D (excluding protruding parts and cables)
Weight	CT6872: approx. 370 g (13.1 oz.)



#### CT6863-05



Product warranty period: 3 years Guaranteed accuracy period: 1 year

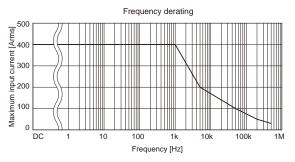
Rated current	200 A AC/DC
Frequency band	DC to 500 kHz (-3 dB)
Diameter of measurable conductors	Max. φ 24 mm (0.94 in.)

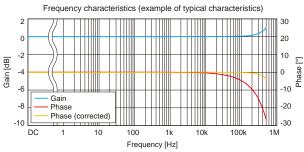
#### **Accuracy**

Frequency	Amplitude ±(% of reading + % of full scale)	Phase
DC	±0.05% ±0.01%	-
DC < f ≤ 16 Hz	±0.10% ±0.02%	±0.3°
16 Hz < f ≤ 400 Hz	±0.05% ±0.01%	±0.2°
400 Hz < f ≤ 1 kHz	±0.2% ±0.02%	±0.5°
1 kHz < f ≤ 5 kHz	±0.7% ±0.02%	±1.0°
5 kHz < f ≤ 10 kHz	±1% ±0.02%	±1.0°
10 kHz < f ≤ 50 kHz	±2% ±0.02%	± (0.5 + 0.1 × f kHz)°
50 kHz < f ≤ 100 kHz	±5% ±0.05%	± (0.5 + 0.1 × f kHz)°
100 kHz < f ≤ 300 kHz	±10% ±0.05%	± (0.5 + 0.1 × f kHz)°
300 kHz < f ≤ 500 kHz	±30% ±0.05%	-

The values above are when the input is a sine wave, the conductor is in the center of the sensor opening, and the measurement instrument's input resistance is 1 M $\Omega$  or higher. Amplitude accuracy: defined at the rated value or less, or within the derating curve; DC < I < 5 Hz is the typical value by design. Phase accuracy: defined at the rated value or less, or within the derating curve; DC < I < 10 Hz is the typical value by design.

Temperature and humidity range for guaranteed accuracy	0°C to 40°C (32°F to 104°F), 80% RH or less
Effect of temperature	In ranges from -30°C to 0°C (-22°F to 32°F) and 40°C to 85°C (104°F to 185°F) Amplitude sensitivity: ±0.005% of reading/°C or less Offset voltage: ±0.005% of full scale/°C or less
Effect of common mode voltage	0.05% of full scale or less (1000 Vrms, DC to 100 Hz)





Output voltage	10 mV/A (= 2 V / 200 A)
Operating temperature and humidity range	-30°C to 85°C (-22°F to 185°F), 80% RH or less (no condensation)
Storage temperature and humidity range	-30°C to 85°C (-22°F to 185°F), 80% RH or less (no condensation)
Maximum rated voltage to ground	1000 V AC/DC (50/60 Hz), measurement category III, anticipated transient overvoltage: 8000 V
Standards	Safety: EN61010, EMC: EN61326
Cable length	3 m (9.84 ft.)
Dimensions	70 mm (2.76 in.) W $\times$ 100 mm (3.94 in.) H $\times$ 53 mm (2.09 in.) D (excluding protruding parts and cables)
Weight	Approx. 340 g (12.0 oz.)

#### **CT6873** CT6873-01



Product warranty period: 3 years Guaranteed accuracy period: 1 year

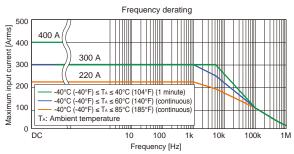
Rated current	200 A AC/DC
Frequency band	DC to 10 MHz (-3 dB)
Diameter of measurable conductors	Max. φ 24 mm (0.94 in.)

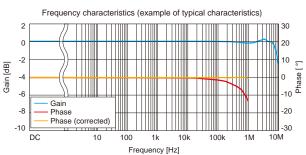
#### **Accuracy**

Frequency	Amplitude ±(% of reading + % of full scale)	Phase
DC	±0.03% ±0.002%	-
DC < f ≤ 16 Hz	±0.1% ±0.01%	±0.1°
16 Hz < f ≤ 45 Hz	±0.05% ±0.01%	±0.08°
45 Hz < f ≤ 66 Hz	±0.03% ±0.007%	±0.05°
66 Hz < f ≤ 100 Hz	±0.04% ±0.01%	±0.1°
100 Hz < f ≤ 500 Hz	±0.05% ±0.01%	±0.15°
500 Hz < f ≤ 3 kHz	±0.1% ±0.01%	±0.4°
3 kHz < f ≤ 5 kHz	±0.2% ±0.02%	±0.4°
5 kHz < f ≤ 10 kHz	±0.2% ±0.02%	±0.5°
10 kHz < f ≤ 1 MHz	(0.018 × f kHz)% + 0.05%	±(0.04 × f kHz)° ±0.1°

Combined accuracy with HIOKI power analyzer PW8001, PW8001, PW4001 and PW3390 is specified (IDc, 45 Hz  $\pm$  1  $\pm$  66 Hz). For details of combined accuracy, refer to the instruction manual. The values above are when the input is a sine wave, the measuring instrument has an input resistance of 1 MΩ  $\pm$ 10%, the voltage to ground is 0 V, there is no external magnetic field, and the conductor is in the center of the sensor opening. Amplitude accuracy defined 110% of full scale or less, or within the derating curve; DC < 1 < 10 Hz is the value by design. Phase accuracy, defined 110% of full scale or less, or within the derating curve; DC < 1 < 10 Hz is the value by design. Add 40.01% or reading to the amplitude accuracy for input from 10% of full scale or 110% of full scale or 10% of 10%

Temperature and humidity range for guaranteed accuracy	23°C ±5°C (73.4°F ±41°F), 80% RH or less	
Effect of temperature	In ranges from -40°C to 18°C (-40°F to 64.4°F) and 28°C to 85°C (82.4°F to 185°F) Amplitude sensitivity: ±15 ppm of of reading/°C Offset voltage: ±0.1 ppm of of full scale/°C	
Common-Mode Rejection Ratio (CMRR)	(effect on output voltage and common mode voltage) 150 dB or greater (DC to 1 kHz) 140 dB or greater (1 kHz to 10 kHz) 120 dB or greater (10 kHz to 100 kHz) 100 dB or greater (100 kHz to 1 100 kHz)	
Linearity errors	±2 ppm	
Offset error	±5 ppm	
Amplitude error	DC: ±7 ppm 10 Hz to 500 Hz: ±0.005% 500 Hz to 3 kHz: ±0.01% 3 kHz to 30 kHz: ±0.1%	30 kHz to 100 kHz: ±0.4% 100 kHz to 400 kHz: ±1% 400 kHz to 1 MHz: ±3%





Output voltage	10 mV/A (= 2 V / 200 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 Anticipated transient overvoltage: 8000 V
Standards	Safety: EN61010, EMC: EN61326
Cable length	CT6873: 3 m (9.84 ft.) CT6873-01: 10 m (32.81 ft.)
Dimensions	70 mm (2.76 in.) W $\times$ 110 mm (4.33 in.) H $\times$ 53 mm (2.09 in.) D (excluding protruding parts and cables)
Weight	CT6873: approx. 370 g (13.1 oz.) CT6873-01: approx. 690 g (24.3 oz.)



#### CT6875A CT6875A-1

Product warranty period: 3 years Guaranteed accuracy period: 1 year

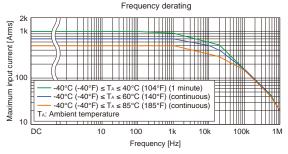
Rated current	500 A AC/DC
Frequency band	CT6875A: DC to 2 MHz (±3 dB) CT6875A-1: DC to 1.5 MHz (±3 dB)
Diameter of measurable conductors	Max. φ 36 mm (1.41 in.)

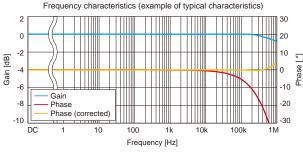
#### **Accuracy**

Frequency	Amplitude ±(% of reading + % of full scale)	Phase
DC	±0.04% ±0.008%	-
DC < f < 16 Hz	±0.1% ±0.02%	±0.1°
16 Hz ≤ f < 45 Hz	±0.05% ±0.01%	±0.1°
45 Hz ≤ f ≤ 66 Hz	±0.04% ±0.008%	±0.08°
66 Hz < f ≤ 100 Hz	±0.05% ±0.01%	±0.1°
100 Hz < f ≤ 500 Hz	±0.1% ±0.02%	±0.2°
500 Hz < f ≤ 1 kHz	±0.2% ±0.02%	±0.4°
1 kHz < f ≤ 5 kHz	±0.4% ±0.02%	±0.5°
5 kHz < f ≤ 10 kHz	±0.4% ±0.02%	±(0.1 × f kHz)°
10 kHz < f ≤ 50 kHz	±1.5% ±0.05%	±(0.1 × f kHz)°
50 kHz < f ≤ 100 kHz	±2.5% ±0.05%	±(0.1 × f kHz)°
100 kHz < f ≤ 1 MHz	±(0.025 × f kHz)% ±0.05%	±(0.1 × f kHz)°

Combined accuracy with HIOKI power analyzer PW8001, PW8001, PW4001 and PW3390 is specified (DC, 45 Hz  $\pm$ 1  $\pm$ 65 Hz). For details of combined accuracy, refer to the instruction manual. Amplitude accuracy: defined 110% of full scale or less, or within the derating curve; DC  $\pm$ 1 C  $\pm$ 1 Hz is the value by design. Add  $\pm$ 0.01% of reading to the amplitude accuracy for input from 100% of full scale to 110% of full scale  $\pm$ 1 For the CT6875A-1, add the following for frequencies of 1 kHz  $\pm$ 5 In HHz  $\pm$ 6 The HMz (the frequency band is 1.5 MHz  $\pm$ 5 add): Amplitude accuracy:  $\pm$ (0.005  $\pm$ 1 kHz)% of reading, Phase accuracy:  $\pm$ 0.015  $\pm$ 1 kHz)°

Temperature and humidity range for guaranteed accuracy	0°C to 40°C (32°F to 104°F), 80% RH or less	
Effect of temperature	In ranges from -40°C to 0°C (-40°F to 32°F) and 40°C to 85°C (104°F to 185°F) Amplitude sensitivity: ±20 ppm of reading / °C Offset voltage: ±1 ppm of full scale / °C	
Common-Mode Rejection Ratio (CMRR)	(effect on output voltage and common mode voltage) 140 dB or greater (50/60 Hz) 120 dB or greater (100 kHz)	
Linearity error	±5 ppm	
Offset error	±5 ppm	
Amplitude error	DC: ±10 ppm 10 Hz to 100 Hz: ±0.005% 100 Hz to 1 kHz: ±0.02% 1 kHz to 20 kHz: ±0.08%	20 kHz to 100 kHz: ±0.5% 100 kHz to 300 kHz: ±1% 300 kHz to 1 MHz: ±5%



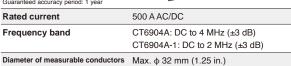


Output voltage	4 mV/A (= 2 V / 500 A)
Operating temperature and humidity range	-40°C to 85°C (-40°F to 185°F), 80% RH or less (no condensation)
Storage temperature and humidity range	-40°C to 85°C (-40°F to 185°F), 80% RH or less (no condensation)
Maximum rated voltage to ground	1000 V CAT III Anticipated transient overvoltage: 8000 V
Standards	Safety: EN61010, EMC: EN61326
Cable length	CT6875A: 3 m (9.84 ft.) CT6875A-1: 10 m (32.81 ft.)
Dimensions	160 mm (6.30 in.) W $\times$ 112 mm (4.41 in.) H $\times$ 50 mm (1.97 in.) D (excluding protruding parts and cables)
NA 1 -	CT6875A: approx. 0.8 kg (28.2 oz.)

