DATA SHEET
Hall Effect Current Sensor

PN: CHB_LAP15D50/100/125 | **IPN=50~300A**

Feature

- Closed- loop (compensated) current transducer
- Supply voltage: DC ±9~15 V
- Capable measurement of currents: DC, AC,pulse with galvanic isolation between primary circuit and secondary circuit.

Advantages

- High accuracy
- Easy installation
- Low temperature drift
- Optimized response time
- High immunity to external interference

Applications

- The application of induction cooker
- AC/DC variable-speed drive
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Inverter applications

ISO 14001

RoHS

CE

Electrical data：（Ta=25℃，Vc= ±15VDC）

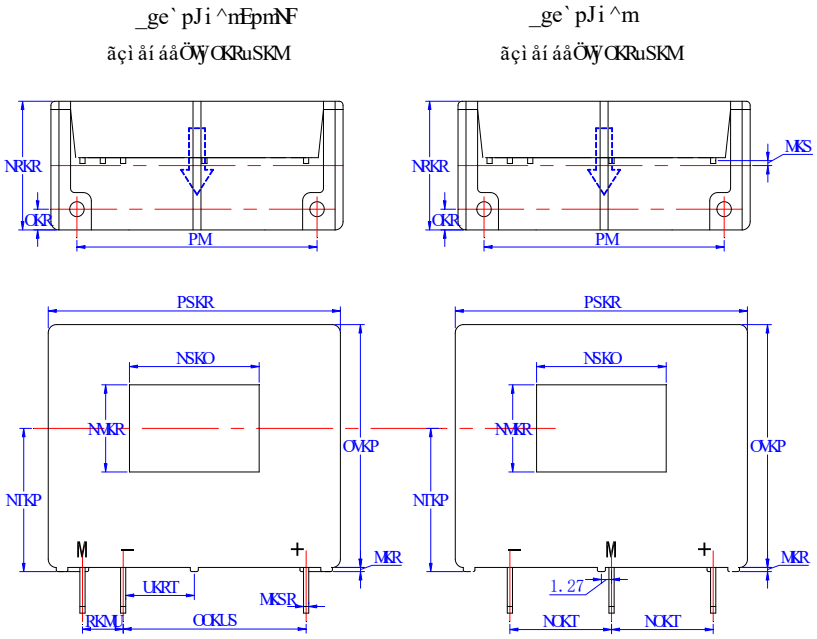
Parmeter \ Ref	CHB50 LAP15D50	CHB100 LAP15D50	CHB125 LAP15D125	CHB200 LAP15D100	CHB300 LAP15D100
Rated input Ipn(A)	50	100	125	200	300
Measuring range Ip(A)	0～±150	0～±300	0～±375	0～±600	0～±600
Turns ratio Np/NS (T)	1:1000	1:2000	1:1000	1:2000	1:2000
Output current rms IS(mA)	±50*IP/IPN	±50*IP/IPN	±125*IP/IPN	±100*IP/IPN	±150*IP/IPN
Secondary coil resistance RS (Ω)	30	50	30	50	50
Inside resistance RM (Ω)	[(VC-0.6V)/(IS*0.001)]-RS				
Supply voltage VC(V)	(±9～±15) ±5%				
Accuracy XG(%)	@IPN,T=25°C < ±0.5				
Offset current IOE(mA)	@IP=0,T=25°C < ±0.2				
Temperature variation of IOE IOT(mA/°C)	@IP=0,-40～+85°C < ±0.005				
Linearity error εr(%FS)	< 0.1				
Di/dt accurately followed（A/μs）	> 100				
Response time tra(μs)	@90% of IPN < 1.0				
Power consumption IC(mA)	15+Is				
Bandwidth BW(KHZ)	@-3dB,IPN DC-200				

Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	3.0

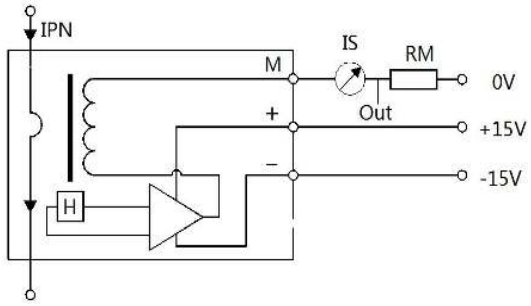
General data:

Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-55~ +125
Mass M(g)	21
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):



Connection



General tolerance

General tolerance:< ±0.5mm

Primary through-hole： 10.5*16.2±0.15mm

Secondary pin: 3pin 0.6*0.65

Remarks:

- When the current goes through the primary pin of a sensor, the voltage will be measured at the output end.
- Custom design is available for the different rated input current and the output voltage.
- The dynamic performance is the best when the primary hole if fully filled with.
- The primary conductor should be <100°C.

WARNING : Incorrect wiring may cause damage to the sensor.