HIOKI

HIGH ACCURACY / WIDEBAND
CURRENT SENSOR Series

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

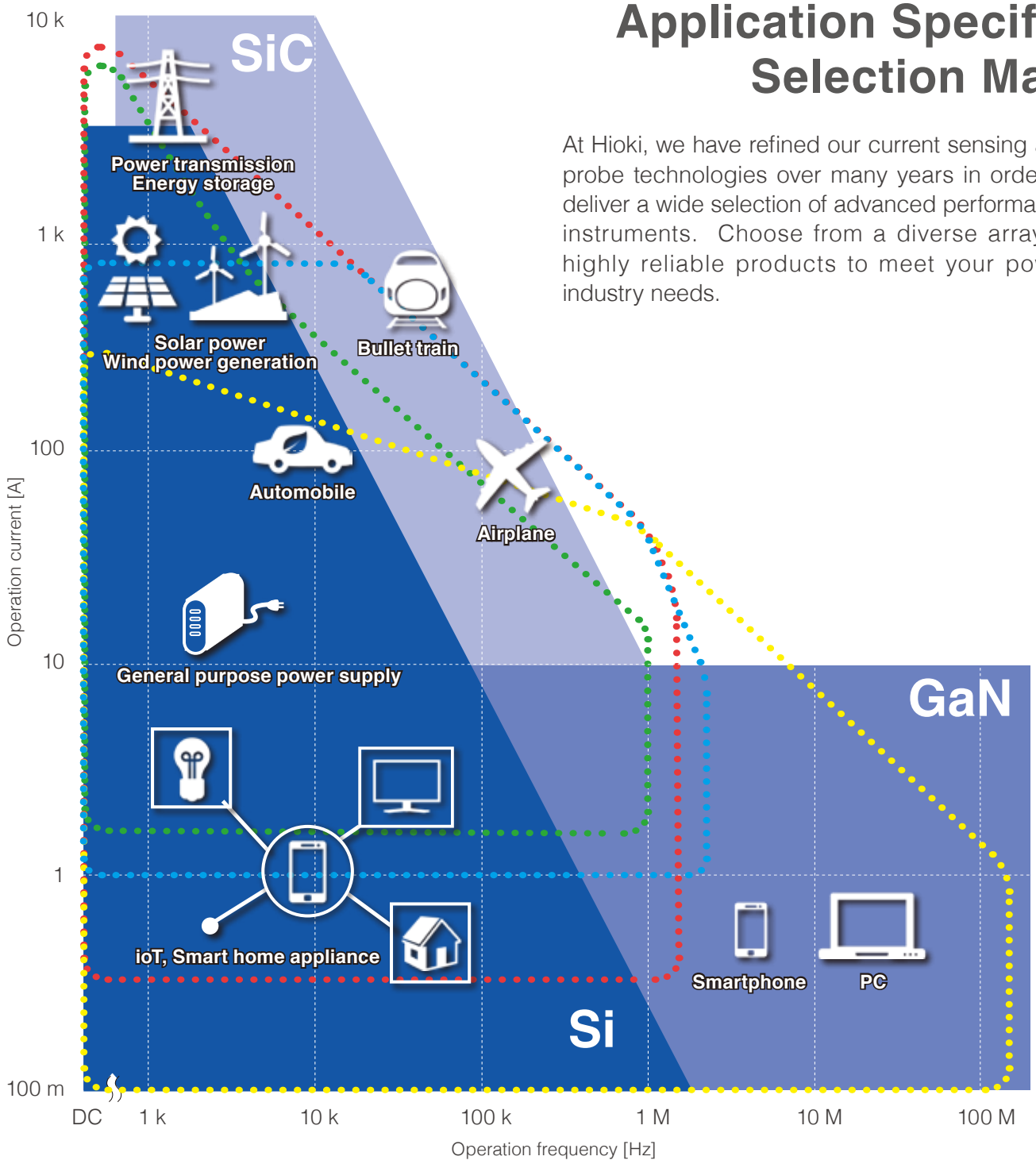


Optimize the Performance of Your a Power Analyzer,
Memory HiCorder, or Oscilloscope

CE

Application Specific Selection Map

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



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



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



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



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



Wideband Clamp-type
Application 1: Current waveform measurement of control signal lines for automobiles and industrial robots
Application 2: Measurement of standby and leakage current for wireless or medical devices

Current Sensors

Current sensor types	External appearance	Model	Rating	Output voltage	Frequency characteristics	Basic accuracy (amplitude)	Basic accuracy (phase)	Operating temperature range	Measurable conductor diameter
Ultra-high accuracy pass-through		CT6904	500 A	4 mV/A	DC to 4 MHz	±0.02%rdg. ±0.007%f.s.	Within ±0.08°	-10°C to 50°C (14°F to 122°F)	ϕ 32 mm (1.26 in)
		CT6904-60	800 A	2 mV/A	DC to 4 MHz	±0.025%rdg. ±0.009%f.s.	Within ±0.08°	-10°C to 50°C (14°F to 122°F)	ϕ 32 mm (1.26 in)
High accuracy pass-through		CT6862-05	50 A	40 mV/A	DC to 1 MHz	±0.05% rdg. ±0.01% f.s.	Within ±0.2°	-30°C to 85°C (-22°F to 185°F)	ϕ 24 mm (0.94 in)
		CT6863-05	200 A	10 mV/A	DC to 500 kHz	±0.05% rdg. ±0.01% f.s.	Within ±0.2°	-30°C to 85°C (-22°F to 185°F)	ϕ 24 mm (0.94 in)
		CT6875	500 A	4 mV/A	DC to 2 MHz	±0.04 %rdg. ±0.008 %f.s.	Within ±0.1°	-40°C to 85°C (-40°F to 185°F)	ϕ 36 mm (1.42 in)
		CT6876	1000 A	2 mV/A	DC to 1.5 MHz	±0.04 %rdg. ±0.008 %f.s.	Within ±0.1°	-40°C to 85°C (-40°F to 185°F)	ϕ 36 mm (1.42 in)
		CT6877	2000 A	1 mV/A	DC to 1 MHz	±0.04% rdg. ±0.008% f.s.	Within ±0.1°	-40°C to 85°C (-40°F to 185°F)	ϕ 80 mm (3.15 in)
High accuracy clamp		CT6841-05	20 A	100 mV/A	DC to 1 MHz	±0.3% rdg. ±0.01% f.s.	Within ±0.1°	-40°C to 85°C (-40°F to 185°F)	ϕ 20 mm (0.79 in)
		CT6843-05	200 A	10 mV/A	DC to 500 kHz	±0.3% rdg. ±0.01% f.s.	Within ±0.1°	-40°C to 85°C (-40°F to 185°F)	ϕ 20 mm (0.79 in)
		CT6844-05	500 A	4 mV/A	DC to 200 kHz	±0.3% rdg. ±0.01% f.s.	Within ±0.1°	-40°C to 85°C (-40°F to 185°F)	ϕ 20 mm (0.79 in)
		CT6845-05	500 A	4 mV/A	DC to 100 kHz	±0.3% rdg. ±0.01% f.s.	Within ±0.1°	-40°C to 85°C (-40°F to 185°F)	ϕ 50 mm (1.97 in)
		CT6846-05	1000 A	2 mV/A	DC to 20 kHz	±0.3% rdg. ±0.01% f.s.	Within ±0.1°	-40°C to 85°C (-40°F to 185°F)	ϕ 50 mm (1.97 in)
High accuracy direct connection		PW9100-03 PW9100-04	50 A	40 mV/A	DC to 3.5 MHz	±0.02% rdg. ±0.005% f.s.	Within ±0.1°	0°C to 40°C (32°F to 104°F)	Measurement terminals M6 screws
High accuracy clamp		9272-05	20 A, 200 A	100 mV/A, 10 mV/A	1 Hz to 100 kHz	±0.3% rdg. ±0.01% f.s.	Within ±0.2°	0°C to 50°C (32°F to 122°F)	ϕ 46 mm (1.81 in)
Wideband clamp		CT6710	0.5 A, 5 A, 30 A	10 V/A, 1 V/A, 0.1 V/A	DC to 50 MHz	Typical ±1.0%rdg. ±1 mV (30 A range /5 Arange)	–	0°C to 40°C (32°F to 104°F)	ϕ 5 mm (0.20 in)
		CT6711	0.5 A, 5 A, 30 A	10 V/A, 1 V/A, 0.1 V/A	DC to 120 MHz	Typical ±1.0%rdg. ±1 mV (30 A range /5 Arange)	–	0°C to 40°C (32°F to 104°F)	ϕ 5 mm (0.20 in)
		CT6700	5 A	1 V/A	DC to 50 MHz	Typical ±1.0% rdg. ±1 mV	–	0°C to 40°C (32°F to 104°F)	ϕ 5 mm (0.20 in)
		CT6701	5 A	1 V/A	DC to 120 MHz	Typical ±1.0% rdg. ±1 mV	–	0°C to 40°C (32°F to 104°F)	ϕ 5 mm (0.20 in)
		3273-50	30 A	0.1 V/A	DC to 50 MHz	±1.0% rdg. ±1 mV	–	0°C to 40°C (32°F to 104°F)	ϕ 5 mm (0.20 in)
		3276	30 A	0.1 V/A	DC to 100 MHz	±1.0% rdg. ±1 mV	–	0°C to 40°C (32°F to 104°F)	ϕ 5 mm (0.20 in)
		3274	150 A	0.01 V/A	DC to 10 MHz	±1.0% rdg. ±1 mV	–	0°C to 40°C (32°F to 104°F)	ϕ 20 mm (0.79 in)
		3275	500 A	0.01 V/A	DC to 2 MHz	±1.0% rdg. ±5 mV	–	0°C to 40°C (32°F to 104°F)	ϕ 20 mm (0.79 in)



AC/DC CURRENT SENSOR CT6904

Scan QR Code to Watch Video

POWER ANALYZER PW6001

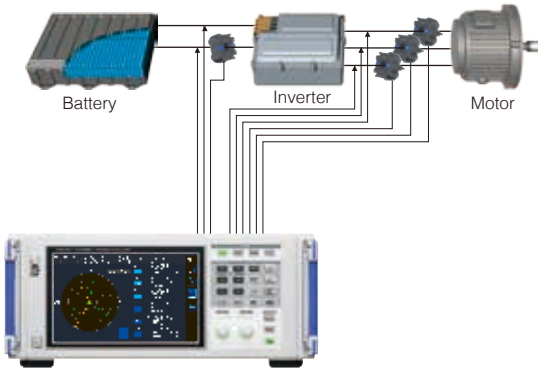


Ideal for Motor and Inverter R&D such as Power Analysis and Efficiency Measurement

Recommended measuring instrument: CT6904 + POWER ANALYZER PW6001

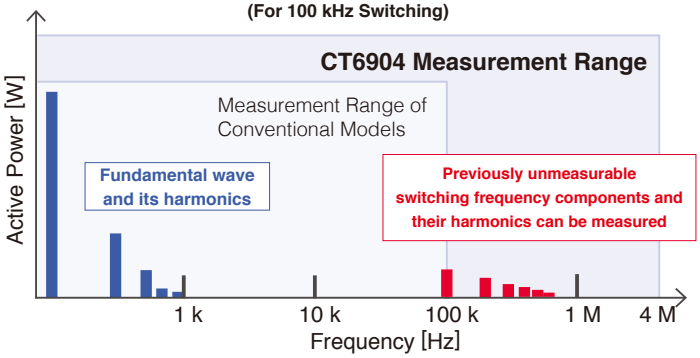
High-Precision and Efficiency Testing of SiC/GaN Inverters

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



HIOKI POWER ANALYZER PW6001

Current Sensor Measurement Range and Inverter Secondary Active Power Spectrum
(For 100 kHz Switching)

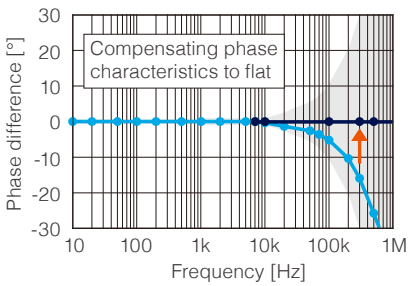


The CT6904 features flat frequency characteristics over a wide range to provide accurate measurement of not only fundamental wave current, but also switching frequency current.
Since the CT6904 achieves both wide-range and highly accurate measurement performance, it can be used in combination with a power analyzer for more precise measurements of inverter input/output power and efficiency than ever before.

Current Sensor Phase Shift with the Power Analyzer



Enter current sensor phase characteristic representative value as phase compensation value



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

Phase Shift Values and Delay times (representative values)

Please enter the following phase correction values (frequency and representative phase difference between input and output) when performing phase shift with the PW9001 or PW3390.

Delay time [s] = |(1 / phase correction frequency [Hz]) × (phase correction value [°] / 360 [°])

Model No.	Frequency [kHz]	Representative value of phase difference between input and output [°]	Delay times (typical values) [ns]
9272 (20A)	50	-3.34	186
9272 (200A)	50	-4.18	232
CT6841	100	-1.82	51
CT6843	100	-1.68	47
CT6844	50	-1.29	72
CT6845	20	-0.62	86
CT6846	20	-1.89	263
CT6862	300	-10.96	101
CT6863	100	-4.60	128
CT6875	200	-10.45	145
CT6875-01	200	-12.87	179
CT6876	200	-12.96	180
CT6876-01	200	-14.34	199
CT6877	100	-2.63	73
CT6877-01	100	-3.34	93
CT6904	300	-9.82	91
CT6904-60	300	-9.82	91
PW9100	300	-2.80	26

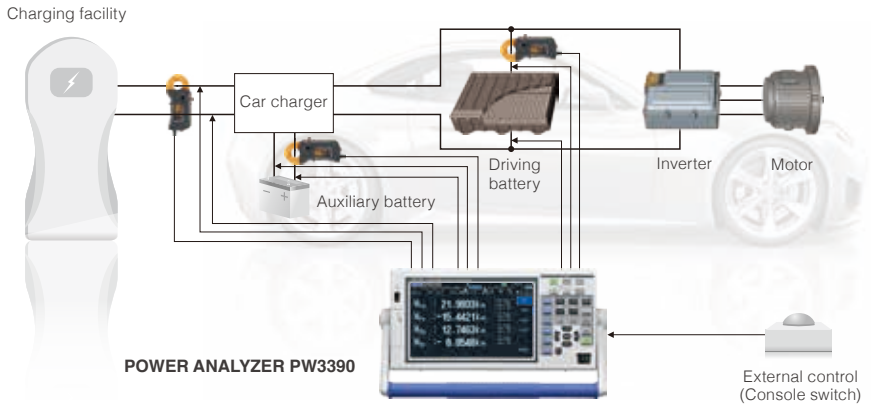
Clamp for quick and easy connections.



Recommended measuring instrument: CT6843-05 + POWER ANALYZER PW3390

Test Automobile Fuel Economy

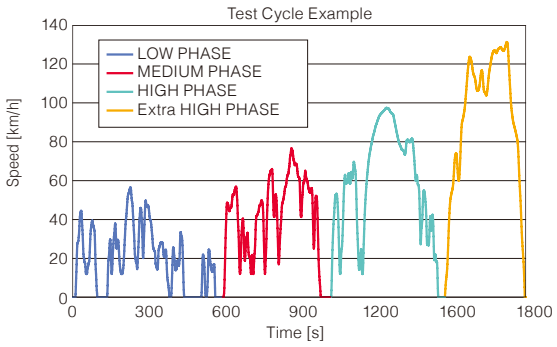
Easily connect high accuracy clamp-type sensors without cutting the cables. Sensors operate over a temperature range of -40°C to 85°C (-40°F to 185°F), characteristics that enable highly accurate measurements even inside the engine room of a car.

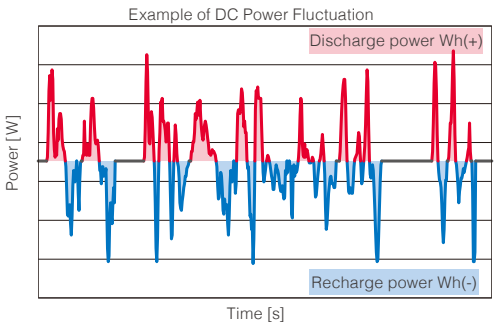


Key features

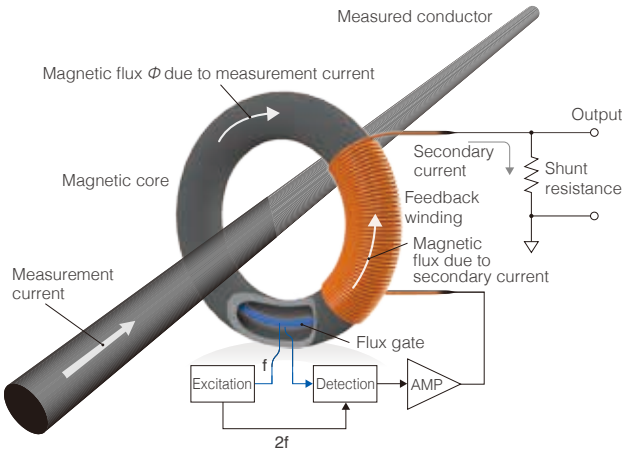
1. Accurately measure recharge and discharge power with excellent basic accuracy and DC accuracy.
2. 4 built-in channels, standard. Support for multiple recharge and discharge measurements, including auxiliary batteries.
3. Easily achieve highly accurate measurements with clamp sensors, which can be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

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





Technology that Supports the Evolution of Current Testing



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

Flux gate detection

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

Recommended measuring instrument: CT6843-05 +MEMORY HiCORDER MR6000

Simple Connectivity for 3-phase Current Waveform Observing

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



MEMORY HiCORDER MR6000

Automatic configuration of sensor scaling values

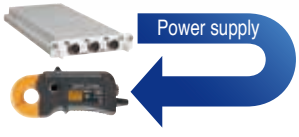
When you connect a current sensor, the MR6000 will automatically detect the model and set the appropriate scaling value.



