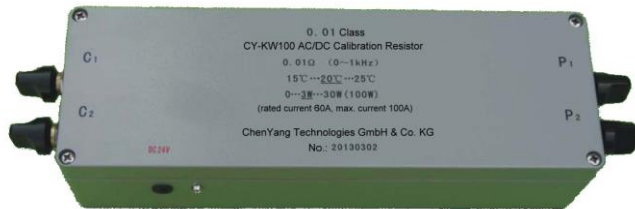


AC/DC Calibration Resistor

CY-KW100AC

User's Manual



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CY-KW100AC is AC/DC calibration resistor, which is designed and made according to the Standard JB/T8225-1999 for AC/DC resistors used in laboratory and electrical engineering. By using full closed structure and automatic temperature control it ensures resistor good long-term stability and small temperature coefficient. This resistor is very suitable for AC/DC current measurement and calibration of current measuring systems and current sensors.

1. Technical Data

Rated resistance:	0.01Ω	(option: 0.001Ω)
Accuracy of resistance:	±0.01%	
Measurement uncertainty:	±0.02%	
Reference value of current:	20A AC/DC	(20A AC/DC)
Rated measuring current:	50A AC/DC	(50A AC/DC)
Maximum measuring current:	70A AC/DC	(100A AC/DC)
Rated using power:	25W	
Maximum using power:	50W	
Isolation resistance:	500MΩ	
Isolation voltage:	2.0kV, 45~65Hz, 1min	
Operation temperature range:	15°C ~ 25°C	
Storage temperature:	10°C ~ 30°C	
Relative humidity:	<75%	
Dimensions:	360 x 120 x 81mm	
Weight:	7.06kg	

2. Accessories

Power supply for temperature control: +24VDC



Cable for power supply



Packing (gross weight: 10.2kg, dimension: 445 x 335 x 165mm)



Before starting the measurement, the power supply +24VDC for the temperature control must be connected to the resistor, in order to control the working temperature of the resistor within the range 15°C ~ 30°C. The resistor needs to be preheated for 30~45 minutes before using it for measurement.

Please pay attention to the measuring current range of this resistor when you start the current measurement. The maximum measuring current of the resistor CY-KW100AC is 70A (100A for 0.001Ω). Measuring current higher than 70A (100A for 0.001Ω) can damage the resistor.

For your safety please check carefully the current power cable connection to avoid any contact with human body.

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 calibration resistor it must be complied with all rules of using precision instruments. Calibration resistor should be kept at ambient temperature of 10°C~30°C and relative humidity below 75%. Any acidic gases, which cause corrosion, hazardous substances, dust, and so on are not allowed in the storage room.

3. Current Measurement

The calibration resistor CY-KW100AC is connected with a current source under test and a precise voltmeter, see the following figure. The current source is connected to the terminal C1-C1 through a suitable power cable, the current capacity of which is 70A (100A for 0.001Ω). The voltmeter is connected to the terminal P1-P1. The measuring accuracy of the voltmeter should be higher than $\pm 0.01\%$.

