



Application-optimized Current Sensors and Current Probes



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.

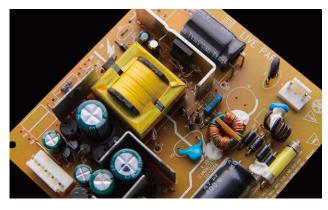
CT6904A, CT687xA series + PW8001



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. $\frac{1}{2} \left(\frac{1}{2} \right) = \frac{1}{2} \left(\frac{1}{2} \right) \left(\frac{$

CT684xA series + PW3390



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



Evaluating systems used to control accessory components in automobiles

Observe current waveforms of various magnitudes that fluctuate depending on the state of the device in question, including dark current, inrush current, and drive current, in order to evaluate accessory control.

CT67xx series, 327x series + MR6000



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

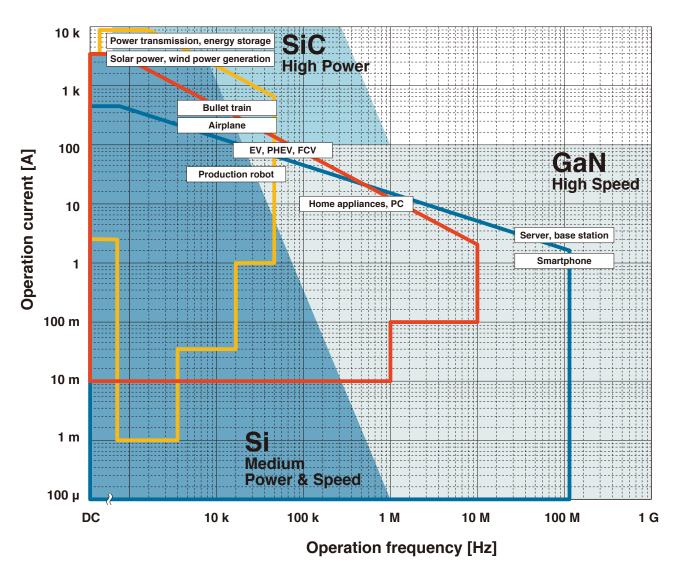


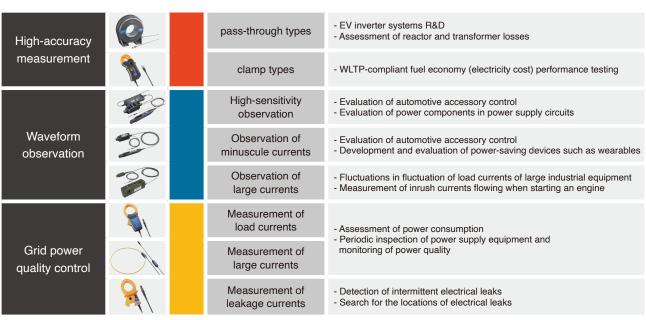
Assessing the power consumption of equipment and systems

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

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 development.





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

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

Evaluation of inverters in energy-saving household appliances

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

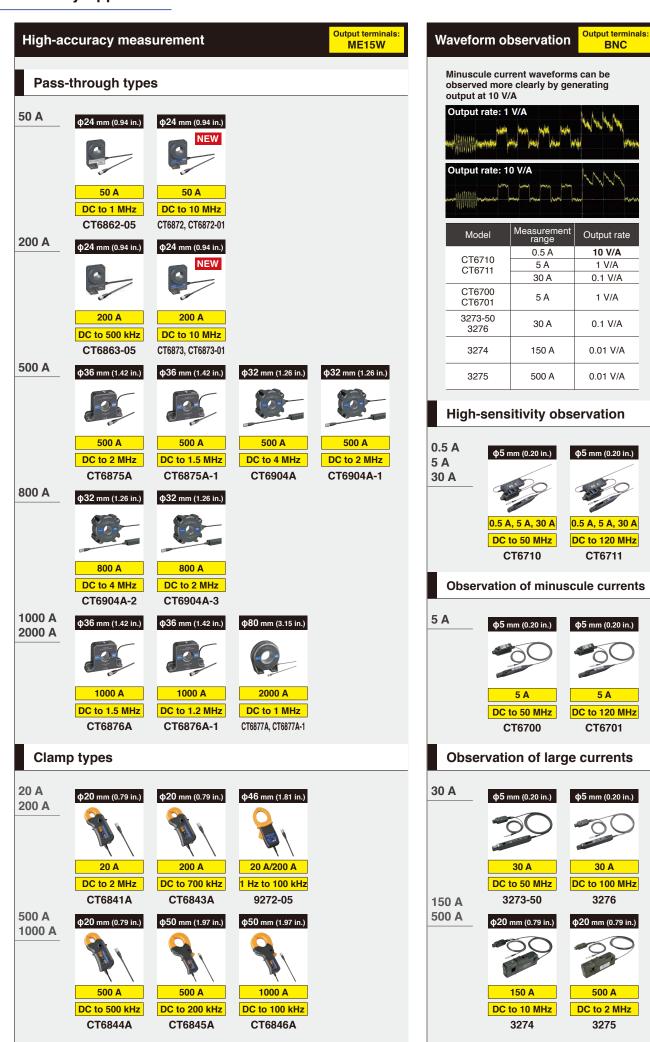
These sensors are used to measure minuscule currents such as leakage currents.