Connect sensors directly

Power is supplied from the current unit

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



Specifications

Pass-Through Type



CAT III 1000 V

3 year Warranty



CT6904
500 A AC/DC

Output connector: ME15W

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

Accuracy

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

Unit for f in accuracy calculations: kHz.
Amplitude accuracy and phase accuracy are defined at the rated value or less, and within the continuous range of ambient temperature of 50°C (122°F) of the derating in the figure.
However, the accuracy defined for the frequency range of DC < f < 10 Hz is the design value.

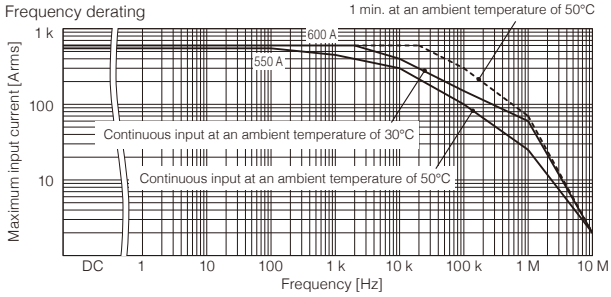
Combined accuracy with the PW6001 POWER ANALYZER

Frequency	Current	Power	Phase
DC	±0.045% rdg. ±0.037% f.s. (f.s. = PW6001 Range)	±0.045% rdg. ±0.057% f.s. (f.s. = PW6001 Range)	PW6001 accuracy + Sensor accuracy
45 Hz ≤ f ≤ 65 Hz	±0.04% rdg. ±0.027% f.s. (f.s. = PW6001 Range)	±0.04% rdg. ±0.037% f.s. (f.s. = PW6001 Range)	
Bandwidths other than DC and 45 Hz ≤ f ≤ 65 Hz	PW6001 accuracy + Sensor accuracy (consider sensor rating when calculating f.s. error.)	PW6001 accuracy + Sensor accuracy (consider sensor rating when calculating f.s. error.)	

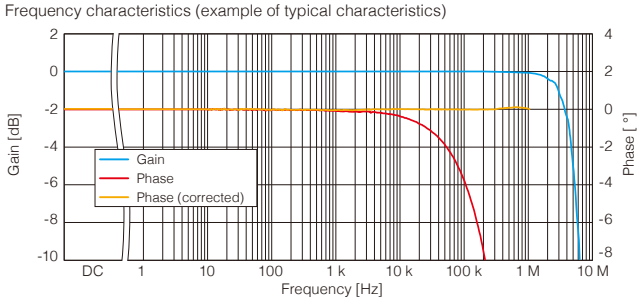
For other measurement parameters, add the PW6001 accuracy and the sensor accuracy (and consider the sensor rating when calculating the f.s. error).
For 10 A range and 20 A range, apply ±0.12% f.s. (f.s. = PW6001 range)

Temperature and humidity range for guaranteed accuracy	23°C ±5°C (73°F ±9°F), 80% RH or less
Accuracy guarantee period	1 year
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: ±0.005% rdg./°C Offset voltage: ±0.005% f.s./°C, Phase: ±0.01°/°C
Magnetic susceptibility	5 mA or less (scaled value, after input of 500 A DC)
Common-mode voltage rejection ratio (CMRR)	140 dB or greater (50 Hz/60 Hz) 120 dB or greater (100 kHz) (effect on output voltage/common-mode voltage)
Effect of conductor position	±0.01% rdg. or less (100 A input, 50 Hz/60 Hz), ±0.2% rdg. or less (10 A input, 100 kHz), when using wire with 10 mm (0.39 in) outer diameter
Effect of external magnetic field	±50 mA or less (scaled value, in a DC and 60 Hz magnetic field of 400 A/m)
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 Expected transient overvoltage: 8000 V
Cable length	Approx. 3 m (9.84 ft) (including relay box) (10 m length also available)
Dimensions	Approx. 139 mm (5.47 in) W × 120 mm (4.72 in) H × 52 mm (2.05 in) D (excluding protrusions and cables)
Mass	1.0 kg (35.3 oz)
Accessories	Instruction manual, Carrying case, Color labels (for channel identification)

Frequency derating



Frequency characteristics (example of typical characteristics)



Pass-Through Type



CAT III 1000 V

3 year Warranty



CT6904-60
800 A AC/DC

Output connector: ME15W

(Custom-order product)

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

Accuracy

Frequency	Amplitude	Phase
DC	±0.030% rdg.±0.009% f.s.	–
DC < f < 16 Hz	±0.2% rdg.±0.025% f.s.	±0.1°
16 Hz ≤ f < 45 Hz	±0.1% rdg.±0.025% f.s.	±0.1°
45 Hz ≤ f ≤ 65 Hz	±0.025% rdg.±0.009% f.s.	±0.08°
65 Hz < f ≤ 850 Hz	±0.05% rdg.±0.009% f.s.	±0.12°
850 Hz < f ≤ 1 kHz	±0.1% rdg.±0.013% f.s.	±0.4°
1 kHz < f ≤ 5 kHz	±0.4% rdg.±0.025% f.s.	±0.4°
5 kHz < f ≤10 kHz	±0.4% rdg.±0.025% f.s.	±(0.08×f)°
10 kHz < f ≤ 50 kHz	±1% rdg.±0.025% f.s.	±(0.08×f)°
50 kHz < f ≤ 100 kHz	±1% rdg.±0.063% f.s.	±(0.08×f)°
100 kHz < f ≤ 300 kHz	±2% rdg.±0.063% f.s.	±(0.08×f)°
300 kHz < f ≤ 1 MHz	±5% rdg.±0.063% f.s.	±(0.08×f)°

Unit for f in accuracy calculations: kHz. f.s.: Rated primary current. (800 A).
Amplitude accuracy and phase accuracy are defined at the rated value or less and 100 Hz or higher is defined within the continuous range of ambient temperature of 50°C (122°F) of the derating in the figure.
However, the accuracy defined for the frequency range of DC < f < 10 Hz is the design value.

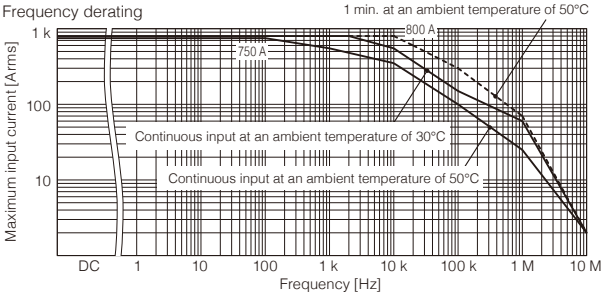
Combined accuracy with the PW6001 POWER ANALYZER

Frequency	Current	Power	Phase
DC	±0.050% rdg. ±0.037% f.s. (f.s. = PW6001 Range)	±0.050% rdg. ±0.057% f.s. (f.s. = PW6001 Range)	PW6001 accuracy + Sensor accuracy
45 Hz ≤ f ≤ 65 Hz	±0.045% rdg. ±0.027% f.s. (f.s. = PW6001 Range)	±0.045% rdg. ±0.037% f.s. (f.s. = PW6001 Range)	
Bandwidths other than DC and 45 Hz ≤ f ≤ 65 Hz	PW6001 accuracy + Sensor accuracy (consider sensor rating when calculating f.s. error.)	PW6001 accuracy + Sensor accuracy (consider sensor rating when calculating f.s. error.)	

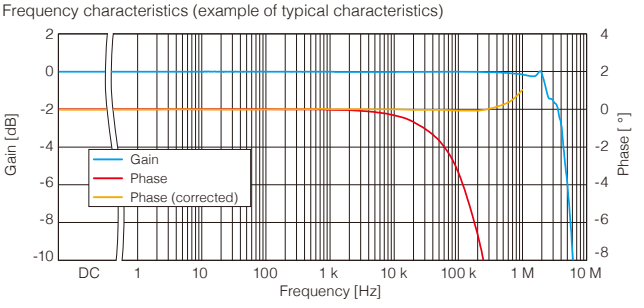
For other measurement parameters, add the PW6001 accuracy and the sensor accuracy (and consider the sensor rating when calculating the f.s. error).
For 20 A range and 40 A range, apply ±0.12% f.s. (f.s. = PW6001 range)

Temperature and humidity range for guaranteed accuracy	23°C ±5°C (73°F ±9°F), 80% RH or less
Accuracy guarantee period	1 year
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: ±0.005% rdg./°C Offset voltage: ±0.005% f.s./°C, Phase: ±0.01°/°C
Magnetic susceptibility	5 mA or less (scaled value, after input of 800 A DC)
Common-mode voltage rejection ratio (CMRR)	140 dB or greater (50 Hz/60 Hz), 120 dB or greater (100 kHz) (effect on output voltage/common-mode voltage)
Effect of conductor position	±0.01% rdg. or less (100 A input, 50 Hz/60 Hz), ±0.2% rdg. or less (10 A input, 100 kHz), when using wire with 10 mm (0.39 in) outer diameter
Effect of external magnetic field	±100 mA or less (scaled value, in a DC and 60 Hz magnetic field of 400 A/m)
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 Expected transient overvoltage: 8000 V
Cable length	Approx. 3 m (9.84 ft) (including relay box) (10 m length also available)
Dimensions	139W×120H×52D mm
Mass	1.1 kg (38.8 oz)
Accessories	Instruction manual, Carrying case, Color labels (for channel identification)

Frequency derating



Frequency characteristics (example of typical characteristics)



Pass-Through Type





CT6862 Discontinuation scheduled
50 A AC/DC

Output connector: PL23



CT6862-05
50 A AC/DC

Output connector: ME15W

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

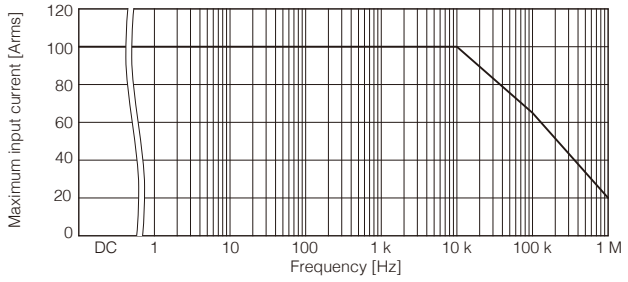
Accuracy

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

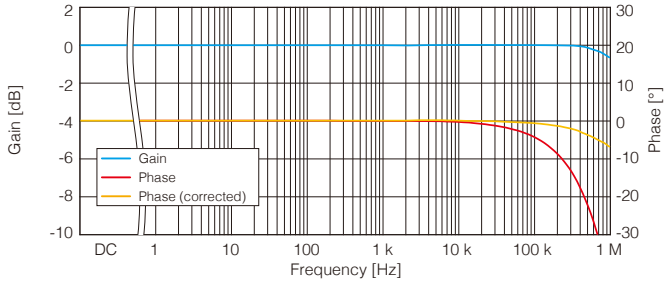
Sine wave input; Conductor at center position; Not including each effect;
Measuring instrument that has an input resistance of 1 MΩ or higher
Amplitude accuracy (defined at the rated value or less and within the derating curve; The accuracy defined for the frequency range of DC < f < 5 Hz is the design value)
Phase accuracy (defined at the rated value or less and within the derating curve; The accuracy defined for the frequency range of DC < f < 10 Hz is the design value)

Temperature and humidity range for guaranteed accuracy	0°C to 40°C (32°F to 104°F), 80% RH or less
Accuracy guarantee period	1 year
Guaranteed accuracy period after adjustment made by Hioki	1 year
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% rdg./°C or less Offset voltage: ±0.005% f.s./°C or less
Effect of common mode voltage	0.05% f.s. or less (1000 Vrms, DC to 100 Hz)
Magnetic susceptibility	5 mA or less (scaled value, after input of 50 A DC)
Effect of conductor position	±0.01% rdg. or less (50 A input, DC to 100 Hz, wire with outer diameter of 5 mm (0.20 in))
Effect of external magnetic field	10 mA or less (scaled value, in a DC and 60 Hz magnetic field of 400 A/m)
Output voltage	40 mV/A (= 2 V/50 A)
Output impedance	50 Ω
Output connector	CT6862: HIOKI PL23 CT6862-05: HIOKI ME15W
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 Hz/ 60 Hz), Measurement category III, Anticipated transient overvoltage: 8000 V
Compliance standards	Safety: EN61010, EMC: EN61326
Supply voltage	±11 V to ±15 V
Supply capacity	±200 mA or less
Rated power	5 VA or less
Cable length	3 m (9.84 ft), cables can be extended on a custom-order basis.
Dimensions	70 mm (2.76 in) W × 100 mm (3.94 in) H × 53 mm (2.09 in) D
Mass	340 g (12.0 oz)
Accessories	Instruction Manual, Mark band
Options	CT6862: CONVERSION CABLE 9705, EXTENSION CABLE CT9903, CONVERSION CABLE 9318, CONVERSION CABLE CT9900, CT6862-05: CONVERSION CABLE CT9901, EXTENSION CABLE CT9902

Frequency derating



Frequency characteristics (example of typical characteristics)



Pass-Through Type





CT6863 Discontinuation scheduled
200 A AC/DC

Output connector: PL23



CT6863-05
200 A AC/DC

Output connector: ME15W

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

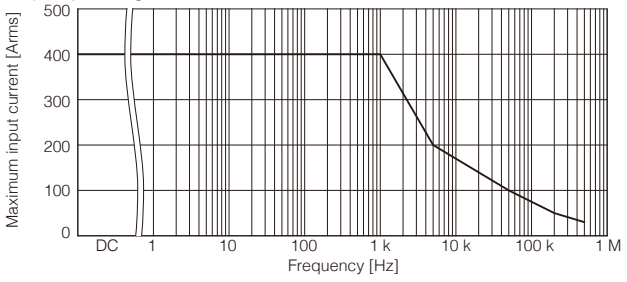
Accuracy

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

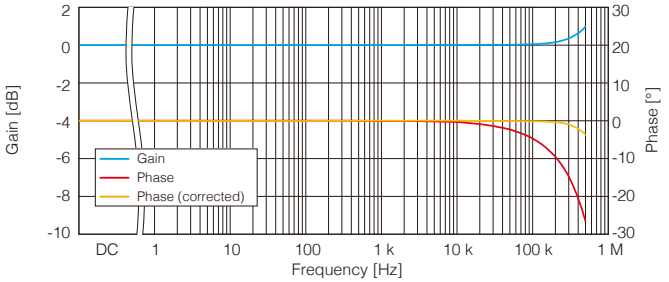
Sine wave input; Conductor at center position; Not including each effect;
Measuring instrument that has an input resistance of 1 MΩ or higher
Amplitude accuracy (defined at the rated value or less and within the derating curve; The accuracy defined for the frequency range of DC < f < 5 Hz is the design value)
Phase accuracy (defined at the rated value or less and within the derating curve; The accuracy defined for the frequency range of DC < f < 10 Hz is the design value)

Temperature and humidity range for guaranteed accuracy	0°C to 40°C (32°F to 104°F), 80% RH or less
Accuracy guarantee period	1 year
Guaranteed accuracy period after adjustment made by Hioki	1 year
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% rdg./°C or less Offset voltage: ±0.005% f.s./°C or less
Effect of common mode voltage	0.05% f.s. or less (1000 Vrms, DC to 100 Hz)
Magnetic susceptibility	10 mA or less (scaled value, after input of 200 A DC)
Effect of conductor position	±0.01% rdg. or less (100 A input, DC to 100 Hz, wire with outer diameter of 10 mm (0.39 in))
Effect of external magnetic field	50 mA or less (scaled value, in a DC and 60 Hz magnetic field of 400 A/m)
Output voltage	10 mV/A (= 2 V/200 A)
Output impedance	50 Ω
Output connector	CT6863: HIOKI PL23 CT6863-05: HIOKI ME15W
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 Hz / 60 Hz), Measurement category III, Anticipated transient overvoltage: 8000 V
Compliance standards	Safety: EN61010, EMC: EN61326
Supply voltage	±11 V to ±15 V
Supply capacity	±200 mA or less
Rated power	6 VA or less
Cable length	3 m (9.84 ft), cables can be extended on a custom-order basis.
Dimensions	70 mm (2.76 in) W × 100 mm (3.94 in) H × 53 mm (2.09 in) D
Mass	350 g (12.3 oz)
Accessories	Instruction Manual, Mark band
Options	CT6863: CONVERSION CABLE 9705, EXTENSION CABLE CT9903, CONVERSION CABLE 9318, CONVERSION CABLE CT9900, CT6863-05: CONVERSION CABLE CT9901, EXTENSION CABLE CT9902

