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|---|--|
| <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)<br>80% RH or less (non-condensing)  |
| <b>Storage temperature and humidity range</b>   | -40°C to 85°C (-40°F to 185°F)<br>80% RH or less (non-condensing)  |
| <b>Standards</b>                                | Safety: EN 61010<br>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<br>Rated supply voltage: ±11.5 V to ±15 V (Tracking)<br>Maximum rated current: ±450 mA (1000 A/55 Hz measurement, ±12 V power supply)  |
| <b>Maximum rated power</b>                      | 7.5 VA (1000 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>                      | CT6876A: Approx. 3 m<br>CT6876A-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>                                   | CT6876A: Approx. 970 g (34.2 oz.)<br>CT6876A-1: Approx. 1300 g (45.9 oz.)  |
| <b>Product warranty duration</b>                | 3 years  |
| <b>Accessories</b>                              | Mark bands ×6<br>Instruction Manual<br>Operating Precautions (0990A907)  |
| <b>Options</b>                                  | CT9901 Conversion Cable<br>CT9902 Extension Cable  |
| <b>Memory function</b>                          | Sensor information can be read for products with memory function support.<br>Applicable product: PW8001  |
| <b>Rated current</b>                            | 1000 A AC/DC   |
| <b>Measurable conductor diameter</b>            | φ36 mm or less   |
| <b>Maximum input current</b>                    | Not exceeding derating curve shown in Figure 1<br>However, a current of up to ±1800 A peak (design value) is allowable for up to 20 ms at 40°C or less.  |
| <b>Output voltage</b>                           | 2 mV/A   |
| <b>Maximum rated line-to-ground voltage</b>     | 1000 V (Measurement category III)<br>Anticipated transient overvoltage: 8000 V   |
| <b>Output resistance</b>                        | 50 Ω ±10 Ω   |
| <b>Accuracy guarantee conditions</b>            | Accuracy guarantee duration: 1 year<br>Accuracy guarantee duration after adjustment made by Hioki: 1 year<br>Accuracy guarantee temperature and humidity range: 0°C to 40°C (32°F to 104°F), 80% RH or less<br>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                         | Phase        |
|----------------------|-----------------------------------|--------------|
|                      | ±(% of reading + % of full scale) |              |
| DC                   | 0.04% + 0.008%                    | -            |
| DC < f < 16 Hz       | 0.1% + 0.02%                      | ±0.1°        |
| 16 Hz ≤ f < 45 Hz    | 0.05% + 0.01%                     | ±0.1°        |
| 45 Hz ≤ f ≤ 66 Hz    | 0.04% + 0.008%                    | ±0.08°       |
| 66 Hz < f ≤ 100 Hz   | 0.05% + 0.01%                     | ±0.1°        |
| 100 Hz < f ≤ 500 Hz  | 0.1% + 0.02%                      | ±0.2°        |
| 500 Hz < f ≤ 1 kHz   | 0.2% + 0.02%                      | ±0.4°        |
| 1 kHz < f ≤ 5 kHz    | 0.5% + 0.02%                      | ±0.5°        |
| 5 kHz < f ≤ 10 kHz   | 0.5% + 0.02%                      | ± (0.1 × f)° |
| 10 kHz < f ≤ 50 kHz  | 2% + 0.05%                        | ± (0.1 × f)° |
| 50 kHz < f ≤ 100 kHz | 3% + 0.05%                        | ± (0.1 × f)° |
| 100 kHz < f ≤ 1 MHz  | (0.03 × f)% + 0.05%               | ± (0.1 × f)° |
| Frequency range      | 1.5 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 CT6876A-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: 1.2 MHz (±3 dB Typical)  
Phase accuracy: ±(0.015 × f [kHz])°
- | Linearity error *1 *2 | ±5 ppm Typical (23°C)   |
|-----------------------|---|
| Offset voltage *2     | ±5 ppm Typical (23°C, no input)   |
| Amplitude error *3    | DC: ±10 ppm Typical*2<br>10 Hz to 100 Hz: ±0.005% Typical<br>100 Hz to 1 kHz: ±0.03% Typical<br>1 kHz to 10 kHz: ±0.2% Typical<br>10 kHz to 100 kHz: ±1% Typical<br>100 kHz to 300 kHz: ±3% Typical<br>300 kHz to 1 MHz: ±15% Typical |

- \*1: Measuring the output voltage while cycling the input current (DC) from +1000 A → 0 A → -1000 A → 0 A → +1000 A at an interval of 200 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 40°C to 85°C<br>Amplitude sensitivity: ±20 ppm of reading/°C<br>Offset voltage: ±1 ppm of full scale/°C   |
| <b>Effects of magnetization</b>                                   | 20 mA or less (input equivalent, after 1000 A DC is inputted)   |
| <b>Common mode rejection ratio (CMRR)</b>                         | 140 dB or more (50 Hz/60 Hz)<br>120 dB or more (100 kHz)<br>(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)<br>10 kHz: ±0.5% of reading or less (input current: 10 A)<br>100 kHz: ±3% of reading or less (input current: 10 A)<br>When wire of outer diameter 10 mm is used |
| <b>Effects of external magnetic field</b>                         | 40 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

