

Open loop Hall current sensor

RMS-CT series dismountable hall effect current sensor is an open loop device based on the measuring principle of the hall effect, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.



Electrical

Type	RMS-CT-500		
Rated input I_{PN}	±500A		
Measure range I	±1500A		
Rated output voltage V_M	±4V±1% or ±5V±1%		
Load resistance R_M	≥ 10kΩ		
Supply voltage V_{CC}	DC	±12V	±15V ± 5%
Quiescent current consumption I_C	@ V_{CC} = ±15V	≤ 15 mA	
Galvanic isolation V_D	50Hz	1min	5KV
Linearity ϵ_L	<1%FS		
Overall accuracy X	±1%		
Offset voltage V_0	±20mV		
Hysteresis offset voltage V_H	±20mV		
Offset voltage drift V_{OT}	≤ 0.5mV/		
Response time T_R	<7μ		
di/dt accurately followed	>50A/μ		
Frequency bandwidth-3db	DC	25KHz	
Ambient operating temperature T_A	-40 +85		
Ambient storage temperature T_S	-40 +125		
Weight m	280g		
Standards	SJ 20790-2000 JB/T 7490-2007		

Products Features

- Easy mounting
- Small size and space saving
- No insertion losses
- High immunity to external interference

Applications

- AC variable speed drives
- Static converters for DC motor drives
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Power supplies for welding applications

Directions for use

- When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor).
- Dynamic performances (di/dt and response time) are best with a single bar completely filling the primary hole.
- Custom design in the different rated input current and the output voltage.

Mechanical dimension (for reference only)