Frequency derating



Frequency characteristics (example of typical characteristics)



Pass-Through Type





CT6875, CT6875-01
500 A AC/DC

Output connector: ME15W

Cable length: CT6875 3 m
CT6875-01 10 m

Frequency band	CT6875: DC to 2 MHz (±3 dB Typical) CT6875-01: DC to 1.5 MHz (±3 dB Typical)
Diameter of measurable conductors	ϕ 36 mm (1.42 in) or less

Accuracy

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

· With sine wave input and centrally positioned conductor; does not reflect various effects.
· When connected to instrument with an input resistance of at least 1 MΩ.
· Amplitude accuracy and phase accuracy are defined for input of 110% f.s. or less that falls within the derating range.
· Values provided for frequencies of DC < f < 10 Hz are design values.
· Add ±0.01% rdg. to the amplitude accuracy for input from 100% f.s. to 110% f.s.
· For the CT6875-01, add the following for frequencies of 1 kHz < f ≤ 1 MHz:
· Amplitude accuracy: ±(0.005 × f kHz)% rdg. Phase accuracy: ±(0.015 × f kHz)°

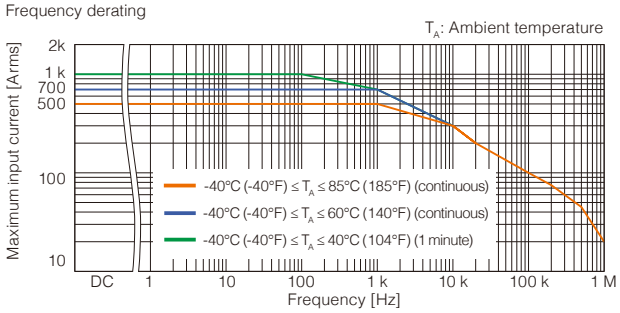
Combined accuracy with the PW6001 POWER ANALYZER

Frequency	Current	Power	Phase
DC	±0.06% rdg. ±0.038% f.s. (f.s. = PW6001 Range)	±0.06% rdg. ±0.058% f.s. (f.s. = PW6001 Range)	PW6001 accuracy + Sensor accuracy
45 Hz ≤ f ≤ 65 Hz	±0.06% rdg. ±0.028% f.s. (f.s. = PW6001 Range)	±0.06% rdg. ±0.038% f.s. (f.s. = PW6001 Range)	
Bandwidths other than DC and 45 Hz ≤ f ≤ 65 Hz	PW6001 accuracy + Sensor accuracy (consider sensor rating when calculating f.s. error.)	PW6001 accuracy + Sensor accuracy (consider sensor rating when calculating f.s. error.)	

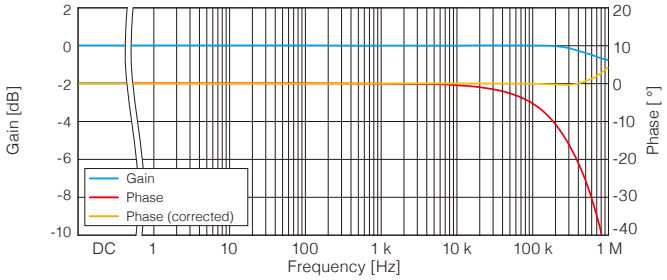
For other measurement parameters, add the PW6001 accuracy and the sensor accuracy (and consider the sensor rating when calculating the f.s. error).
For 10 A range and 20 A range, apply ±0.2% f.s. (f.s. = PW6001 range)

Temperature and humidity range for guaranteed accuracy	0°C to 40°C (32°F to 104°F), 80% RH or less
Accuracy guarantee period	1 year
Effect of temperature	In ranges from -40°C to 0°C (-40°F to 32°F) and 40°C to 85°C (104°F to 185°F) Amplitude sensitivity: ±20 ppm of rdg./ °C Offset voltage: ±5 ppm of f.s./ °C
Magnetic susceptibility	10 mA or less (scaled value, after input of 500 A DC)
Common-mode voltage rejection ratio (CMRR)	140 dB or greater (50 Hz/60 Hz), 120 dB or greater (100 kHz) (effect on output voltage/common-mode voltage)
Effect of conductor position	DC, 50 Hz/60 Hz: ±0.01% rdg.or less (100 A input) 10 kHz: ±0.4% rdg.or less (10 A input) 100 kHz: ±2.5% rdg.or less (10 A input) With a wire diameter of 10 mm
Effect of external magnetic field	20 mA or less (scaled value, in a DC and 60 Hz magnetic field of 400 A/m)
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 Expected transient overvoltage: 8000 V
Dimensions	160 mm (6.30 in) W × 112 mm (4.41 in) H × 50 mm (1.97 in) D
Mass	Approx. CT6875: 0.8 kg (28.2 oz), CT6875-01: 1.10 kg (38.8 oz)

Frequency derating



Frequency characteristics (example of typical characteristics)



Pass-Through Type





CT6876, CT6876-01
1000 A AC/DC

Output connector: ME15W

Cable length: CT6876 3 m
CT6876-01 10 m

Frequency band	CT6876: DC to 1.5 MHz (±3 dB Typical) CT6876-01: DC to 1.2 MHz (±3 dB Typical)
Diameter of measurable conductors	ϕ36 mm (1.42 in) or less

Accuracy

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

· With sine wave input and centrally positioned conductor; does not reflect various effects.
· When connected to instrument with an input resistance of at least 1 MΩ.
· Amplitude accuracy and phase accuracy are defined for input of 110% f.s. or less that falls within the derating range.
· Values provided for frequencies of DC < f < 10 Hz are design values.
· Add ±0.01% rdg. to the amplitude accuracy for input from 100% f.s. to 110% f.s.
· For the CT6876-01, add the following for frequencies of 1 kHz < f ≤ 1 MHz:
· Amplitude accuracy: ±(0.005 × f kHz)% rdg. Phase accuracy: ±(0.015 × f kHz)°

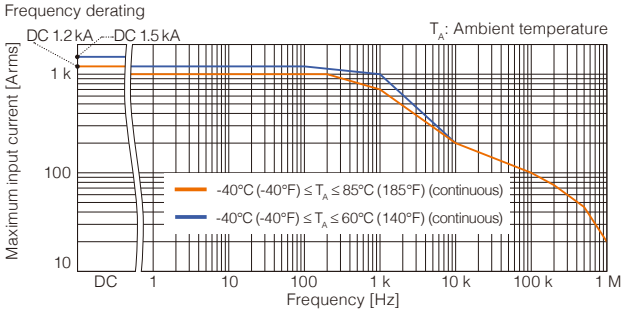
Combined accuracy with the PW6001 POWER ANALYZER

Frequency	Current	Power	Phase
DC	±0.06% rdg. ±0.038% f.s. (f.s. = PW6001 Range)	±0.06% rdg. ±0.058% f.s. (f.s. = PW6001 Range)	PW6001 accuracy + Sensor accuracy
45 Hz ≤ f ≤ 65 Hz	±0.06% rdg. ±0.028% f.s. (f.s. = PW6001 Range)	±0.06% rdg. ±0.038% f.s. (f.s. = PW6001 Range)	
Bandwidths other than DC and 45 Hz ≤ f ≤ 65 Hz	PW6001 accuracy + Sensor accuracy (consider sensor rating when calculating f.s. error.)	PW6001 accuracy + Sensor accuracy (consider sensor rating when calculating f.s. error.)	

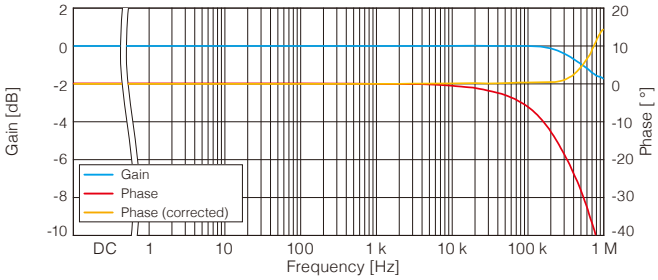
For other measurement parameters, add the PW6001 accuracy and the sensor accuracy (and consider the sensor rating when calculating the f.s. error).
For 20 A range and 40 A range, apply ±0.2% f.s. (f.s. = PW6001 range)

Temperature and humidity range for guaranteed accuracy	0°C to 40°C (32°F to 104°F), 80% RH or less
Accuracy guarantee period	1 year
Effect of temperature	In ranges from -40°C to 0°C (-40°F to 32°F) and 40°C to 85°C (104°F to 185°F) Amplitude sensitivity: ±20 ppm of rdg./ °C Offset voltage: ±5 ppm of f.s./ °C
Magnetic susceptibility	20 mA or less (scaled value, after input of 1000 A DC)
Common-mode voltage rejection ratio (CMRR)	140 dB or greater (50 Hz/60 Hz), 120 dB or greater (100 kHz) (effect on output voltage/common-mode voltage)
Effect of conductor position	DC, 50 Hz/60 Hz: ±0.01% rdg.or less (100 A input) 10 kHz: ±0.5% rdg.or less (10 A input) 100 kHz: ±3% rdg.or less (10 A input) With a wire diameter of 10 mm
Effect of external magnetic field	40 mA or less (scaled value, in a DC and 60 Hz magnetic field of 400 A/m)
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 Expected transient overvoltage: 8000 V
Dimensions	160 mm (6.30 in) W × 112 mm (4.41 in) H × 50 mm (1.97 in) D
Mass	Approx. CT6876: 0.95 kg (33.5 oz), CT6876-01: 1.25 kg (44.1 oz)

Frequency derating



Frequency characteristics (example of typical characteristics)



Pass-Through Type





CT6877, CT6877-01
2000 A AC/DC

Output connector: ME15W

Cable length: CT6877 3 m
CT6877-01 10 m

Frequency band	DC to 1 MHz (±3 dB Typical)
Diameter of measurable conductors	ϕ80 mm (3.14 in) or less

Accuracy

Frequency	Amplitude	Phase
DC	±0.04% rdg. ±0.008% f.s.	-
DC < f < 16 Hz	±0.1% rdg. ±0.02% f.s.	±0.1°
16 Hz ≤ f < 45 Hz	±0.05% rdg. ±0.01% f.s.	±0.1°
45 Hz ≤ f ≤ 66 Hz	±0.04% rdg. ±0.008% f.s.	±0.1°
66 Hz < f ≤ 100 Hz	±0.05% rdg. ±0.01% f.s.	±0.1°
100 Hz < f ≤ 500 Hz	±0.1% rdg. ±0.02% f.s.	±0.2°
500 Hz < f ≤ 1 kHz	±0.2% rdg. ±0.02% f.s.	±0.4°
1 kHz < f ≤ 5 kHz	±0.5% rdg. ±0.02% f.s.	±(0.3+0.1 × f kHz)°
5 kHz < f ≤ 10 kHz	±0.5% rdg. ±0.02% f.s.	±(0.3+0.1 × f kHz)°
10 kHz < f ≤ 50 kHz	±1.5% rdg. ±0.05% f.s.	±(0.3+0.1 × f kHz)°
50 kHz < f ≤ 100 kHz	±2.5% rdg. ±0.05% f.s.	±(0.3+0.1 × f kHz)°
100 kHz < f ≤ 700 kHz	±(0.025 × f kHz)% rdg. ±0.05% f.s.	±(0.3+0.1 × f kHz)°
Frequency band	1 MHz (±3 dB Typical)	-

· With sine wave input and centrally positioned conductor; does not reflect various effects.
· When connected to instrument with an input resistance of at least 1 MΩ.
· Amplitude accuracy and phase accuracy are defined for input of 110% f.s. or less that falls within the derating range.
· Values provided for frequencies of DC < f < 10 Hz are design values.
· Add ±0.01% rdg. to the amplitude accuracy for input from 100% f.s. to 110% f.s.
· For the CT6877-01, add the following for frequencies of 1 kHz < f ≤ 700 kHz:
· Amplitude accuracy: ±(0.005 × f kHz)% rdg. Phase accuracy: ±(0.015 × f kHz)°

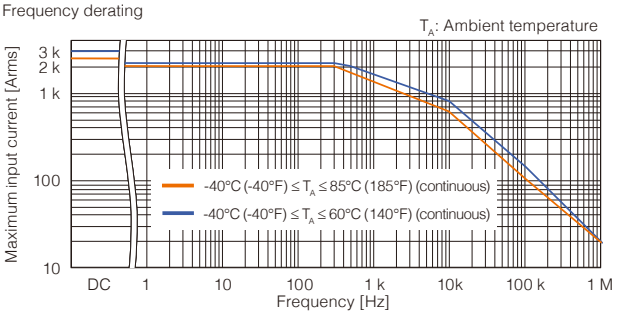
Combined accuracy with the PW6001 POWER ANALYZER

Frequency	Current	Power	Phase
DC	±0.06% rdg. ±0.038% f.s. (f.s. = PW6001 Range)	±0.06% rdg. ±0.058% f.s. (f.s. = PW6001 Range)	PW6001 accuracy + Sensor accuracy
45 Hz ≤ f ≤ 65 Hz	±0.06% rdg. ±0.028% f.s. (f.s. = PW6001 Range)	±0.06% rdg. ±0.038% f.s. (f.s. = PW6001 Range)	
Bandwidths other than DC and 45 Hz ≤ f ≤ 65 Hz	PW6001 accuracy + Sensor accuracy (consider sensor rating when calculating f.s. error.)	PW6001 accuracy + Sensor accuracy (consider sensor rating when calculating f.s. error.)	

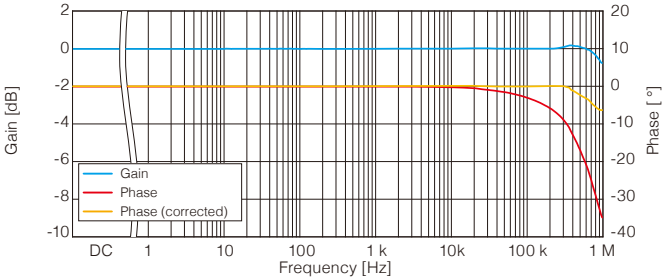
For other measurement parameters, add the PW6001 accuracy and the sensor accuracy (and consider the sensor rating when calculating the f.s. error).
For 40 A range and 80 A range, apply ±0.2% f.s. (f.s. = PW6001 range)

Temperature and humidity range for guaranteed accuracy	0°C to 40°C (32°F to 104°F), 80% RH or less
Accuracy guarantee period	1 year
Effect of temperature	In ranges from -40°C to 0°C (-40°F to 32°F) and 40°C to 85°C (104°F to 185°F) Amplitude sensitivity: ±15 ppm of rdg./ °C Offset voltage: ±0.5 ppm of f.s./ °C
Magnetic susceptibility	10 mA or less (scaled value, after input of 2000 A DC)
Common-mode voltage rejection ratio (CMRR)	140 dB or greater (50 Hz/60 Hz), 120 dB or greater (100 kHz) (effect on output voltage/common-mode voltage)
Effect of conductor position (with a wire diameter of 10 mm)	DC, 50 Hz/60 Hz: ±0.01% rdg.or less (100 A input) 1 kHz: ±0.05% rdg.or less (10 A input) 10 kHz: ±0.2% rdg.or less (10 A input) 100 kHz: ±0.8% rdg.or less (10 A input)
Effect of external magnetic field	80 mA or less (scaled value, in a DC and 60 Hz magnetic field of 400 A/m)
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 Expected transient overvoltage: 8000 V
Dimensions	229W × 232H × 112D mm
Mass	Approx. CT6877: 5 kg (176.4 oz), CT6875-01: 5.3 kg (186.9 oz)

Frequency derating



Frequency characteristics (example of typical characteristics)



Direct Wire Type





PW9100-03
50 A AC/DC, 3 ch

Output connector: ME15W

PW9100-04
50 A AC/DC, 4 ch

Output connector: ME15W

Cable length: Output cable length: 0.8 m (2.62 ft)

Input and measurement method	Isolated input, DCCT input
Frequency band	DC to 3.5 MHz (-3 dB)
Measurement terminals	Terminal block (with safety cover): M6 screws

Accuracy

Frequency	Amplitude	Phase
DC	±0.02% rdg. ±0.007% f.s.	–
DC < f < 30 Hz	±0.1% rdg. ±0.02% f.s.	±0.3°
30 Hz ≤ f < 45 Hz	±0.1% rdg. ±0.02% f.s.	±0.1°
45 Hz ≤ f ≤ 65 Hz	±0.02% rdg. ±0.005% f.s.	±0.1°
65 Hz < f ≤ 500 Hz	±0.1% rdg. ±0.01% f.s.	±0.12°
500 Hz < f ≤ 1 kHz	±0.1% rdg. ±0.01% f.s.	±0.5°
1 kHz < f ≤ 5 kHz	±0.5% rdg. ±0.02% f.s.	±0.5°
5 kHz < f ≤ 20 kHz	±1% rdg. ±0.02% f.s.	±1°
20 kHz < f ≤ 50 kHz	±1% rdg. ±0.02% f.s.	±(0.05 × f)°
50 kHz < f ≤ 100 kHz	±2% rdg. ±0.05% f.s.	±(0.06 × f)°
100 kHz < f ≤ 300 kHz	±5% rdg. ±0.05% f.s.	±(0.06 × f)°
300 kHz < f ≤ 700 kHz	±5% rdg. ±0.05% f.s.	±(0.07 × f)°
700 kHz < f ≤ 1 MHz	±10% rdg. ±0.05% f.s.	±(0.07 × f)°
Frequency band	3.5 MHz (-3 dB typical)	

Sine wave input; Measuring instrument with an input resistance of 0.9 MΩ to 1.1 MΩ;
Terminal-to-ground voltage: 0 V
- Unit for f in accuracy calculations: kHz
- Amplitude accuracy and phase accuracy are defined within the accuracy guarantee range shown in the derating figure.
- However, the accuracy defined for the frequency range of DC < f < 10 Hz is the design value.