#### CT6904A CT6904A-1

(CT6904A-1: build-to-order product)

Product warranty period: 3 years Guaranteed accuracy period: 1 year



#### **Accuracy**

Frequency	Amplitude ±(% of reading + % of full scale)	Phase
DC	±0.025% ±0.007%	-
DC < f < 16 Hz	±0.2% ±0.02%	±0.1°
16 Hz ≤ f < 45 Hz	±0.1% ±0.02%	±0.1°
45 Hz ≤ f ≤ 65 Hz	±0.02% ±0.007%	±0.08°
65 Hz < f ≤ 850 Hz	±0.05% ±0.007%	±0.12°
850 Hz < f ≤ 1 kHz	±0.1% ±0.01%	±0.4°
1 kHz < f ≤ 5 kHz	±0.4% ±0.02%	±0.4°
5 kHz < f ≤ 10 kHz	±0.4% ±0.02%	±(0.08 × f kHz)°
10 kHz < f ≤ 50 kHz	±1% ±0.02%	±(0.08 × f kHz)°
50 kHz < f ≤ 100 kHz	±1% ±0.05%	±(0.08 × f kHz)°
100 kHz < f ≤ 300 kHz	±2% ±0.05%	±(0.08 × f kHz)°
300 kHz < f ≤ 1 MHz	±5% ±0.05%	±(0.08 × f kHz)°

Combined accuracy with HIOKI power analyzer PW8001, PW6001 and PW4001 is specified (IDC, 45 Hz ≤ 1 ≤ 55 Hz). For details of combined accuracy, refer to the instruction manual.

Amplitude accuracy and phase accuracy: defined 110% of full scale or less, or within the derating curve (continuous input at an ambient temperature of 50°C); DC < 1 < 10 Hz is the value by design.

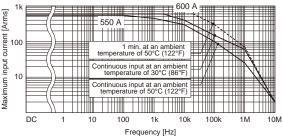
Add ±0.01% of reading to the amplitude accuracy for input from 100% of full scale to 110% of full scale

For the CT6904A-1, add the following for frequencies of 50°C is Hz < 1 < 1 × 1 Mtz. (the frequency band is 2 Hltz ±3 dB):

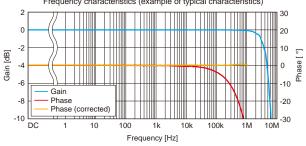
Amplitude accuracy: ±(0.015 x f)% of reading

Temperature and humidity range for guaranteed accuracy	23°C ±5°C (73°F ±9°F), 80% RH or less
Effect of temperature	In ranges from -10°C to 18°C (14°F to 64.4°F) or 28°C to 50°C (82.4°F to 122°F) Amplitude sensitivity: $\pm 20$ ppm of of reading / °C Offset voltage: $\pm 1$ ppm of full scale / °C Phase: $\pm 0.01$ °C
Common-Mode Rejection Ratio (CMRR)	(effect on output voltage and common mode voltage) 140 dB or greater (50/60 Hz) 120 dB or greater (100 kHz)
Linearity error	±5 ppm
Offset error	±10 ppm

#### Frequency derating



Frequency characteristics (example of typical characteristics)



Output voltage	4 mV/A (= 2 V / 500 A)
Operating temperature and humidity range	-10°C to 50°C (-14°F to 122°F), 80% RH or less (no condensation)
Storage temperature and humidity range	-20°C to 60°C (-4°F to 140°F), 80% RH or less (no condensation)
Maximum rated voltage to ground	1000 V CAT III Anticipated transient overvoltage: 8000 V
Standards	Safety: EN61010, EMC: EN61326
Cable length	CT6904A: 3 m (9.84 ft.) (including relay box)) CT6904A-1: 10 m (32.81 ft.) (including relay box)
Dimensions	139 mm (5.47 in.) W $\times$ 120 mm (4.72 in.) H $\times$ 52 mm (2.05 in.) D (excluding protrusions and cables)
Weight	CT6904A: approx. 1.05 kg (37.0 oz.) CT6904A-1: approx. 1.35 kg (47.6 oz.)



#### CT6904A-2 CT6904A-3

(Build-to-order product)

Product warranty period: 3 years



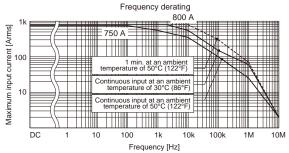
Guaranteeu accuracy period. 1 year	
Rated current	800 A AC/DC
Frequency band	CT6904A-2: DC to 4 MHz (±3 dB)
	CT6904A-3: DC to 2 MHz (±3 dB)
Diameter of measurable conductors	Max. φ 32 mm (1.25 in.)

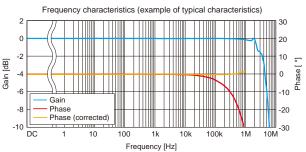
#### **Accuracy**

Frequency	Amplitude ±(% of reading + % of full scale)	Phase
DC	±0.030% ±0.009%	-
DC < f < 16 Hz	±0.2% ±0.025%	±0.1°
16 Hz ≤ f < 45 Hz	±0.1% ±0.025%	±0.1°
45 Hz ≤ f ≤ 65 Hz	±0.025% ±0.009%	±0.08°
65 Hz < f ≤ 850 Hz	±0.05% ±0.009%	±0.12°
850 Hz < f ≤ 1 kHz	±0.1% ±0.013%	±0.4°
1 kHz < f ≤ 5 kHz	±0.4% ±0.025%	±0.4°
5 kHz < f ≤10 kHz	±0.4% ±0.025%	±(0.08 × f kHz)°
10 kHz < f ≤ 50 kHz	±1% ±0.025%	±(0.08 × f kHz)°
50 kHz < f ≤ 100 kHz	±1% ±0.063%	±(0.08 × f kHz)°
100 kHz < f ≤ 300 kHz	±2% ±0.063%	±(0.08 × f kHz)°
300 kHz < f ≤ 1 MHz	±5% ±0.063%	±(0.08 × f kHz)°

Combined accuracy with HIOKI power analyzer PW8001 and PW6001 is specified (IDC, 45 Hz s 1 ≤ 55 Hz). For details of combined accuracy, refer to the instruction manual. Amplitude accuracy and phase accuracy are specified by the following conditions:
- Rated value or less
- Rated value or less
- At 100Hz or more and within the range of "Continuous input at an ambient temperature of 50°C (122°F)" described in the frequency deraing graph below
- Continuous provided in the frequency deraing graph below and the second of the second provided in the frequency of the second of 50°C (122°F)" Amplitude accuracy: ±(0.015 x 1)% of reading

Temperature and humidity range for guaranteed accuracy	23°C ±5°C (73°F ±9°F), 80% RH or less
Effect of temperature	In ranges from -10°C to 18°C (14°F to 64.4°F) or 28°C to 50°C (82.4°F to 122°F) Amplitude sensitivity: $\pm$ 50 ppm of reading / °C Offset voltage: $\pm$ 5 ppm of full scale / °C Phase: $\pm$ 0.01° / °C
Common-Mode Rejection Ratio (CMRR)	(effect on output voltage and common mode voltage) 140 dB or greater (50/60 Hz) 120 dB or greater (100 kHz)
Linearity error	±12.5 ppm
Offset error	+10 ppm





Output voltage	2 mV/A (= 2 V / 1000 A)
Operating temperature and humidity range	-10°C to 50°C (-14°F to 122°F), 80% RH or less (no condensation)
Storage temperature and humidity range	-20°C to 60°C (-4°F to 140°F), 80% RH or less (no condensation)
Maximum rated voltage to ground	1000 V CAT III Anticipated transient overvoltage: 8000 V
Standards	Safety: EN61010, EMC: EN61326
Cable length	CT6904A-2: 3 m (9.84 ft.) (including relay box) CT6904A-3: 10 m (32.81 ft.) (including relay box)
Dimensions	139 mm (5.47 in.) W $\times$ 120 mm (4.72 in.) H $\times$ 52 mm (2.05 in.) D (excluding protrusions and cables)
Weight	CT6904A-2: approx. 1.15 kg (40.6 oz.)

#### CT6876A CT6876A-1



Product warranty period: 3 years Guaranteed accuracy period: 1 year

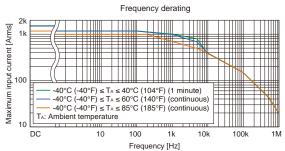
Rated current	1000 A AC/DC
Frequency band	CT6876A: DC to 1.5 MHz (±3 dB)
	CT6876A-1: DC to 1.2 MHz (±3 dB)
Diameter of measurable conductors	Max. φ 36 mm (1.41 in.)

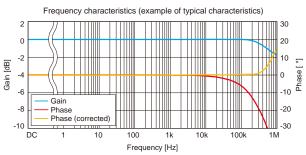
#### **Accuracy**

Frequency	Amplitude ±(% of reading + % of full scale)	Phase
DC	±0.04% ±0.008%	-
DC < f < 16 Hz	±0.1% ±0.02%	±0.1°
16 Hz ≤ f < 45 Hz	±0.05% ±0.01%	±0.1°
45 Hz ≤ f ≤ 66 Hz	±0.04% ±0.008%	±0.08°
66 Hz < f ≤ 100 Hz	±0.05% ±0.01%	±0.1°
100 Hz < f ≤ 500 Hz	±0.1% ±0.02%	±0.2°
500 Hz < f ≤ 1 kHz	±0.2% ±0.02%	±0.4°
1 kHz < f ≤ 5 kHz	±0.5% ±0.02%	±0.5°
5 kHz < f ≤ 10 kHz	±0.5% ±0.02%	±(0.1 × f kHz)°
10 kHz < f ≤ 50 kHz	±2% ±0.05%	±(0.1 × f kHz)°
50 kHz < f ≤ 100 kHz	±3% ±0.05%	±(0.1 × f kHz)°
100 kHz < f ≤ 1 MHz	±(0.03 × f kHz)% ±0.05%	±(0.1 × f kHz)°

- Combined accuracy with HI0XI power analyzer PW8001, PW6001, PW4001 and PW3390 is specified (DC, 45 Hz  $\le$  1  $\le$  66 Hz). For details of combined accuracy, refer to the instruction manual. Amplitude accuracy and phase accuracy: defined 110% of full scale or less or within the derating curve; DC < 1 < 10 Hz is the value by design DC < 1 < 10 Hz is the value by design of the reference of the transplant of the properties of 1 < 10 Hz is the value by design < 1 < 10 Hz is the value by design < 1 < 10 Hz is the value by design < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1

Temperature and humidity range for guaranteed accuracy	0°C to 40°C (32°F to 104°F), 80% RH or less	
Effect of temperature	In ranges from -40°C to 0°C (-40°F to 32°F) and 40°C to 85°C (104°F to 185°F) Amplitude sensitivity: ±20 ppm of reading / °C Offset voltage: ±1 ppm of full scale / °C	
Common-Mode Rejection Ratio (CMRR)	(effect on output voltage and common mode voltage) 140 dB or greater (50/60 Hz) 120 dB or greater (100 kHz)	
Linearity error	±5 ppm	
Offset error	±5 ppm	
Amplitude error	DC: ±10 ppm 10 Hz to 100 Hz: ±0.005% 100 Hz to 1 kHz: ±0.03% 1 kHz to 10 kHz: ±0.2%	10 kHz to 100 kHz: ±1% 100 kHz to 300 kHz: ±3% 300 kHz to 1 MHz: ±15%





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Output voltage	2 mV/A (= 2 V / 1000 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 Anticipated transient overvoltage: 8000 V
Standards	Safety: EN61010, EMC: EN61326
Cable length	CT6876A: 3 m (9.84 ft.) CT6876A-1: 10 m (32.81 ft.)
Dimensions	160 mm (6.30 in.) W $\times$ 112 mm (4.41 in.) H $\times$ 50 mm (1.97 in.) D (excluding protruding parts and cables)
M	CT6876A: approx. 0.95 kg (33.5 oz.)