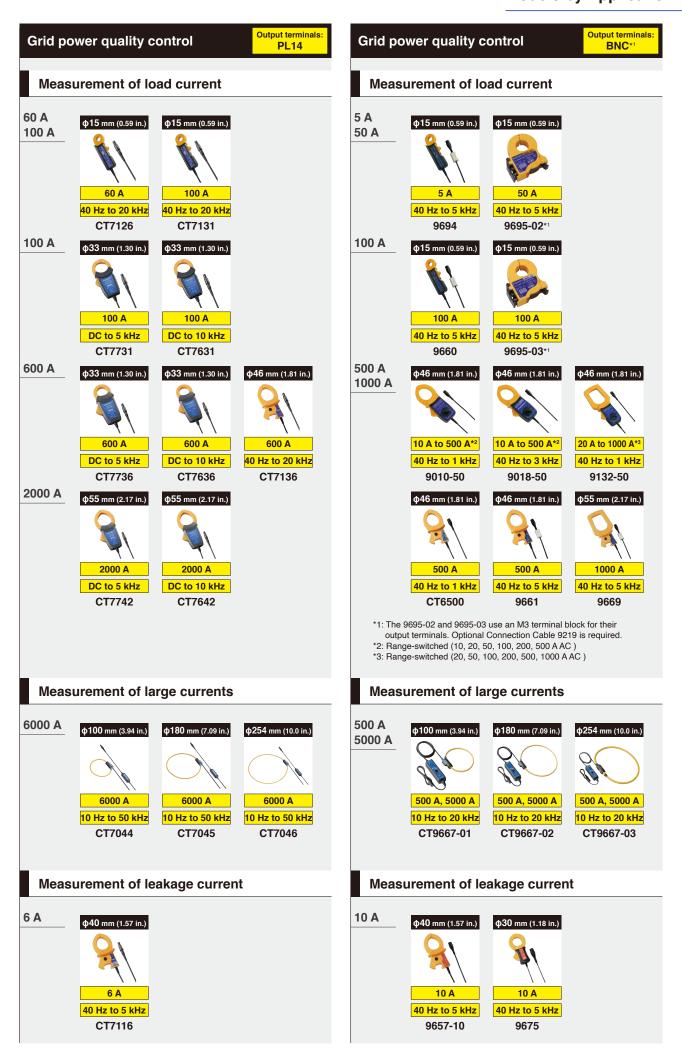




Detection of intermittent electrical leaks

Search for the locations of electrical leaks





High-ac	curacy n	neasure	ment					Output t	terminals: ME15W	
Pass-throu	igh 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	7.4 kV AC	40 mV/A	DC to 1 MHz	-	-	-	
CT6872		50 Arms	±200 A peak	7.4 kV AC	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%	
CT6872-01		50 Arms	±200 A peak	7.4 kV AC	40 mV/A	DC to 10 MHz	±2 ppm	±5 ppm	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	7.4 kV AC	10 mV/A	DC to 500 kHz	-	-	-	
СТ6873		200 Arms	±350 A peak*1	7.4 kV AC	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%	
CT6873-01		200 Arms	±350 A peak*1	7.4 kV AC	10 mV/A	DC to 10 MHz	±2 ppm	±5 ppm	30 kHz to 100 kHz: ±0.4% 100 kHz to 400 kHz: ±1% 400 kHz to 1 MHz: ±3%	
CT6875A		500 Arms	±1500 A peak*1	7.4 kV AC	4 mV/A	DC to 2 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%	
CT6875A-1		500 Arms	±1500 A peak*1	7.4 kV AC	4 mV/A	DC to 1.5 MHz	±5 ppm	±5 ppm	20 kHz to 100 kHz: ±0.5% 100 kHz to 300 kHz: ±1% 300 kHz to 1 MHz: ±5%	
CT6904A		500 Arms	±1000 A peak*1	7.4 kV AC	4 mV/A	DC to 4 MHz	±5 ppm	±10 ppm	-	
CT6904A-1		500 Arms	±1000 A peak*1	7.4 kV AC	4 mV/A	DC to 2 MHz	±5 ppm	±10 ppm	-	
CT6904A-2		800 Arms	±1200 A peak*1	7.4 kV AC	2 mV/A	DC to 4 MHz	±12.5 ppm	±10 ppm	-	
CT6904A-3		800 Arms	±1200 A peak*1	7.4 kV AC	2 mV/A	DC to 2 MHz	±12.5 ppm	±10 ppm	-	
CT6876A		1000 Arms	±1800 A peak*1	7.4 kV AC	2 mV/A	DC to 1.5 MHz	±5 ppm	±5 ppm	DC: ±10 ppm 10 Hz to 100 Hz: ±0.005% 100 Hz to 1 kHz: ±0.03% 1 kHz to 10 kHz: ±0.2%	
CT6876A-1		1000 Arms	±1800 A peak*1	7.4 kV AC	2 mV/A	DC to 1.2 MHz	±5 ppm	±5 ppm	10 kHz to 100 kHz: ±1% 100 kHz to 300 kHz: ±3% 300 kHz to 1 MHz: ±15%	
CT6877A		2000 Arms	±3200 A peak*1	7.4 kV AC	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%	
CT6877A-1		2000 Arms	±3200 A peak*1	7.4 kV AC	1 mV/A	DC to 1 MHz	±10 ppm	±5 ppm	10 kHz to 100 kHz: ±1% 100 kHz to 300 kHz: ±2% 300 kHz to 700 kHz: ±10%	
Clamp type	es									
9272-05	1	20 Arms, 200 Arms	±71 Apeak, ±430 Apeak	5.4 kV AC	100 mV/A, 10 mV/A	1 Hz to 100 kHz	-	-	-	
CT6841A		20 Arms	±60 A peak*1	4.26 kV AC	100 mV/A	DC to 2 MHz	±20 ppm	-	-	
CT6843A		200 Arms	±600 A peak*1	4.26 kV AC	10 mV/A	DC to 700 kHz	±20 ppm	-	-	
CT6844A	1	500 Arms	±800 A peak*1	4.26 kV AC	4 mV/A	DC to 500 kHz	±20 ppm	-	-	
CT6845A	4	500 Arms	±1500 A peak*1	4.26 kV AC	4 mV/A	DC to 200 kHz	±20 ppm	-	-	
CT6846A	% \	1000 Arms	±1900 A peak*1	4.26 kV AC	2 mV/A	DC to 100 kHz	±20 ppm	-	-	
Direct-wire	d types									
PW9100A-3	- du du du	50 Arms	±200 A peak*1	5.4 kV AC	40 mV/A	DC to 3.5 MHz	-	-	-	
PW9100A-4	in in in in	50 Arms	±200 A peak*1	5.4 kV AC	40 mV/A	DC to 3.5 MHz	-	-	-	

	High-accuracy measurement					Output terminals: ME15W			
pass-throu	igh types								
Model	Amplitude DC	accuracy 50/60 Hz	Phase Shift Values	Delay times	Diameter of measurable conductors	Cable length	Operating temperature	Maximum rated voltage to earth	Auto pha correc
CT6862-05	±0.05% rdg. ±0.01% f.s.	±0.05% rdg. ±0.01% f.s.	300 kHz, -10.96°	101 ns	φ24 mm (0.94 in.)	3 m (9.84 ft.)	-30°C to 85°C -22°F to 185°F	1000 V CAT III	
CT6872	±0.03% rdg. ±0.002 % f.s.	±0.03% rdg. ±0.007% f.s.	100 kHz, -1.28°	46 ns	φ24 mm (0.94 in.)	3 m (9.84 ft.)	-40°C to 85°C -40°F to 185°F	1000 V CAT III	Y
CT6872-01	±0.03% rdg. ±0.002% f.s.	±0.03% rdg. ±0.007% f.s.	100 kHz, -2.63°	82 ns	φ24 mm (0.94 in.)	10 m (32.81 ft.)	-40°C to 85°C -40°F to 185°F	1000 V CAT III	Y
CT6863-05	±0.05% rdg. ±0.01% f.s.	±0.05% rdg. ±0.01% f.s.	100 kHz, -4.60°	128 ns	φ24 mm (0.94 in.)	3 m (9.84 ft.)	-30°C to 85°C -22°F to 185°F	1000 V CAT III	
CT6873	±0.03% rdg. ±0.002% f.s.	±0.03% rdg. ±0.007% f.s.	100 kHz, -0.75°	36 ns	φ24 mm (0.94 in.)	3 m (9.84 ft.)	-40°C to 85°C -40°F to 185°F	1000 V CAT III	Υ
CT6873-01	±0.03% rdg. ±0.002% f.s.	±0.03% rdg. ±0.007% f.s.	100 kHz, -2.10°	69 ns	φ24 mm (0.94 in.)	10 m (32.81 ft.)	-40°C to 85°C -40°F to 185°F	1000 V CAT III	١
CT6875A	0.04% rdg. ±0.008% f.s.	0.04% rdg. ±0.008% f.s.	200 kHz, -10.45°	145 ns	φ36 mm (1.42 in.)	3 m (9.84 ft.)	-40°C to 85°C -40°F to 185°F	1000 V CAT III	١
CT6875A-1	0.04% rdg. ±0.008% f.s.	0.04% rdg. ±0.008% f.s.	200 kHz, 12.87°	179 ns	φ36 mm (1.42 in.)	10 m (32.81 ft.)	-40°C to 85°C -40°F to 185°F	1000 V CAT III	Υ
CT6904A	±0.025% rdg. ±0.007% f.s.	±0.02% rdg. ±0.007% f.s.	300 kHz, -9.82°	91 ns	φ32 mm (1.26 in.)	3 m (9.84 ft.)	-10°C to 50°C 14°F to 122°F	1000 V CAT III	١
CT6904A-1	±0.025% rdg. ±0.007% f.s.	±0.02% rdg. ±0.007% f.s.	300 kHz, -9.82°	91 ns	φ32 mm (1.26 in.)	10 m (32.81 ft.)	-10°C to 50°C 14°F to 122°F	1000 V CAT III	١
CT6904A-2	±0.030% rdg. ±0.009% f.s.	±0.025% rdg. ±0.009% f.s.	300 kHz, -9.82°	91 ns	φ32 mm (1.26 in.)	3 m (9.84 ft.)	-10°C to 50°C 14°F to 122°F	1000 V CAT III	١
CT6904A-3	±0.030% rdg. ±0.009% f.s.	±0.025% rdg. ±0.009% f.s.	300 kHz, -9.82°	91 ns	φ32 mm (1.26 in.)	10 m (32.81 ft.)	-10°C to 50°C 14°F to 122°F	1000 V CAT III	١
CT6876A	0.04% rdg. ±0.008% f.s.	0.04% rdg. ±0.008% f.s.	200 kHz, -12.96°	180 ns	φ36 mm (1.42 in.)	3 m (9.84 ft.)	-40°C to 85°C -40°F to 185°F	1000 V CAT III	١
CT6876A-1	0.04% rdg. ±0.008% f.s.	0.04% rdg. ±0.008% f.s.	200 kHz, -14.34°	199 ns	φ36 mm (1.42 in.)	10 m (32.81 ft.)	-40°C to 85°C -40°F to 185°F	1000 V CAT III	١
CT6877A	0.04% rdg. ±0.008% f.s.	0.04% rdg. ±0.008% f.s.	100 kHz, -2.63°	73 ns	φ80 mm (3.15 in.)	3 m (9.84 ft.)	-40°C to 85°C -40°F to 185°F	1000 V CAT III	١
CT6877A-1	0.04% rdg. ±0.008% f.s.	0.04% rdg. ±0.008% f.s.	100 kHz -3.34°	93 ns	φ80 mm (3.15 in.)	10 m (32.81 ft)	-40°C to 85°C -40°F to 185°F	1000 V CAT III	١
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	
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	-	١
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	-	١
CT6844A	±0.2% rdg. ±0.02% f.s.	±0.2% rdg. ±0.01% f.s.	100 kHz, -3.92°	109 ns	φ20 mm (0.79 in.)	3 m (9.84 ft.)	-40°C to 85°C -40°F to 185°F	-	١
CT6845A	±0.2% rdg. ±0.02% f.s.	±0.2% rdg. ±0.01% f.s.	10 kHz, -0.94 °	261 ns	φ50 mm (1.97 in.)	3 m (9.84 ft.)	-40°C to 85°C -40°F to 185°F	-	١
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	-	١
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 600 V CAT III	١
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 600 V CAT III	١