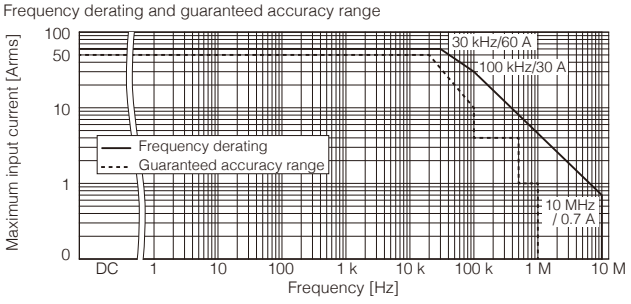
Combined accuracy with the PW6001 POWER ANALYZER

Frequency	Current	Power
DC	±0.04% rdg. ±0.037% f.s. (f.s. = PW6001 range)	±0.04% rdg. ±0.057% f.s. (f.s. = PW6001 range)
45 Hz ≤ f ≤ 65 Hz	±0.04% rdg. ±0.025% f.s. (f.s. = PW6001 range)	±0.04% rdg. ±0.035% f.s. (f.s. = PW6001 range)
Bandwidths other than DC and 45 Hz ≤ f ≤ 65 Hz	PW6001 accuracy + PW9100 accuracy (consider sensor rating when calculating f.s. error.)	PW6001 accuracy + PW9100 accuracy (consider sensor rating when calculating f.s. error.)

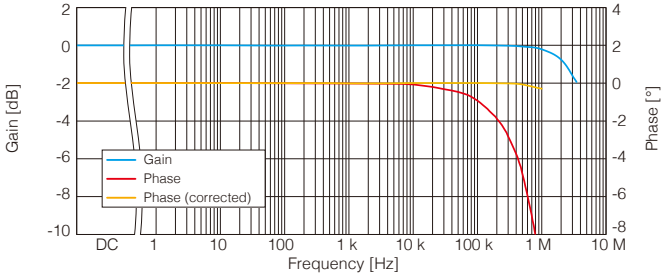
- To calculate the phase accuracy, add the PW6001 accuracy and the PW9100 accuracy.
- For other measurement parameters, add the PW6001 accuracy and the PW9100 accuracy (and consider the sensor rating when calculating the f.s. error).
- Add ±0.12% f.s. (f.s. = PW6001 Range) when using 1 A or 2 A range.
- Accuracy additions defined by conditions in the PW6001 and PW9100 specifications also apply.

Temperature and humidity range for guaranteed accuracy	23°C ±5°C (73°F ±9°F), 80% RH or less
Accuracy guarantee period	1 year
Effect of temperature	In ranges from 0°C to 18°C (32°F to 64°F) and 28°C to 40°C (82°F to 104°F) Amplitude sensitivity: ±0.005% rdg./°C Offset voltage: ±0.005% f.s./°C Phase: ±0.01°/ °C
Effect of common mode voltage (Defined for CMRR)	50 Hz / 60 Hz: 120 dB or greater, 100 kHz: 120 dB or greater (Effect on output voltage/common-mode voltage)
Magnetic susceptibility	5 mA or less (scaled value, after input of ±50 A)
Output voltage	40 mV/A (= 2 V/50 A)
Input resistance	1.5 mΩ or less (50 Hz / 60 Hz)
Input capacitance	Between measurement terminals and case (secondary side), 40 pF or less, defined at 100 kHz
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	1000 V (measurement category II), 600 V (measurement category III), Anticipated transient overvoltage: 6000 V
Dimensions	430 mm (16.93 in) W × 88 mm (3.46 in) H × 260 mm (10.24 in) D
Mass	PW9100-03: 3.7 kg (130.5 oz), PW9100-04: 4.3 kg (151.7 oz)

Frequency derating and guaranteed accuracy range



Frequency characteristics (example of typical characteristics)



Clamp Type





CT6841 Discontinuation scheduled
20 A AC/DC
Output connector: PL23



CT6841-05
20 A AC/DC
Output connector: ME15W

3 year Warranty

Rated current	20 A AC/DC
Frequency band	DC to 1 MHz (-3 dB)
Diameter of measurable conductors	ϕ 20 mm (0.79 in) or less

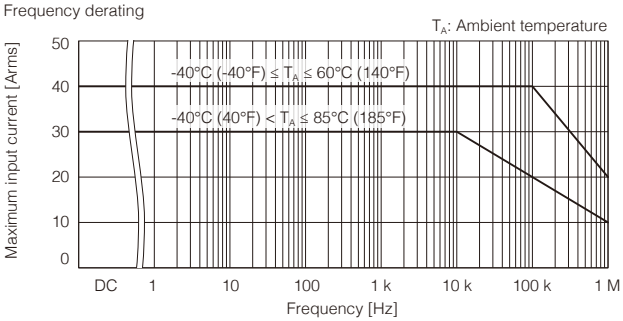
Accuracy

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

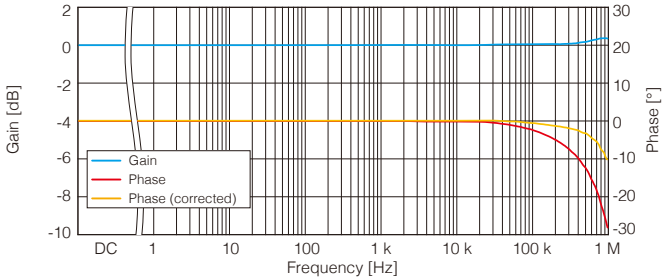
Sine wave input; Conductor at center position; Not including each effect;
Measuring instrument that has an input resistance of 1 MΩ or higher
Amplitude accuracy (defined at the rated value or less and within the derating curve; The accuracy defined for the frequency range of DC < f < 5 Hz is the design value)
Phase accuracy (defined at the rated value or less and within the derating curve; The accuracy defined for the frequency range of DC < f < 10 Hz is the design value)

Temperature and humidity range for guaranteed accuracy	0°C to 40°C (32°F to 104°F), 80% RH or less
Accuracy guarantee period	1 year
Guaranteed accuracy period after adjustment made by Hioki	1 year
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% rdg./°C or less Offset voltage: ±0.005% f.s./°C or less
Effect of common mode voltage	0.05% f.s. or less (1000 Vrms, DC to 100 Hz)
Magnetic susceptibility	10 mA or less (scaled value, after input of 20 A DC)
Effect of conductor position	±0.1% rdg. or less (20 A input, DC to 100 Hz, wire with outer diameter of 5 mm (0.20 in))
Effect of external magnetic field	50 mA or less (scaled value, in a DC and 60 Hz magnetic field of 400 A/m)
Output voltage	100 mV/A (= 2 V/20 A)
Offset adjustable range	±4 mV
Output impedance	50 Ω
Output connector	CT6841: HIOKI PL23 CT6841-05: HIOKI ME15W
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)
Measurable conductors	Insulated conductors
Compliance standards	Safety: EN61010, EMC: EN61326
Supply voltage	±11 V to ±15 V
Supply capacity	±200 mA or less
Rated power	5 VA or less
Cable length	3 m (9.84 ft), cables can be extended on a custom-order basis.
Dimensions	153 mm (6.02 in) W × 67 mm (2.64 in) H × 25 mm (0.98 in) D
Mass	350 g (12.3 oz)
Accessories	Instruction Manual, Mark band, Carrying case
Options	CT6841: CONVERSION CABLE 9705, EXTENSION CABLE CT9903, CONVERSION CABLE 9318, CONVERSION CABLE CT9900, CT6841-05: CONVERSION CABLE CT9901, EXTENSION CABLE CT9902

Frequency derating



Frequency characteristics (example of typical characteristics)



Clamp Type





CT6843 Discontinuation scheduled
200 A AC/DC
Output connector: PL23



CT6843-05
200 A AC/DC
Output connector: ME15W

3 year Warranty

Rated current	200 A AC/DC
Frequency band	DC to 500 kHz (-3 dB)
Diameter of measurable conductors	ϕ 20 mm (0.79 in) or less

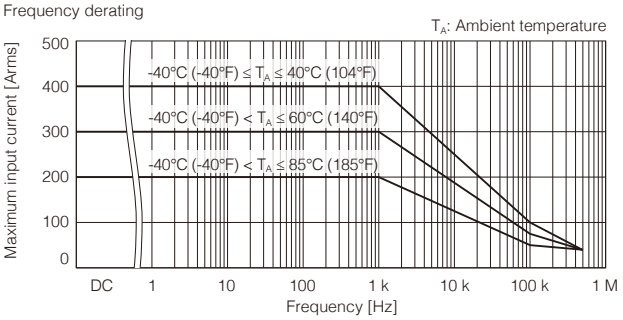
Accuracy

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

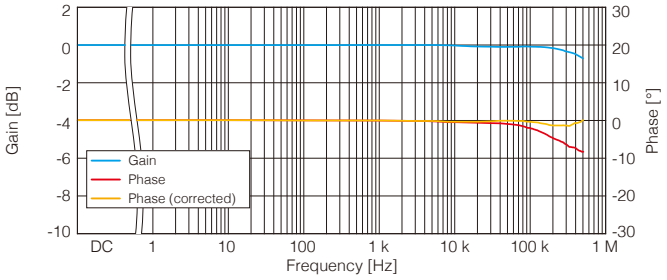
Sine wave input; Conductor at center position; Not including each effect;
Measuring instrument that has an input resistance of 1 MΩ or higher
Amplitude accuracy (defined at the rated value or less and within the derating curve; The accuracy defined for the frequency range of DC < f < 5 Hz is the design value)
Phase accuracy (defined at the rated value or less and within the derating curve; The accuracy defined for the frequency range of DC < f < 10 Hz is the design value)

Temperature and humidity range for guaranteed accuracy	0°C to 40°C (32°F to 104°F), 80% RH or less
Accuracy guarantee period	1 year
Guaranteed accuracy period after adjustment made by Hioki	1 year
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% rdg./°C or less Offset voltage: ±0.005% f.s./°C or less
Effect of common mode voltage	0.05% f.s. or less (1000 Vrms, DC to 100 Hz)
Magnetic susceptibility	30 mA or less (scaled value, after input of 200 A DC)
Effect of conductor position	±0.1% rdg. or less (100 A input, DC to 100 Hz, wire with outer diameter of 5 mm (0.20 in))
Effect of external magnetic field	50 mA or less (scaled value, in a DC and 60 Hz magnetic field of 400 A/m)
Output voltage	10 mV/A (= 2 V/200 A)
Offset adjustable range	±2 mV
Output impedance	50 Ω
Output connector	CT6843: HIOKI PL23 CT6843-05: HIOKI ME15W
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)
Measurable conductors	Insulated conductors
Compliance standards	Safety: EN61010, EMC: EN61326
Supply voltage	±11 V to ±15 V
Supply capacity	±250 mA or less
Rated power	6 VA or less
Cable length	3 m (9.84 ft), cables can be extended on a custom-order basis.
Dimensions	153 mm (6.02 in) W × 67 mm (2.64 in) H × 25 mm (0.98 in) D
Mass	370 g (13.1 oz)
Accessories	Instruction Manual, Mark band, Carrying case
Options	CT6843: CONVERSION CABLE 9705, EXTENSION CABLE CT9903, CONVERSION CABLE 9318, CONVERSION CABLE CT9900, CT6843-05: CONVERSION CABLE CT9901, EXTENSION CABLE CT9902

Frequency derating



Frequency characteristics (example of typical characteristics)



Clamp Type



3 year Warranty



CT6844 Discontinuation scheduled
500 A AC/DC

Output connector: PL23



CT6844-05
500 A AC/DC

Output connector: ME15W

Rated current	500 A AC/DC
Frequency band	DC to 200 kHz (-3 dB)
Diameter of measurable conductors	ϕ 20 mm (0.79 in) or less

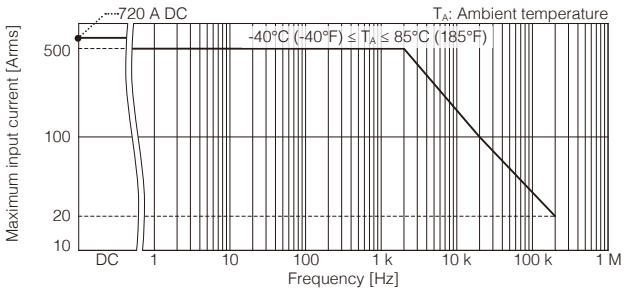
Accuracy

Frequency	Amplitude	Phase
DC	±0.3% rdg. ±0.02% f.s.	–
DC < f ≤ 100 Hz	±0.3% rdg. ±0.01% f.s.	±0.1°
100 Hz < f ≤ 500 Hz	±0.3% rdg. ±0.02% f.s.	±0.2°
500 Hz < f ≤ 1 kHz	±0.5% rdg. ±0.02% f.s.	±0.5°
1 kHz < f ≤ 5 kHz	±1.0% rdg. ±0.02% f.s.	±1.0°
5 kHz < f ≤ 10 kHz	±1.5% rdg.±0.02% f.s.	±1.5°
10 kHz < f ≤ 50 kHz	±5% rdg. ±0.02% f.s.	±(0.5 + 0.1 × f kHz)°
50 kHz < f ≤ 100 kHz	±15% rdg. ±0.05% f.s.	
100 kHz < f ≤ 200 kHz	±30% rdg. ±0.05% f.s.	

