

<b>Operating environment</b>	Indoor use, pollution degree 2, altitude up to 2000 m (6562 ft.)
<b>Operating temperature and humidity range</b>	-40°C to 85°C (-40°F to 185°F) 80% RH or less (non-condensing)
<b>Storage temperature and humidity range</b>	-40°C to 85°C (-40°F to 185°F) 80% RH or less (non-condensing)
<b>Standards</b>	Safety: EN 61010 EMC: EN 61326
<b>Withstand voltage</b>	7.4 kV AC (sensed current: 1 mA) 50 Hz/60 Hz for 1 minute, between through window and cable output terminal
<b>Power supply</b>	Supplied from PW8001, PW6001, PW3390, CT9555, CT9556, CT9557, U8977 or external DC power supply Rated supply voltage: ±11.5 V to ±15 V (Tracking) Maximum rated current: ±400 mA (500 A/55 Hz measurement, ±12 V power supply)
<b>Maximum rated power</b>	7 VA (500 A/55 Hz measurement, ±12 V power supply)
<b>Interface</b>	Dedicated interface (ME15W)
<b>Dimensions</b>	Approx. 160W × 112H × 50D mm (6.30"W × 4.41"H × 1.97"D) (excluding protrusions and the cable)
<b>Output cable length</b>	CT6875A: Approx. 3 m CT6875A-1: Approx. 10 m
<b>Mounting hole diameter</b>	φ5.2 mm (M5 screw, recommended tightening torque: 1.5 N·m to 2.0 N·m)
<b>Weight</b>	CT6875A: Approx. 820 g (28.9 oz.) CT6875A-1: Approx. 1150 g (40.6 oz.)
<b>Product warranty duration</b>	3 years
<b>Accessories</b>	Mark band ×6 Instruction Manual Operating Precautions (0990A907)
<b>Options</b>	CT9901 Conversion Cable CT9902 Extension Cable
<b>Memory function</b>	Sensor information can be read for products with memory function support. Applicable product: PW8001
<b>Rated current</b>	500 AAC/DC
<b>Measurable conductor diameter</b>	φ36 mm or less
<b>Maximum input current</b>	Not exceeding derating curve shown in Figure 1 However, a current of up to ±1500 A peak (design value) is allowable for up to 20 ms at 40°C or less.
<b>Output voltage</b>	4 mV/A
<b>Maximum rated line-to-ground voltage</b>	1000 V (Measurement category III) Anticipated transient overvoltage: 8000 V
<b>Output resistance</b>	50 Ω ±10 Ω
<b>Accuracy guarantee conditions</b>	Accuracy guarantee duration: 1 year Accuracy guarantee duration after adjustment made by Hioki: 1 year Accuracy guarantee temperature and humidity range: 0°C to 40°C (32°F to 104°F), 80% RH or less No warm-up required, sine wave inputted, connected with measuring instrument with input resistance 1 MΩ ±10%, line-to-ground voltage: 0 V, no external magnetic field, conductor arranged at center of window

Measurement accuracy		
Frequency	Amplitude ±(% of reading + % of full scale)	Phase
DC	0.04% + 0.008%	-
DC < f < 16 Hz	0.1% + 0.02%	±0.1°
16 Hz ≤ f < 45 Hz	0.05% + 0.01%	±0.1°
45 Hz ≤ f < 66 Hz	0.04% + 0.008%	±0.08°
66 Hz ≤ f < 100 Hz	0.05% + 0.01%	±0.1°
100 Hz < f ≤ 500 Hz	0.1% + 0.02%	±0.2°
500 Hz < f ≤ 1 kHz	0.2% + 0.02%	±0.4°
1 kHz < f ≤ 5 kHz	0.4% + 0.02%	±0.5°
5 kHz < f ≤ 10 kHz	0.4% + 0.02%	± (0.1 × f)°
10 kHz < f ≤ 50 kHz	1.5% + 0.05%	± (0.1 × f)°
50 kHz < f ≤ 100 kHz	2.5% + 0.05%	± (0.1 × f)°
100 kHz < f ≤ 1 MHz	(0.025 × f) + 0.05%	± (0.1 × f)°
Frequency range	2 MHz (±3 dB Typical)	-

