

AC Current/Voltage Converter CYAVC-AC100A

User's Manual

(Version 1, Released in March 2023)



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The CYAVC-AC100A is an AC current/voltage converter that converts AC current to AC voltage based on the principle of electromagnetic induction. The input AC current can be measured by measuring the output AC voltage. The converter has good long-term stability and small temperature coefficient, and is very suitable for AC current measurement as well as calibration of AC current measuring systems and current sensors. The maximum measuring current is 100AAC and the measuring accuracy is $\pm 0.01\%$ in the frequency range of 50Hz to 2.5kHz.

It is recommended to use a 6.5-digit or higher digital voltmeter (or equivalent) for voltage measurement.

1. Technical Data

Input current range:	0~1A, 0~10A, 0~100AAC
Output voltage per range:	0~1V AC
Current/voltage conversion rate:	1A/V (0~1A), 10A/V (0~10A), 100A/V(0~100A) (Conversion rate = full scale /V)
Measuring uncertainty*:	$\pm 0.01\%$ (50Hz ~ 2.5kHz), $\pm 0.02\%$ (2.5kHz ~ 5kHz), $\pm 0.05\%$ (5kHz ~ 10kHz),
Operation temperature range:	20°C \pm 2°C
Storage temperature:	18°C ~ 28°C
Relative humidity:	30 ~70%
Dimensions:	165x100x60mm (excluding handle size)
Unit weight:	1.5kg
Warranty term:	12 months after shipment date

(* Measurement accuracy is evaluated when the input current is greater than 20% of the range)

2. Application instructions

The current to be measured is input through the left terminal, and the right voltage measurement terminal is connected to a high-precision digital voltmeter, and the digital voltmeter reading is recorded to calculate the current to be measured according to the full scale/V conversion ratio, see Figure 1.

The black * terminal in the left current input terminal is the common ground terminal.

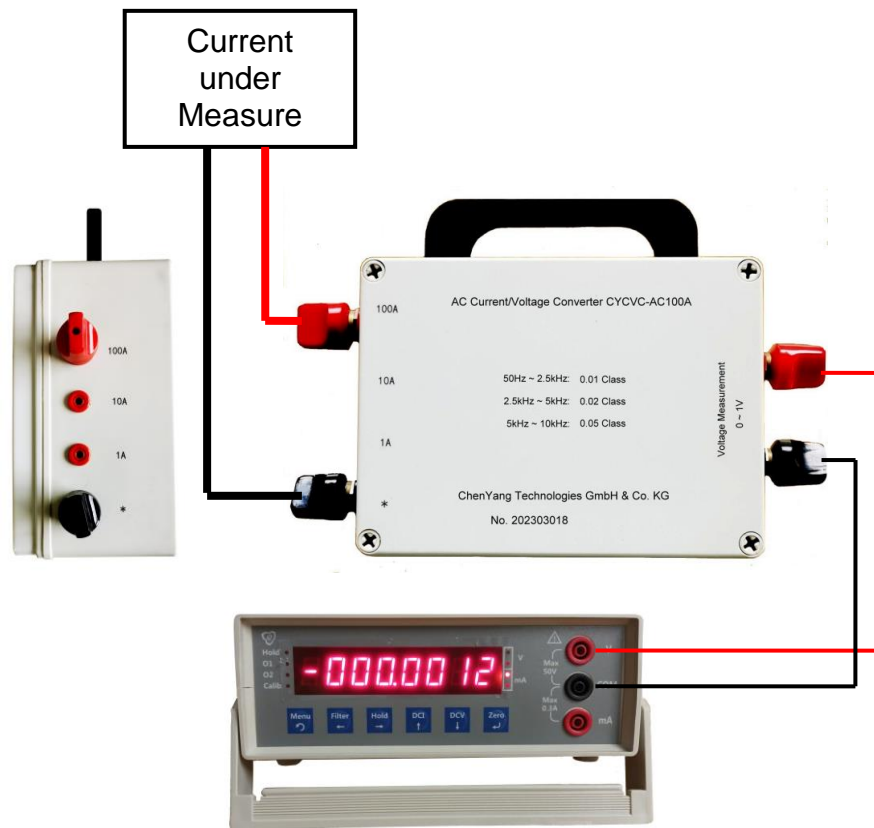


Figure 1 Current measuring system

3. Notes

The current to be measured should not exceed 110% of the measuring range, and the measured current must be strictly guaranteed not to be overloaded to avoid permanent damage.

4. Warranty

ChenYang Technologies GmbH & Co. KG warrants its products against defects in workmanship and materials under normal use and service for a period of 12 Months from the shipping date. All obligations and liabilities under this warranty are limited to repairing or replacing at our option.

The warranty is extended only to the original purchaser. The warranty shall not apply to any products or parts which have been damaged on account of improper installation, improper connections, misuse, neglect, accident or abnormal conditions of operation. Any attempt to tamper with the products as evidenced by disruption of warranty sticker and/or unauthorised repair/modification of the products shall render this warranty null and void.

5. Storage

When using the DC current/voltage converter it must be complied with all rules of using precision instruments. The converter should be kept at ambient temperature of 18°C~28°C and relative humidity below 70%. Any acidic gases, which cause corrosion, hazardous substances, dust, and so on are not allowed in the storage room.