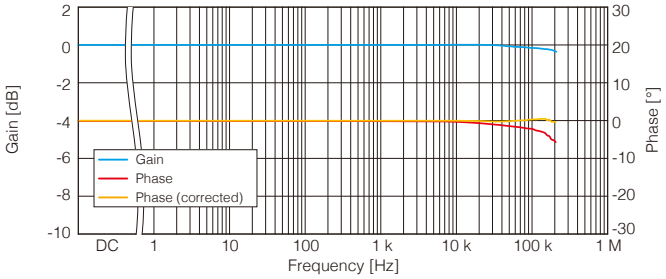
Sine wave input; Conductor at center position; Not including each effect;
Measuring instrument that has an input resistance of 1 MΩ or higher
Amplitude accuracy (defined at the rated value or less and within the derating curve; The accuracy defined for the frequency range of DC < f < 5 Hz is the design value)
Phase accuracy (defined at the rated value or less and within the derating curve; The accuracy defined for the frequency range of DC < f < 10 Hz is the design value)

Temperature and humidity range for guaranteed accuracy	0°C to 40°C (32°F to 104°F), 80% RH or less
Accuracy guarantee period	1 year
Guaranteed accuracy period after adjustment made by Hioki	1 year
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% rdg./°C or less Offset voltage: ±0.005% f.s./°C or less
Effect of common mode voltage	0.05% f.s. or less (1000 Vrms, DC to 100 Hz)
Magnetic susceptibility	75 mA or less (scaled value, after input of 500 A DC)
Effect of conductor position	±0.1% rdg. or less (100 A input, DC to 100 Hz, wire with outer diameter of 10 mm (0.39 in))
Effect of external magnetic field	100 mA or less (scaled value, in a DC and 60 Hz magnetic field of 400 A/m)
Output voltage	4 mV/A (= 2 V/500 A)
Offset adjustable range	±2 mV
Output impedance	50 Ω
Output connector	CT6844: HIOKI PL23 CT6844-05: HIOKI ME15W
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)
Measurable conductors	Insulated conductors
Compliance standards	Safety: EN61010, EMC: EN61326
Supply voltage	±11 V to ±15 V
Supply capacity	±300 mA or less
Rated power	7 VA or less
Cable length	3 m (9.84 ft), cables can be extended on a custom-order basis.
Dimensions	153 mm (6.02 in) W × 67 mm (2.64 in) H × 25 mm (0.98 in) D
Mass	400 g (14.1 oz)
Accessories	Instruction Manual, Mark band, Carrying case
Options	CT6844: CONVERSION CABLE 9705, EXTENSION CABLE CT9903, CONVERSION CABLE 9318, CONVERSION CABLE CT9900, CT6844-05: CONVERSION CABLE CT9901, EXTENSION CABLE CT9902

Frequency derating



Frequency characteristics (example of typical characteristics)



Clamp Type



3 year Warranty



CT6845 Discontinuation scheduled
500 A AC/DC

Output connector: PL23



CT6845-05
500 A AC/DC

Output connector: ME15W

Rated current	500 A AC/DC
Frequency band	DC to 100 kHz (-3 dB)
Diameter of measurable conductors	ϕ50 mm or less

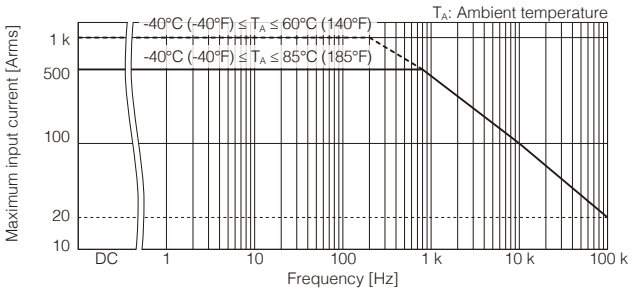
Accuracy

Frequency	Amplitude	Phase
DC	±0.3% rdg. ±0.02% f.s.	–
DC < f ≤ 100 Hz	±0.3% rdg. ±0.01% f.s.	±0.1°
100 Hz < f ≤ 500 Hz	±0.3% rdg. ±0.02% f.s.	±0.2°
500 Hz < f ≤ 1 kHz	±0.5% rdg. ±0.02% f.s.	±0.5°
1 kHz < f ≤ 5 kHz	±1.0% rdg. ±0.02% f.s.	±1.5°
5 kHz < f ≤ 10 kHz	±1.5% rdg.±0.02% f.s.	±2.0°
10 kHz < f ≤ 20 kHz	±5.0% rdg. ±0.02% f.s.	±(0.2 × f kHz)°
20 kHz < f ≤ 50 kHz	±10% rdg. ±0.05% f.s.	
50 kHz < f ≤ 100 kHz	±30% rdg. ±0.05% f.s.	

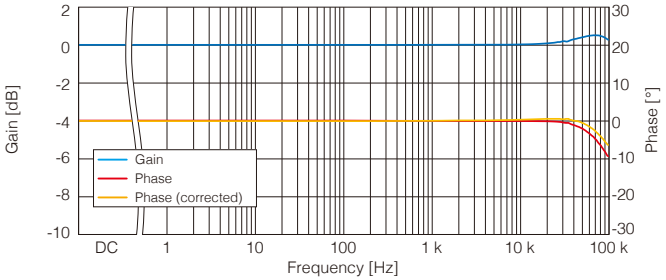
Sine wave input; Conductor at center position; Not including each effect;
Measuring instrument that has an input resistance of 1 MΩ or higher
Amplitude accuracy (defined at the rated value or less and within the derating curve; The accuracy defined for the frequency range of DC < f < 5 Hz is the design value)
Phase accuracy (defined at the rated value or less and within the derating curve; The accuracy defined for the frequency range of DC < f < 10 Hz is the design value)

Temperature and humidity range for guaranteed accuracy	0°C to 40°C (32°F to 104°F), 80% RH or less
Accuracy guarantee period	1 year
Guaranteed accuracy period after adjustment made by Hioki	1 year
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% rdg./°C or less Offset voltage: ±0.005% f.s./°C or less
Effect of common mode voltage	0.05% f.s. or less (1000 Vrms, DC to 100 Hz)
Magnetic susceptibility	75 mA or less (scaled value, after input of 500 A DC)
Effect of conductor position	±0.2% rdg. or less (100 A input, DC to 100 Hz, wire with outer diameter of 10 mm (0.39 in))
Effect of external magnetic field	150 mA or less (scaled value, in a DC and 60 Hz magnetic field of 400 A/m)
Output voltage	4 mV/A (= 2 V/500 A)
Offset adjustable range	±2 mV
Output impedance	50 Ω
Output connector	CT6845: HIOKI PL23 CT6845-05: HIOKI ME15W
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)
Measurable conductors	Insulated conductors
Compliance standards	Safety: EN61010, EMC: EN61326
Supply voltage	±11 V to ±15 V
Supply capacity	±300 mA or less
Rated power	7 VA or less
Cable length	3 m (9.84 ft), cables can be extended on a custom-order basis.
Dimensions	238 mm (9.37 in) W × 116 mm (4.57 in) H × 35 mm (1.38 in) D
Mass	860 g (30.3 oz)
Accessories	Instruction Manual, Mark band, Carrying case
Options	CT6845: CONVERSION CABLE 9705, EXTENSION CABLE CT9903, CONVERSION CABLE 9318, CONVERSION CABLE CT9900, CT6845-05: CONVERSION CABLE CT9901, EXTENSION CABLE CT9902

Frequency derating



Frequency characteristics (example of typical characteristics)



Clamp Type



3 year Warranty



CT6846 Discontinuation scheduled
1000 A AC/DC

Output connector: PL23



CT6846-05
1000 A AC/DC

Output connector: ME15W

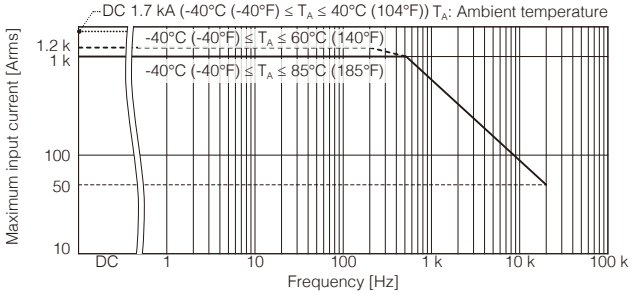
Rated current	1000 A AC/DC
Frequency band	DC to 20 kHz (-3 dB)
Diameter of measurable conductors	ϕ50 mm or less
Accuracy	

Frequency	Amplitude	Phase
DC	±0.3% rdg. ±0.02% f.s.	–
DC < f ≤ 100 Hz	±0.3% rdg. ±0.01% f.s.	±0.1°
100 Hz < f ≤ 500 Hz	±0.5% rdg. ±0.02% f.s.	±0.2°
500 Hz < f ≤ 1 kHz	±1.0% rdg. ±0.02% f.s.	±0.5°
1 kHz < f ≤ 5 kHz	±2.0% rdg. ±0.02% f.s.	±1.5°
5 kHz < f ≤ 10 kHz	±5.0% rdg. ±0.05% f.s.	±2.0°
10 kHz < f ≤ 20 kHz	±30.0% rdg. ±0.10% f.s.	±10.0°

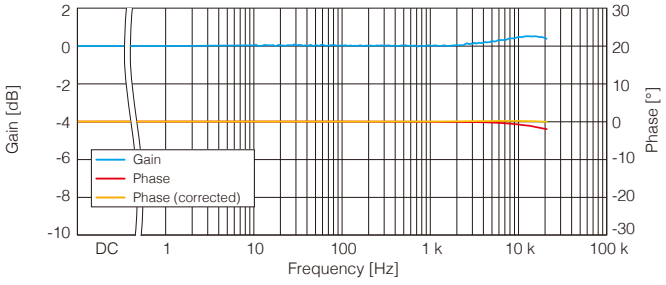
Sine wave input; Conductor at center position; Not including each effect;
Measuring instrument that has an input resistance of 1 MΩ or higher
Amplitude accuracy (defined at the rated value or less and within the derating curve; The accuracy defined for the frequency range of DC < f < 5 Hz is the design value)
Phase accuracy (defined at the rated value or less and within the derating curve; The accuracy defined for the frequency range of DC < f < 10 Hz is the design value)

Temperature and humidity range for guaranteed accuracy	0°C to 40°C (32°F to 104°F), 80% RH or less
Accuracy guarantee period	1 year
Guaranteed accuracy period after adjustment made by Hioki	1 year
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% rdg./°C or less Offset voltage: ±0.005% f.s./°C or less
Effect of common mode voltage	0.05% f.s. or less (1000 Vrms, DC to 100 Hz)
Magnetic susceptibility	150 mA or less (scaled value, after input of 1000 A DC)
Effect of conductor position	±0.2% rdg. or less (1000 A input, 50 Hz / 60 Hz, wire with outer diameter of 30 mm (1.18 in))
Effect of external magnetic field	150 mA or less (scaled value, in a DC and 60 Hz magnetic field of 400 A/m)
Output voltage	2 mV/A (= 2 V/1000 A)
Offset adjustable range	±2 mV
Output impedance	50 Ω
Output connector	CT6846: HIOKI PL23 CT6846-05: HIOKI ME15W
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)
Measurable conductors	Insulated conductors
Compliance standards	Safety: EN61010, EMC: EN61326
Supply voltage	±11 V to ±15 V
Supply capacity	±300 mA or less
Rated power	7 VA or less
Cable length	3 m (9.84 ft), cables can be extended on a custom-order basis.
Dimensions	238 mm (9.37 in) W × 116 mm (4.57 in) H × 35 mm (1.38 in) D
Mass	990 g (34.9 oz)
Accessories	Instruction Manual, Mark band, Carrying case
Options	CT6846: CONVERSION CABLE 9705, EXTENSION CABLE CT9903, CONVERSION CABLE 9318, CONVERSION CABLE CT9900, CT6846-05: CONVERSION CABLE CT9901, EXTENSION CABLE CT9902

Frequency derating



Frequency characteristics (example of typical characteristics)



Clamp Type





9272-10 Discontinuation scheduled
20 A / 200 A AC

Output connector: PL23



9272-05
20 A / 200 A AC

Output connector: ME15W

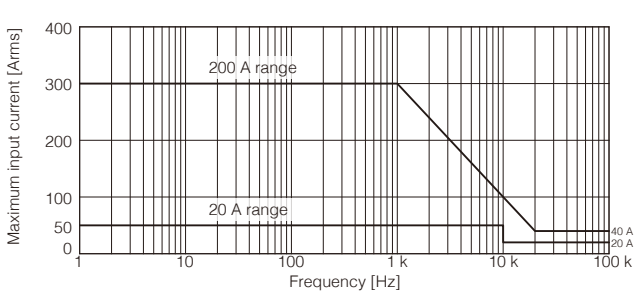
Rated current	20 A Range: 20 Arms AC 200 A Range: 200 Arms AC
Frequency band	1 Hz to 100 kHz (-3 dB)
Diameter of measurable conductors	ϕ 46 mm (1.81 in) or less
Accuracy	

Frequency	Amplitude	Phase
1 Hz ≤ f < 5 Hz	±2.0% rdg. ±0.10% f.s.	Accuracy not defined
5 Hz ≤ f < 10 Hz	±1.0% rdg. ±0.05% f.s.	±1.0°
10 Hz ≤ f < 45 Hz	±0.5% rdg. ±0.02% f.s.	±0.5°
45 Hz ≤ f ≤ 66 Hz	±0.3% rdg. ±0.01% f.s.	±0.2°
66 Hz < f ≤ 500 Hz	±0.5% rdg. ±0.02% f.s.	±0.5°
500 Hz < f ≤ 1 kHz	±0.5% rdg. ±0.02% f.s.	±1.0°
1 kHz < f ≤ 5 kHz	±1.0% rdg. ±0.05% f.s.	±2.0°
5 kHz < f ≤ 10 kHz	±2.5% rdg. ±0.10% f.s.	±3.0°
10 kHz < f ≤ 20 kHz	±5% rdg. ±0.1% f.s.	±5.0°
20 kHz < f ≤ 50 kHz	±5% rdg. ±0.1% f.s.	±15.0°
50 kHz < f ≤ 100 kHz	±30% rdg. ±0.1% f.s.	Accuracy not defined

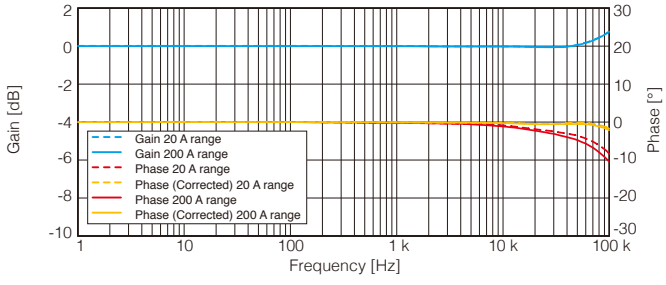
Sine wave input; Conductor at center position; Defined within rated value for each range; Not including each effect; Warm-up time: 1 minute

Temperature and humidity range for guaranteed accuracy	23°C ±5°C (73°F ±9°F), 80% RH or less
Accuracy guarantee period	1 year
Guaranteed accuracy period after adjustment made by Hioki	1 year
Effect of temperature	Amplitude sensitivity: ±0.03% rdg./°C or less
Effect of conductor position	±0.2% or less (input current of 100 A, 55 Hz, with the use of a 10 mm diameter conductor)
Effect of external magnetic field	100 mA or less (in a 60 Hz magnetic field of 400 A/m)
Output voltage	20 A Range: 100 mV/A (= 2 V/20 A) 200 A Range: 10 mV/A (= 2 V/200 A)
Output impedance	50 Ω
Output connector	9272-10: HIOKI PL23 9272-05: HIOKI ME15W
Operating temperature and humidity range	0°C to 50°C (32°F to 122°F), 80% RH or less (no condensation)
Storage temperature and humidity range	-10°C to 60°C (14°F to 140°F), 80% RH or less (no condensation)
Maximum rated voltage to ground	600 Vrms AC (50 Hz / 60 Hz), Measurement category III
Compliance standards	Safety: EN61010, EMC: EN61326 Class A
Supply voltage	±11 V to ±15 V
Supply capacity	±200 mA or less
Rated power	5 VA or less
Cable length	3 m (9.84 ft), cables can be extended on a custom-order basis.
Dimensions	78 mm (3.07 in) W × 188 mm (7.40 in) H × 35 mm (1.38 in) D
Mass	430 g (15.2 oz)
Accessories	Instruction Manual, Mark band, CARRYING CASE 9355
Options	9272-10: CONVERSION CABLE 9705, EXTENSION CABLE CT9903, CONVERSION CABLE 9318, CONVERSION CABLE CT9900, 9272-05: CONVERSION CABLE CT9901, EXTENSION CABLE CT9902

Frequency derating



Frequency characteristics (example of typical characteristics)



Connecting High Accuracy Sensors to Other Devices

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

Current sensor model	Connector	Extension cable	**POWER ANALYZER** PW6001, PW3390 **SENSOR UNIT** CT9555, CT9556, CT9557 **MEMORY HiCORDER** (3CH CURRENT UNIT U8977) MR6000, MR8740T	**POWER ANALYZER** 3390 **POWER HiTESTER** 3193-10 (Using AC/DC CLAMP INPUT UNIT 9602)	**MEMORY HiCORDER** (CURRENT UNIT 8971) MR6000, MR8847, MR8827, MR8740, MR8741, MR8740T	**MEMORY HiCORDER**, **Oscilloscope**, **POWER METER** PW3335, PW3336, PW3337
			Connector ME15W (Female)	Connector PL23 (Female)	Connector for 8971 (Female)	Connector BNC (Female)
CT6841, CT6843, CT6844, CT6845, CT6846, CT6862, CT6863, 9272-10	PL23 (Male)	EXTENSION CABLE CT9903	CONVERSION CABLE CT9900	Can be connected directly	CONVERSION CABLE 9318	CONVERSION CABLE CT9900 and SENSOR UNIT CT9555, CT9556, CT9557 and CONNECTION CORD L9217 or 9165
CT6841-05, CT6843-05, CT6844-05, CT6845-05, CT6846-05, CT6862-05, CT6863-05, CT6904, CT6875, CT6875-01, CT6876, CT6876-01, CT6877, CT6877-01, PW9100-03, PW9100-04, 9272-05	ME15W (Male)	EXTENSION CABLE CT9902	Can be connected directly	CONVERSION CABLE CT9901 *Not compatible with CT6877, CT6877-01 (For 3193-01)	CONVERSION CABLE CT9901 and CONVERSION CABLE 9318 *Not compatible CT6877, CT6877-01	SENSOR UNIT CT9555, CT9556, CT9557 and CONNECTION CORD L9217 or 9165

Options

Connector Conversion



CONVERSION CABLE CT9900

Converts PL23 (10 pin) to ME15W (12 pin)



CONVERSION CABLE CT9901

Converts ME15W (12 pin) to PL23 (10 pin)



CONVERSION CABLE 9318

For connecting PL23 (10 pin) terminals and CURRENT UNIT 8971, 38 cm (1.25 ft)

Cable Extension

EXTENSION CABLE CT9902

5 m (16.41 ft), ME15W (12 pin) - ME15W (12 pin) terminal



EXTENSION CABLE CT9903

5 m (16.41 ft), PL23 (10 pin) - PL23 (10 pin) terminal



Discontinuation scheduled

· Each extension cable allows a current sensor output cable to be extended 5 m, up to a maximum of 10 m extended.
· Up to two extension cables can be used (current sensor performance is not guaranteed if using three or more cables).
· Add the following vlues to each of the accuracy per cable.
Amplitude accuracy: ±0.1% rdg. (DC ≤ f* ≤ 1 kHz)
±0.5% rdg. (1 kHz < f*)
Phase accuracy: ±(0.1 × f* kHz) deg. (1 kHz < f*) *Frequency

SENSOR UNIT Offers waveform output and a current sensor power supply.



