DATA SHEET
Hall Effect Current Sensor

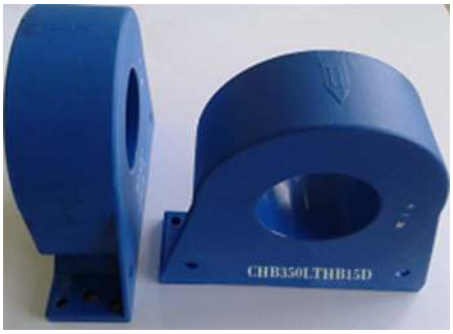
PN: CHB_LTHB15D | **IPN=350~500A**

Feature

- Closed- loop (compensated) current transducer
- Supply voltage: DC ±15～±24V
- 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

- Variable speed drives
- Welding machine
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Electrochemical

Electrical data Ta=25℃ Vc= ±15VDC

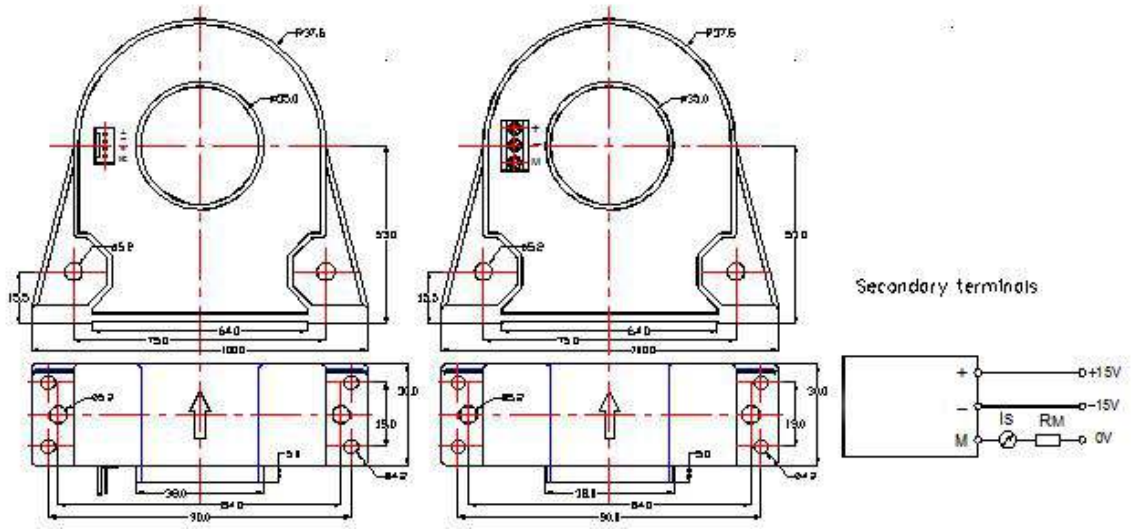
Parmeter \ Ref	CHB350 LTHB15D	CHB400 LTHB15D	CHB500 LTHB15D
Rated input Ipn(A)	350	400	500
Measuring range Ip(A)	1200（±24V，17Ω）	1200（±24V，36Ω）	1500（±24V，24Ω）
Turns ratio Np/NS (T)	1:2000	1:4000	1:5000
Output current rms IS(mA)	175±0.2%	100±0.2%	100±0.2%
Secondary coil resistance RS (Ω)	15	40	50
Measure resister with ±15V RM (Ω)	@±500Amax 30(max)	@±400Amax 100(max)	@±500Amax 91(max)
	@±900Amax 8(max)	@±800Amax 30(max)	@±1000Amax 20(max)
Measure resister with ±18V RM (Ω)	@±500Amax 50(max)	@±400Amax 130(max)	@±500Amax 120(max)
	@±1200Amax 10(max)	@±800Amax 43(max)	@±1000Amax 33(max)
Supply voltage VC(V)	±15～±24		
Zero offset current(mA)	@Ip=0	≤±0.2	

Offset current drift(mA)	@ -40℃～85℃	≤±0.5
Accuracy XG(%)	@IPN,T=25°C	< ±0.1
Linearity error εr(%FS)	@Ip=0-±Ipn	≤0.1
Di/dt accurately followed A/μs		> 100
Response time tra(μs)	@100A/μS,10%-90%	＜1.0
Power consumption IC(mA)		≤20+IpX(Np/Ns)
Bandwidth BW(KHZ)	@ -3db	DC…100
Insulation voltage Vd(KV)	@ 50HZ,AC,1min	6

General data

Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-40~ +125
Mass M(g)	290
Plastic material	UL94-V0.
Standards	EN60947-1:2004
	IEC60950-1:2001
	EN50178:1998
	SJ 20790-2000

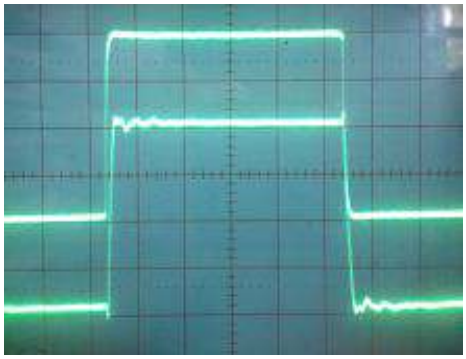
Dimensions(mm):



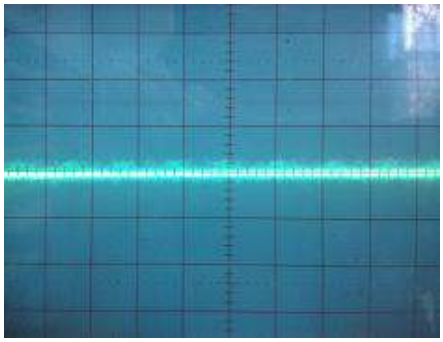
Remarks:
CHB-LTHB can be divided into two types CHB-LTHB1 and CHB-LTHB2
1. All dimensions are in mm.
2. General tolerance ±1mm
3. CHB-LTHB1:With Molex connector(Molex 22011042：5045-04AG，5051-04)
4. CHB-LTHB2: With DG300-5.0 connector

Characteristics chart:

Pulse current signal response characteristic



Effects of impulse noise



Directions for use

- When the current goes through the primary pin of a sensor, the voltage will be measured at the output end.
- Is will be in a forward direction when the Ip flows according to the direction of arrowhead.
- 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≤120°C.

WARNING : Incorrect wiring may cause damage to the sensor.