

Specifications

Accuracy

f.s.: Maximum display value or scale length (The rated measurement current)

rdg.: Reading value (The value currently being measured and indicated on the measuring instrument)

1. General Specifications

Operating environment	Indoors, Pollution Degree 2, altitude up to 2000 m (6562 ft.)
Operating temperature and humidity	-40°C to 85°C (-40°F to 185.0°F) 80% RH or less (no condensation)
Storage temperature and humidity	-40°C to 85°C (-40°F to 185.0°F) 80% RH or less (no condensation)
Standards	Safety: EN 61010 EMC: EN 61326
Dielectric strength	7.4 kV AC (sensed current: 1 mA) 50 Hz/60 Hz for 1 minute, between through window and cable output terminal
Power supply	Supplied from PW6001, PW3390, CT9555, CT9556, CT9557, or external DC power supply Rated supply voltage: ±11.5 V to ±15 V (Tracking) Maximum rated current: ±450 mA (1000 A/55 Hz measurement, ±12 V power supply)
Maximum rated power	7.5 VA (1000 A/55 Hz measurement, ±12 V power supply)
Interface	Dedicated interface (ME15W)
Dimensions	Approx. 160W × 112H × 50D mm (6.30"W × 4.41"H × 1.97"D) (excluding protrusions and the cable)
Output cable length	CT6876: Approx. 3 m CT6876-01: Approx. 10 m
Mounting hole diameter	φ5.2 mm (M5 screw, recommended tightening torque: 1.5 N·m to 2.0 N·m)
Mass	CT6876: Approx. 950 g (33.5 oz.) CT6876-01: Approx. 1250 g (44.1 oz.)
Product warranty period	3 years
Accessories	Mark bands ×6 Instruction Manual (JA, EN, CN) Operating Precautions (0990A907)
Options	CT9901 Conversion Cable CT9902 Extension Cable

2. Input / Output / Measurement Specifications

-1. Basic specifications

Rated current	1000 A AC/DC
Measurable conductor diameter	φ36 mm or less
Maximum input current	Not exceeding derating curve shown in Figure 1 Provided that measurement is performed at 40°C or less and finishes within 20 ms. ±1800 A peak is allowable
Output voltage	2 mV/A
Maximum rated voltage to earth	1000 V (Measurement category III) Anticipated transient overvoltage: 8000 V
Output resistance	50 Ω±10 Ω

-2. Accuracy specifications

Conditions of guaranteed accuracy	Guaranteed accuracy period: 1 year Guaranteed accuracy period after adjustment made by Hioki: 1 year Accuracy guarantee for temperature and humidity: 0°C to 40°C (32°F±104.0°F), 80% RH or less No warm-up required, sine wave inputted, connected with measuring instrument with input resistance 1 MΩ or more, line-to-ground voltage: 0 V, no external magnetic field, conductor arranged at center of window
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Measurement 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)°
10 kHz < f ≤ 50 kHz	±2% rdg.±0.05% f.s.	± (0.1×f)°
50 kHz < f ≤ 100 kHz	±3% rdg.±0.05% f.s.	± (0.1×f)°
100 kHz < f ≤ 1 MHz	± (0.03×f)% rdg.±0.05% f.s.	± (0.1×f)°
Frequency range	1.5 MHz (±3 dB Typical)	-

- Symbols f in accuracy expressions are represented in kHz.
- Accuracy of amplitude and phase is specified with 110% f.s. input or less and not exceeding derating curve in Figure 1. Accuracy in range of DC < f < 10 Hz are design value.
- Add ±0.01% rdg. to amplitude accuracy when input is 100% f.s. to 110% f.s.
- For Model CT6876-01, add the following values to accuracy in the range of 1 kHz < f ≤ 1 MHz.
Amplitude accuracy: ±(0.005×f)% rdg.
Frequency band of 1.2 MHz (±3 dB Typical)
Phase accuracy: ±(0.015×f)°

Linearity ^{*1,*2}	±5 ppm Typical (23°C)
Offset voltage ^{*2}	±15 ppm Typical (23°C, no input)

*1: Output voltages are measured while input currents (DC) are changed in steps of 200 A beginning from +1000 A to -1000 A and then to +1000 A. Defined as the difference between the regression line calculated from the above measurements and the measurement points.
*2: Defined as a percentage of the rated current.