Wavef	orm obse	rvation						Output termi	nals: 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	High-sensitivity observation of currents ranging in magnitude from minuscule to large								
CT6710	-	0.5 Arms: 10 V/A 5 Arms: 1 V/A 30 Arms: 0.1 V/A	DC to 50 MHz	7.0 ns or less	12 ns*²	±3.0% rdg. ±1 mV	ф5 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
CT6711	***	0.5 Arms: 10 V/A 5 Arms: 1 V/A 30 Arms: 0.1 V/A	DC to 120 MHz	2.9 ns or less	12 ns*²	±3.0% rdg. ±1 mV	ф5 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	Observation of minuscule currents								
CT6700	90	5 Arms: 1 V/A	DC to 50 MHz	7.0 ns or less	13 ns	±3.0% rdg. ±1 mV	ф5 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
CT6701	90	5 Arms: 1 V/A	DC to 120 MHz	2.9 ns or less	12 ns	±3.0% rdg. ±1 mV	ф5 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	ion of large cເ	ırrents							
3273-50	300	30 Arms: 0.1 V/A	DC to 50 MHz	7.0 ns or less	16 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
3276	90	30 Arms: 0.1 V/A	DC to 100 MHz	3.5 ns or less	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	20	150 Arms: 0.01 V/A	DC to 10 MHz	35 ns or less	40 ns	±1.0% rdg. ±1 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
3275	200	500 Arms: 0.01 V/A	DC to 2 MHz	175 ns or less	66 ns	±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

^{*1:} 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						inals: PL14	
Model	Appearance	Rated current	Frequency range	Amplitude accuracy	Diameter of measurable conductors	Cable length	Operating temperature	CAT
Measuren	nent of load c	urrent						
CT7126		60 A AC	40 Hz to 20 kHz	±0.3% rdg. ±0.01% f.s.	φ15 mm (0.59 in.)	2.5 m (8.20 ft.)	-10°C to 50°C 14°F to 122°F	300 V CAT III
CT7131		100 A AC	40 Hz to 20 kHz	±0.3% rdg. ±0.02% f.s.	φ15 mm (0.59 in.)	2.5 m (8.20 ft.)	-10°C to 50°C 14°F to 122°F	300 V CAT III
CT7731	81	100 A AC/DC	DC to 5 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	600 V CAT IV
CT7631	81	100 A AC/DC	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	600 V CAT IV
CT7736		600 A AC/DC	DC to 5 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	600 V CAT IV
CT7636	1	600 A AC/DC	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	600 V CAT IV 1000 V CAT III
CT7136	9/	600 A AC	40 Hz to 20 kHz	±0.3% rdg. ±0.01% f.s.	φ46 mm (1.81 in.)	2.5 m (8.20 ft.)	-10°C to 50°C 14°F to 122°F	600 V CAT IV 1000 V CAT III
CT7742	81	2000 A AC/DC	DC to 5 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	600 V CAT IV 1000 V CAT III
CT7642	3	2000 A AC/DC	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	600 V CAT IV 1000 V CAT III

Model	Appearance	Rated current	Frequency range	Amplitude accuracy	Diameter of measurable conductors	Cable length	Operating temperature	CAT
Measuren	nent of large o	currents						
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* (7.55 ft., 0.66 ft.)	-25°C to 65°C -13°F to 149°F	600 V CAT IV 1000 V CAT III
CT7045		6000 A AC	10 Hz to 50 kHz	±1.5% rdg. ±0.25% f.s.	φ180 mm (7.09 in.)	2.3 m, 0.2 m* (7.55 ft., 0.66 ft.)	-25°C to 65°C -13°F to 149°F	600 V CAT IV 1000 V CAT III
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* (7.55 ft., 0.66 ft.)	-25°C to 65°C -13°F to 149°F	600 V CAT IV 1000 V CAT III
Measuren	Measurement of leakage 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	-

^{*}Sensor cable: between flexible loop and circuit box for flexible sensors (e.g. CT7044), output cable for CT7116

Grid p	ower qua	lity contro	ol				Output tern	ninals: 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		5 A AC	40 Hz to 5 kHz	±0.3% rdg. ±0.02% f.s.	φ15 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.	φ15 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.	φ15 mm (0.59 in.)	-	0°C to 50°C 32°F to 122°F	300 V CAT III
9010-50	%	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	W	10 A to 500 A AC	40 Hz to 3 kHz	±1.5% rdg. ±0.1% 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
9132-50	Q)	20 A to 1000 A AC	40 Hz to 1 kHz	±3% rdg. ±0.2% f.s.	φ55 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	9	1000 A AC	40 Hz to 5 kHz	±1.0% rdg. ±0.01% f.s.	ф55 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* ² (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.	φ180 mm (7.09 in.)	2 m, 1 m* ² (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.	φ254 mm (10.00 in.)	2 m, 1 m* ² (6.56 ft., 3.28 ft.)	-10°C to 50°C 14°F to 122°F	600 V CAT IV 1000 V CAT III
Measuren	nent of leakag	e 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.	φ30 mm (1.18 in.)	3 m (9.84 ft.)	0°C to 50°C 32°F to 122°F	-

^{*1:} 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 connected instruments, it may not be possible to measure up to the rated current of the current sensors. For details, refer to the instruction manual of the connected instruments.

CONNECTION CABLE

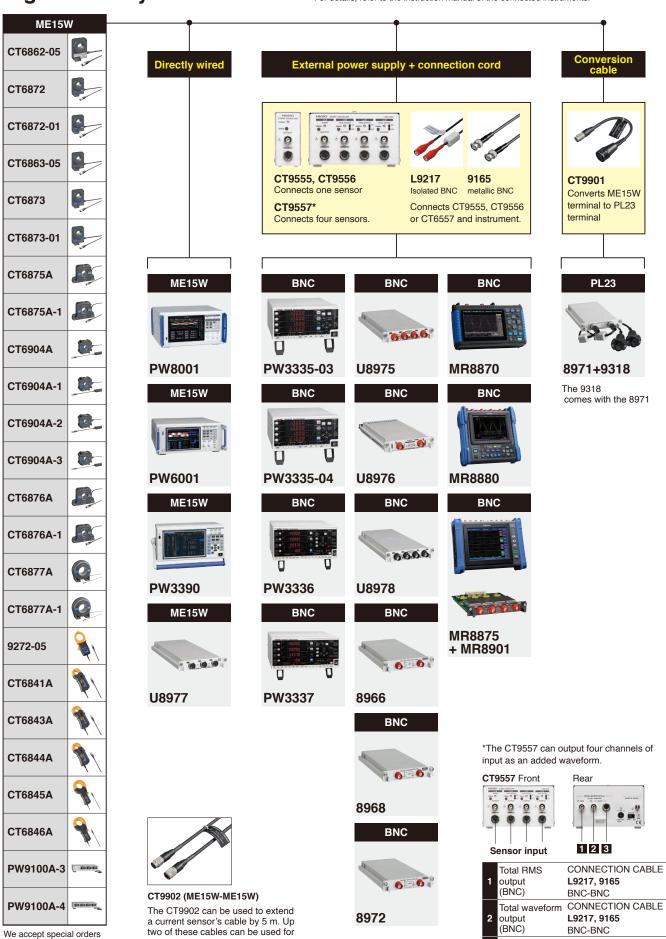
ME15W-ME15W

CT9904

Total waveform

output

(ME15W)



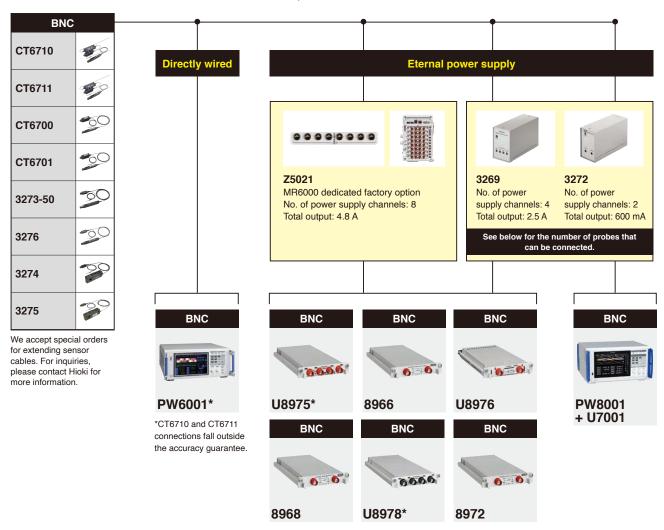
We accept special orders for extending sensor cables. For inquiries, please contact Hioki for more information.

a maximum extension of 10 m

*When using the CT9902, an addition must be made to accuracy. For details, see the sensor's user manual.

Waveform observation

* Depending on the connected instruments, it may not be possible to measure up to the rated current of the current sensors. For details, refer to the instruction manual of the connected instruments.