#### CT6877A CT6877A-1



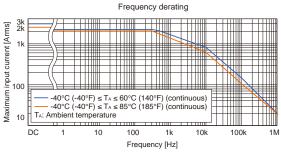
Product warranty period: 3 years Guaranteed accuracy period: 1 year

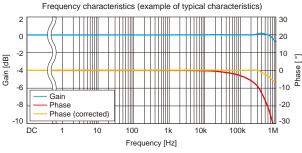
Rated current	2000 A AC/DC
Frequency band	DC to 1 MHz
Diameter of measurable conductors	Max. φ 80 mm (3.14 in.)

#### Accuracy

Frequency	Amplitude ±(% of reading + % of full scale)	Phase
DC	±0.04% ±0.008%	-
DC < f < 16 Hz	±0.1% ±0.02%	±0.1°
16 Hz ≤ f < 45 Hz	±0.05% ±0.01%	±0.1°
45 Hz ≤ f ≤ 66 Hz	±0.04% ±0.008%	±0.08°
66 Hz < f ≤ 100 Hz	±0.05% ±0.01%	±0.1°
100 Hz < f ≤ 500 Hz	±0.1% ±0.02%	±0.2°
500 Hz < f ≤ 1 kHz	±0.2% ±0.02%	±0.4°
1 kHz < f ≤ 5 kHz	±0.5% ±0.02%	± (0.3 + 0.1 × f kHz)°
5 kHz < f ≤ 10 kHz	±0.5% ±0.02%	± (0.3 + 0.1 × f kHz)°
10 kHz < f ≤ 50 kHz	±1.5% ±0.05%	± (0.3 + 0.1 × f kHz)°
50 kHz < f ≤ 100 kHz	±2.5% ±0.05%	± (0.3 + 0.1 × f kHz)°
100 kHz < f ≤ 700 kHz	±(0.025 × f)% ±0.05%	$\pm (0.3 + 0.1 \times f \text{ kHz})^{\circ}$

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Temperature and humidity range for guaranteed accuracy	0°C to 40°C (32°F to 104°F), 80% RH or less	
Effect of temperature	In ranges from -40°C to 0°C (-40°F to 32°F) and 40°C to 85°C (104°F to 185°F) Amplitude sensitivity: ±15 ppm of reading / °C Offset voltage: ±0.5 ppm of full scale / °C	
Common-Mode Rejection Ratio (CMRR)	(effect on output voltage and common mode voltage) 140 dB or greater (50/60 Hz) 120 dB or greater (100 kHz)	
Linearity error	±10 ppm	
Offset error	±5 ppm	
Amplitude error	DC: ±15 ppm 10 Hz to 100 Hz: ±0.01% 100 Hz to 1 kHz: ±0.04% 1 kHz to 10 kHz: ±0.25%	10 kHz to 100 kHz: ±1% 100 kHz to 300 kHz: ±2% 300 kHz to 700 kHz: ±10%





Output voltage	1 mV/A (= 2 V / 2000 A)	
Operating temperature and	-40°C to 85°C (-40°F to 185°F), 80% RH or less	
humidity range	(no condensation)	
Storage temperature and	-40°C to 85°C (-40°F to 185°F), 80% RH or less	
humidity range	(no condensation)	
Maximum rated voltage to	1000 V CAT III	
ground	Anticipated transient overvoltage: 8000 V	
Standards	Safety: EN61010, EMC: EN61326	
Cable langth	CT6877A: 3 m (9.84 ft.)	
Cable length	CT6877A-1: 10 m (32.81 ft.)	
Dimensions	229 mm (9.02 in.) W × 232 mm (9.13 in.) H × 112 mm	
Differsions	(4.41 in.) D (excluding protruding parts and cables)	
Woight	CT6877A: approx. 5 kg (176.4 oz.)	
Weight	CT6877A-1: annrox   5.3 kg (187.0 oz.)	

#### PW9100A-3 PW9100A-4



Product warranty period: 3 years Guaranteed accuracy period: 1 year

Rated current	50 A AC/DC
Frequency band	DC to 3.5 MHz
Input and measurement method	Isolated input, DCCT* input
Measurement terminals	Terminal block M6 screws

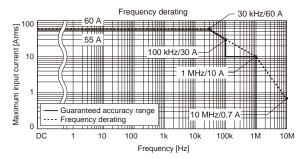
#### \*Direct Connection Current Transducer

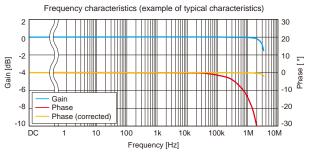
#### Accuracy

Frequency	Amplitude ±(% of reading + % of full scale)	Phase
DC	±0.02% ±0.007%	-
DC < f < 30 Hz	±0.1% ±0.02%	±0.3°
30 Hz ≤ f < 45 Hz	±0.1% ±0.02%	±0.1°
45 Hz ≤ f ≤ 65 Hz	±0.02% ±0.005%	±0.1°
65 Hz < f ≤ 500 Hz	±0.1% ±0.01%	±0.12°
500 Hz < f ≤ 1 kHz	±0.1% ±0.01%	±0.5°
1 kHz < f ≤ 5 kHz	±0.5% ±0.02%	±0.5°
5 kHz < f ≤ 20 kHz	±1% ±0.02%	±1°
20 kHz < f ≤ 50 kHz	±1% ±0.02%	±(0.05 × f kHz)°
50 kHz < f ≤ 100 kHz	±2% ±0.05%	±(0.06 × f kHz)°
100 kHz < f ≤ 300 kHz	±5% ±0.05%	±(0.06 × f kHz)°
300 kHz < f ≤ 700 kHz	±5% ±0.05%	±(0.07 × f kHz)°
700 kHz < f ≤ 1 MHz	±10% ±0.05%	±(0.07 × f kHz)°

Combined accuracy with HIOKI power analyzer PW8001, PW8001, PW4001 and PW3390 is specified (Dc, 45 Hz  $\leq$  16 56 Hz). For details of combined accuracy, refer to the instruction manual. Amplitude accuracy and phase accuracy defined within the accuracy guarantee range shown in the derating figure below, DC  $\leq$  1 of Hz is the value by design. Add  $\leq$  0.01% of reading to the amplitude accuracy for input from 100% of full scale to 110% of full scale

=	
Temperature and humidity range for guaranteed accuracy	23°C ±5°C (73°F ±9°F), 80% RH or less
Effect of temperature	In ranges from 0°C to 18°C (32°F to 64°F) and 28°C to 40°C (82°F to 104°F) Amplitude sensitivity: ±20 ppm of reading /°C Offset voltage: ±1 ppm of full scale / °C Phase: ±0.01° / °C
Common-Mode Rejection Ratio (CMRR)	(effect on output voltage and common mode voltage) 120 dB or greater (50/60 Hz, 100 kHz)





Output voltage	40 mV/A (= 2 V / 50 A)
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)
Maximum rated voltage to ground	600 V CAT III, 1000 V CAT II Anticipated transient overvoltage: 6000 V
Standards	Safety: EN 61010, EMC: EN 61326 Class A
Cable length	0.8 m (2.62 ft.)
Dimensions	430 mm (16.9 in.) W $\times$ 88 mm (3.46 in.) H $\times$ 260 mm (10.23 in.) D
Weight	PW9100A-3: approx. 3.7 kg (130.5 oz.) PW9100A-4: approx. 4.3 kg (151.7 oz.)

#### CT6830



Product warranty period: 3 years Guaranteed accuracy period: 1 year



Diameter of measurable conductors Max. φ 5 mm (0.20 in.)

Frequency	Amplitude ±(% of reading + % of full scale)	Phase
DC	±0.3% ±0.10%	-
DC < f ≤ 66Hz	±0.3% ±0.05%	±0.1°
66Hz < f ≤ 500Hz	±0.3% ±0.05%	±0.7°
$500Hz < f \le 1kHz$	±0.5% ±0.05%	±2.0°
$1kHz < f \le 5kHz$	±1.0% ±0.10%	±7.0°
$5kHz < f \le 10kHz$	±5.0% ±0.10%	±15.0°
$10kHz < f \le 100kHz$	±30.0% ±0.10%	-

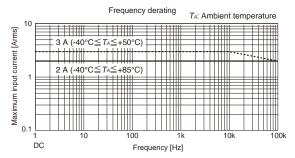
- DC accuracy is specified by adjusting the offset voltage to ±0.5mV or less with the 0ADJ dial or after performing 0 ADJ on the connected device.

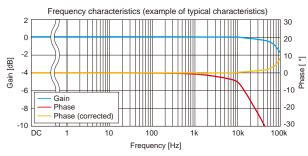
  Offset voltage is ±0.005% f.s./C added from the ambient temperature at the time of 0ADJ.

  Amplitude accuracy and phase accuracy are specified within 110% of full scale and within the derating

- range. · DC<f<10 Hz are design value.

Temperature and humidity range for guaranteed accuracy	0°C to 40°C (32°F to 104°F), 80% RH or less
Effect of temperature	In ranges from -40°C to 0°C (-40°F to 32°F) and 40°C to 85°C (104°F to 185°F) Amplitude sensitivity: ±0.01% of reading /°C Offset voltage: ±0.05% of full scale / °C
Common-Mode Rejection Ratio (CMRR)	140 dB or greater (DC to 100 Hz) 125 dB or greater (100 Hz to 1 kHz) (effect on output voltage and common mode voltage)





Output voltage	1 V/A
Operating temperature and humidity range	Sensor: -40°C to 85°C (-40°F to 185°F), 80% RH or less (no condensation) Relay box: -25°C to 50°C (-13°F to 122°F), 80% RH or less (no condensation)
Storage temperature and humidity range	-25°C to 50°C (-13°F to 122°F), 80% RH or less (no condensation) (sensor and relay box)
Standards	Safety: EN 61010, EMC: EN 61326
Cable length	Between sensor to relay box: approx. 4 m (13.12 ft.) Between relay box to output connector: approx 0.2 m (0.66 ft.)
Dimensions	Sensor: approx. 76.5W × 23.4H × 14.2D mm (approx. 3.00W × 0.92H × 0.56D in.) Relay box: approx. 80W × 20H × 26.5D mm (approx. 3.15W × 0.79H × 1.04D in.)
Weight	Approx. 160 g (5.64 oz.)