- The variable f in accuracy equations is expressed in kHz.
- Accuracy of amplitude and phase is specified with 110% of full scale input or less and not exceeding derating curve in Figure 1.
- However, design values are given for DC < f < 10 Hz.
- Add ±0.01% of reading to amplitude accuracy when input is 100% of full scale to 110% of full scale.
- For the CT6875A-01, add the following values to accuracy in the range of 1 kHz < f ≤ 1 MHz.  
Amplitude accuracy: ±(0.005 × f [kHz])% of reading  
Frequency bandwidth: 1.5 MHz (±3 dB Typical)  
Phase accuracy: ±(0.015 × f [kHz])°

<b>Linearity error</b> *1*2	±5 ppm Typical (23°C)
<b>Offset voltage</b> *2	±5 ppm Typical (23°C, no input)
<b>Amplitude error</b> *3	DC: ±10 ppm Typical*2 10 Hz to 100 Hz: ±0.005% Typical 100 Hz to 1 kHz: ±0.02% Typical 1 kHz to 20 kHz: ±0.08% Typical 20 kHz to 100 kHz: ±0.5% Typical 100 kHz to 300 kHz: ±1% Typical 300 kHz to 1 MHz: ±5% Typical

- \*1: Measuring the output voltage while cycling the input current (DC) from +500 A → 0 A → -500 A → 0 A → +500 A at an interval of 100 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.
- \*3: DC error is defined as (linearity error + offset voltage). AC error is defined as deviation from the 55 Hz measurement point.

<b>Output noise</b>	300 μV rms or less (≤ 1 MHz)
<b>Effects of temperature</b>	Within the range of -40°C to 0°C or 0°C to 85°C Amplitude sensitivity: ±20 ppm of reading/°C Offset voltage: ±1 ppm of full scale/°C
<b>Effects of magnetization</b>	10 mA or less (input equivalent, after 500 A DC is inputted)
<b>Common mode rejection ratio (CMRR)</b>	140 dB or more (50 Hz/60 Hz) 120 dB or more (100 kHz) (Effect on output voltage / common-mode voltage)
<b>Effects of conductor position</b>	DC, 50 Hz/60 Hz: ±0.01% of reading or less (input current: 100 A) 10 kHz: ±0.4% of reading or less (input current: 10 A) 100 kHz: ±2.5% of reading or less (input current: 10 A) When wire of outer diameter 10 mm is used
<b>Effects of external magnetic field</b>	20 mA or less (input equivalent, under a magnetic field of 400 A/m DC or 400 A/m with 60 Hz)
<b>Effects of radiated radio-frequency electromagnetic field</b>	0.5% of full scale or less at 10 V/m
<b>Effects of conducted radio-frequency electromagnetic field</b>	0.2% of full scale or less at 10 V

## Connectable products

### 1. PW8001 Power Analyzer

Frequency	Current ±(% of reading + % of range)	Power ±(% of reading + % of range)	Phase
DC	0.06% + 0.058%	0.06% + 0.058%	U7001 accuracy
45 Hz ≤ f ≤ 66 Hz	0.06% + 0.058%	0.06% + 0.058%	accuracy + sensor accuracy
Bands other than DC and 45 Hz ≤ f ≤ 66 Hz	U7001 accuracy + sensor accuracy (Consider sensor rating for full scale error.)		

- For other measurement parameters, U7001 accuracy + sensor accuracy (consider sensor rating for full scale error).
- For the 10 A range or the 20 A range, add ±0.15% of range.
- Add accuracy according to each condition in specifications of the power analyzer and sensor.
- Defined after zero adjustment has been performed.

### -2. U7005 Combined accuracy

Frequency	Current ±(% of reading + % of range)	Power ±(% of reading + % of range)	Phase
DC	0.06% + 0.038%	0.06% + 0.038%	U7005 accuracy
45 Hz ≤ f ≤ 66 Hz	0.05% + 0.028%	0.05% + 0.028%	accuracy + sensor accuracy
Bands other than DC and 45 Hz ≤ f ≤ 66 Hz	U7005 accuracy + sensor accuracy (Consider sensor rating for full scale error.)		

- For other measurement parameters, U7005 accuracy + sensor accuracy (consider sensor rating for full scale error).
- For the 10 A range or the 20 A range, add ±0.15% of range.
- Add accuracy according to each condition in specifications of the power analyzer and sensor.
- Defined after zero adjustment has been performed.