^{*}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

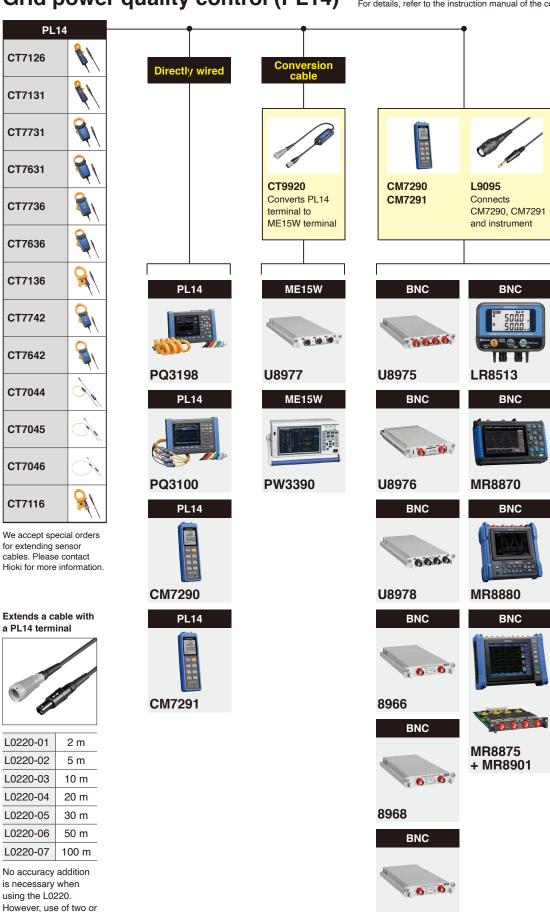
^{*}When measuring the rated current.

more cables together

falls outside the accuracy guarantee.

Grid power quality control (PL14)

* Depending on the connected instruments, it may not be possible to measure up to the rated current of the current sensors. For details, refer to the instruction manual of the connected instruments.



8972

Grid power quality control (BNC)

PW3360

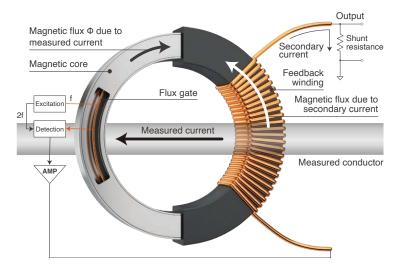
8972

* Depending on the connected instruments, it may not be possible to measure up to the rated current of the current sensors. For details, refer to the instruction manual of the connected instruments.

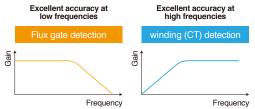


Accurately evaluating power conversion efficiency

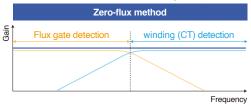
Improving power conversion efficiency is a key part of the effort to facilitate the effective use of energy. Devices that operate at high frequencies are increasingly being used to improve efficiency, and evaluation processes undertaken during the development of such devices requires accurate measurement 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.



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



Flat characteristics from low to high 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 (flux gate) current sensors



CT6841A, CT6843A, CT6844A



CT6845A, CT6846A



CT6862-05, CT6863-05, CT6875A, CT6876A CT6872, CT6873





CT6877A

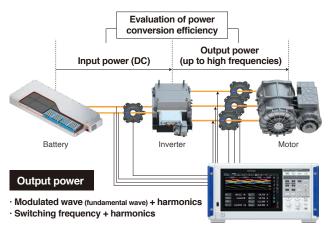


CT6904A

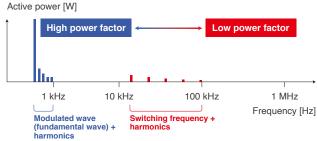
Application

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

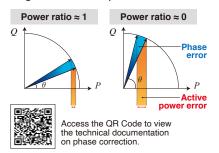


Since the power factor decreases with harmonics, current sensors' phase measurement accuracy becomes key (see right).

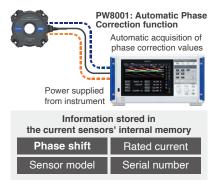
Phase measurement accuracy and correction: accurately measuring power at low power factors

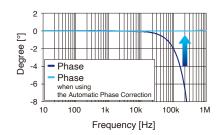
For typical current sensors, phase measurement accuracy is not defined. However, phase measurement precision is important in applications where power must be measured with a high degree of accuracy. Power can be measured more accurately by selecting a current sensor for which phase measurement accuracy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

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



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.



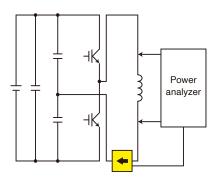


Example of the Automatic Phase Correction for the CT6904A AC/DC current sensor

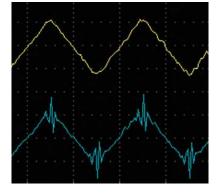
For typical sensors, phase error increases with frequency. Since Hioki has developed both current sensors and the measuring instruments, current sensors' phase characteristics can be corrected by the instruments, allowing accurate power values to be calculated.

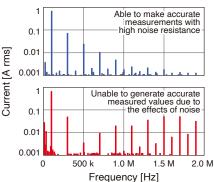
Common-mode voltage rejection ratio: measuring current values accurately in noisy environments

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.



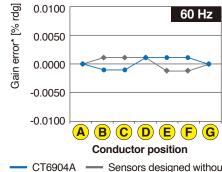


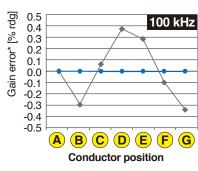
Top: CT6904A CMRR 120 dB or greater (100 Hz); bottom: sensor with a low CMRR

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.





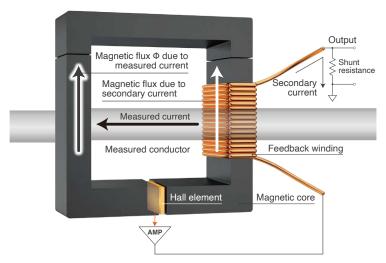


Sensors designed without accounting for conductor position

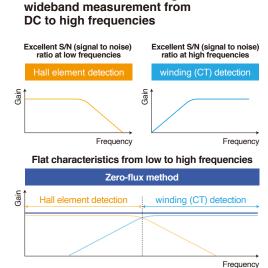
deviation from center

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,

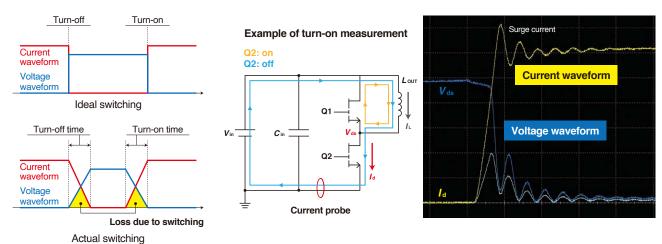
Zero-flux method (hall element) current probes



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.

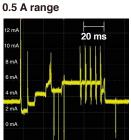


Observing waveforms from minuscule currents to large currents: evaluating the control design of ECUs and accessory components

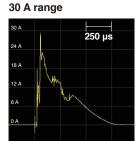
The control systems used in ECUs and accessory components carry currents of a variety of magnitudes according to the vehicle's operation, from control currents to inrush currents. Using a current probe that can switch current ranges makes it possible to observe current waveforms associated with an array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



CT6710/CT6711 0.5 A, 5 A, 30 A range switching



Observing a minuscule current waveform (current consumption of a power-saving device)



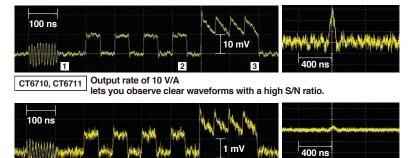
Observing a large current waveform (inrush current)

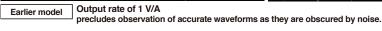
Observing currents of a variety of magnitudes. from minuscule currents to large currents, with a single probe

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.





Noise resistance design: key to increasing output rate





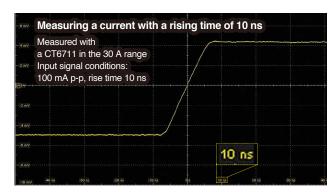
Hioki uses a proprietary Electromagnetic shielding generated inside the probe.

thin-film Hall element to in the sensor improves reduce the amount of noise resistance 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)

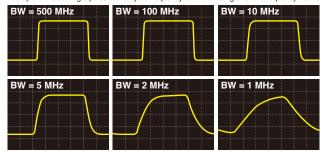
Observing waveforms across a broad band of frequencies: capturing waveforms and pulse waveforms that fluctuate at high speeds

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.

Failure to capture accurate waveforms due to insufficient frequency band Example of measuring a pulse with a cyclic frequency of 1 MHz using different frequency bands



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

CT6862-05



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

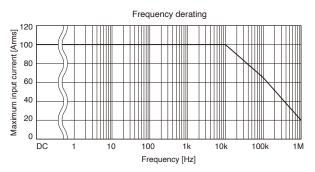
Rated current	50 A AC/DC
Frequency band	DC to 1 MHz (-3 dB)
Diameter of measurable conductors	Max. φ 24 mm (0.94 in.)