#### CT6831

#### **NEW**

Product warranty period: 3 years Guaranteed accuracy period: 1 year



Rated current	AC/DC 20 A
Frequency band	DC to 100 kHz
Diameter of measurable conductors	May & F. mm (0.20 in )

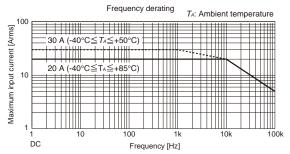
#### Accuracy

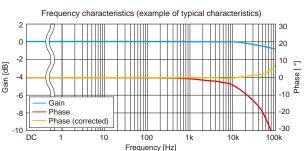
Frequency	Amplitude ±(% of reading + % of full scale)	Phase
DC	±0.3% ±0.10%	-
DC < f ≤ 66Hz	±0.3% ±0.01%	±0.1°
66Hz < f ≤ 500Hz	±0.3% ±0.02%	±0.7°
500Hz < f ≤ 1kHz	±0.5% ±0.05%	±2.0°
1kHz < f ≤ 5kHz	±1.0% ±0.10%	±7.0°
$5kHz < f \le 10kHz$	±5.0% ±0.10%	±15.0°
10kHz < f ≤ 100kHz	±30.0% ±0.10%	-

- DC accuracy is specified by adjusting the offset voltage to ±0.5mV or less with the 0ADJ dial or after performing 0 ADJ on the connected device.
   Amplitude accuracy and phase accuracy are specified within 110% of full scale and within the derating

- range. DC<f<10 Hz are design value.

Temperature and humidity range for guaranteed accuracy	0°C to 40°C (32°F to 104°F), 80% RH or less
Effect of temperature	In ranges from -40°C to 0°C (-40°F to 32°F) and 40°C to 85°C (104°F to 185°F) Amplitude sensitivity: $\pm 0.01\%$ of reading /°C Offset voltage: $\pm 0.01\%$ of full scale / °C
Common-Mode Rejection Ratio (CMRR)	140 dB or greater (DC to 100 Hz) 130 dB or greater (100 Hz to 1 kHz) (effect on output voltage and common mode voltage)





Outrout welterer	0.4.1/(4./0.1/(00.4)	
Output voltage	0.1 V/A (=2 V/20 A)	
Operating temperature and humidity range	Sensor: -40°C to 85°C (-40°F to 185°F), 80% RH or less (no condensation) Relay box: -25°C to 50°C (-13°F to 122°F), 80% RH or less (no condensation)	
Storage temperature and humidity range	-25°C to 50°C (-13°F to 122°F), 80% RH or less (no condensation) (sensor and relay box)	
Standards	Safety: EN 61010, EMC: EN 61326	
Cable length	Between sensor to relay box: approx. 4 m (13.12 ft.) Between relay box to output connector: approx 0.2 m (0.66 ft.)	
Dimensions	Sensor: approx. 76.5W × 23.4H × 14.2D mm (approx. 3.00W × 0.92H × 0.56D in.) Relay box: approx. 80W × 20H × 26.5D mm (approx. 3.15W × 0.79H × 1.04D in.)	
Weight	Approx. 160 g (5.64 oz.)	



#### CT6833 CT6833-01

#### NEW

Product warranty period: 1 years Guaranteed accuracy period: 1 year



Rated current	AC/DC 200 A
Frequency band	DC to 50 kHz
Diameter of measurable conductors	Max. φ 20 mm (0.79 in.)

#### Accuracy

Frequency	Amplitude ±(% of reading + % of full scale)	Phase
DC	±0.07% ±0.01%	-
DC < f < 16 Hz	±0.15% ±0.01%	±0.1°
16 Hz ≤ f ≤ 66 Hz	±0.07% ±0.007%	±0.1°
66 Hz < f ≤ 100 Hz	±0.07% ±0.007%	±0.15°
100 Hz < f ≤ 500 Hz	±0.1% ±0.01%	±(1.5 × f)°
500 Hz < f ≤ 1 kHz	±0.25% ±0.02%	±(1.5 × f)°
1 kHz < f ≤ 20 kHz	±(0.25% × f)% ±0.02%	±(1.5 × f)°

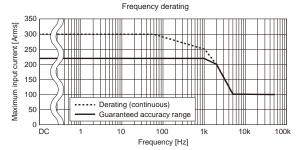
Combined accuracy with HIOKI power analyzer PW8001, PW6001, PW4001 and PW3390 is specified (DC, 45 Hz  $\pm$ 1 s 66 Hz). For details of combined accuracy, refer to the instruction manual. "DC accuracy after adjusting the offset voltage to  $\pm$ 0.5 mV or less.

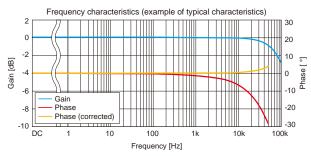
- The values above are when the input is a sine wave or DC, the measurement instrument's input resistance is 1 M $\Omega$  ± 10%, voltage to ground 0 V, no external magnetic fields and the conductor is in the center of the sensor opening.

  Amplitude accuracy and phase accuracy are defined 110% of full scale or less and within the derating curve. DC < f = 10 Hz is a design value.

  Add ±0.01% of reading to the amplitude accuracy for input from 100% of full scale to 110% of full scale.

Temperature and humidity range for guaranteed accuracy	23°C ±5°C (73.4°F ±41°F), 80% RH or less
Effect of temperature	In ranges from -40°C to 18°C (-40°F to 64°F) and 28°C to 85°C (82°F to 185°F) Amplitude sensitivity: ±4 ppm of reading /°C Offset voltage: ±3 ppmof full scale / °C
Effect of conductor position	DC: ±0.03% of reading or less 50 Hz, 60Hz: ±0.04% of reading or less 1 kHz: ±0.1% of reading or less 10 kHz: ±1% of reading or less
Linearity error	± 10 ppm typical
Amplitude error	10 Hz - 100 Hz : ± 50 ppm typical 100 Hz - 500 Hz : ± 0.04% typical 500 Hz - 1 kHz : ± 0.08% typical 1 kHz - 20 kHz : ± (0.1 × f)% typical





Output voltage	10 mV/A	
Measurable conductors	Insulated conductor	
Operating temperature and humidity range	Sensor, cable: -40°C to 85°C (-40°F to 185°F), 80% RH or less (no condensation) Relay box: -25°C to 50°C (-13°F to 122°F), 80% RH or less (no condensation)	
Storage temperature and humidity range	-25°C to 50°C (-13°F to 122°F), 80% RH or less (no condensation) (sensor and relay box)	
Standards	Safety: EN 61010, EMC: EN 61326	
Cable length	CT6833: approx. 5 m (16.40 ft.) including relay box CT6833-01: approx 10 m (32.81 ft.) including relay box	
Dimensions	Sensor: approx. 149W × 46H × 16.5D mm (approx. 5.87W × 1.81H × 0.65D in.) Relay box: approx. 126W × 57H × 20.5D mm (approx. 4.96W × 2.24H × 0.81D in.)	
Weight	CT6833: approx. 500 g (17.64 oz.) CT6833-01: approx. 710 g (25.05 oz.)	

#### CT6834 CT6834-01

#### NEW

Product warranty period: 1 years Guaranteed accuracy period: 1 year

Diameter of measurable conductors	Max. φ 20 mm (0.79 in.)
Frequency band	DC to 50 kHz
Rated current	AC/DC 500 A

#### Accuracy

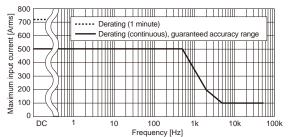
Frequency	Amplitude ±(% of reading + % of full scale)	Phase
DC	±0.07% ±0.01%	-
DC < f < 16 Hz	±0.15% ±0.01%	±0.1°
16 Hz ≤ f ≤ 66 Hz	±0.07% ±0.007%	±0.1°
66 Hz < f ≤ 100 Hz	±0.07% ±0.007%	±0.15°
100 Hz < f ≤ 500 Hz	±0.1% ±0.01%	±(1.5 × f)°
500 Hz < f ≤ 1 kHz	±0.25% ±0.02%	±(1.5 × f)°
1 kHz < f ≤ 20 kHz	±(0.25% × f)% ±0.02%	±(1.5 × f)°

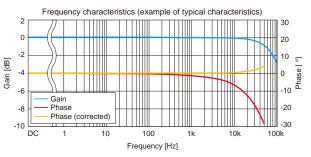
Combined accuracy with HIOKI power analyzer PW8001, PW6001, PW4001 and PW3390 is specified (DC, 45 Hz  $\le$ 1 s 66 Hz). For details of combined accuracy, refer to the instruction manual. TOE accuracy after adjusting the offset voltage to  $\pm$ 0.5 mV or less.

- The values above are when the input is a sine wave or DC, the measurement instrument's input resistance is 1 M $\Omega$  ± 10%, voltage to ground 0 V, no external magnetic fields and the conductor is in the center of the sensor opening. Amplitude accuracy and phase accuracy are rated current value or less and within the derating curve. DC < 1 of 10 Hz is a design value.

Temperature and humidity range for guaranteed accuracy	23°C ±5°C (73.4°F ±41°F), 80% RH or less
Effect of temperature	In ranges from -40°C to 18°C (-40°F to 64°F) and 28°C to 85°C (82°F to 185°F) Amplitude sensitivity: ±4 ppm of reading /°C Offset voltage: ±3 ppmof full scale / °C
Effect of conductor position	DC: ±0.03% of reading or less 50 Hz, 60Hz: ±0.04% of reading or less 1 kHz: ±0.1% of reading or less 10 kHz: ±1% of reading or less
Linearity error	± 10 ppm typical
Amplitude error	10 Hz - 100 Hz : ± 50 ppm typical 100 Hz - 500 Hz : ± 0.04% typical 500 Hz - 1 kHz : ± 0.08% typical 1 kHz - 20 kHz : ± (0.1 x f)% typical

#### Frequency derating





Output voltage	4 mV/A	
Measurable conductors	Insulated conductor	
Operating temperature and humidity range	Sensor, cable: -40°C to 85°C (-40°F to 185°F), 80% RH or less (no condensation) Relay box: -25°C to 50°C (-13°F to 122°F), 80% RH or less (no condensation)	
Storage temperature and humidity range	-25°C to 50°C (-13°F to 122°F), 80% RH or less (no condensation) (sensor and relay box)	
Standards	Safety: EN 61010, EMC: EN 61326	
Cable length	CT6834: approx. 5 m (16.40 ft.) including relay box CT6834-01: approx 10 m (32.81 ft.) including relay box	
Dimensions	Sensor: approx. 149W × 46H × 16.5D mm (approx. 5.87W × 1.81H × 0.65D in.) Relay box: approx. 126W × 57H × 20.5D mm (approx. 4.96W × 2.24H × 0.81D in.)	
Weight	CT6834: approx. 500 g (17.64 oz.) CT6834-01: approx. 710 g (25.05 oz.)	



#### CT6841A



Product warranty period: 3 years Guaranteed accuracy period: 1 year

Rated current	20 A AC/DC
Frequency band	DC to 2 MHz
Diameter of measurable conductors	Max. φ 20 mm (0.79 in.)