### 2. PW6001 Power Analyzer

Frequency	Current ±(% of reading + % of range)	Power ±(% of reading + % of range)	Phase
DC	0.06% + 0.038%	0.06% + 0.058%	PW6001 accuracy
45 Hz ≤ f ≤ 66 Hz	0.06% + 0.028%	0.06% + 0.038%	accuracy + sensor accuracy
Bands other than DC and 45 Hz ≤ f ≤ 66 Hz	PW6001 accuracy + sensor accuracy (Consider sensor rating for full scale error.)		

- For other measurement parameters, PW6001 accuracy + sensor accuracy (consider sensor rating for full scale error).
- For the 10 A range or the 20 A range, add ±0.15% of range.
- Add accuracy according to each condition in specifications of the power analyzer and sensor.
- Defined after zero adjustment has been performed.

### 3. PW3390 Power Analyzer

Frequency	Current ±(% of reading + % of range)	Power ±(% of reading + % of range)	Phase
DC	0.09% + 0.078%	0.09% + 0.078%	PW3390 accuracy
45 Hz ≤ f ≤ 66 Hz	0.08% + 0.058%	0.08% + 0.058%	accuracy + sensor accuracy
Bands other than DC and 45 Hz ≤ f ≤ 66 Hz	PW3390 accuracy + sensor accuracy (Consider sensor rating for full scale error.)		

- For other measurement parameters, PW3390 accuracy + sensor accuracy (consider sensor rating for full scale error).
- For the 10 A range or the 20 A range, add ±0.15% of range.
- Add accuracy according to each condition in specifications of the power analyzer and sensor.
- Defined after zero adjustment has been performed.

### 4. 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.

### 5. U8977 3CH Current Unit

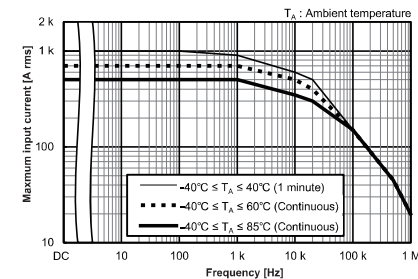
- Combined accuracy
- (U8977 accuracy) + (sensor accuracy)
- Add accuracy according to each condition in specifications of Memory HiCorder to be connected and sensor.
- Defined after zero adjustment has been performed.

### 6. Other connectable products

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

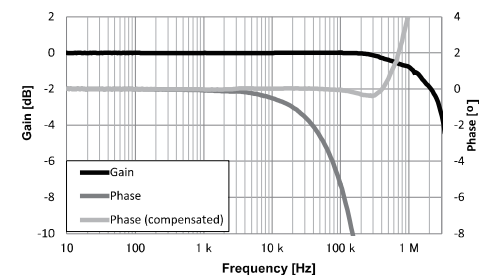
Combined product	Combined accuracy and conditions
9555-10 Sensor Unit	(Combined accuracy) = Sensor accuracy With output coaxial cable of length 1.6 m or less
3390, 3390-10 Power Analyzer	(Combined accuracy) = (3390 (-10) accuracy) + (sensor accuracy), (power factor: 1) Defined after zero adjustment has been performed.
9602 AC/DC Clamp Input Unit	When installed in 3193-10, recognized as [AC/DC 500 A], (Combined accuracy) = (9602 accuracy) + (sensor accuracy) + (±0.1% of reading); (power factor: 1) Defined after zero adjustment has been performed.
3334-10 AC/DC Power HiTester	(Combined accuracy) = (3334-10 accuracy) + (sensor accuracy); (power factor: 1) Defined after zero adjustment has been performed.
8971 Current Unit	The 9318 Conversion Cable (accessory of 8971) is required. (Combined accuracy) = (8971 accuracy) + (sensor accuracy) Defined after zero adjustment has been performed.

Figure 1. Frequency Derating Curve

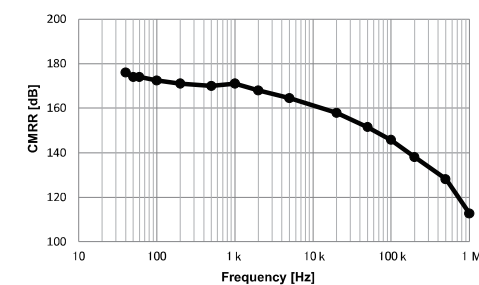


## Characteristics

### Frequency characteristics (Typical)



### CMRR (Typical)



### Linearity error (Typical)