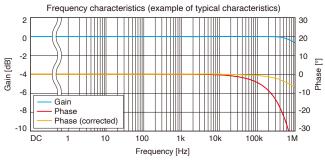
Accuracy

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°
$1 \text{ kHz} < f \le 5 \text{ kHz}$	±0.7% ±0.02%	±1.0°
5 kHz < f ≤ 10 kHz	±1% ±0.02%	±1.0°
10 kHz < f ≤ 50 kHz	±1% ±0.02%	$\pm (0.5 + 0.1 \times f \text{ kHz})^{\circ}$
50 kHz < f ≤ 100 kHz	±2% ±0.05%	$\pm (0.5 + 0.1 \times f \text{ kHz})^{\circ}$
100 kHz < f ≤ 300 kHz	±5% ±0.05%	$\pm (0.5 + 0.1 \times f \text{ kHz})^{\circ}$
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 Ω 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: ±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	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

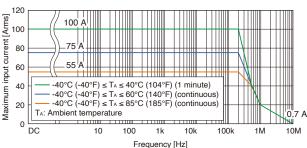
Rated current	50 A AC/DC
Frequency band	DC to 10 MHz (-3 dB)
Diameter of measurable conductors	Max. φ 24 mm (0.94 in.)

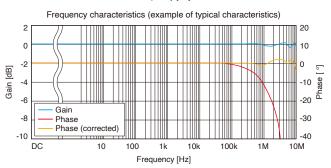
Accuracy

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 and PW3390 is specified (DC, 45 Hz \le 16 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 Ω \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 \pm 0.01% of reading to the amplitude accuracy for input from 10% of full scale to 110% of full scale The CT6872-01 adds a phase accuracy of \pm 10.015 x | \pm 10 at frequency of 1 kHz < 1 \pm 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 MHz)	
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%





40 mV/A (= 2 V / 50 A)
-40°C to 85°C (-40°F to 185°F), 80% RH or less
(no condensation)
-40°C to 85°C (-40°F to 185°F), 80% RH or less
(no condensation)
1000 V CAT III
Anticipated transient overvoltage: 8000 V
Safety: EN61010, EMC: EN61326
CT6872: 3 m (9.84 ft.)
CT6872-01: 10 m (32.81 ft.)
70 mm (2.76 in.) W × 110 mm (4.33 in.) H × 53 mm (2.09
in.) D (excluding protruding parts and cables)
CT6872: approx. 370 g (13.1 oz.)
CT6872-01: approx. 690 g (24.3 oz.)

CT6863-05



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

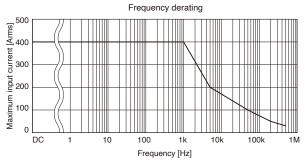
Rated current	200 A AC/DC
Frequency band	DC to 500 kHz (-3 dB)
Diameter of measurable conductors	Max. φ 24 mm (0.94 in.)

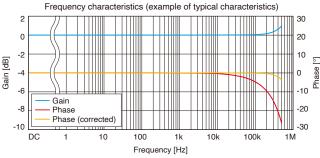
Accuracy

riodaracy		
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%	$\pm (0.5 + 0.1 \times f kHz)^{\circ}$
50 kHz < f ≤ 100 kHz	±5% ±0.05%	$\pm (0.5 + 0.1 \times f kHz)^{\circ}$
100 kHz < f ≤ 300 kHz	±10% ±0.05%	$\pm (0.5 + 0.1 \times f kHz)^{\circ}$
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 Ω or higher. Amplitude accuracy: defined at the rated value or less, or within the derating curve; DC <1 < 5 Hz is the typical value by design. Phase accuracy: defined at the rated value or less, or within the derating curve; DC < 1 < 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

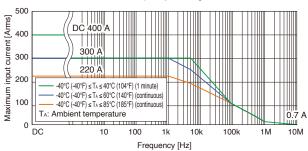
Rated current	200 A AC/DC
Frequency band	DC to 10 MHz (-3 dB)
Diameter of measurable conductors	Max. φ 24 mm (0.94 in.)

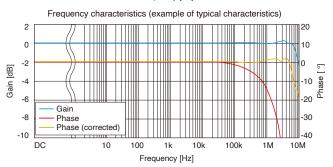
Accuracy

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 and PW3390 is specified (DC, 45 Hz ≤ f ≤ 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 ±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 < f < 10 Hz is the value by design. Phase accuracy: defined 110% of full scale or less, or within the derating curve; DC < f < 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. The CT6873-01 adds a phase accuracy of ±0.015 × f)° at a frequency of 1 kHz < f ≤ 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: ±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 MHz)	
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

500 A AC/DC Rated current CT6875A: DC to 2 MHz (±3 dB) Frequency band CT6875A-1: DC to 1.5 MHz (±3 dB)

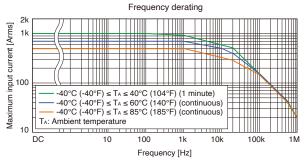
Diameter of measurable conductors $\,$ Max. φ 36 mm (1.41 in.)

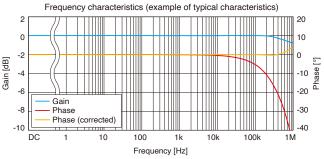
Accuracy

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%	$\pm (0.1 \times f \text{ kHz})^{\circ}$	
10 kHz < f ≤ 50 kHz	±1.5% ±0.05%	$\pm (0.1 \times f \text{ kHz})^{\circ}$	
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, PW6001 and PW3390 is specified (DC, 45 Hz s1 s 66 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 < {< 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 CT6875A-1, add the following for frequencies of IkHz < f = 11 HHz (the frequency band is 1.5 MHz ±3 dB); Amplitude accuracy: ±(0.005 x f kHz)% of reading, Phase accuracy: ±(0.015 x f 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%	



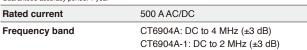


Output voltage	4 mV/A (= 2 V / 500 A)
Operating temperature and humidity range	-40°C to 85°C (-40°F to 185°F), 80% RH or less (no condensation)
Storage temperature and humidity range	-40°C to 85°C (-40°F to 185°F), 80% RH or less (no condensation)
Maximum rated voltage to ground	1000 V CAT III Anticipated 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)
Weight	CT6875A: approx. 0.8 kg (28.2 oz.) CT6875A-1: approx. 1.1 kg (38.8 oz.)

CT6904A CT6904A-1

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

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



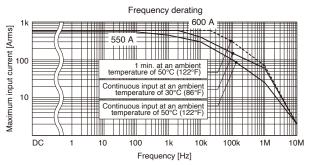
Diameter of measurable conductors $Max. \ \varphi \ 32 \ mm \ (1.25 \ in.)$

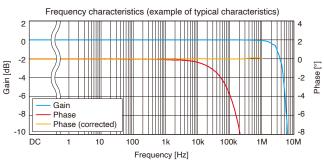
Accuracy

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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 and PW6001 is specified (IOC, 45 Hz ≤ 15 Bt.2). 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. - $Add \pm 0.01\%$ of reading to the amplitude accuracy for input from 100% of full scale to 110% of full scale < 1 For the CT6904A-1, add the following for frequencies of < 1 MHz.(the frequency band is < 1 MHz ≤ 1 MHz.(the frequency band is < 1 MHz ≤ 1 MHz.(the frequency band is < 1 MHz ≤ 1 MHz.(the frequency band is < 1 MHz ≤ 1 MHz.(the frequency band is < 1 MHz ≤ 1 MHz.)

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





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 Guaranteed 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)

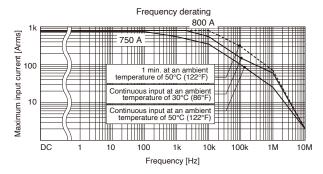
Diameter of measurable conductors Max. φ 32 mm (1.25 in.)

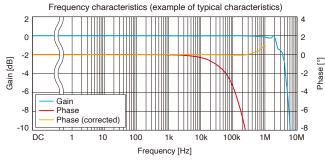
Accuracy

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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 HIDKI power analyzer PW8001 and PW6001 is specified (DC, $45 \text{ Hz} \le 1 \le 65 \text{ Hz}$). 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 -At 100Hz or more and within the range of "Continuous input at an ambient temperature of 50°C (122°F)" described in the frequency derating graph below -For the CT6904A-3, add the following for frequencies of $50 \text{ kHz} < f \le 1 \text{ MHz}$ (frequency band is $2 \text{ MHz} \pm 3$): Amplitude accuracy: $\pm (0.015 \times f)\%$ 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: ± 50 ppm of reading / °C Offset voltage: ±5 ppm of full scale / °C Phase: ±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.) CT6904A-3: approx. 1.45 kg (51.1 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

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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 HIOKI power analyzer PW8001, PW8001 and PW3390 is specified (IDC, 45 Hz ≤ f ≤ 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 < f < 10 Hz is the value by design

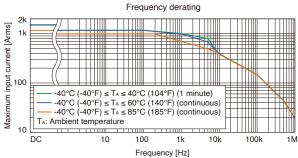
 Add ±0.01% of reading to the amplitude accuracy for input from 100% of full scale to 110% of full scale

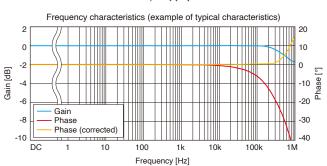
 For the CT6876A-1, add the following for frequencies of 1 kHz < f ≤ 1 MHz

 (the frequency band is 1.2 MHz 3d 68);

 Amplitude accuracy: ±(0.005 × f kHz)% of reading, Phase accuracy: ±(0.015 × f 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: ±0.03% 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%





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)
Weight	CT6876A: approx. 0.95 kg (33.5 oz.) CT6876A-1: approx. 1.25 kg (44.1 oz.)