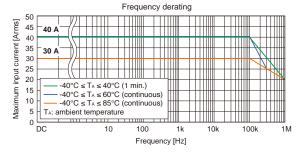
#### Accuracy

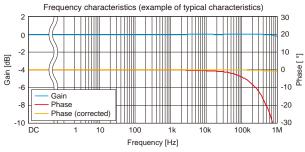
Frequency	Amplitude ±(% of reading + % of full scale)	Phase
DC	±0.2% ±0.05%*	-
DC < f ≤ 100 Hz	±0.2% ±0.01%	±0.1°
100 Hz < f ≤ 500 Hz	±0.3% ±0.02%	±0.2°
500 Hz < f ≤ 1 kHz	±0.5% ±0.02%	±0.5°
1 kHz < f≤ 5 kHz	±1.0% ±0.02%	±1.0°
5 kHz < f≤ 10 kHz	±1.5% ±0.02%	±1.5°
10 kHz < f≤ 50 kHz	±2.0% ±0.02%	± (0.5 + 0.1 × f kHz)°
50 kHz < f≤ 100 kHz	±5.0% ±0.05%	± (0.5 + 0.1 × f kHz)°
100 kHz < f≤ 300 kHz	±10% ±0.05%	± (0.5 + 0.1 × f kHz)°
300 kHz < f≤ 500 kHz	±15% ±0.05%	± (0.5 + 0.1 × f kHz)°
500 kHz < f < 1 MHz	±30% ±0.05%	± (0.5 + 0.1 × f kHz)°

Combined accuracy with HIOKI power analyzer PW8001, PW6001, PW4001 and PW3390 is specified (DC, 45 Hz ≤ 1 ≤ 66 Hz). For details of combined accuracy, refer to the instruction manual. "DC accuracy after adjusting the offset voltage to ±0.5 m/V or less.

- The values above are when the input is a sine wave or DC, the measurement instrument's input resistance is 1 M $\Omega$  ± 10%, voltage to ground 0 V, no external magnetic fields and the conductor is in the center of the sensor opening. Amplitude accuracy and phase accuracy are defined 110% of full scale or less and within the derating curve. DC < f < 10 Hz is a design value. Add ±0.03% of reading to the amplitude accuracy for input from 100% of full scale to 110% of full scale.

Temperature and humidity range for guaranteed accuracy	0°C to 40°C (32°F to 104°F), 80% RH or less
Effect of temperature	In ranges from -40°C to 0°C (-40°F to 32°F) and 40°C to 85°C (104°F to 185°F) Amplitude sensitivity: ±0.01% of reading /°C Offset voltage: ±0.005% of full scale / °C
Common-Mode Rejection Ratio (CMRR)	(effect on output voltage and common mode voltage) 140 dB or greater (DC to 1 kHz) 125 dB or greater (1 kHz to 10 kHz) 100 dB or greater (10 kHz to 100 kHz) 80 dB or greater (100 kHz to 1 MHz)
Linearity error	±20 ppm





Output voltage	100 mV/A (= 2 V / 20 A)
Measurable conductors	Insulated conductor
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)
Withstand voltage	4260 V AC Withstand test current of 1 mA, 50/60 Hz, 1 min., between jaws and cable output terminal
Standards	Safety: EN 61010, EMC: EN 61326
Cable length	3 m (9.84 ft.)
Dimensions	153 mm (6.02 in.) W $\times$ 67 mm (2.64 in.) H $\times$ 25 mm (0.98 in.) D (excluding protruding parts and cables)
Weight	Approx. 370 g (13.1 oz.)

#### CT6843A



Product warranty period: 3 years Guaranteed accuracy period: 1 year

Rated current	200 A AC/DC
Frequency band	DC to 700 kHz
Diameter of measurable conductors	Max. φ 20 mm (0.79 in.)

#### Accuracy

Frequency	Amplitude ±(% of reading + % of full scale)	Phase
DC	±0.2% ±0.02%*	-
DC < f ≤ 100 Hz	±0.2% ±0.01%	±0.1°
100 Hz < f ≤ 500 Hz	±0.3% ±0.02%	±0.2°
500 Hz < f ≤ 1 kHz	±0.5% ±0.02%	±0.5°
$1 \text{ kHz} < f \le 5 \text{ kHz}$	±1.0% ±0.02%	±1.0°
5 kHz < f ≤ 10 kHz	±1.5% ±0.02%	±1.5°
10 kHz < f ≤ 50 kHz	±5.0% ±0.02%	± (0.5 + 0.1 × f kHz)°
50 kHz < f ≤ 100 kHz	±15% ±0.05%	± (0.5 + 0.1 × f kHz)°
100 kHz < f ≤ 300 kHz	±15% ±0.05%	± (0.5 + 0.1 × f kHz)°
300 kHz < f ≤ 500 kHz	±30% ±0.05%	± (0.5 + 0.1 × f kHz)°

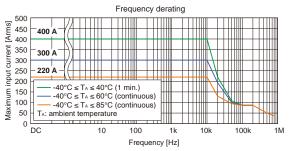
Combined accuracy with HIOKI power analyzer PW8001, PW6001, PW4001 and PW3390 is specified (DC, 45 Hz  $\pm$ 1  $\pm$ 66 Hz). For details of combined accuracy, refer to the instruction manual. PDC accuracy after adjusting the offset voltage to  $\pm$ 0.2 mV or less.

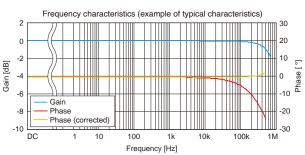
- The values above are when the input is a sine wave or DC, the measurement instrument's input resistance is 1 M $\Omega$  ± 10%, voltage to ground 0 V, no external magnetic fields and the conductor is in the center of the sensor opening.

  Amplitude accuracy and phase accuracy are defined 110% of full scale or less and within the derating curve. DC < f< 10 Hz is a design value.

  Add ±0.03% of reading to the amplitude accuracy for input from 100% of full scale to 110% of full scale.

Temperature and humidity range for guaranteed accuracy	0°C to 40°C (32°F to 104°F), 80% RH or less
Effect of temperature	In ranges from -40°C to 0°C (-40°F to 32°F) and 40°C to 85°C (104°F to 185°F) Amplitude sensitivity: ±0.01% of reading /°C Offset voltage: ±0.005% of full scale /°C
Common-Mode Rejection Ratio (CMRR)	(effect on output voltage and common mode voltage) 150 dB or greater (DC to 1 kHz) 135 dB or greater (1 kHz to 10 kHz) 115 dB or greater (10 kHz to 100 kHz) 95 dB or greater (100 kHz to 500 kHz)
Linearity error	±20 ppm





Outrout walts are	40 \( / \( / \) 0 \( / \) (000 \( A \)	
Output voltage	10 mV/A (= 2 V / 200 A)	
Measurable conductors	Insulated conductor	
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)	
Withstand voltage	4260 V AC Withstand test current of 1 mA, 50/60 Hz, 1 min., between jaws and cable output terminal	
Standards	Safety: EN 61010, EMC: EN 61326	
Cable length	3 m (9.84 ft.)	
Dimensions	153 mm (6.02 in.) W $\times$ 67 mm (2.64 in.) H $\times$ 25 mm (0.98 in.) D (excluding protruding parts and cables)	
Weight	Approx. 380 g (13.4 oz.)	



#### CT6844A



Product warranty period: 3 years Guaranteed accuracy period: 1 year

Rated current	500 A AC/DC
Frequency band	DC to 500 kHz
Diameter of measurable conductors	Max. φ 20 mm (0.79 in.)

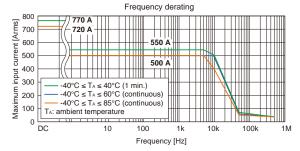
#### Accuracy

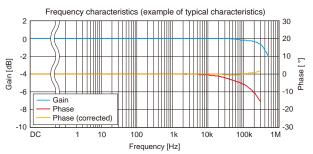
Frequency	Amplitude ±(% of reading + % of full scale)	Phase
DC	±0.2% ±0.02%*	-
DC < f ≤ 100 Hz	±0.2% ±0.01%	±0.1°
100 Hz < f ≤ 500 Hz	±0.3% ±0.02%	±0.2°
500 Hz < f ≤ 1 kHz	±0.5% ±0.02%	±0.5°
1 kHz < f ≤ 5 kHz	±1.0% ±0.02%	±1.0°
5 kHz < f ≤ 10 kHz	±1.5% ±0.02%	±1.5°
10 kHz < f ≤ 50 kHz	±5.0% ±0.02%	±(0.15 × f kHz)°
50 kHz < f ≤ 100 kHz	±15% ±0.05%	±(0.15 × f kHz)°
100 kHz < f ≤ 300 kHz	±30% ±0.05%	±(0.15 × f kHz)°

Combined accuracy with HIOKI power analyzer PW8001, PW6001, PW4001 and PW3390 is specified (DC, 45 Hz ≤1 s 66 Hz). For details of combined accuracy, refer to the instruction manual. \*DC accuracy after adjusting the offset voltage to ±0.2 mV or less.

The values above are when the input is a sine wave or DC, the measurement instrument's input resistance is 1 M $\Omega$  ± 10%, voltage to ground 0 V, no external magnetic fields and the conductor is in the center of the sensor opening. Amplitude accuracy and phase accuracy are defined 110% of full scale or less and within the derating curve. DC < f < 10 Hz is a design value.

Temperature and humidity range for guaranteed accuracy	0°C to 40°C (32°F to 104°F), 80% RH or less
Effect of temperature	In ranges from -40°C to 0°C (-40°F to 32°F) and 40°C to 85°C (104°F to 185°F) Amplitude sensitivity: ±0.01% of reading /°C Offset voltage: ±0.005% of full scale / °C
Common-Mode Rejection Ratio (CMRR)	(effect on output voltage and common mode voltage) 150 dB or greater (DC to 1 kHz) 135 dB or greater (1 kHz to 10 kHz) 120 dB or greater (10 kHz to 100 kHz) 100 dB or greater (100 kHz to 300 kHz)
Linearity error	+20 nnm





Output voltage	4 mV/A (= 2 V / 500 A)
Measurable conductors	Insulated conductor
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)
Withstand voltage	4260 V AC Withstand test current of 1 mA, 50/60 Hz, 1 min., between jaws and cable output terminal
Standards	Safety: EN 61010, EMC: EN 61326
Cable length	3 m (9.84 ft.)
Dimensions	153 mm (6.02 in.) W $\times$ 67 mm (2.64 in.) H $\times$ 25 mm (0.98 in.) D (excluding protruding parts and cables)
Weight	Approx. 400 g (14.1 oz.)

#### CT6845A



Product warranty period: 3 years Guaranteed accuracy period: 1 year

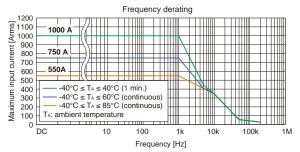
Rated current	500 A AC/DC
Frequency band	DC to 200 kHz
Diameter of measurable conductors	Max. φ 50 mm (1.97 in.)

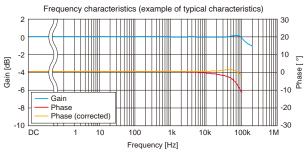
#### Accuracy

Frequency	Amplitude ±(% of reading + % of full scale)	Phase
DC	±0.2% ±0.02%*	-
DC < f ≤ 100 Hz	±0.2% ±0.01%	±0.1°
100 Hz < f ≤ 500 Hz	±0.3% ±0.02%	±0.2°
500 Hz < f ≤ 1 kHz	±0.5% ±0.02%	±0.5°
1 kHz < f ≤ 5 kHz	±1.0% ±0.02%	±(0.5 × f kHz)°
5 kHz < f ≤ 10 kHz	±1.5% ±0.02%	±(0.5 × f kHz)°
10 kHz < f ≤ 20 kHz	±5.0% ±0.02%	±(0.5 × f kHz)°
20 kHz < f ≤ 50 kHz	±10% ±0.05%	±(0.5 × f kHz)°
50 kHz < f ≤ 100 kHz	±30% ±0.05%	±(0.5 × f kHz)°

- The values above are when the input is a sine wave or DC, the measurement instrument's input resistance is 1 M $\Omega$  ± 10%, voltage to ground 0 V, no external magnetic fields and the conductor is in the center of the sensor opening. Amplitude accuracy and phase accuracy are defined 110% of full scale or less and within the derating curve. DC < f < 10 Hz is a design value. Add ±0.03% of frealing to the amplitude accuracy for input from 100% of full scale to 110% of full scale.

