DATA SHEET
Hall Effect Current Sensor

PN: CHB_TBH15D	IPN=12~500A

Feature

- Closed- loop (compensated) current transducer
- Supply voltage: ±15～±24
- 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
- Very good linearity
- Can be customized

Applications

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

CE RoHS

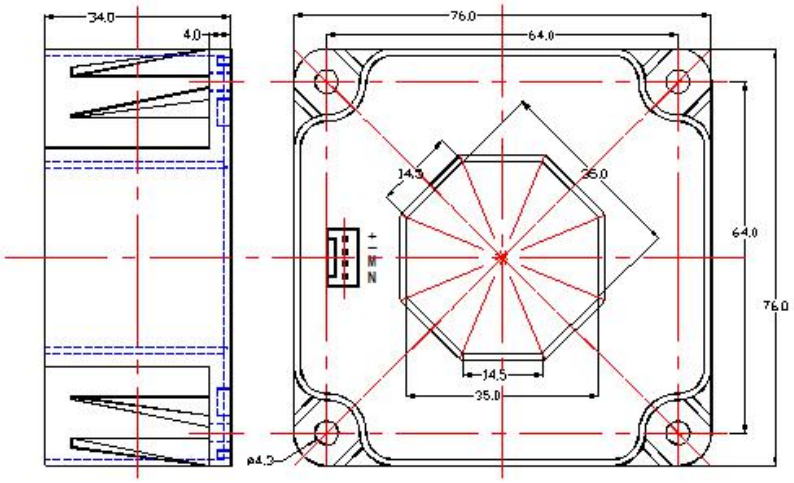
Electrical data Ta=25℃ Vc= ±15VDC			
Parmeter \ Ref	CHB300 TBH15D	CHB400 TBH15D	CHB500 TBH15D
Rated input Ipn(A)	12-300	16-400	20-500
Measuring range Ip(A)	900(±24V,33Ω)	1200(±24V,24Ω)	1500(±24V,12Ω)
Turns ratio Np/NS (T)	1:3000	1:4000	1:5000
Output current rms IS(mA)	@Ip=±Ipn	±100±0.2%FS	
Secondary coil resistance RS (Ω)	40	50	60
Measure resister with ±15V RM (Ω)	@±300Amax 100(max)	@±400Amax 82(max)	@±500Amax 75(max)
	@±600Amax 27(max)	@±800Amax 15(max)	@±1000Amax 8.2(max)
Measure resister with ±18V RM (Ω)	@±300Amax 120(max)	@±400Amax 110(max)	@±500Amax 100(max)
	@±900Amax 10(max)	@±1200Amax 5.0(max)	@±1200Amax 8.2(max)
Supply voltage VC(V)	±15～±24		
Offset current IOE(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
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)	329
Plastic material	UL94-V0.
Standards	EN60947-1:2004
	IEC60950-1:2001
	EN50178:1998
	SJ 20790-2000

Dimensions(mm):



Secondary terminals

+: supply voltage +15V---+24V

-: supply voltage -15V----24V

M: output

N: NC

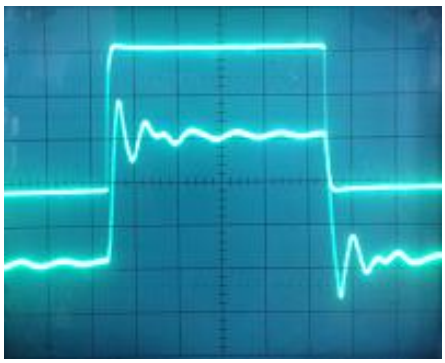
CONNECTOR:
MOLEX
5012-04

Remarks

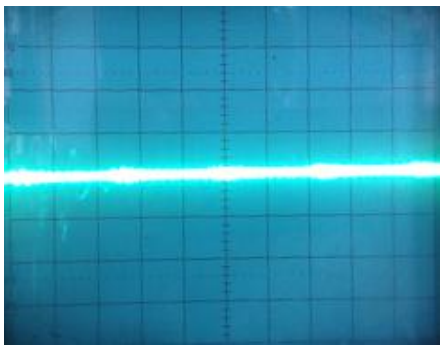
1. All dimensions are in mm.
2. General tolerance ±1mm.

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.