CT6877A CT6877A-1



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

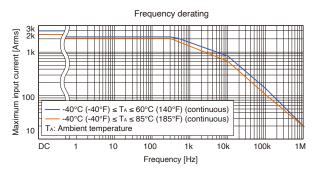
Rated current	2000 A AC/DC
Frequency band	DC to 1 MHz
Diameter of measurable conductors	Max. φ 80 mm (3.14 in.)

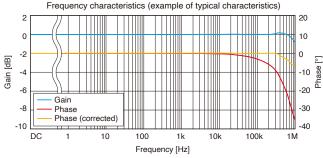
Accuracy

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%	$\pm (0.3 + 0.1 \times f kHz)^{\circ}$
5 kHz < f ≤ 10 kHz	±0.5% ±0.02%	$\pm (0.3 + 0.1 \times f kHz)^{\circ}$
10 kHz < f ≤ 50 kHz	±1.5% ±0.05%	$\pm (0.3 + 0.1 \times f kHz)^{\circ}$
50 kHz < f ≤ 100 kHz	±2.5% ±0.05%	$\pm (0.3 + 0.1 \times f kHz)^{\circ}$
100 kHz < f ≤ 700 kHz	±(0.025 × f)% ±0.05%	± (0.3 + 0.1 × f kHz)°

- Combined accuracy with HIOKI power analyzer PW8001, PW6001 and PW3390 is specified (DC, 45 Hz \le 16 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 < 17 < 10 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
 For the CT8877A-1, add the following for frequencies of 1 kHz < 15 < 700 kHz:
 Amplitude accuracy: \pm (0.005 \times 1)% of reading, Phase accuracy: \pm (0.015 \times 1)°

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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 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	CT6877A: 3 m (9.84 ft.) CT6877A-1: 10 m (32.81 ft.)
Dimensions	229 mm (9.02 in.) W \times 232 mm (9.13 in.) H \times 112 mm (4.41 in.) D (excluding protruding parts and cables)
Weight	CT6877A: approx. 5 kg (176.4 oz.) CT6877A-1: approx. 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

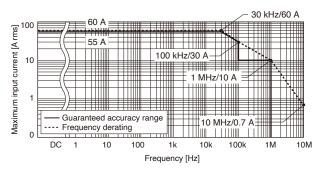
Frequency	Amplitude ±(% of reading + % of full scale)	Phase
DC	±0.02% ±0.007%	-
DC < f < 30 Hz	±0.1% ±0.02%	±0.3°
30 Hz ≤ f < 45 Hz	±0.1% ±0.02%	±0.1°
45 Hz ≤ f ≤ 65 Hz	±0.02% ±0.005%	±0.1°
65 Hz < f ≤ 500 Hz	±0.1% ±0.01%	±0.12°
500 Hz < f ≤ 1 kHz	±0.1% ±0.01%	±0.5°
1 kHz < f ≤ 5 kHz	±0.5% ±0.02%	±0.5°
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)°

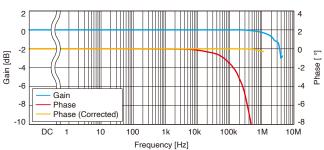
- Combined accuracy with HIOKI power analyzer PW8001, PW6001 and PW3390 is specified (DC, 45 Hz ≤ f ≤ 65 Hz). For details of combined accuracy, refer to the instruction manual.

 Amplitude accuracy and phase accuracy: defined within the accuracy guarantee range shown in the derating figure below; DC < f < 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

· ·	· · · · ·
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.)

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

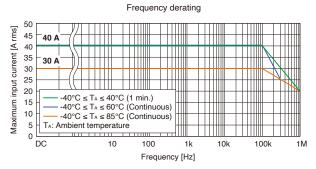
,			
Amplitude ±(% of reading + % of full scale)	Phase		
±0.2% ±0.05%*	-		
±0.2% ±0.01%	±0.1°		
±0.3% ±0.02%	±0.2°		
±0.5% ±0.02%	±0.5°		
±1.0% ±0.02%	±1.0°		
±1.5% ±0.02%	±1.5°		
±2.0% ±0.02%	$\pm (0.5 + 0.1 \times f \text{ kHz})^{\circ}$		
±5.0% ±0.05%	$\pm (0.5 + 0.1 \times f \text{ kHz})^{\circ}$		
±10% ±0.05%	$\pm (0.5 + 0.1 \times f \text{ kHz})^{\circ}$		
±15% ±0.05%	$\pm (0.5 + 0.1 \times f \text{ kHz})^{\circ}$		
±30% ±0.05%	$\pm (0.5 + 0.1 \times f kHz)^{\circ}$		
	\pm (% of reading + % of full scale) \pm 0.2% \pm 0.05%* \pm 0.2% \pm 0.01% \pm 0.3% \pm 0.02% \pm 0.5% \pm 0.02% \pm 1.0% \pm 0.02% \pm 1.5% \pm 0.02% \pm 2.0% \pm 0.02% \pm 5.0% \pm 0.05% \pm 110% \pm 0.05%		

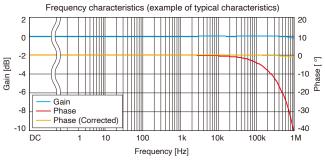
Combined accuracy with HIOKI power analyzer PW8001, PW6001 and PW3390 is specified (DC, 45 Hz \le 16 Hz). For details of combined accuracy, refer to the instruction manual. DC accuracy after adjusting the offset voltage to \pm 0.5 mV or less.

- The values above are when the input is a sine wave or DC, the measurement instrument's input resistance is 1 M Ω ± 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	(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)





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

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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)°
	· ·	

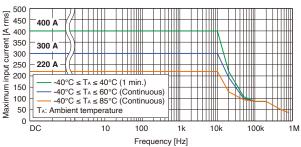
Combined accuracy with HIOKI power analyzer PW8001, PW6001 and PW3390 is specified (DC, 45 Hz \le 16 Hz). For details of combined accuracy, refer to the instruction manual. *DC accuracy after adjusting the offset voltage to \pm 0.2 mV or less.

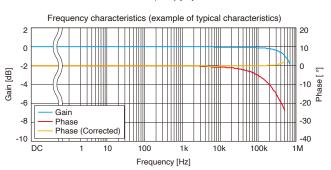
- The values above are when the input is a sine wave or DC, the measurement instrument's input resistance is 1 M Ω ± 10%, voltage to ground 0 V, no external magnetic fields and the conductor is in the center of the sensor opening.

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

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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: ±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





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 yeasr 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

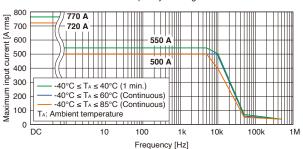
•		
Frequency	Amplitude ±(% of reading + % of full scale)	Phase
DC	±0.2% ±0.02%*	-
DC < f ≤ 100 Hz	±0.2% ±0.01%	±0.1°
100 Hz < f ≤ 500 Hz	±0.3% ±0.02%	±0.2°
500 Hz < f ≤ 1 kHz	±0.5% ±0.02%	±0.5°
1 kHz < f ≤ 5 kHz	±1.0% ±0.02%	±1.0°
5 kHz < f ≤ 10 kHz	±1.5% ±0.02%	±1.5°
10 kHz < f ≤ 50 kHz	±5.0% ±0.02%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

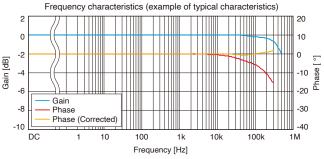
Combined accuracy with HIOKI power analyzer PW8001, PW6001 and PW3390 is specified (DC, 45 Hz \leq 1 \leq 66 Hz). For details of combined accuracy, refer to the instruction manual. *DC accuracy after adjusting the offset voltage to \pm 0.2 mV or less.

- The values above are when the input is a sine wave or DC, the measurement instrument's input resistance is 1 M Ω ± 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 ppm

Frequency derating





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.)

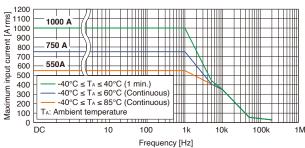
Accuracy

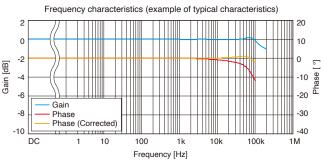
Frequency	Amplitude ±(% of reading + % of full scale)	Phase
DC	±0.2% ±0.02%*	-
DC < f ≤ 100 Hz	±0.2% ±0.01%	±0.1°
100 Hz < f ≤ 500 Hz	±0.3% ±0.02%	±0.2°
500 Hz < f ≤ 1 kHz	±0.5% ±0.02%	±0.5°
1 kHz < f ≤ 5 kHz	±1.0% ±0.02%	±(0.5 × f kHz)°
5 kHz < f ≤ 10 kHz	±1.5% ±0.02%	±(0.5 × f kHz)°
10 kHz < f ≤ 20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

Combined accuracy with HIOKI power analyzer PW8001, PW6001 and PW3390 is specified (DC, 45 Hz \leq 1 \leq 6 Hz). For details of combined accuracy, refer to the instruction manual.
^DC accuracy after adjusting the offset voltage to \leq 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 Ω = 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 \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 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%	$\pm (0.7 \times f \text{ kHz})^{\circ}$
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 and PW3390 is specified (DC, 45 Hz \pm 1 \pm 6 fb,). For details of combined accuracy, refer to the instruction manual. "DC accuracy after adjusting the offset voltage to \pm 0.2 mV or less.

