DATA SHEET
Hall Effect Current Sensor

PN: CHB_DS5S6H	IPN=06~50A

Feature

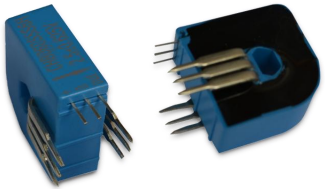
- Closed- loop (compensated) current transducer
- Capable measurement of currents: DC, AC,pulse with galvanic isolation between primary circuit and secondary circuit.
- Supply voltage: DC +5.0V
- PCB mounting installation

Advantages

- High accuracy
- Low temperature drift
- Optimized response time, no insertion losses
- Low power consumption
- Very good linearity
- Can be customized

Applications

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



RoHS

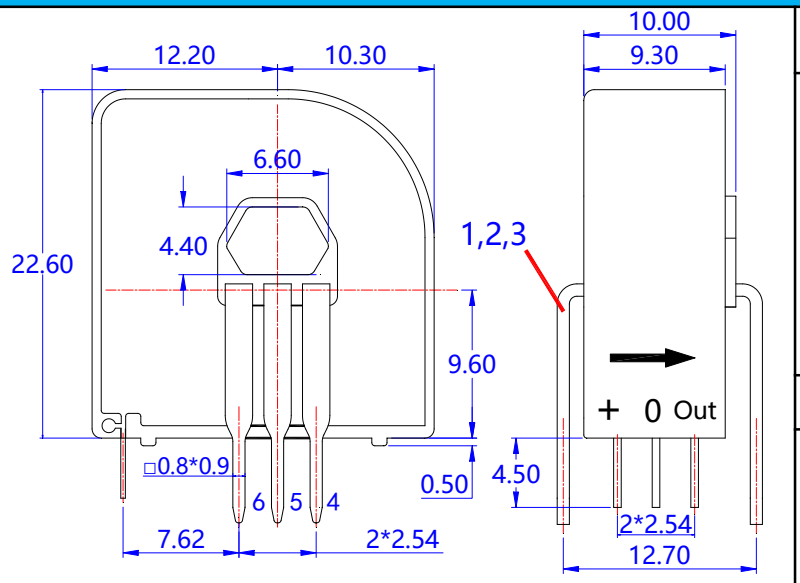
Electrical data：（Ta=25°C，Vc=+5.0VDC,RL=2KΩ,CL=10000pF）

Parmeter / Ref	CHB06DS5S6H	CHB15DS5S6H	CHB25DS5S6H	CHB50DS5S6H
Rated input Ipn(A)	06	15	25	50
Measuring range Ip(A)	0～±19.2	0～±48	0～±84	0～±150
Turns ratio Np/NS (T)	1:960	1:1200	1:1000	1:2000
Inside resistance RM(Ω)	100±0.1%	50±0.1%	25±0.1%	25±0.1%
Output voltage Vo(V)	2.5±0.625*(IP/IPN)			
Output voltage Vo(V)	@IP=0,T=25°C	2.500		
Supply voltage VC(V)	+5.0 ±5%			
Accuracy XG(%)	@IPN,T=25°C	< ±0.5		
Offset voltage VOE(mV)	@IP=0,T=25°C	< ±8		
Temperature variation of VOE VOT(mV/°C)	@IP=0,-40 ~ +85°C	< ±0.01		
Linearity error εr(%FS)	< 0.1			
Di/dt accurately followed（A/μs）	> 50			
Response time tra(μs)	@90% of IPN	< 1.0		
Power consumption IC(mA)	10+Is			
Bandwidth BW(KHZ)	@-3dB,IPN	DC-200		
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	4.0		

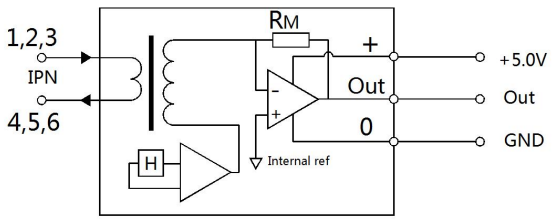
General data:

Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-55~ +125
Mass M(g)	10
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):



Connection



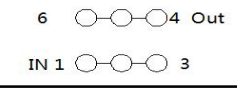
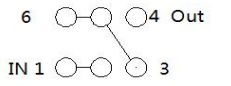
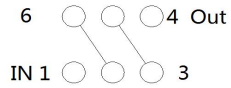
General tolerance

General tolerance:< ±0.2mm

Primary through-hole& size of Primary pin:

4.4*6.6±0.15mm; 0.8*0.9±0.15mm;

Secondary pin:3pin 0.25*0.5;

Primary turns NP(T)	Rated input INP INP(A)				Rated output Voltage(V) VO(V)	Connection of primary pin
1	±6.0	±15.0	±25.0	±50.0	2.500±0.625	
2	±3.0	±7.5	±12.5	±25.0	2.500±0.625	
3	±2.0	±5.0	±8.3	±16.6	2.500±0.625	

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.