Closed-loop Hall current sensor



WCB41A



Ipn =5A....50A

#### Introduction

WCB41A series Hall current sensor can measure DC, AC, pulse and various irregular waveform currents under the condition of complete isolati on between the primary and secondary sides.

#### Performance Parameters

Implementation Standards

Electrical parameters	WCB41A						
Rated current RMS	5A	10A	15A	20A	25A	30A	50A
Measurement range	15A	30A	45A	60A	75A	90A	120A
Turns ratio	4:2000	3:3000	2:3000	1 : 2000	1:2500	1:3000	1:3125
Output measurement voltage	4V						
Primary pin d(mm)	Φ0.8	φ <b>0.8</b>	φ1.0	ф1. <b>4</b>	ф1. <b>4</b>	ф1.6	□1.6*1.5
Measurement resistance	≥1 <b>0K</b> Ω						
Power supply voltage	$\pm$ 12 $\sim$ $\pm$ 15V DC						
Current consumption Insulation	12+IS mA						
withstand voltage	3kVrms/50Hz/1min						
Dynamic parameters							
Total accuracy (Ta=25°C)	$\pm$ 0.7% FS						
Linearity (Ta=25°C)	$\pm$ 0.2% FS						
Zero offset voltage (Ta=25°C)	$\pm$ 20mV						
Temperature drift	$\leqslant \pm$ 0. 5mV/°C						
Response time	<1us						
Bandwidth (-0.5dB)	DC $\sim$ 100kHz						
di/dt tracking accuracy	>50A/us						
General Parameters							
Working temperature	<b>−40</b> ~+85°C						
Storage temperature	<b>−55∼+125</b> ℃						
Weight	12g						

# Features

- Magnetic balance type (closed loop)
- Comply with UL94-V0 standard
- ♦ PCB board installation

Comply with RoHS directive requirements

Comply with CE directive requirements

## Advantage

- High precision and good linearity
- ♦ Fast response time
- Strong anti-interference ability
- Strong overload capacity

## Application area

Drive control of variable frequenc

- y household appliances
- AC variable speed drive
- ♦ UPS uninterruptible power supply

 Application of inverter power sup ply

- Electrical application
- Industrial grade

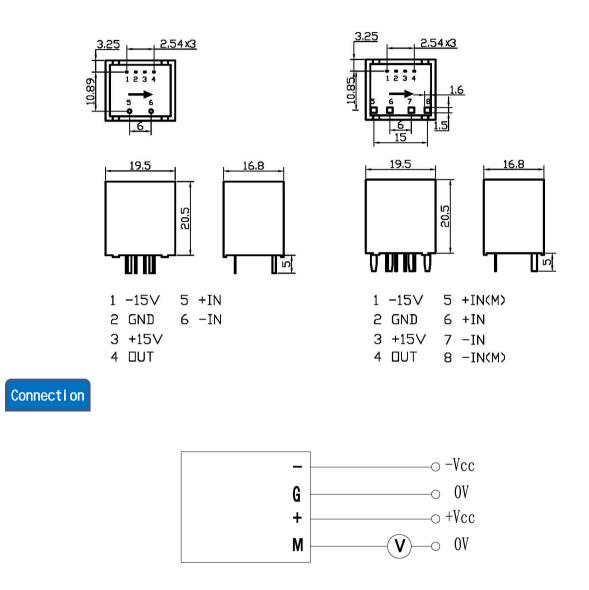
EN50178:1998



# **Closed-loop Hall current sensor**

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**Dimensions** 



#### Instructions for use

1. Connect the current according to the direction marked in the circuit diagram, and pay attention to the positive and negative directions of the current

2. Connect the wires according to the definition of the functional pins marked in the structure diagram

3. The above parameters are standard specifications, and our company can customize products according to customer requirements