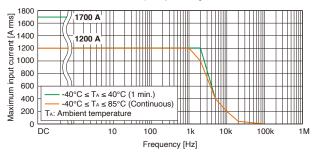
- The values above are when the input is a sine wave or DC, the measurement instrument's input resistance is 1 M\Omega ± 10\%, voltage to ground 0 V, no external magnetic fields and the conductor is in the center of the sensor opening.

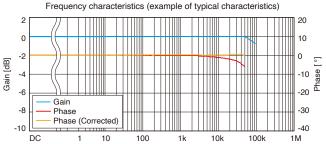
 Amplitude accuracy and phase accuracy are defined 110\% of full scale or less and within the derating curve, DC < f < 10 Hz is a design value.

 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) 130 dB or greater (1 kHz to 10 kHz) 100 dB or greater (10 kHz to 50 kHz)
Linearity error	±20 ppm

Frequency derating





Frequency [Hz]	
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

Frequency	Amplitude ±(% of reading + % of full scale)	Phase
1 Hz ≤ f < 5 Hz	±2.0% ±0.10%	-
5 Hz ≤ f < 10 Hz	±1.0% ±0.05%	±1.0°
10 Hz ≤ f < 45 Hz	±0.5% ±0.02%	±0.5°
45 Hz ≤ f ≤ 66 Hz	±0.3% ±0.01%	±0.2°
66 Hz < f ≤ 500 Hz	±0.5% ±0.02%	±0.5°
500 Hz < f ≤ 1 kHz	±0.5% ±0.02%	±1.0°
1 kHz < f ≤ 5 kHz	±1.0% ±0.05%	±2.0°
5 kHz < f ≤ 10 kHz	±2.5% ±0.10%	±3.0°
10 kHz < f ≤ 20 kHz	±5% ±0.1%	±5.0°
20 kHz < f ≤ 50 kHz	±5% ±0.1%	±15.0°
50 kHz < f ≤ 100 kHz	±30% ±0.1%	-

- Accuracy is specified by the following conditions:

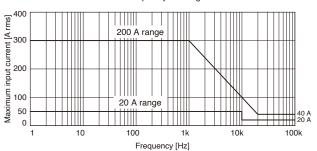
 Less than or equal to the rated current of each current range

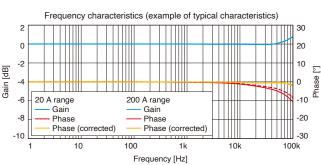
 Within derating range of each current range

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

CT6710

Product warranty period: 1 year Guaranteed accuracy 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

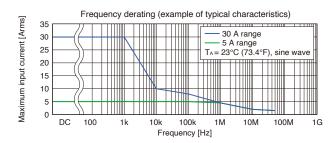
Rise time	7.0 ns or less (10% to 90%)
Output voltage	0.1 V/A (30 A range) 1 V/A (5 A range) 10 V/A (0.5 A range)
Maximum peak current	±50 A peak*¹ (30 A range) ±7.5 A peak (5 A range) ±0.75 A peak (0.5 A range, ≥ 10 MHz) ±0.3 A peak (0.5 A range, < 10 MHz)
Noise	75 μArms or less*2 (typical: 60 μArms)

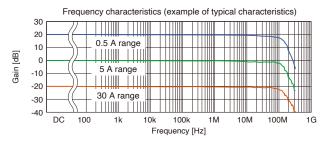
- *1: Maximum 2 sec input; requires cooling time of at least 10 times longer than the time current has been input *2: Does not apply to devices to which the probe is connected; applicable in the 0.5 A range and when used with 20 MHz bandwidth instrument devices

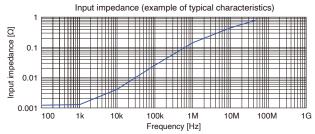
Accuracy (amplitude)

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 $23^{\circ}\text{C}\pm5^{\circ}\text{C}$ ($73^{\circ}\text{F}\pm9^{\circ}\text{F}$) at 80% RH or less, DC or sine wave signals of 45 to 66 Hz, 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 × 18 mm (0.71 in.) H ×
	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 g (13.1 oz.)

CT6711

Product warranty period: 1 year Guaranteed accuracy 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

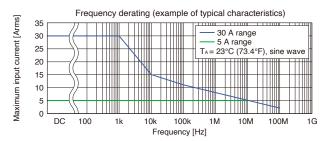
Rise time	2.9 ns or less (10% to 90%)
Output voltage	0.1 V/A (30 A range) 1 V/A (5 A range) 10 V/A (0.5 A range)
Maximum peak current	±50 A peak*¹ (30 A range) ±7.5 A peak (5 A range) ±0.75 A peak (0.5 A range, ≥ 10 MHz) ±0.3 A peak (0.5 A range, < 10 MHz)
Noise	75 μArms or less*2 (typical: 60 μArms)

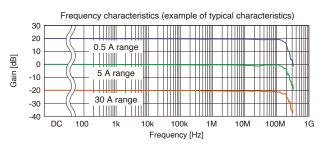
- *1: Maximum 2 sec. input; requires cooling time at least 10 times longer than the time current has been input *2: Does not apply to devices to which the probe is connected; applicable in the 0.5 A range and when used with 20 MHz bandwidth instrument devices

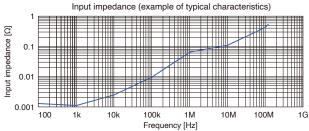
Accuracy (amplitude)

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°C±5°C (73°F ±9°F) at 80% RH or less, DC or sine wave signals of 45 to 66 Hz, 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 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

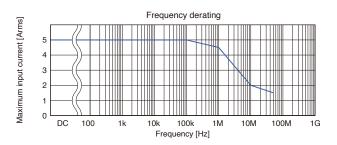
Rise time	7.0 ns or less (10% to 90%)
Output voltage	1 V/A
Maximum peak current	±7.5 A peak (non-continuous)
Noise	75 μArms or less* (typical: 60 μA rms)

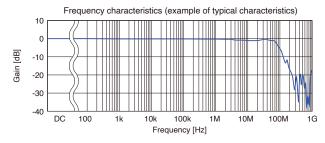
^{*}Does not apply to devices to which the probe is connected; applicable when used with 30 MHz bandwidth instrument devices

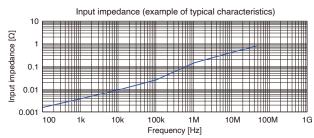
Accuracy (amplitude)

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 \pm 5°C (73°F \pm 9°F) at 80% RH or less, DC or sine wave signals of 45 to 66 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 × 83 mm (3.27
	in.) H × 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

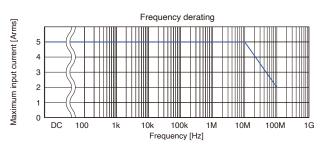
Rise time	2.9 ns or less (10% to 90%)
Output voltage	1 V/A
Maximum peak current	±7.5 A peak (non-continuous)
Noise	75 μArms or less* (typical: 60 μA rms)

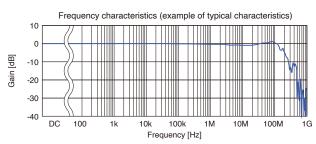
^{*}Does not apply to devices to which the probe is connected; applicable when used with 30 MHz bandwidth instrument devices

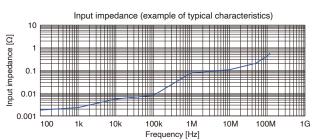
Accuracy (amplitude)

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 66 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*

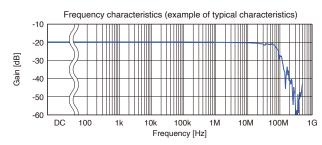
^{*}Does not apply to devices to which the probe is connected; applicable when used with 20 MHz bandwidth instrument devices

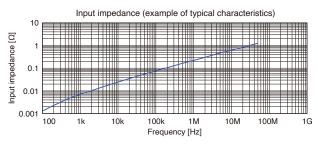
Accuracy (amplitude)

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, 0 Arms to 5 Arms

Frequency derating Maximum input current [Arms] 30 25 20 15 10 5 0 DC 10 100 10k 100k 1M 10M 100M Frequency [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	5.6 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 x 18 mm (0.71 in.) H x	
	40 mm (1.57 in.) D	
	Termination unit: 27 mm (1.06 in.) W × 55 mm (2.17	
	in.) H × 18 mm (0.71 in.) D	
	(excluding BNC connector or protrusions)	
Weight	Approx. 230 g (8.1 oz)	

3276

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.