Output noise	300 μV rms or less (≤1 MHz)
Effect of temperature	Within the range of -40°C to 0°C or 40°C to 85°C Amplitude sensitivity: ±20 ppm of rdg./°C Offset voltage: ±5 ppm of f.s./°C
Effect of magnetization	20 mA or less (input equivalent, after 1000 A DC is inputted)
Common mode rejection ratio (CMRR)	140 dB or more (50 Hz/60 Hz) 120 dB or more (100 kHz) (Effect on output voltage/common-mode voltage)
Effect of conductor position	DC, 50 Hz/60 Hz: ±0.01% rdg. or less (input current: 100 A) 10 kHz: ±0.5% rdg. or less (input current: 10 A) 100 kHz: ±3% rdg. or less (input current: 10 A) When wire of outer diameter 10 mm is used
Effect of radiated radio-frequency electromagnetic field	0.5% f.s. or less at 10 V/m
Effect of conducted radio-frequency electromagnetic field	0.2% f.s. or less at 10 V
Effect of external magnetic field	40 mA or less (input equivalent, under a magnetic field of 400 A/m DC or 400 A/m with 60 Hz)

3. Function Specifications

-1. PW6001 Power Analyzer

Combined accuracy

Frequency	Current	Power	Phase
DC	±0.06% rdg. ±0.038% f.s. (f.s.: The measurement range set on the PW6001)	±0.06% rdg. ±0.058% f.s. (f.s.: The measurement range set on the PW6001)	PW6001 accuracy + sensor accuracy
45 Hz ≤ f ≤ 66 Hz	±0.06% rdg. ±0.028% f.s. (f.s.: The measurement range set on the PW6001)	±0.06% rdg. ±0.038% f.s. (f.s.: The measurement range set on the PW6001)	
DC, band other than 45 Hz ≤ f ≤ 66 Hz	PW6001 accuracy + sensor accuracy (Consider sensor rating for f.s. error.)	PW6001 accuracy + sensor accuracy (Consider sensor rating for f.s. error.)	

- For other measurement parameters, add PW6001 accuracy and sensor accuracy together (consider sensor rating for f.s. error).
- For the 20 A range or the 40 A range, add ±0.2% of the measurement range set on the PW6001.
- Add accuracy according to each condition in specifications of the power analyzer and sensor.

-2. PW3390 Power Analyzer

Combined accuracy

Frequency	Current	Power	Phase
DC	±0.09% rdg. ±0.078% f.s. (f.s.: The measurement range set on the PW3390)	±0.09% rdg. ±0.078% f.s. (f.s. The measurement range set on the PW3390)	PW3390 accuracy + sensor accuracy
45 Hz ≤ f ≤ 66 Hz	±0.08% rdg. ±0.058% f.s. (f.s. The measurement range set on the PW3390)	±0.08% rdg. ±0.058% f.s. (f.s. The measurement range set on the PW3390)	
DC, band other than 45 Hz ≤ f ≤ 66 Hz	PW3390 accuracy + sensor accuracy (Consider sensor rating for f.s. error.)	PW3390 accuracy + sensor accuracy (Consider sensor rating for f.s. error.)	

- For other measurement parameters, add PW3390 accuracy and sensor accuracy together (consider sensor rating for f.s. error).
- For the 20 A range or the 40 A range, add ±0.2% f.s. of the measurement range set on the PW3390.
- Add accuracy according to each condition in specifications of the power analyzer and sensor.