Add ±0.05% of feating to the amplitude accuracy for input from 100% of full scale to 110% of full scale.	
Temperature and humidity range for guaranteed accuracy	0°C to 40°C (32°F to 104°F), 80% RH or less
Effect of temperature	In ranges from -40°C to 0°C (-40°F to 32°F) and 40°C to 85°C (104°F to 185°F) Amplitude sensitivity: ±0.01% of reading /°C Offset voltage: ±0.005% of full scale /°C
Common-Mode Rejection Ratio (CMRR)	(effect on output voltage and common mode voltage) 150 dB or greater (DC to 1 kHz) 130 dB or greater (1 kHz to 10 kHz) 100 dB or greater (10 kHz to 100 kHz)
Linearity error	±20 ppm





Output voltage	4 mV/A (= 2 V / 500 A)
Measurable conductors	Insulated conductor
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)
Withstand voltage	4260 V AC Withstand test current of 1 mA, 50/60 Hz, 1 min., between jaws and cable output terminal
Standards	Safety: EN 61010, EMC: EN 61326
Cable length	3 m (9.84 ft.)
Dimensions	238 mm (9.37 in.) W $\times$ 116 mm (4.57 in.) H $\times$ 35 mm (1.38 in.) D (excluding protruding parts and cables)
Weight	Approx. 860 g (30.3 oz.)



#### CT6846A



Product warranty period: 3 years Guaranteed accuracy period: 1 year

Rated current	1000 A AC/DC
Frequency band	DC to 100 kHz
Diameter of measurable conductors	Max. φ 50 mm (1.97 in.)

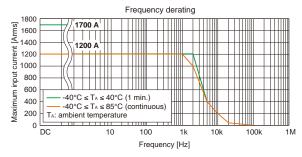
#### Accuracy

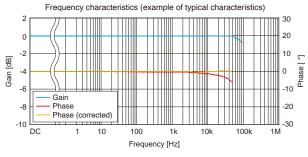
Frequency	Amplitude ±(% of reading + % of full scale)	Phase
DC	±0.2% ±0.02%*	-
DC < f ≤ 100 Hz	±0.2% ±0.01%	±0.1°
100 Hz < f ≤ 500 Hz	±0.5% ±0.02%	±0.2°
500 Hz < f ≤ 1 kHz	±1.0% ±0.02%	±0.5°
1 kHz < f ≤ 5 kHz	±2.0% ±0.02%	±(0.7 × f kHz)°
5 kHz < f ≤ 10 kHz	±5.0% ±0.02%	±(0.7 × f kHz)°
10 kHz < f ≤ 50 kHz	±30% ±0.02%	±(0.7 × f kHz)°

Combined accuracy with HIOKI power analyzer PW8001, PW6001, PW4001 and PW3390 is specified (DC, 45 Hz s f s 66 Hz). For details of combined accuracy, refer to the instruction manual. "DC accuracy after adjusting the offset voltage to  $\pm 0.2$  mV or less.

- The values above are when the input is a sine wave or DC, the measurement instrument's input resistance is 1 MD  $\pm$  10%, voltage to ground 0 V, no external magnetic fields and the conductor is in the center of the sensor opening. 
  Amplitude accuracy and phase accuracy are defined 110% of full scale or less and within the derating curve. DC < 1< 10 Hz is a design value. 
  Add  $\pm$ 0.03% of reading to the amplitude accuracy for input from 100% of full scale to 110% of full scale.

Temperature and humidity range for guaranteed accuracy	0°C to 40°C (32°F to 104°F), 80% RH or less
Effect of temperature	In ranges from -40°C to 0°C (-40°F to 32°F) and 40°C to 85°C (104°F to 185°F) Amplitude sensitivity: ±0.01% of reading /°C Offset voltage: ±0.005% of full scale / °C
Common-Mode Rejection Ratio (CMRR)	(effect on output voltage and common mode voltage) 150 dB or greater (DC to 1 kHz) 130 dB or greater (1 kHz to 10 kHz) 100 dB or greater (10 kHz to 50 kHz)
Linearity error	±20 ppm





Output voltage	2 mV/A (= 2 V / 1000 A)
Measurable conductors	Insulated conductor
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)
Withstand voltage	4260 V AC Withstand test current of 1 mA, 50/60 Hz, 1 min., between jaws and cable output terminal
Standards	Safety: EN 61010, EMC: EN 61326
Cable length	3 m (9.84 ft.)
Dimensions	238 mm (9.37 in.) W $\times$ 116 mm (4.57 in.) H $\times$ 35 mm (1.38 in.) D (excluding protruding parts and cables)
Weight	Approx. 990 g (34.9 oz.)

#### 9272-05



Product warranty period: 3 years Guaranteed accuracy period: 1 year

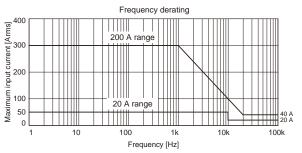
Rated current	20 A AC, 200 A AC (2 ranges)
Frequency band	1 Hz to 100 kHz
Diameter of measurable conductors	φ 46 mm or less

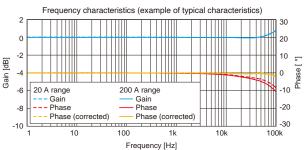
#### Accuracy

- Accuracy is specified by the following conditions:

   Less than or equal to the rated current of each current range
   Within derating range of each current range
   Within derating range of each current range
   The accuracy values above are for within the rated current for each range and inside of derating range.
  (The values are the values by design: amplitude at under 5 Hz and phase at under 10 Hz)

Temperature and humidity range for guaranteed accuracy	23°C ±5°C (73°F ±9°F), 80% RH or less
Effect of temperature	Amplitude sensitivity: ±0.03% of reading /°C





Output voltage	20 A range: 100 mV/A (= 2 V / 20 A) 200 A range: 10 mV/A (= 2 V / 200 A)
Operating temperature and humidity range	0°C to 50°C (32°F to 122°F), 80% RH or less (no condensation)
Storage temperature and humidity range	-10°C to 60°C (14°F to 140°F), 80% RH or less (no condensation)
Maximum rated voltage to ground	600 V AC CAT III (50/60 Hz) Anticipated transient overvoltage: 6000 V
Standards	Safety: EN 61010, EMC: EN 61326 Class A
Cable length	3 m (9.84 ft.)
Dimensions	78 mm (3.07 in) W $\times$ 188 mm (7.40 in) H $\times$ 35 mm (1.38 in) D (excluding protruding parts and cables)
Weight	Approx. 450 g (15.9 oz.)



#### CT6710

Product warranty period: 1 year



Rated current* (3 ranges)	30 Arms, 5 Arms, 0.5 Arms AC/DC
Frequency band	DC to 50 MHz (-3dB)
Diameter of measurable conductors	Max. φ 5 mm (0.20 in.) (insulated conductors)

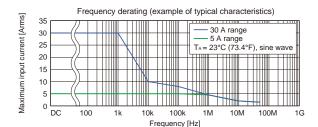
\*DC or sine wave signals of 45 to 66 Hz, within maximum peak current for each range

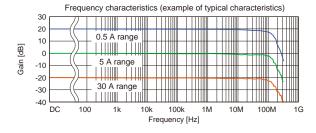
Rise time	7.0 ns or less (10% to 90%)
Output voltage	0.1 V/A (30 A range) 1 V/A (5 A range) 10 V/A (0.5 A range)
Maximum peak current	±50 A peak <sup>+1</sup> (30 A range) ±7.5 A peak (5 A range) ±0.75 A peak (0.5 A range, ≥ 10 MHz) ±0.3 A peak (0.5 A range, < 10 MHz)
Noise	75 μArms or less*2 (typical: 60 μArms)

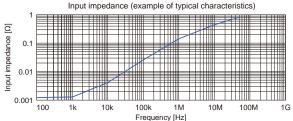
#### Accuracy (amplitude)

Range	Accuracy	typical
30 A	±3.0% of reading ±1 mV	±1.0% of reading ±1 mV (≤ 10 A)
5 A	±3.0% of reading ±1 mV	±1.0% of reading ±1 mV
0.5 A	±3.0% of reading ±10 mV	±1.0% of reading ±10 mV

The accuracy above is valid within the following conditions: Warm-up time: 30 minutes, operating environment of 23°C±5°C (73°F±9°F) at 80% RH or less, DC or sine wave signals of 45 to 64 Ex, within maximum peak current for each range







Operating temperature	0°C to 40°C (32°F to 104°F),
and humidity range	80% RH or less (no condensation)
Storage temperature	-10°C to 50°C (14°F to 122°F),
and humidity range	80% RH or less (no condensation)
Standards	Safety: EN 61010, EMC: EN 61326
Maximum rated power	7.8 VA (continuous maximum input)
Cable length	Sensor/junction box: 1500 mm (59.06 in.)
	Junction box/termination unit: 150 mm (5.91 in.)
	Power cord: 1000 mm (39.37 in.)
Dimensions	Sensor: 155 mm (6.10 in.) W x 18 mm (0.71 in.) H x
	26 mm (1.02 in.) D
	Junction box: 45 mm (1.77 in.) W x 120 mm (4.72
	in.) H × 25 mm (0.98 in.) D
	Termination unit: 29 mm (1.14 in.) W x 83 mm (3.27
	in.) H × 40 mm (1.57 in.) D
	(excluding BNC connector or protrusions)
Weight	Approx. 370 a (13.1 oz.)

#### CT6711

Product warranty period: 1 year



Rated current* (3 ranges)	30 Arms, 5 Arms, 0.5 Arms AC/DC
Frequency band	DC to 120 MHz (-3dB)
Diameter of measurable conductors	Max. φ 5 mm (0.20 in.) (insulated conductors)

\*DC or sine wave signals of 45 to 66 Hz, within maximum peak current for each range

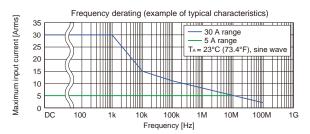
Rise time	2.9 ns or less (10% to 90%)
Output voltage	0.1 V/A (30 A range) 1 V/A (5 A range) 10 V/A (0.5 A range)
Maximum peak current	±50 A peak*1 (30 A range) ±7.5 A peak (5 A range) ±0.75 A peak (0.5 A range, ≥ 10 MHz) ±0.3 A peak (0.5 A range, < 10 MHz)
Noise	75 μArms or less*2 (typical: 60 μArms)

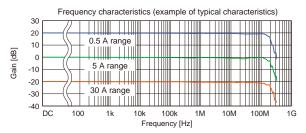
- \*1: Maximum 2 sec. input; requires cooling time at least 10 times longer than the time current has been input \*2: Does not apply to devices to which the probe is connected; applicable in the 0.5 A range and when used with 20 MHz bandwidth instrument devices

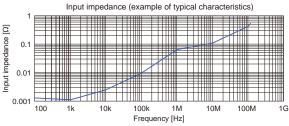
#### Accuracy (amplitude)

Range	Accuracy	typical
30 A	±3.0% of reading ±1 mV	±1.0% of reading ±1 mV (≤ 10 A)
5 A	±3.0% of reading ±1 mV	±1.0% of reading ±1 mV
0.5 A	±3.0% of reading ±10 mV	±1.0% of reading ±10 mV

The accuracy above is valid within the following conditions: Warm-up time: 30 minutes, operating environment of  $23^{\circ}\text{C} \pm 5^{\circ}\text{C}$  (73°F  $\pm 9^{\circ}\text{F}$ ) at 80% RH or less, DC or sine wave signals of 45 to 64 Et, within maximum peak current for each range







Operating temperature	0°C to 40°C (32°F to 104°F),
and humidity range	80% RH or less (no condensation)
Storage temperature	-10°C to 50°C (14°F to 122°F),
and humidity range	80% RH or less (no condensation)
Standards	Safety: EN 61010, EMC: EN 61326
Maximum rated power	7.8 VA (continuous maximum input)
Cable length	Sensor/junction box: 1500 mm (59.06 in.)
	Junction box/termination unit: 150 mm (5.91 in.)
	Power cord: 1000 mm (39.37 in.)
Dimensions	Sensor: 155 mm (6.10 in.) W x 18 mm (0.71 in.) H x
	26 mm (1.02 in.) D
	Junction box: 45 mm (1.77 in.) W x 120 mm (4.72
	in.) H × 25 mm (0.98 in.) D
	Termination unit: 29 mm (1.14 in.) W × 83 mm (3.27
	in.) H × 40 mm (1.57 in.) D
	(excluding BNC connector or protrusions)
Weight	Approx. 370 g (13.1 oz.)