CT9557 SENSOR UNIT, 4 ch 3 year Warranty

Waveform output (each channel), aggregated waveform output, aggregated RMS output
Input connector: ME15W
Output connector: ME15W (CT9557 dedicated),BNC (female)

Input terminals (Unit front)	CT9555, CT9556: HIOKI ME15W (female) CT9557: HIOKI ME15W (female) × 4-channel		
Connectable current sensor	Current sensor with HIOKI ME15W (male) on the output terminal CT6841-05, CT6843-05, CT6844-05, CT6845-05, CT6846-05, CT6862-05, CT6863-05, CT6904, CT6875, CT6875-01, CT6876, CT6876-01, CT6877, CT6877-01, PW9100-03, PW9100-04, 9272-05 etc		
Connectable current sensor (can be connected using the CT9900)	Current sensor with HIOKI PL23 (male) on the output terminal CT6841, CT6843, CT6844, CT6845, CT6846, CT6862, CT6863, 9272-10, etc.		
Rated input voltage	2 V f.s. (rated output signal of the current sensor)		
Output voltage	Waveform output, addition waveform output	2 V f.s.	
		Outputs waveform signals from current sensors	
		Accuracy=(Accuracy of the current sensor)	
	RMS output, addition RMS output	2 V f.s.	
		Outputs waveform signals from current sensors after converting them to true RMS values	
		Accuracy=(Accuracy of the current sensor)+(Accuracy of the RMS output)	
Output impedance	50 Ω (only during addition waveform output)		
Output terminal	Waveform output	BNC (female)	
	Addition waveform output	BNC (female) or CT9904 dedicated terminal	
	RMS output, addition RMS output	BNC (female)	
Connectable devices	Waveform output, addition waveform output, RMS output, addition RMS output (BNC)	Devices that can be connected using a cable with BNC (male) (MEMORY HiCORDER, oscilloscopes, etc.)	
	Addition waveform output (CT9904 dedicated terminal)	Devices with a HIOKI ME15W (female) on the sensor input section Devices with a HIOKI PL23 (female) on the sensor input section such as the 3390, 3193, etc. (CT9901 required)	
Temperature and humidity range for guaranteed accuracy	23°C ±5°C (73°F ±9°F), 80% RH or less		
Accuracy guarantee period	1 year		
Operating temperature range	-10°C to 50°C (14°F to 122°F)		
Storage temperature and humidity range	-10°C to 50°C (14°F to 122°F), and 80% RH or less (no condensation)		

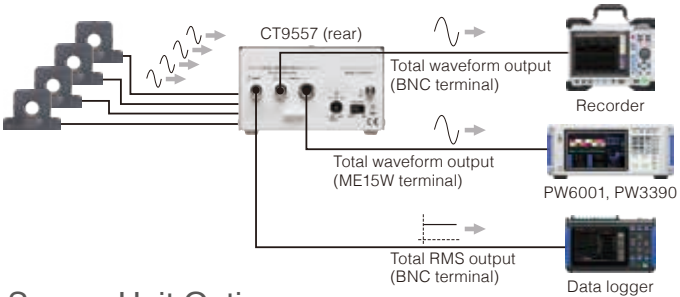


CT9555, 9556 SENSOR UNIT, 1 ch 3 year Warranty

Waveform output, RMS output (CT9556 only)
Input connector: ME15W
Output connector: BNC (female)

Power supply	AC ADAPTER Z1002: 100 to 240 V AC, 50 / 60 Hz External power supply: 10 V to 30 V DC
Dimensions	CT9555, CT9556: 33 mm (1.30 in) W × 67 mm (2.64 in) H × 132 mm (5.20 in) D (excluding protrusions) CT9557: 116 (4.57 in) mm W × 67 mm (2.64 in) H × 132 mm (5.20 in) D (excluding protrusions)
Mass	CT9555, CT9556: 200 g (7.1 oz) CT9557: 420 g (14.8 oz)
Accessories	CT9555, CT9556: AC ADAPTER Z1008, Power supply cord, Instruction Manual CT9557: AC ADAPTER Z1002, Power supply cord, Instruction Manual

In addition to serving as a four-channel power supply, the CT9557 can also output a single waveform from an aggregate of input waveforms.



Sensor Unit Options



CONNECTION CABLE CT9904

ME15W (12 pin) terminal - ME15W (12 pin) terminal, 1 m (3.28 ft)
(For CT9557 addition output and PW6001/PW3390 connection)



CONNECTION CORD L9217

Both cord ends are isolated BNC, 1.6 m (5.25 ft)



CONNECTION CORD 9165

Metallic BNC at both ends, for metallic BNC terminals, 1.5 m (4.92 ft)



CURRENT PROBE CT6711

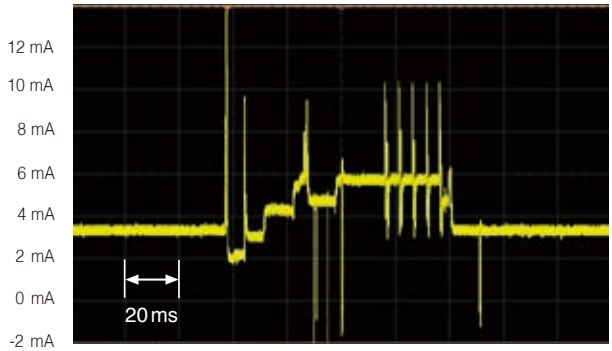
DC to 120 MHz, 1 mA

Minuscule to large currents, 500 A RMS currents

Recommended measuring instrument: CT6711 + MEMORY HiCORDER MR6000, Oscilloscope

Observe micro current

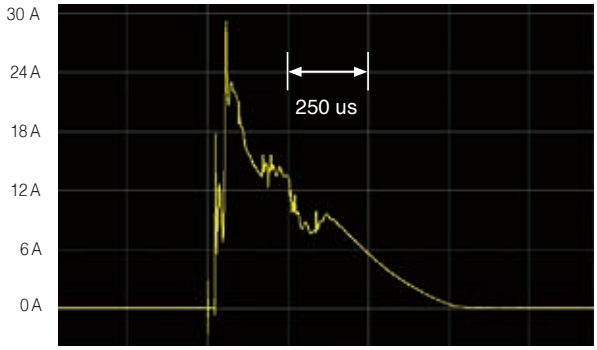
Current consumption waveform for a Bluetooth Low Energy device while sending/receiving data



Instrument used: Oscilloscope
Frequency band: 200 MHz

Observe inrush current

Inrush current waveform when an electric device is turned on



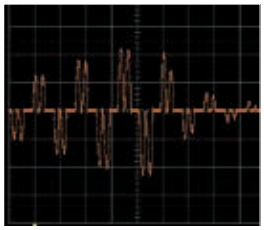
Instrument used: Memory HiCorder MR6000

Application example

Observe load current and control current waveforms in industrial equipment

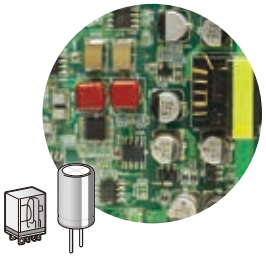
- Secondary side of inverters and motor load currents
- Electric pump solenoid control currents
- Solenoid valve operating current and control currents
- Actuator load currents
- Motor coil instantaneous current waveforms
- Fan consumed currents and inrush currents
- Power supply system load current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

Forming machine load current
50A/div, 10ms/div



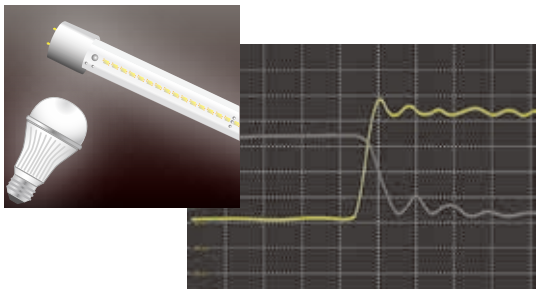
Evaluate current characteristics in circuit components and other parts

- Switching power supply board current waveforms
- Circuit board current waveforms
- Ripple current waveforms flowing to capacitors
- Current waveforms from short-circuit tests
- Evaluate EV batteries under abrupt load changes
- Inrush current waveforms



Evaluate high-speed switching characteristics

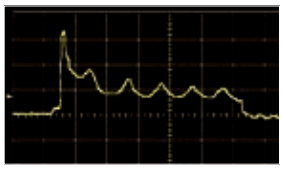
- Observe waveforms when switching LED driver control
- Observe waveforms of on/off cycles in semiconductor devices driven at high speeds
- Observe waveforms of control current and load current in light control circuits
- Observe waveforms of control current and load current in DC/DC converters or inverters

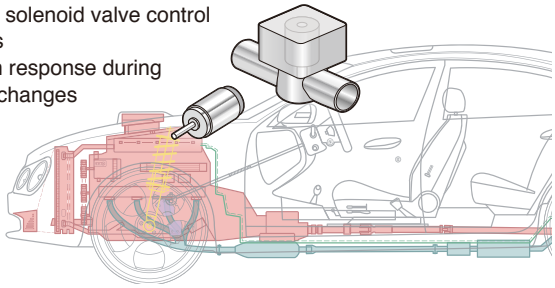


Confirm transient response waveforms during control switching

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

Starting current in a car starter
100A/div, 1s/div







Paired with the zero-flux method, a proprietary thin-film Hall element makes high-performance current sensing possible

Wideband current sensors

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

Hall element detection

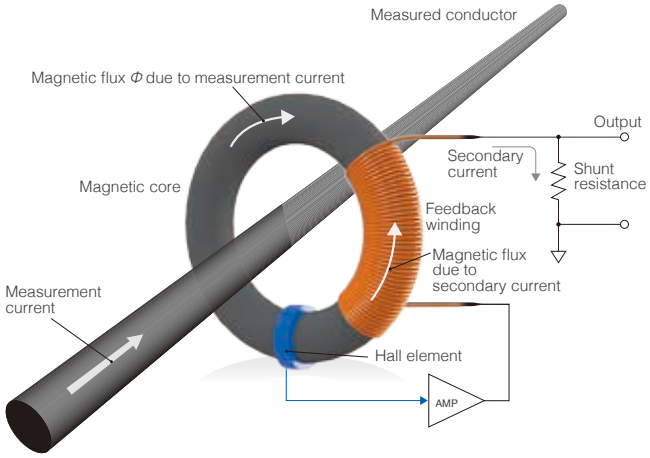
Hall element detection is characterized by a simple structure and a sensor section that can easily be downsized. Hioki combines our own proprietary thin-film Hall elements with the zero flux method to deliver sensors that can conduct measurements over a wide range of frequencies, from DC to 100 MHz bands
Ideal for waveform observations using a MEMORY HiCORDER or oscilloscope, Hall element detection achieves a high S/N ratio in the wideband range, making them particularly well-suited for design verification of electronic circuitry such as high-speed signal circuits.

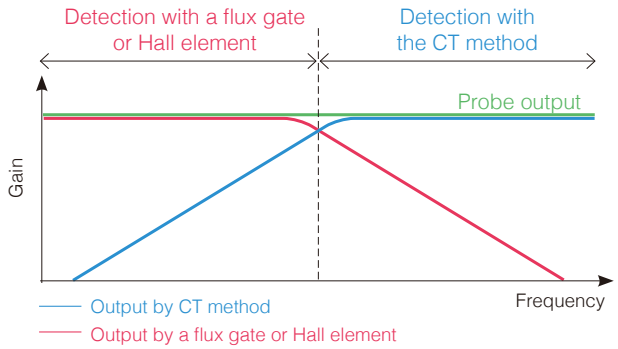
Zero flux method

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

Operating principle

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

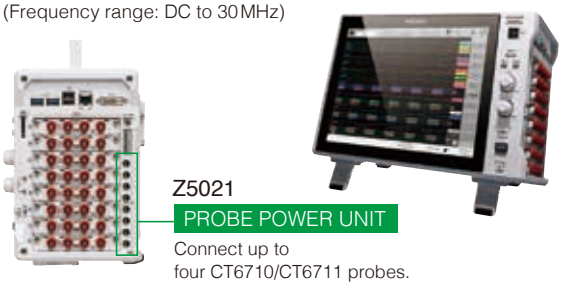




Instrument profile MEMORY HiCORDER MR6000

200 MS/s × isolated measurement

When using the High-speed Analog Unit U8976
(Frequency range: DC to 30 MHz)



Z5021
PROBE POWER UNIT
Connect up to
four CT6710/CT6711 probes.

Connecting Wideband Sensors to Other Devices

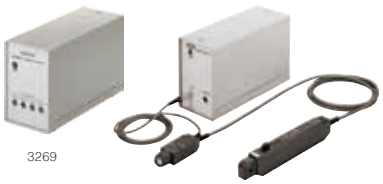


BNC terminal

Below are the options necessary for connecting wide-bandwidth sensors to measurement devices.

Current sensor model No.	POWER ANALYZER PW6001	MEMORY HiCORDER Oscilloscope
3273-50 3274 3275 3276 CT6700 CT6701	- Direct connection possible - Power by the PW6001	- Dedicated extension cable (synthetic resin BNC or metal BNC conversion cable) is recommended - POWER SUPPLY 3269 or 3272 is required - When using a recorder, the PROBE POWER UNIT Z5021 is also available.
CT6710 CT6711	–	When using a recorder, the Probe Power Unit Z5021 supports the use of up to 4 sensors.

Power supplies



3269

3272 pictured with current probe

Product Name	Model No. (order code)
POWER SUPPLY	3269
POWER SUPPLY	3272

Power supplies provide drive current to current probes.