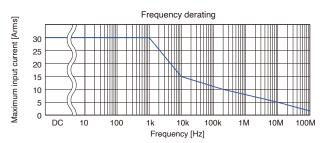
Rise time	3.5 ns or less
Output voltage	0.1 V/A
Maximum peak current	50 A peak (non-continuous)
Noise	2.5 mArms or less*

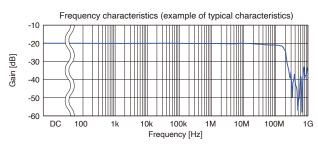
^{*}Does not apply to devices to which the probe is connected;

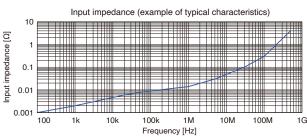
Accuracy (amplitude)

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, 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	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)	

3274

Product warranty period: 1 year Guaranteed accuracy 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

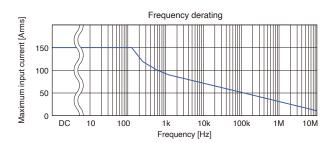
Rise time	35 ns or less	
Output voltage	0.01 V/A	

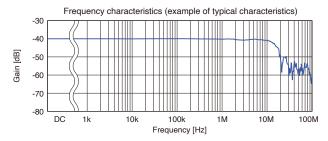
Maximum peak current 300 A peak (non-continuous)*1 25 mArms or less*2

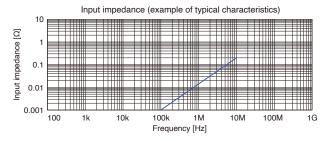
Accuracy (amplitude)

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 × 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 Guaranteed accuracy 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

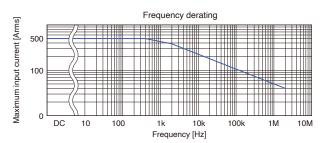
Rise time	175 ns or less
Output voltage	0.01 V/A
Maximum peak current	700 A peak (non-continuous)
Noise	25 mArms or less*

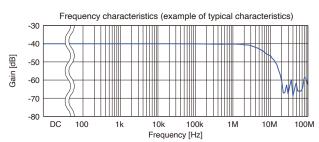
^{*}Does not apply to devices to which the probe is connected; when used with a 20 MHz bandwidth instrument devices

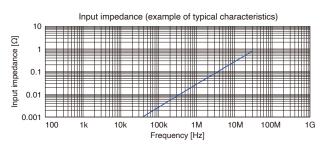
Accuracy (amplitude)

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	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	7.2 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 x 69 mm (2.72 in.) H x	
	27 mm (1.06 in.) D	
	Termination unit: 27 mm (1.06 in.) W × 55 mm (2.17	
	in.) H × 18 mm (0.71 in.) D	
	(excluding BNC connector or protrusions)	
Weight	Approx. 520 g (18.3 oz)	

^{*1: 500} Apeak with pulse width \leq 30 μs *2: Does not apply to devices to which the probe is connected; when used with a 20 MHz bandwidth instrument devices

High-accuracy measurement (ME15W)			
Pass-through typ	es	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
Clamp types 9272-05		Rated current 20 A, 200 A	
			range
9272-05		20 A, 200 A	range 1 Hz to 100 kHz
9272-05 CT6841A		20 A, 200 A 20 A	range 1 Hz to 100 kHz DC to 2 MHz
9272-05 CT6841A CT6843A		20 A, 200 A 20 A 200 A	range 1 Hz to 100 kHz DC to 2 MHz DC to 700 kHz
9272-05 CT6841A CT6843A CT6844A		20 A, 200 A 20 A 200 A 500 A	range 1 Hz to 100 kHz DC to 2 MHz DC to 700 kHz DC to 500 kHz
9272-05 CT6841A CT6843A CT6844A CT6845A	S	20 A, 200 A 20 A 200 A 500 A 500 A	range 1 Hz to 100 kHz DC to 2 MHz DC to 700 kHz DC to 500 kHz DC to 200 kHz
9272-05 CT6841A CT6843A CT6844A CT6845A CT6846A	Š	20 A, 200 A 20 A 200 A 500 A 500 A 1000 A	range 1 Hz to 100 kHz DC to 2 MHz DC to 700 kHz DC to 500 kHz DC to 200 kHz DC to 100 kHz
9272-05 CT6841A CT6843A CT6844A CT6845A CT6846A Direct-wired type:	S	20 A, 200 A 20 A 200 A 500 A 500 A 1000 A Rated current	range 1 Hz to 100 kHz DC to 2 MHz DC to 700 kHz DC to 500 kHz DC to 200 kHz DC to 100 kHz Frequency range
9272-05 CT6841A CT6843A CT6844A CT6845A CT6846A Direct-wired type:		20 A, 200 A 20 A 200 A 500 A 500 A 1000 A Rated current 50 A	range 1 Hz to 100 kHz DC to 2 MHz DC to 700 kHz DC to 500 kHz DC to 200 kHz DC to 100 kHz DC to 100 kHz Frequency range DC to 3.5 MHz
9272-05 CT6841A CT6843A CT6844A CT6845A CT6846A Direct-wired type: PW9100A-3 PW9100A-4		20 A, 200 A 20 A 200 A 500 A 500 A 1000 A Rated current 50 A 50 A	range 1 Hz to 100 kHz DC to 2 MHz DC to 700 kHz DC to 500 kHz DC to 200 kHz DC to 100 kHz DC to 100 kHz Frequency range DC to 3.5 MHz DC to 3.5 MHz
9272-05 CT6841A CT6843A CT6844A CT6845A CT6846A Direct-wired type: PW9100A-3 PW9100A-4 Connection optio	ns	20 A, 200 A 20 A 200 A 500 A 500 A 1000 A Rated current 50 A 50 A	range 1 Hz to 100 kHz DC to 2 MHz DC to 700 kHz DC to 500 kHz DC to 200 kHz DC to 100 kHz DC to 100 kHz Frequency range DC to 3.5 MHz DC to 3.5 MHz
9272-05 CT6841A CT6843A CT6844A CT6845A CT6846A Direct-wired type: PW9100A-3 PW9100A-4 Connection optio	ns 1 ch, external power su	20 A, 200 A 20 A 200 A 500 A 500 A 1000 A Rated current 50 A 50 A	range 1 Hz to 100 kHz DC to 2 MHz DC to 700 kHz DC to 500 kHz DC to 200 kHz DC to 100 kHz Frequency range DC to 3.5 MHz DC to 3.5 MHz MS output function
9272-05 CT6841A CT6843A CT6844A CT6845A CT6846A Direct-wired type: PW9100A-3 PW9100A-4 Connection optio CT9555 CT9556	ns 1 ch, external power su 1 ch, external power su 4 ch, external power su	20 A, 200 A 20 A 200 A 500 A 500 A 1000 A Rated current 50 A 50 A 500 A	range 1 Hz to 100 kHz DC to 2 MHz DC to 700 kHz DC to 500 kHz DC to 200 kHz DC to 100 kHz Frequency range DC to 3.5 MHz DC to 3.5 MHz MS output function

Waveform observation (BNC)			
High-sensitivity o	bservation	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 la	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	range 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		30 A 30 A 150 A 500 A	DC to 50 MHz DC to 100 MHz DC to 10 MHz

Used with CT9557 added waveform output

Converts ME15W terminal to PL23 terminal

Used to extend cable length

Grid power of	quality control (PL14)			
	nt of load current	Rated current	Frequency range	
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	it 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	options			
CT9920	Converts PL14 termin	nal to ME15W terminal		
L9095	Connects CM7290, C	Connects CM7290, CM7291 and instrument		
L0220-01	Extends a cable with	Extends a cable with a PL14 terminal, 2 m (6.56 ft.)		
L0220-02	Extends a cable with	Extends a cable with a PL14 terminal, 5 m (16.40 ft.)		
L0220-03	Extends a cable with	Extends a cable with a PL14 terminal, 10 m (32.81 ft.)		
L0220-04	Extends a cable with	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.)			

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*1	40 Hz to 1 kHz	
9018-50	10 A - 500 A*1	40 Hz to 3 kHz	
9132-50	20 A - 1000 A*2	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	
Measurement of large currents	Rated current	Frequency range	
CT9667-01	500 A, 5000 A	10 Hz to 20 kHz	
CT9667-02	500 A, 5000 A	10 Hz to 20 kHz	
CT9667-03	500 A, 5000 A	10 Hz to 20 kHz	
Measurement of leakage current	Rated current	Frequency range	
9657-10	10 A	40 Hz to 5 kHz	
9675	10 A	40 Hz to 5 kHz	
Connection options			
9219	Converts crimped terminal to BNC terminal		
L9910	Converts BNC terminal	to PL14 terminal	
9704	Converts BNC terminal to banana terminal		
*1: Can switch between ranges (10, 20	EO 100 200 EOO A A	2 \	

- *1: Can switch between ranges (10, 20, 50, 100, 200, 500 A AC) *2: Can switch between ranges (20, 50, 100, 200, 500, 1000 A AC)



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CT9904

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CT9902

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