

TR0225-LBH5 Series Hall Effect Current Sensor

Product description

The sensor works on the principle of magnetic balance Hall voltage detection. The primary side voltage is converted into the primary side current through the primary side resistance, and the magnetic flux generated by the primary side current is balanced with the secondary side current generated by the amplified Hall voltage through the secondary side coil, and the secondary side current can accurately reflect the primary side voltage.

Main characteristics

- ★ Measuring AC, DC and pulse signals
- ★ Strong anti-interference and high common-mode rejection ratio
- ★ Low temperature drift, fast response time, wide frequency bandwidth
- ★ Punching structure, no insertion loss

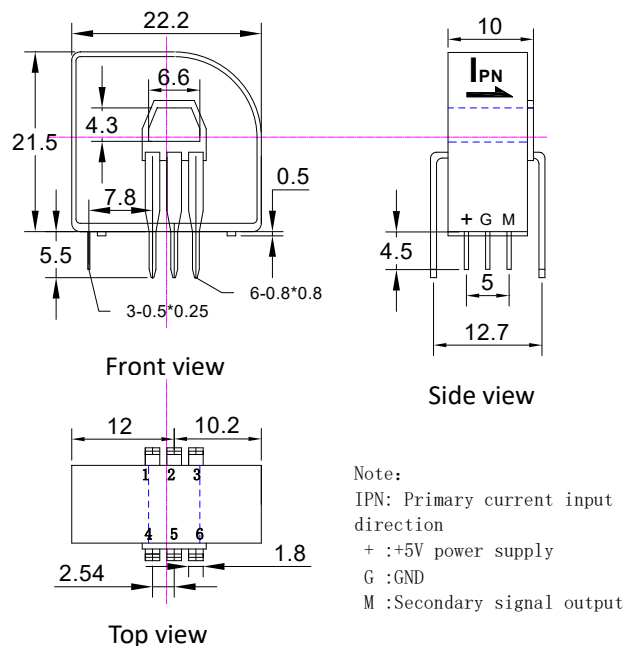
Applications

- ★ AC frequency control
- ★ Servo motor traction
- ★ UPS
- ★ Welding machine, battery power supply
- ★ Photovoltaic inverter device



Certificates

- ★ RoHS/REACH compliant
- ★ CE certificate
- ★ UL flame retardant rating 94-V0(For the housing)



Electrical parameters

Dimensions(mm)

Specifications		6A/0.625V	15A/0.625V	25A/0.625V	Unit
I_{PN}	Primary rated input current	6	15	25	A
I_P	Measuring range	$0 \sim \pm 18$	$0 \sim \pm 45$	$0 \sim \pm 75$	A
V_{SN}	Secondary rated output voltage	2.5 ± 0.625			V
V_C	Power supply	$+5(\pm 5\%)$			V
I_C	Current consumption	$15 + I_S$			mA
V_d	Insulation voltage	Between primary and secondary side: 2.5kV/50Hz/1min			
ϵ_L	Linearity	< 0.1			%FS
X	Precision	$\leq \pm 1 @ T_A = 25^\circ C$			%
V_O	Offset voltage	$\leq \pm 10 @ T_A = 25^\circ C$			mV
V_{OT}	Offset voltage temperature drift	$\leq \pm 0.5 @ I_P = 0 T_A = -40 \sim +80^\circ C$			mV/°C
T_r	Response time	≤ 1			μs
f	Frequency bandwidth	-1dB DC~200			kHz
T_A	Operating ambient temperature	$-40 \sim +80$			°C
T_S	Storage temperature	$-45 \sim +100$			°C