Specifications	3269	3272
Connectable current sensor	CT6700, CT6701, 3273-50, 3274, 3275, 3276× 4 max. CT6710,CT6711 ×2 max.	CT6700, CT6701 × 2 max. 3273-50, 3274, 3275, 3276 × 1 max.
Number of supply channels	4	2
Output voltage	12 V ±0.5 V, 2.5 A (sum of each channel)	12 V ±0.5 V, 600 mA (sum of each channel)
Power supply	100 V to 240 V AC, 50 Hz/60 Hz, 170 VA max.	100 V AC ±10%, 50 Hz/60 Hz, 20 VA max. (specification required for 120, 220, 240 V)
Dimensions, Mass	80 mm (3.15 in) W × 119 mm (4.69 in) H × 200 mm (7.87 in) D, 1.1 kg (38.8 oz)	73 mm (2.87 in) W × 110 mm (4.33 in) H × 186 mm (7.32 in) D, 1.1 kg (38.8 oz)
Accessories	Power supply cord, Instruction Manual	Power supply cord, Instruction Manual, Spare fuse

Wideband Sensor Specifications

Clamp Type

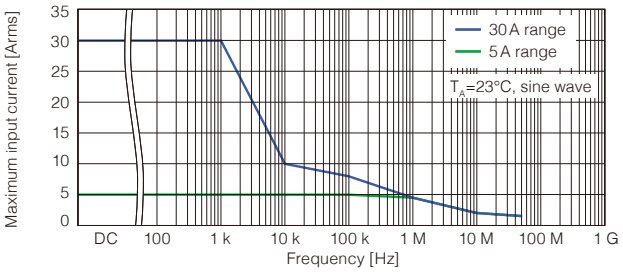


CT6710
30 A, 5 A, 0.5 A AC/DC

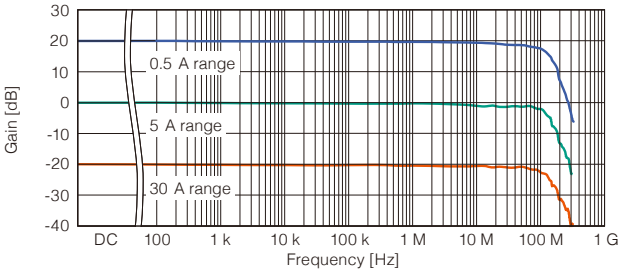
Output connector: BNC
(One-touch connection/disconnection)

Rated current (DC or 45 to 66 Hz sine wave,within maximum peak current for each range)	30 A range : 30 Arms 5 A range : 5 Arms 0.5 A range : 0.5 Arms
Frequency band	DC to 50 MHz (-3dB)
Diameter of measurable conductors	ϕ 5 mm (0.20 in) or less
Amplitude accuracy (DC or 45 to 66 Hz sine wave, within maximum peak current for each range)	30 A range : ±3.0 %rdg. ±1 mV, Typical ±1.0 %rdg. ±1 mV (≤ 10 A rms) 5 A range : ±3.0 %rdg. ±1 mV, Typical ±1.0 %rdg. ±1mV 0.5 A range : ±3.0 %rdg. ±10 mV, Typical ±1.0 %rdg. ±10 mV 23°C± 5°C (73°F ±9°F), Warm-up time: 30 minutes
Accuracy guarantee period	1 year (until the upper jaw has been retracted and locked up to 10,000 cycles)
Guaranteed accuracy period after adjustment made by Hioki	6 months
Noise	75 µ Arms or less (typical 60 µArms) (for current probe only) (0.5 A range, with a 20 MHz bandwidth instrument)
Rise time (10% to 90%)	7.0 ns or less
Delay time (the time lag between the input signal with a rise time of 1 ns and the output signal)	30 A range : Typical 12 ns 5 A range : Typical 12 ns 0.5 A range : Typical 13 ns
Maximum peak current	30 A range : ±50 A peak (Maximum 2 sec input)* 5 A range : ±7.5 A peak 0.5 A range : ±0.75 A peak (<10 MHz), ±0.3 A peak (≥10 MHz)
Operating temperature and humidity range	0°C to 40°C (32°F to 104°F), 80% RH or less (no condensation)
Storage temperature and humidity range	-10°C to 50°C (14°F to 122°F), 80% RH or less (no condensation)
Effect of external magnetic fields	20 mA or less (DC or 60 Hz input, 400 A/m magnetic field)
Measurable conductors	Insulated conductors
Compliance standards	Safety : EN61010, EMC : EN61326
Supply voltage	DC ±12 V ±0.5 V
Rated power	7.8 VA (for current probe only), (when measuring 30 A rms continuously)
Cable length	Sensor cable (between sensor and junction box) : 1.5 m, Power cord : 1.0 m
Dimensions (excluding BNC connector or protrusions)	Sensor : 155W × 18H × 26D mm Junction box : 45W × 120H × 25D mm Termination unit : 29W × 83H × 40D mm
Mass	Approx. 370 g (13.1 oz.)
Accessories	Instruction Manual, Carrying case
Option	Model 3269 Power Supply (Up to two simultaneous sensor connections possible)

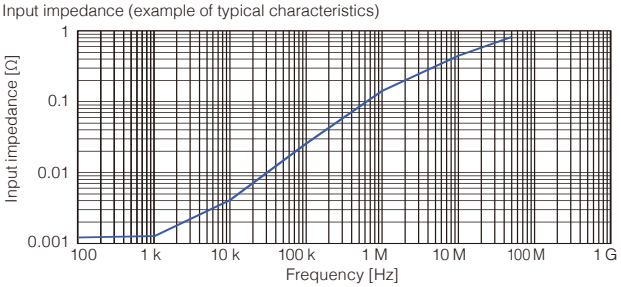
Frequency derating (example of typical characteristics)



Frequency characteristics (example of typical characteristics)



Input impedance (example of typical characteristics)



Clamp Type

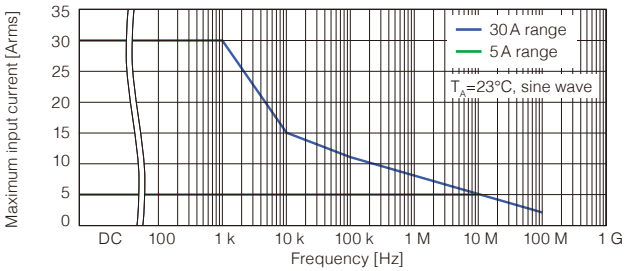


CT6711
30 A, 5 A, 0.5 A AC/DC

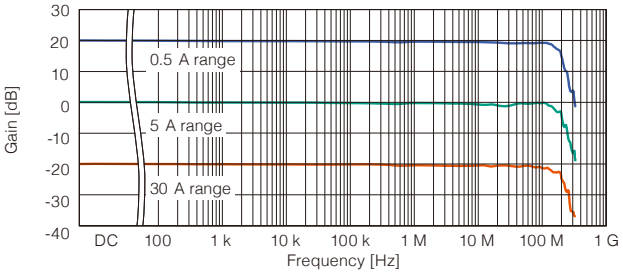
Output connector: BNC
(One-touch connection/disconnection)

Rated current (DC or 45 to 66 Hz sine wave,within maximum peak current for each range)	30 A range : 30 Arms 5 A range : 5 Arms 0.5 A range : 0.5 Arms
Frequency band	DC to 120 MHz (-3dB)
Diameter of measurable conductors	ϕ 5 mm (0.20 in) or less
Amplitude accuracy (DC or 45 to 66 Hz sine wave, within maximum peak current for each range)	30 A range : ±3.0 %rdg. ±1 mV, Typical ±1.0 %rdg. ±1 mV (≤ 10 A rms) 5 A range : ±3.0 %rdg. ±1 mV, Typical ±1.0 %rdg. ±1mV 0.5 A range : ±3.0 %rdg. ±10 mV, Typical ±1.0 %rdg. ±10 mV 23°C± 5°C (73°F ±9°F), Warm-up time: 30 minutes
Accuracy guarantee period	1 year (until the upper jaw has been retracted and locked up to 10,000 cycles)
Guaranteed accuracy period after adjustment made by Hioki	6 months
Noise	75 µA rms or less (typical 60 µArms) (for current probe only) (0.5 A range, with a 20 MHz bandwidth instrument)
Rise time (10% to 90%)	2.9 ns or less
Delay time (the time lag between the input signal with a rise time of 1 ns and the output signal)	30 A range : Typical 12 ns 5 A range : Typical 12 ns 0.5 A range : Typical 13 ns
Maximum peak current	30 A range : ±50 A peak * 5 A range : ±7.5 A peak 0.5 A range : ±0.75 A peak (<10 MHz), ±0.3 A peak (≥10 MHz)
Operating temperature and humidity range	0°C to 40°C (32°F to 104°F), 80% RH or less (no condensation)
Storage temperature and humidity range	-10°C to 50°C (14°F to 122°F), 80% RH or less (no condensation)
Effect of external magnetic fields	5 mA or less (DC or 60 Hz input, 400 A/m magnetic field)
Measurable conductors	Insulated conductors
Compliance standards	Safety: EN61010, EMC: EN61326
Supply voltage	DC ±12 V ±0.5 V
Rated power	7.8 VA (for current probe only), (when measuring 30 A rms continuously)
Cable length	Sensor cable (between sensor and junction box) : 1.5 m, Power cord : 1.0 m
Dimensions (excluding BNC connector or protrusions)	Sensor : 155W × 18H × 26D mm Junction box : 45W × 120H × 25D mm Termination unit : 29W × 83H × 40D mm
Mass	Approx. 370 g (13.1 oz.)
Accessories	Instruction Manual, Carrying case
Option	Model 3269 Power Supply (Up to two simultaneous sensor connections possible)

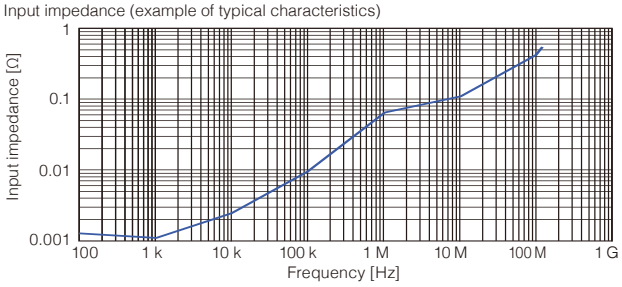
Frequency derating (example of typical characteristics)



Frequency characteristics (example of typical characteristics)



Input impedance (example of typical characteristics)



Clamp Type

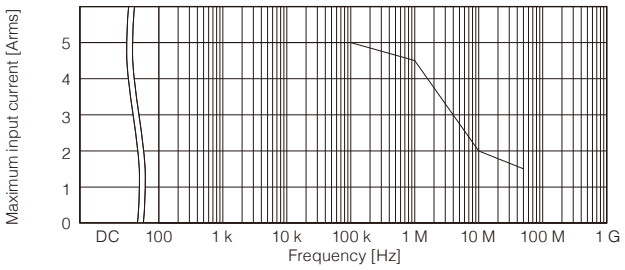


CT6700
5 A AC/DC

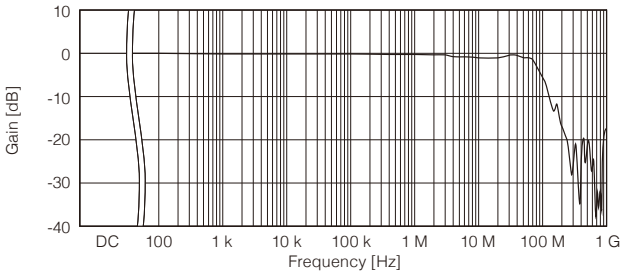
Output connector: BNC
(One-touch connection/disconnection)

Rated current	5 Arms
Frequency band	DC to 50 MHz (-3 dB)
Diameter of measurable conductors	ϕ 5 mm (0.20 in) or less
Accuracy	Amplitude accuracy: ±3.0% rdg. ±1 mV (typical ±1.0% rdg. ±1 mV) DC, 45 Hz to 66 Hz, Sine wave input from 0 to 5 A rms 23°C± 5°C (73°F ±9°F), Warm-up time: 30 minutes
Accuracy guarantee period	1 year
Guaranteed accuracy period after adjustment made by Hioki	6 months
Output noise	75 µArms or less (typical 60 µA rms, with measurement instrument of 30 MHz band)
Effect of temperature	±2% rdg. or less (when zero-adjustment is performed in the range excluding 23°C ±5°C [73°F ±9°F], with 50 Hz / 5 Arms input)
Output voltage	1 V/A
Output impedance	50 Ω
Output connector	BNC connector
Input resistance	Refer to the input impedance characteristics table
Rising time	7.0 ns or less (10% to 90%)
Delay time	13 ns Typical
Maximum peak current	±7.5 Apeak (non-continuous)
Operating temperature and humidity range	0°C to 40°C (32°F to 104°F), 80% RH or less (no condensation)
Storage temperature and humidity range	-10°C to 50°C (14°F to 122°F), 80% RH or less (no condensation)
Measurable conductors	Insulated conductors
Compliance standards	Safety: EN61010, EMC: EN61326
Supply voltage	±12 V ±0.5 V
Rated power	3.2 VA or less
Cable length	Sensor cable: 1.5 m (4.92 ft), Power supply cable: 1 m (3.28 ft)
Dimensions	Sensor: 155 mm (6.10 in) W × 18 mm (0.71 in) H × 26 mm (1.02 in) D, Termination section: 29 mm (1.14 in) W × 83 mm (3.27 in) H × 40 mm (1.57 in) D
Mass	250 g (8.8 oz)
Accessories	Instruction Manual, Carrying case
Options	POWER SUPPLY 3269, POWER SUPPLY 3272

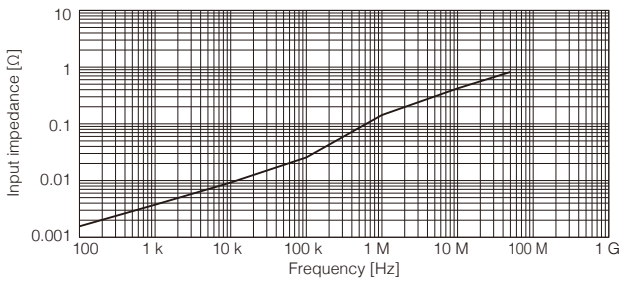
Frequency derating



Frequency characteristics (example of typical characteristics)



Input impedance (example of typical characteristics)



Clamp Type

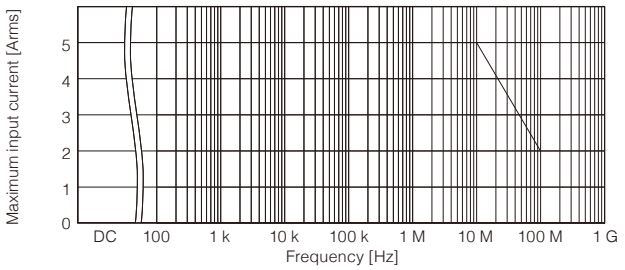


CT6701
5 A AC/DC

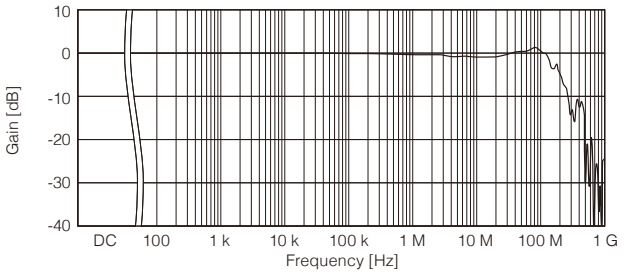
Output connector: BNC
(One-touch connection/disconnection)

Rated current	5 Arms
Frequency band	DC to 120 MHz (-3 dB)
Diameter of measurable conductors	ϕ 5 mm (0.20 in) or less
Accuracy	Amplitude accuracy: ±3.0% rdg. ±1 mV (typical ±1.0% rdg. ±1 mV) DC, 45 Hz to 66 Hz, Sine wave input from 0 to 5 A rms 23°C± 5°C (73°F ±9°F), Warm-up time: 30 minutes
Accuracy guarantee period	1 year
Guaranteed accuracy period after adjustment made by Hioki	6 months
Output noise	75 µA rms or less (typical 60 µArms, with measurement instrument of 30 MHz band)
Effect of temperature	±2% rdg. or less (when zero-adjustment is performed in the range excluding 23°C ±5°C [73°F ±9°F], with 50 Hz / 5 Arms input)
Output voltage	1 V/A
Output impedance	50 Ω
Output connector	BNC connector
Input resistance	Refer to the input impedance characteristics table
Rising time	2.9 ns or less (10% to 90%)
Delay time	12 ns Typical
Maximum peak current	±7.5 Apeak (non-continuous)
Operating temperature and humidity range	0°C to 40°C (32°F to 104°F), 80% RH or less (no condensation)
Storage temperature and humidity range	-10°C to 50°C (14°F to 122°F), 80% RH or less (no condensation)
Measurable conductors	Insulated conductors
Compliance standards	Safety: EN61010, EMC: EN61326
Supply voltage	±12 V ±0.5 V
Rated power	3.2 VA or less
Cable length	Sensor cable: 1.5 m (4.92 ft), Power supply cable: 1 m (3.28 ft)
Dimensions	Sensor: 155 mm (6.10 in) W × 18 mm (0.71 in) H × 26 mm (1.02 in) D, Termination section: 29 mm (1.14 in) W × 83 mm (3.27 in) H × 40 mm (1.57 in) D
Mass	250 g (8.8 oz)
Accessories	Instruction Manual, Carrying case
Options	POWER SUPPLY 3269, POWER SUPPLY 3272

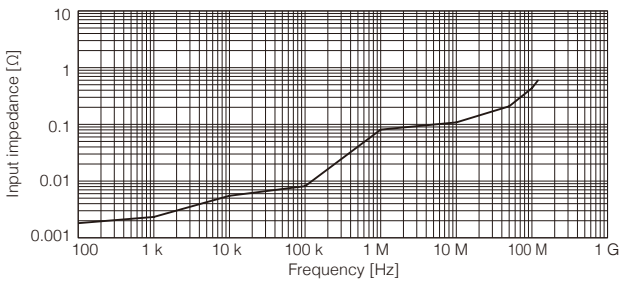
Frequency derating



Frequency characteristics (example of typical characteristics)



Input impedance (example of typical characteristics)