#### CT6700

Product warranty period: 1 year Guaranteed accuracy period: 1 year



Rated current*	5 Arms
Frequency band	DC to 50 MHz (-3dB)
Diameter of measurable conductors	Max. φ 5 mm (0.20 in.) (insulated conductors)

\*DC or sine wave signals of 45 to 66 Hz, within maximum peak current for each range

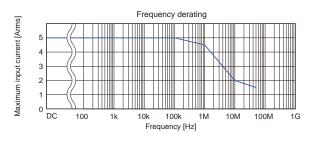
Rise time	7.0 ns or less (10% to 90%)
Output voltage	1 V/A
Maximum peak current	±7.5 A peak (non-continuous)
Noise	75 μArms or less* (typical: 60 μArms)

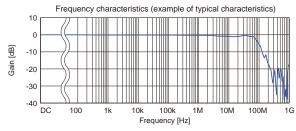
<sup>\*</sup>Does not apply to devices to which the probe is connected; applicable when used with 30 MHz bandwidth instrument device

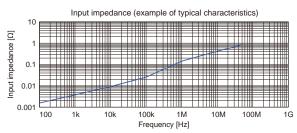
#### Accuracy (amplitude)

Accuracy	typical
±3.0% of reading ±1 mV	±1.0% of reading ±1 mV

The accuracy above is valid within the following conditions:
Warm-up time: 30 minutes, operating environment of 23°C± 5°C (73°F ±9°F) at 80% RH or less, DC or sine wave signals of 45 to 64 Et., 0 Arms to 5 Arms







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)
Standards	Safety: EN 61010, EMC: EN 61326
Maximum rated power	3.2 VA (continuous maximum input)
Cable length	Sensor cable: 1500 mm (59.06 in.) Power cord: 1000 mm (39.37 in.)
Dimensions	Sensor: 155 mm (6.10 in.) W $\times$ 18 mm (0.71 in.) H $\times$ 26 mm (1.02 in.) D Termination unit: 29 mm (1.14 in.) W $\times$ 83 mm (3.27 in.) H $\times$ 40 mm (1.57 in.) D (excluding BNC connector or protrusions)
Weight	Approx. 250 g (8.8 oz.)

#### CT6701

Product warranty period: 1 year Guaranteed accuracy period: 1 year



Rated current*	5 Arms
Frequency band	DC to 120 MHz (-3dB)
Diameter of measurable conductors	Max. φ 5 mm (0.20 in.) (insulated conductors)

\*DC or sine wave signals of 45 to 66 Hz, within maximum peak current for each range

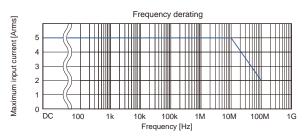
Rise time	2.9 ns or less (10% to 90%)
Output voltage	1 V/A
Maximum peak current	±7.5 A peak (non-continuous)
Noise	75 μArms or less* (typical: 60 μArms)

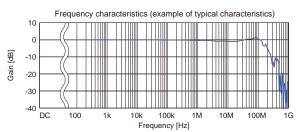
<sup>\*</sup>Does not apply to devices to which the probe is connected; applicable when used with 30 MHz bandwidth instrument devices

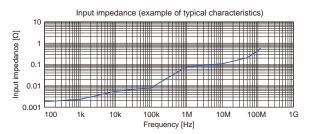
#### Accuracy (amplitude)

Accuracy	typical
±3.0% of reading ±1 mV	±1.0% of reading ±1 mV

The accuracy above is valid within the following conditions:
Warm-up time: 30 minutes, operating environment of 23°C± 5°C (73°F ±9°F) at 80% RH or less, DC or sine wave signals of 45 to 64 Hz, 0 Arms to 5 Arms







Operating temperature	0°C to 40°C (32°F to 104°F),
and humidity range	80% RH or less (no condensation)
Storage temperature	-10°C to 50°C (14°F to 122°F),
and humidity range	80% RH or less (no condensation)
Standards	Safety: EN 61010, EMC: EN 61326
Maximum rated power	3.2 VA (continuous maximum input)
Cable length	Sensor cable: 1500 mm (59.06 in.)
	Power cord: 1000 mm (39.37 in.)
Dimensions	Sensor: 155 mm (6.10 in.) W x 18 mm (0.71 in.) H x
	26 mm (1.02 in.) D
	Termination unit: 29 mm (1.14 in.) W x 83 mm (3.27
	in.) H × 40 mm (1.57 in.) D
	(excluding BNC connector or protrusions)
Weight	Approx. 250 g (8.8 oz.)



#### 3273-50

Product warranty period: 1 year Guaranteed accuracy period: 1 year



Rated current*	30 Arms
Frequency band	DC to 50 MHz (-3dB)
Diameter of measurable conductors	Max. φ 5 mm (0.20 in.) (insulated conductors)

\*Refer to the graph for frequency derating characteristics.

Rise time	7.0 ns or less	
Output voltage	0.1 V/A	
Maximum peak current	50 A peak (non-continuous)	
Noise	2.5 mArms or less*	

<sup>\*</sup>Does not apply to devices to which the probe is connected; applicable when used with 20 MHz bandwidth instrument device

#### Accuracy (amplitude)

to 30 Arms	to 50 A peak
±1.0% of reading ±1 mV	±2.0% of reading

The accuracy above is valid within the following conditions:
Warm-up time: 30 minutes, operating environment of 23°C± 5°C (73°F ±9°F) at 80% RH or less, DC or sine wave signals of 45 to 64 Hz, O Arms to 5 Arms



Product warranty period: 1 year Guaranteed accuracy period: 1 year



Rated current*	30 Arms
Frequency band	DC to 100 MHz (-3dB)
Diameter of measurable conductors	Max. φ 5 mm (0.20 in.) (insulated conductors)

\*Refer to the graph for frequency derating characteristics.

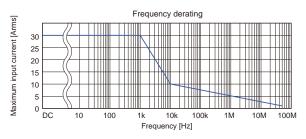
Rise time	3.5 ns or less
Output voltage	0.1 V/A
Maximum peak current	50 A peak (non-continuous)
Noise	2.5 mArms or less*

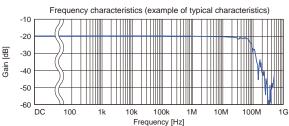
<sup>\*</sup>Does not apply to devices to which the probe is connected; applicable when used with 20 MHz bandwidth instrument device

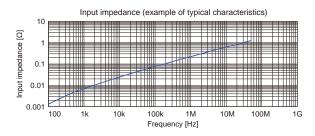
#### Accuracy (amplitude)

to 30 Arms	to 50 A peak
±1.0% of reading ±1 mV	±2.0% of reading

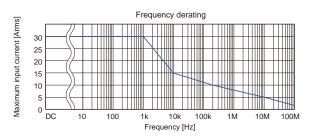
The accuracy above is valid within the following conditions:
Warm-up time: 30 minutes, operating environment of 23°C± 5°C (73°F ±9°F) at 80% RH or less, DC or sine wave signals of 45 to 66 Hz, O Arms to 5 Arms

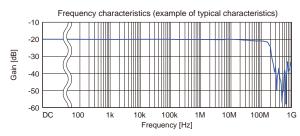


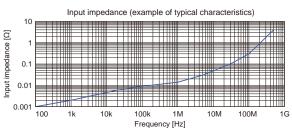




Operating temperature and humidity range	0°C to 40°C (32°F to 104°F), 80% RH or less (no condensation)	
Storage temperature and humidity range	-10°C to 50°C (14°F to 122°F), 80% RH or less (no condensation)	
Standards	Safety: EN 61010, EMC: EN 61326	
Maximum rated power	5.6 VA	
Cable length	Sensor cable: 1500 mm (59.06 in.) Power cord: 1000 mm (39.37 in.)	
Dimensions	Sensor: 175 mm (6.89 in.) W $\times$ 18 mm (0.71 in.) H $\times$ 40 mm (1.57 in.) D Termination unit: 27 mm (1.06 in.) W $\times$ 55 mm (2.17 in.) H $\times$ 18 mm (0.71 in.) D (excluding BNC connector or protrusions)	
Weight	Approx. 230 g (8.1 oz)	







Operating temperature	0°C to 40°C (32°F to 104°F),	
and humidity range	80% RH or less (no condensation)	
Storage temperature	-10°C to 50°C (14°F to 122°F),	
and humidity range	80% RH or less (no condensation)	
Standards	Safety: EN 61010, EMC: EN 61326	
Maximum rated power	5.3 VA	
Cable length	Sensor cable: 1500 mm (59.06 in.)	
	Power cord: 1000 mm (39.37 in.)	
Dimensions	Sensor: 175 mm (6.89 in.) W x 18 mm (0.71 in.) H x	
	40 mm (1.57 in.) D	
	Termination unit: 27 mm (1.06 in.) W x 55 mm (2.17	
	in.) H × 18 mm (0.71 in.) D	
	(excluding BNC connector or protrusions)	
Weight	Approx. 240 g (8.5 oz)	



Product warranty period: 1 year



Rated current*	150 Arms	
Frequency band	DC to 10 MHz (-3dB)	
Diameter of measurable conductors	Max. φ 20 mm (0.79 in)(insulated conductors)	

\*The accuracy above is valid within the following conditions:

DC or sine wave signals of 45 to 66 Hz, within maximum peak current for each range

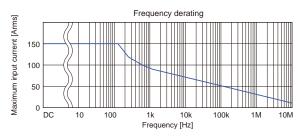
Rise time	35 ns or less
Output voltage	0.01 V/A
Maximum peak current	300 A peak (non-continuous)*1
Noise	25 mArms or less*2

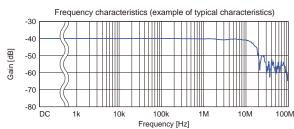
- \*1: 500 Apeak with pulse width ≤ 30 us
- \*2: Does not apply to devices to which the probe is connected: when used with a 20 MHz bandwidth instrument devices

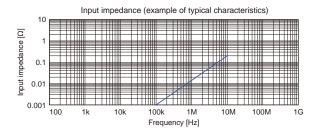
#### Accuracy (amplitude)

to 150 A	to 300 A peak
±1.0% of reading ±1 mV	±2.0% of reading

The accuracy above is valid within the following conditions: Warm-up time: 30 minutes, operating environment of 23°C± 5°C (73°F ±9°F) at 80% RH or less, DC or sine wave signals of 45 to 66 Hz