-1. U7001 Combined accuracy

| Frequency                                 | Current   | Power          | Phase                            |
|---|---|----------------|----------------------------------|
|   | ±(% of reading + % of range)  |                |                                  |
| DC  | 0.06% + 0.058%  | 0.06% + 0.058% | U7001 accuracy + sensor accuracy |
| 45 Hz ≤ f ≤ 66 Hz                         | 0.06% + 0.058%  | 0.06% + 0.058% |                                  |
| 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 20 A range or the 40 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   | Power          | Phase                            |
|---|---|----------------|----------------------------------|
|   | ±(% of reading + % of range)  |                |                                  |
| DC  | 0.06% + 0.038%  | 0.06% + 0.038% | U7005 accuracy + sensor accuracy |
| 45 Hz ≤ f ≤ 66 Hz                         | 0.05% + 0.028%  | 0.05% + 0.028% |                                  |
| 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 20 A range or the 40 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

Combined accuracy

| Frequency                                 | Current  | Power          | Phase                             |
|---|--|----------------|-----------------------------------|
|   | ±(% of reading + % of range)   |                |                                   |
| DC  | 0.06% + 0.038%   | 0.06% + 0.058% | PW6001 accuracy + sensor accuracy |
| 45 Hz ≤ f ≤ 66 Hz                         | 0.06% + 0.028%   | 0.06% + 0.038% |                                   |
| 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 20 A range or the 40 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

Combined accuracy

| Frequency                                 | Current  | Power          | Phase                             |
|---|--|----------------|-----------------------------------|
|   | ±(% of reading + % of range)   |                |                                   |
| DC  | 0.09% + 0.078%   | 0.09% + 0.078% | PW3390 accuracy + sensor accuracy |
| 45 Hz ≤ f ≤ 66 Hz                         | 0.08% + 0.058%   | 0.08% + 0.058% |                                   |
| 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 20 A range or the 40 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.

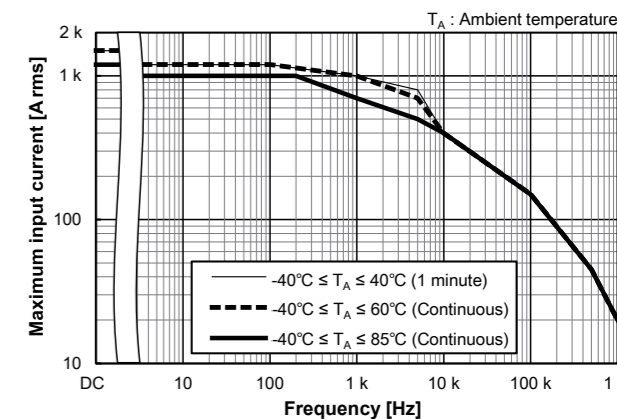
##### 6. Other connectable products

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<br>With output coaxial cable of length 1.6 m or less  |
| 3390, 3390-10 Power Analyzer | Recognized as [AC/DC 500 A]. Set CT ratio to [2].<br>(Combined accuracy) = (3390 (-10) accuracy) + (sensor accuracy), (power factor: 1)<br>Defined after zero adjustment has been performed.  |
| 9602 AC/DC Clamp Input Unit  | When installed in 3193-10, recognized as [AC/DC 500 A].<br>Set CT ratio to [2].<br>(Combined accuracy) = (9602 accuracy) + (sensor accuracy) + (±0.1% of reading); (power factor: 1)<br>Defined after zero adjustment has been performed. |
| 3334-10 AC/DC Power HiTester | Recognized as [AC/DC 500 A]. Set CT ratio to [50].<br>(Combined accuracy) = (3334-10 accuracy) + (sensor accuracy); (power factor: 1)<br>Defined after zero adjustment has been performed.  |

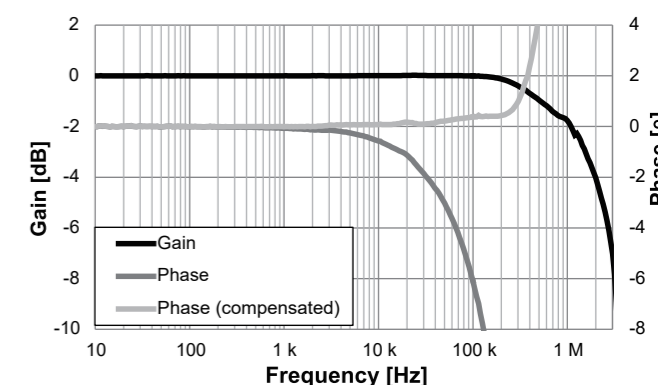
| Combined product  | Combined accuracy and conditions   |
|-------------------|--|
| 8971 Current Unit | The 9318 Conversion Cable (accessory of 8971) is required.<br>Recognized as [AC/DC 500 A] by the instrument equipped with auto-recognition. Set SC ratio to [2].<br>(Combined accuracy) = (8971 accuracy) + (sensor accuracy)<br>Defined after zero adjustment has been performed. |

Figure 1. Frequency Derating Curve

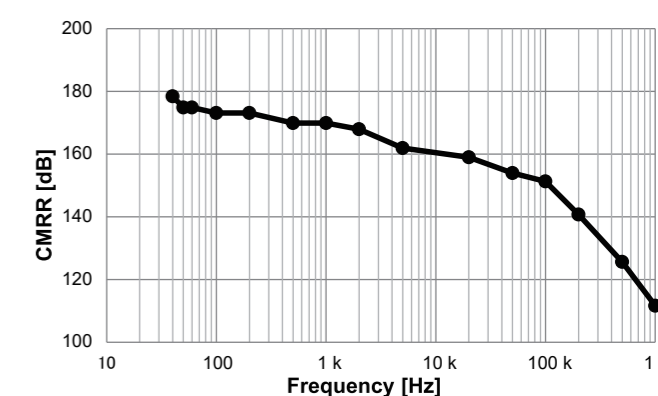


## Characteristics

#### Frequency characteristics (Typical)



#### CMRR (Typical)



#### Linearity error (Typical)