Clamp Type

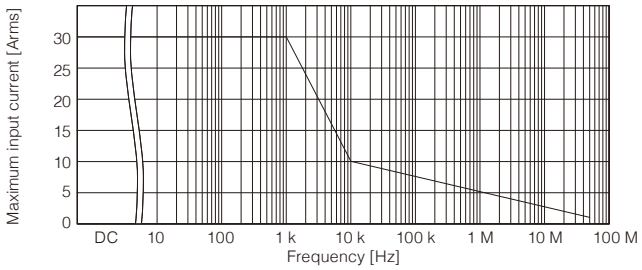


3273-50
30 A AC/DC

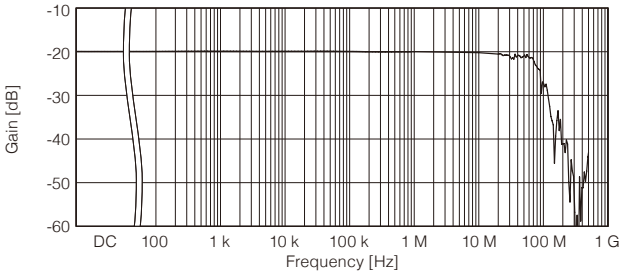
Output connector: BNC

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

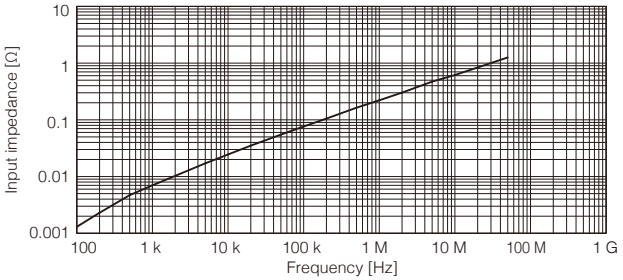
Frequency derating



Frequency characteristics (example of typical characteristics)



Input impedance (example of typical characteristics)



Clamp Type

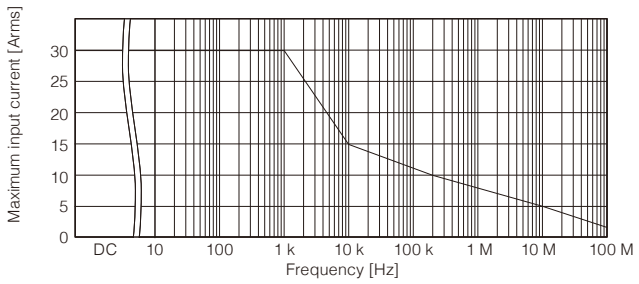


3276
30 A AC/DC

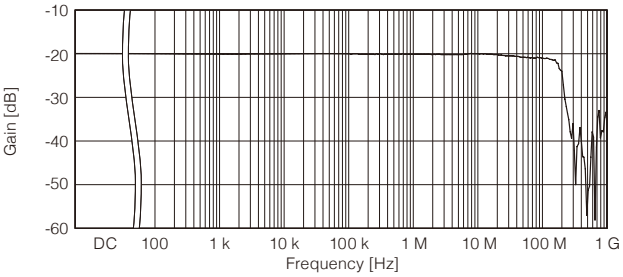
Output connector: BNC

Rated current	30 A rms
Frequency band	DC to 100 MHz (-3 dB)
Diameter of measurable conductors	ϕ 5 mm (0.20 in) or less
Accuracy	±1.0% rdg. ±1 mV; to 30 A rms ±2.0% rdg. ; to 50 A peak Accuracy at 23°C ±5°C (73°F ±9°F), within 30 minutes of turning the power on DC, 45 Hz to 66 Hz, Sine wave at input within continuous maximum input range
Accuracy guarantee period	1 year
Guaranteed accuracy period after adjustment made by Hioki	6 months
Output noise	2.5 mArms or less (with measurement instrument of 20 MHz band)
Effect of temperature	Within ±2% (with input of 50 Hz / 30 A rms, in range of 0°C to 40°C [32°F to 104°F])
Output voltage	0.1 V/A
Output connector	BNC connector
Input resistance	Refer to the input impedance characteristics table
Rising time	3.5 ns or less (10% to 90%)
Delay time	14 ns Typical
Maximum peak current	50 A peak (non-continuous)
Operating temperature and humidity range	0°C to 40°C (32°F to 104°F), 80% RH or less (no condensation)
Storage temperature and humidity range	-10°C to 50°C (14°F to 122°F), 80% RH or less (no condensation)
Measurable conductors	Insulated conductors
Compliance standards	Safety: EN61010, EMC: EN61326
Supply voltage	±12 V ±0.5 V
Rated power	5.3 VA or less
Cable length	Sensor cable: 1.5 m (4.92 ft), Power supply cable: 1 m (3.28 ft)
Dimensions	Sensor: 175 mm (6.89 in) W × 18 mm (0.71 in) H × 40 mm (1.57 in) D, Termination section: 27 mm (1.06 in) W × 55 mm (2.17 in) H × 18 mm (0.71 in) D
Mass	240 g (8.5 oz)
Accessories	Instruction Manual, Carrying case
Options	POWER SUPPLY 3269, POWER SUPPLY 3272

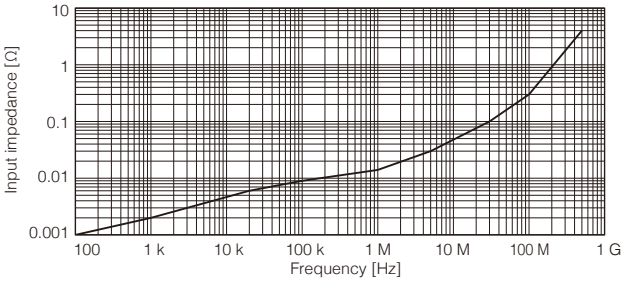
Frequency derating



Frequency characteristics (example of typical characteristics)



Input impedance (example of typical characteristics)



Clamp Type

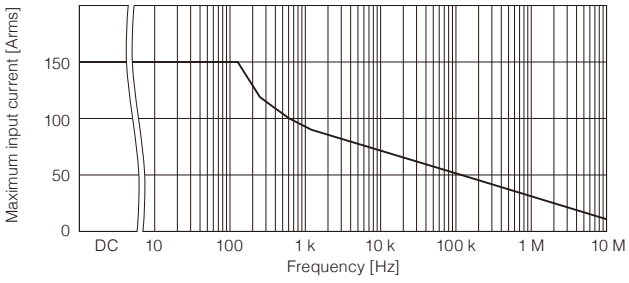


3274
150 A AC/DC

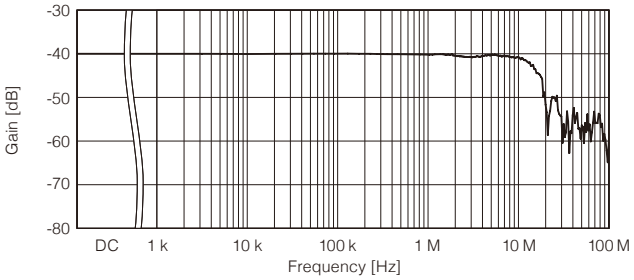
Output connector: BNC

Rated current	150 A rms
Frequency band	DC to 10 MHz (-3 dB)
Diameter of measurable conductors	ϕ 20 mm (0.79 in) or less
Accuracy	To 150 A: ±1.0% rdg. ±1 mV 150 A to 300 A peak: 2.0% rdg. 23°C± 5°C (73°F ±9°F), Warm-up time: 30 minutes DC, Sine wave from 45 Hz to 66 Hz
Accuracy guarantee period	1 year
Guaranteed accuracy period after adjustment made by Hioki	6 months
Output noise	25 mA rms or less (with measurement instrument of 20 MHz band)
Effect of temperature	Within ±2% (with input of 55 Hz / 150 A, in range of 0°C to 40°C [32°F to 104°F])
Output voltage	0.01 V/A
Output connector	BNC connector
Input resistance	Refer to the input impedance characteristics table
Rising time	35 ns or less (10% to 90%)
Delay time	40 ns Typical
Maximum peak current	300 Apeak (500 Apeak with pulse width ≤ 30 µs)
Operating temperature and humidity range	0°C to 40°C (32°F to 104°F), 80% RH or less (no condensation)
Storage temperature and humidity range	-10°C to 50°C (14°F to 122°F), 80% RH or less (no condensation)
Measurable conductors	Insulated conductors
Compliance standards	Safety: EN61010, EMC: EN61326
Supply voltage	±12 V ±1 V
Rated power	5.5 VA or less
Cable length	Sensor cable: 2 m (6.56 ft), Power supply cable: 1 m (3.28 ft)
Dimensions	Sensor: 176 mm (6.93 in) W × 69 mm (2.72 in) H × 27 mm (1.06 in) D, Termination section: 27 mm (1.06 in) W × 55 mm (2.17 in) H × 18 mm (0.71 in) D
Mass	500 g (17.6 oz)
Accessories	Instruction Manual, Carrying case
Options	POWER SUPPLY 3269, POWER SUPPLY 3272

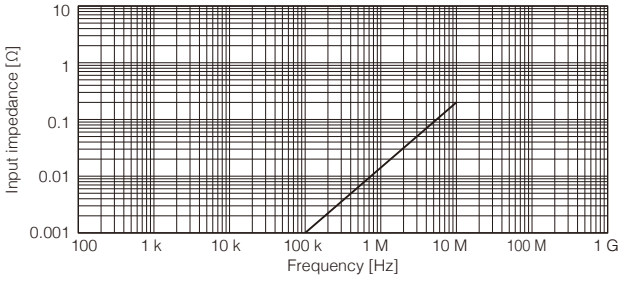
Frequency derating



Frequency characteristics (example of typical characteristics)



Input impedance (example of typical characteristics)



Clamp Type

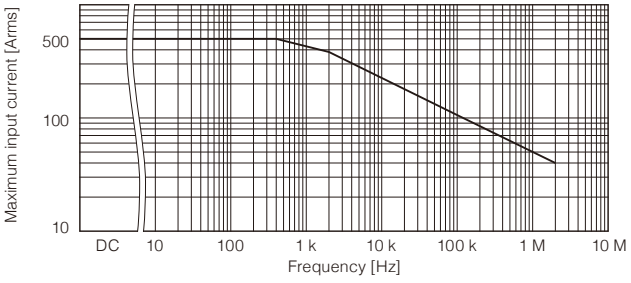


3275
500 A AC/DC

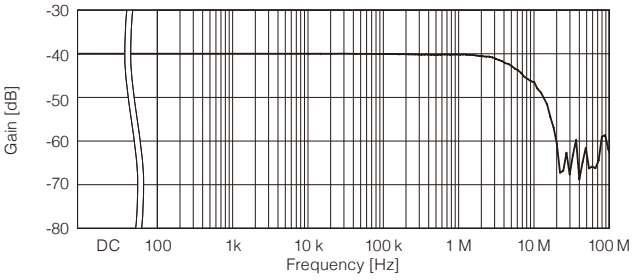
Output connector: BNC

Rated current	500 A rms
Frequency band	DC to 2 MHz (-3 dB)
Diameter of measurable conductors	ϕ 20 mm (0.79 in) or less
Accuracy	To 500 A: ±1.0% rdg. ±5 mV To 700 A peak: ±2.0% rdg. 23°C± 5°C (73°F ±9°F), Warm-up time: 30 minutes DC, Sine wave from 45 Hz to 66 Hz
Accuracy guarantee period	1 year
Guaranteed accuracy period after adjustment made by Hioki	6 months
Output noise	25 mA rms or less (with measurement instrument of 20 MHz band)
Effect of temperature	Within ±2% (with input of 50 Hz / 500 A, in range of 0°C to 40°C [32°F to 104°F])
Output voltage	0.01 V/A
Output connector	BNC connector
Input resistance	Refer to the input impedance characteristics table
Rising time	175 ns or less (10% to 90%)
Delay time	66 ns Typical
Maximum peak current	700 Apeak (non-continuous)
Operating temperature and humidity range	0°C to 40°C (32°F to 104°F), 80% RH or less (no condensation)
Storage temperature and humidity range	-10°C to 50°C (14°F to 122°F), 80% RH or less (no condensation)
Measurable conductors	Insulated conductors
Compliance standards	Safety: EN61010, EMC: EN61326
Supply voltage	±12 V ±0.5 V
Rated power	7.2 VA or less
Cable length	Sensor cable: 2 m (6.56 ft), Power supply cable: 1 m (3.28 ft)
Dimensions	Sensor: 176 mm (6.93 in) W × 69 mm (2.72 in) H × 27 mm (1.06 in) D, Termination section: 27 mm (1.06 in) W × 55 mm (2.17 in) H × 18 mm (0.71 in) D
Mass	520 g (18.3 oz)
Accessories	Instruction Manual, Carrying case
Options	POWER SUPPLY 3269, POWER SUPPLY 3272

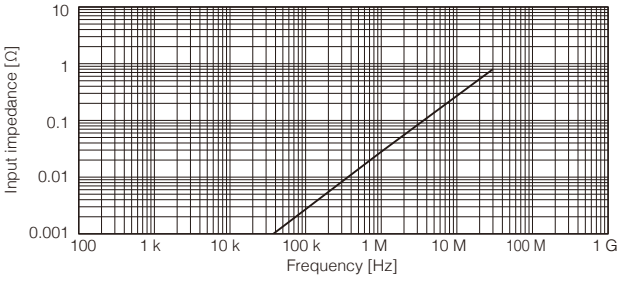
Frequency derating



Frequency characteristics (example of typical characteristics)



Input impedance (example of typical characteristics)



Models & Options

High-Accuracy Sensor (ME15W Terminal)

Product Name	Model No. (order code)	Specifications
AC/DC CURRENT SENSOR	CT6904	500 A
AC/DC CURRENT SENSOR	CT6904-60	800 A (custom order)
AC/DC CURRENT SENSOR	CT6862-05	50 A
AC/DC CURRENT SENSOR	CT6863-05	200 A
AC/DC CURRENT SENSOR	CT6875	500 A
AC/DC CURRENT SENSOR	CT6875-01	500 A, 10 m (32.81 ft) length
AC/DC CURRENT SENSOR	CT6876	1000 A
AC/DC CURRENT SENSOR	CT6876-01	1000 A, 10 m (32.81 ft) length
AC/DC CURRENT SENSOR	CT6877	2000 A

Product Name	Model No. (order code)	Specifications
AC/DC CURRENT SENSOR	CT6877-01	2000 A, 10 m (32.81 ft) length
AC/DC CURRENT PROBE	CT6841-05	20 A
AC/DC CURRENT PROBE	CT6843-05	200 A
AC/DC CURRENT PROBE	CT6844-05	500 A, φ20 mm (0.79 in)
AC/DC CURRENT PROBE	CT6845-05	500 A, φ50 mm (1.97 in)
AC/DC CURRENT PROBE	CT6846-05	1000 A, φ50 mm (1.97 in)
CLAMP ON SENSOR	9272-05	20 A/200 A
AC/DC CURRENT BOX	PW9100-03	50 A, 3-ch
AC/DC CURRENT BOX	PW9100-04	50 A, 4-ch

High-Accuracy Sensor (PL23 Terminal)

Product Name	Model No. (order code)	Specifications
AC/DC CURRENT SENSOR	CT6862	50 A
AC/DC CURRENT SENSOR	CT6863	200 A
AC/DC CURRENT PROBE	CT6841	20 A
AC/DC CURRENT PROBE	CT6843	200 A

Product Name	Model No. (order code)	Specifications
AC/DC CURRENT PROBE	CT6844	500 A, φ 20 mm (0.79 in)
AC/DC CURRENT PROBE	CT6845	500 A, φ 50 mm (1.97 in)
AC/DC CURRENT PROBE	CT6846	1000 A
CLAMP ON SENSOR	9272-10	20 A/200 A

High-Accuracy Sensor Options

Product Name	Model No. (order code)	Specifications
SENSOR UNIT	CT9555	For single-line drive
SENSOR UNIT	CT9556	For single-line drive, with RMS output
SENSOR UNIT	CT9557	For 4-line drive, with aggregated output
CONVERSION CABLE	CT9900	PL23 - ME15W
CONVERSION CABLE	CT9901	ME15W-PL23
CONVERSION CABLE	9318	PL23 - ME15M

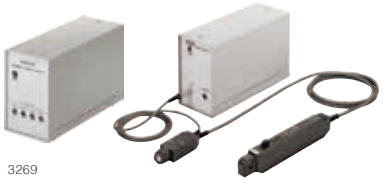
Product Name	Model No. (order code)	Specifications
EXTENSION CABLE	CT9902	ME15W - ME15W
EXTENSION CABLE	CT9903	PL23 - PL23
CONNECTION CABLE	CT9904	Aggregated output - ME15W
CONNECTION CORD	L9217	Isolated BNC - isolated BNC
CONNECTION CORD	9165	Metallic BNC - metallic BNC

Wideband Sensor

Product Name	Model No. (order code)	Specifications
CLAMP ON PROBE	3273-50	30 A
CLAMP ON PROBE	3274	150 A
CLAMP ON PROBE	3275	500 A
CLAMP ON PROBE	3276	30 A

Product Name	Model No. (order code)	Specifications
CURRENT PROBE	CT6700	5 A
CURRENT PROBE	CT6701	5 A
CURRENT PROBE	CT6710	30 A, 5 A, 0.5 A
CURRENT PROBE	CT6711	30 A, 5 A, 0.5 A

Wideband Sensor Options



3269

3272 pictured with current probe

Product Name	Model No. (order code)
POWER SUPPLY	3269
POWER SUPPLY	3272

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