Operating temperature	0°C to 40°C (32°F to 104°F),	
and humidity range	80% RH or less (no condensation)	
Storage temperature	-10°C to 50°C (14°F to 122°F),	
and humidity range	80% RH or less (no condensation)	
Standards	Safety: EN 61010, EMC: EN 61326	
Maximum rated power	5.5 VA (continuous maximum input)	
Cable length	Sensor cable: 2000 mm (78.74 in.)	
	Power cord: 1000 mm (39.37 in.)	
Dimensions	Sensor: 176 mm (6.93 in.) W x 69 mm (2.72 in.) H x	
	27 mm (1.06 in.) D	
	Termination unit: 27 mm (1.06 in.) W x 55 mm (2.17	
	in.) H × 18 mm (0.71 in.) D	
	(excluding BNC connector or protrusions)	
Weight	Approx. 500 g (17.6 oz)	

#### 3275

Product warranty period: 1 year



Rated current*	500 Arms	
Frequency band	DC to 2 MHz (-3dB)	
Diameter of measurable conductors	Max. φ 20 mm (0.79 in)(insulated conductors)	

\*The accuracy above is valid within the following conditions:

DC or sine wave signals of 45 to 66 Hz, within maximum peak current for each range

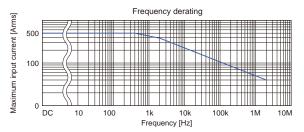
Rise time	175 ns or less
Output voltage	0.01 V/A
Maximum peak current	700 A peak (non-continuous)
Noise	25 mArms or less*

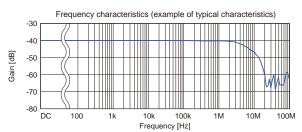
\*Does not apply to devices to which the probe is connected; when used with a 20 MHz bandwidth instrument devices

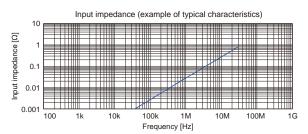
#### Accuracy (amplitude)

to 500 A	to 700 A peak
±1.0% of reading ±5 mV	±2.0% of reading

The accuracy above is valid within the following conditions:
Warm-up time: 30 minutes, operating environment of 23°C± 5°C (73°F ±9°F) at 80% RH or less, DC or sine wave signals of 45 to 66 Hz







Operating temperature		
and humidity range	80% RH or less (no condensation)	
Storage temperature	-10°C to 50°C (14°F to 122°F),	
and humidity range	80% RH or less (no condensation)	
Standards	Safety: EN 61010, EMC: EN 61326	
Maximum rated power	7.2 VA (continuous maximum input)	
Cable length	Sensor cable: 2000 mm (78.74 in.)	
	Power cord: 1000 mm (39.37 in.)	
Dimensions	Sensor: 176 mm (6.93 in.) W × 69 mm (2.72 in.) H ×	
	27 mm (1.06 in.) D	
	Termination unit: 27 mm (1.06 in.) W x 55 mm (2.17	
	in.) H × 18 mm (0.71 in.) D	
	(excluding BNC connector or protrusions)	
Weight	Approx. 520 g (18.3 oz)	



High-accuracy measurement (ME15	W)	
Pass-through types	Rated current	Frequency range
CT6862-05	50 A	DC to 1 MHz
CT6872	50 A	DC to 10 MHz
CT6872-01	50 A	DC to 10 MHz
CT6863-05	200 A	DC to 500 kHz
CT6873	200 A	DC to 10 MHz
CT6873-01	200 A	DC to 10 MHz
CT6875A	500 A	DC to 2 MHz
CT6875A-1	500 A	DC to 1.5 MHz
CT6904A	500 A	DC to 4 MHz
CT6904A-1	500 A	DC to 2 MHz
CT6904A-2	800 A	DC to 4 MHz
CT6904A-3	800 A	DC to 2 MHz
CT6876A	1000 A	DC to 1.5 MHz
CT6876A-1	1000 A	DC to 1.2 MHz
CT6877A	2000 A	DC to 1 MHz
CT6877A-1	2000 A	DC to 1 MHz
Clamp types	Rated current	Frequency range
9272-05	20 A, 200 A	1 Hz to 100 kHz
CT6830 NEW	2 A	DC to 100 kHz
CT6831 NEW	20 A	DC to 100 kHz
CT6833, CT6833-01 NEW	200 A	DC to 50 kHz
CT6834, CT6834-01 NEW	500 A	DC to 50 kHz
CT6841A	20 A	DC to 2 MHz
CT6843A	200 A	DC to 700 kHz
C10043A	200 A	20 10 100 11112
CT6844A	500 A	DC to 500 kHz
CT6844A	500 A	DC to 500 kHz
CT6844A CT6845A	500 A 500 A	DC to 500 kHz DC to 200 kHz
CT6844A CT6845A CT6846A	500 A 500 A 1000 A	DC to 500 kHz DC to 200 kHz DC to 100 kHz Frequency
CT6844A CT6845A CT6846A Direct-wired types	500 A 500 A 1000 A Rated current	DC to 500 kHz DC to 200 kHz DC to 100 kHz Frequency range
CT6844A CT6845A CT6846A Direct-wired types PW9100A-3	500 A 500 A 1000 A Rated current 50 A	DC to 500 kHz DC to 200 kHz DC to 100 kHz Frequency range DC to 3.5 MHz

CT9555	1 ch, external power supply, with waveform output function
CT9556	1 ch, external power supply, with waveform/RMS output function
CT9557	4 ch, external power supply, includes waveform/aggregated- waveform/aggregated-RMS output functions
L9217	Isolated BNC terminals
L9218	Insulated BNC terminals - metal BNC terminals
9165	Metallic BNC terminals
CT9904	Used with CT9557 added waveform output
CT9902	Used to extend cable length

Waveform observation (BNC)					
High-sensitivity observation		Rated current	Frequency range		
CT6710		0.5 A, 5 A, 30 A	DC to 50 MHz		
CT6711		0.5 A, 5 A, 30 A	DC to 120 MHz		
Observation of minuscule currents		Rated current	Frequency range		
CT6700		5 A	DC to 50 MHz		
CT6701		5 A	DC to 120 MHz		
Observation of large currents					
Observation of la	rge currents	Rated current	Frequency range		
Observation of lar	rge currents	Rated current			
	rge currents		range		
3273-50	rge currents	30 A	range DC to 50 MHz		
3273-50 3276	rge currents	30 A 30 A	DC to 50 MHz DC to 100 MHz		
3273-50 3276 3274		30 A 30 A 150 A	DC to 50 MHz DC to 100 MHz DC to 10 MHz		
3273-50 3276 3274 3275	ns	30 A 30 A 150 A	DC to 50 MHz DC to 100 MHz DC to 100 MHz DC to 10 MHz DC to 2 MHz		

Grid power quality control (PL14)					
Measurement of load current		Rated current	Frequency range		
CT7812*1 NE	W	2 A	DC to 100 kHz		
CT7822*1 NE	W	20 A	DC to 100 kHz		
CT7126		60 A	40 Hz to 2 kHz		
CT7131		100 A	40 Hz to 2 kHz		
CT7731		100 A	DC to 5 kHz		
CT7631		100 A	DC to 10 kHz		
CT7736		600 A	DC to 5 kHz		
CT7636		600 A	DC to 10 kHz		
CT7136		600 A	40 Hz to 5 kHz		
CT7742		2000 A	DC to 5 kHz		
CT7642		2000 A	DC to 10 kHz		
Measuremen	t of large currents	Rated current	Frequency range		
CT7044		6000 A	10 Hz to 50 kHz		
CT7045		6000 A	10 Hz to 50 kHz		
CT7046		6000 A	10 Hz to 50 kHz		
Measuremen	t of leakage current	Rated current	Frequency range		
CT7116		6 A	40 Hz to 5 kHz		
Connection of	options				
CT9920	Converts PL14 termi	nal to ME15W terminal			
L9095	Connects CM7290, 0	Connects CM7290, CM7291 and instrument			
I 0220-01	Extends a cable with a PI 14 terminal 2 m (6.56 ft.)				

Connection options				
CT9920	Converts PL14 terminal to ME15W terminal			
L9095	Connects CM7290, CM7291 and instrument			
L0220-01	Extends a cable with a PL14 terminal, 2 m (6.56 ft.)			
L0220-02	Extends a cable with a PL14 terminal, 5 m (16.40 ft.)			
L0220-03	Extends a cable with a PL14 terminal, 10 m (32.81 ft.)			
L0220-04	Extends a cable with a PL14 terminal, 20 m (65.62 ft.)			
L0220-05	Extends a cable with a PL14 terminal, 30 m (98.43 ft.)			
L0220-06	Extends a cable with a PL14 terminal, 50 m (164.04 ft.)			
L0220-07	Extends a cable with a PL14 terminal, 100 m (328.08 ft.)			

<sup>\*1:</sup> Can be connected to LR8536, U8556, CM7290 only

Grid power quality control (BNC)				
Measurement of load current	Rated current	Frequency range		
9694	5 A	40 Hz to 5 kHz		
9695-02	50 A	40 Hz to 5 kHz		
9660	100 A	40 Hz to 5 kHz		
9695-03	100 A	40 Hz to 5 kHz		
9010-50	10 A - 500 A*2	40 Hz to 1 kHz		
9018-50	10 A - 500 A*2	40 Hz to 3 kHz		
9132-50	20 A - 1000 A*3	40 Hz to 1 kHz		
CT6500	500 A	40 Hz to 1 kHz		
9661	500 A	40 Hz to 5 kHz		
9669	1000 A	40 Hz to 5 kHz		
		Frequency		
Measurement of large currents	Rated current	range		
Measurement of large currents CT9667-01	Rated current 500 A, 5000 A			
		range		
CT9667-01	500 A, 5000 A	range 10 Hz to 20 kHz		
CT9667-01 CT9667-02	500 A, 5000 A 500 A, 5000 A	range 10 Hz to 20 kHz 10 Hz to 20 kHz		
CT9667-01 CT9667-02 CT9667-03	500 A, 5000 A 500 A, 5000 A 500 A, 5000 A	range  10 Hz to 20 kHz  Frequency		
CT9667-01 CT9667-02 CT9667-03 Measurement of leakage current	500 A, 5000 A 500 A, 5000 A 500 A, 5000 A Rated current	range  10 Hz to 20 kHz  Frequency range		
CT9667-01 CT9667-02 CT9667-03 Measurement of leakage current 9657-10	500 A, 5000 A 500 A, 5000 A 500 A, 5000 A Rated current	range  10 Hz to 20 kHz  Frequency range  40 Hz to 5 kHz		
CT9667-01 CT9667-02 CT9667-03 Measurement of leakage current 9657-10 9675	500 A, 5000 A 500 A, 5000 A 500 A, 5000 A Rated current	range  10 Hz to 20 kHz  Frequency range  40 Hz to 5 kHz  40 Hz to 5 kHz		
CT9667-01 CT9667-02 CT9667-03 Measurement of leakage current 9657-10 9675 Connection options	500 A, 5000 A 500 A, 5000 A 500 A, 5000 A Rated current 10 A 10 A	range  10 Hz to 20 kHz  Frequency range  40 Hz to 5 kHz  40 Hz to 5 kHz		

- \*2: Can switch between ranges (10, 20, 50, 100, 200, 500 AAC )
  \*3: Can switch between ranges (20, 50, 100, 200, 500, 1000 AAC )



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