



THB_LA15D_

Product introduction:

- Power supply: $\pm 12V \sim \pm 15V$ DC
- Hall effect principle — closed loop current sensor;
- The primary and secondary of the current sensor are insulated and can measure DC, AC, pulse, etc;

Application:

- Application on Inverter
- Ac/dc variable speed drive
- Switching power supply (SMPS)
- UPS uninterruptible power supply
- Current monitoring and control of induction cooker



Electrical characteristics:

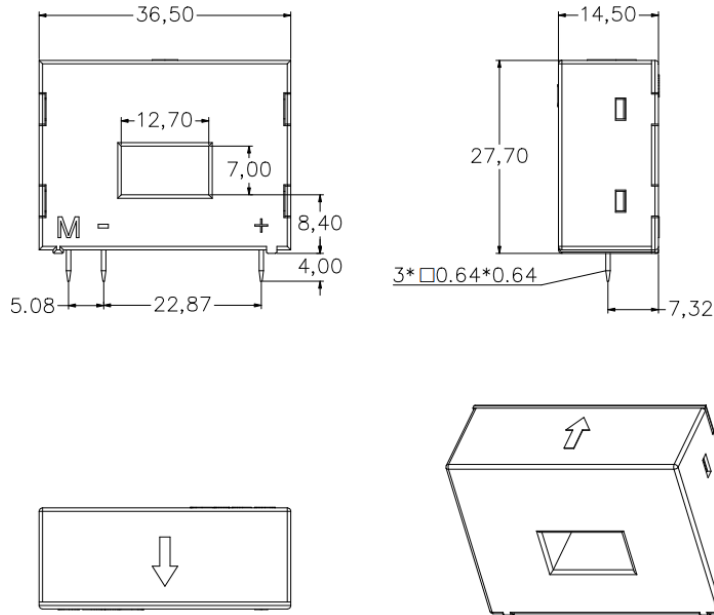
Parameter	Symbol	THB25	THB50	THB75	THB100
		LA15D25	LA15D50	LA15D50	LA15D50
Rated current	$I_{PN}(A), RMS$	25	50	75	100
Measuring range	$I_P(A)$	$0 \sim \pm 55$	$0 \sim \pm 70$	$0 \sim \pm 105$	$0 \sim \pm 150$
Turn Ratio	$N_S(T)$	1000	1000	1500	2000
Rated output current	$I_{SN}(mA)$	$\pm 25 * I_P / I_{PN}$	$\pm 50 * I_P / I_{PN}$	$\pm 50 * I_P / I_{PN}$	$\pm 50 * I_P / I_{PN}$
Coil internal resistance	$R_S(\Omega), @+75^\circ C$	30	30	65	112
Measure resistance	$R_M(\Omega), @+75^\circ C, V_C$	$[(V_C - 2.0V) / (I_S * 0.001)] - R_S$			
Working power supply	$V_C(V)$	$\pm 12V \sim \pm 15V$ DC $\pm 5\%$			
Insulation voltage	$V_D(V)$	50/60Hz, 1min, 2.5kV; RMS			

General parameters:

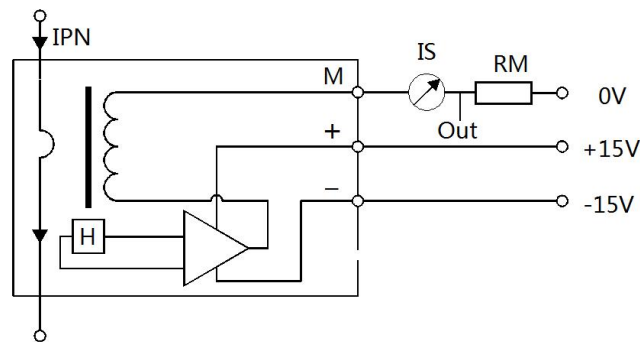
Project	Condition	Date	Unit
Accuracy X_g	@ $I_{PN}, T=25^\circ C$	$< \pm 0.5$	%
Zero offset current I_0	@ $I_P=0, T=25^\circ C$	$< \pm 0.2$	mA
Current offset temperature drift I_{OT}	@ $I_P=0, -40 \sim +85^\circ C$	$< \pm 0.005$	mA/ $^\circ C$
Linearity ϵ_r		≤ 0.1	%FS
Follow accuracy di/dt		> 100	A/ μs
Response time t_{ra}	@ 90% of I_{PN}	< 1.0	μs
Operating bandwidth B_w	-3dB	DC-200	KHZ
Working temperature T_A		$-40 \sim +85$	$^\circ C$
Storage temperature T_s		$55 \sim +125$	$^\circ C$
Static power consumption I_c		$15 + I_S$	mA
Product weight m		22	g
Shell material	PBT material containing 30% glass fiber, Flame retardant grade: UL94- V0;		
Standard	IEC60950-1:2001	EN50178:1998	SJ20790-2000



Structural drawing: (mm)



Connection diagram:



Remarks:

1. When the measured current passes through the primary pin of the sensor, there is a corresponding current signal output at the output end; (Note: wrong wiring may damage the sensor)
2. Products with different rated current can be designed according to the requirements of customers, and the output voltage of the sensor can be selected;
3. When the busbar is fully filled with holes, the dynamic performance is the best;
4. The temperature of primary conductor shall not exceed 100°C ;