-3. CT9555, CT9556, CT9557 Sensor Unit

Combined accuracy

- Sensor accuracy is applicable (with output coaxial cable of length 1.6 m or less).
- Add sensor unit accuracy when RMS output or total output is used.
- Add accuracy according to each condition in specifications of the products to be connected and sensor.

-4. U8977 3CH Current Unit

Combined accuracy

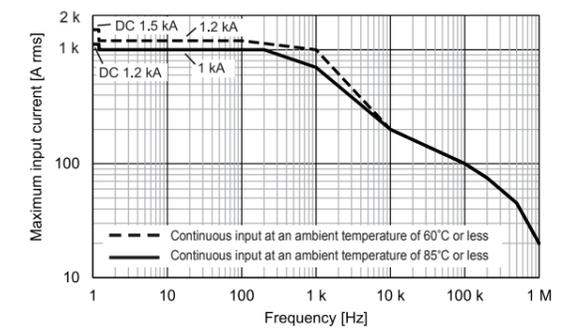
U8977 accuracy + sensor accuracy
Add accuracy according to each condition in specifications of Memory HiCorder to be connected and sensor.

-5. Other connectable products

Connecting CT9901 Conversion Cable enables the device to be used in combination with the following products:

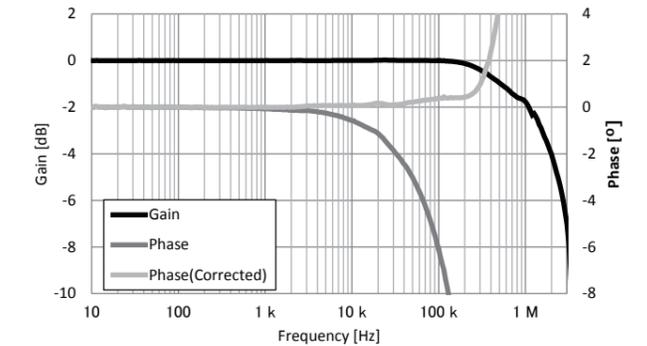
Combined product	Combined accuracy and conditions
9555-10 Sensor Unit	Sensor accuracy (with output coaxial cable of length 1.6 m or less)
3390, 3390-10 Power Analyzer	Recognized as [AC/DC500 A] Set CT ratio to [2]. (Combined accuracy) = (3390 [-10] accuracy) +(sensor accuracy), (power factor: 1)
9602 AC/DC Clamp Input Unit	When installed in 3193-10, recognized as [AC/DC500 A]. Set CT ratio to [2]. (Combined accuracy) = (9602 accuracy) + (sensor accuracy) + (±0.1% rdg.); (power factor: 1)
3334-10 AC/DC Power Hitester	Recognized as [AC/DC500 A] Set CT ratio to [50]. (Combined accuracy) = (3334-10 accuracy) +(sensor accuracy); (power factor: 1)
8971 Current Unit	The 9318 Conversion Cable (accessory of 8971) is required. Recognized as [AC/DC500 A] by the instrument equipped with auto-recognition. Set SC ratio to [2]. (Combined accuracy) = (8971 accuracy) + (sensor accuracy)

Figure 1. Frequency Derating Curve

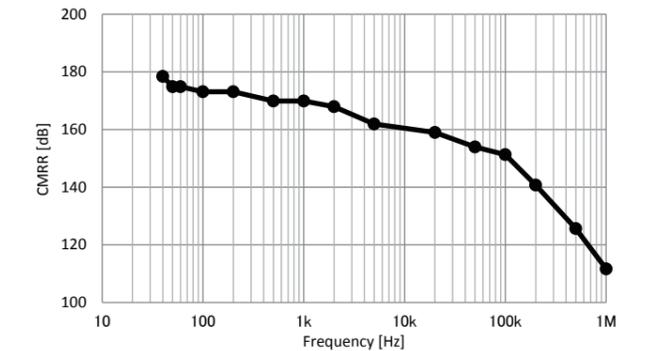


Characteristics

Frequency characteristics (Typical)



CMRR (Typical)



Linearity error (Typical)

