DATA SHEET
Hall Effect Current Sensor

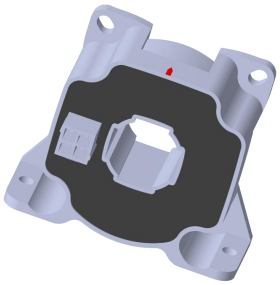
P/N: CHB300L3F15D150S-S1	I_{PN}=±300A

Feature

- Closed- loop (compensated) current transducer
- Supply voltage: DC±12~15V
- Capable measurement of currents: DC, AC, pulse with galvanic isolation between primary circuit and secondary circuit.

Advantages

- High accuracy
- Low temperature drift
- Optimized response time
- Very good linearity
- High immunity to external interference



Applications

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

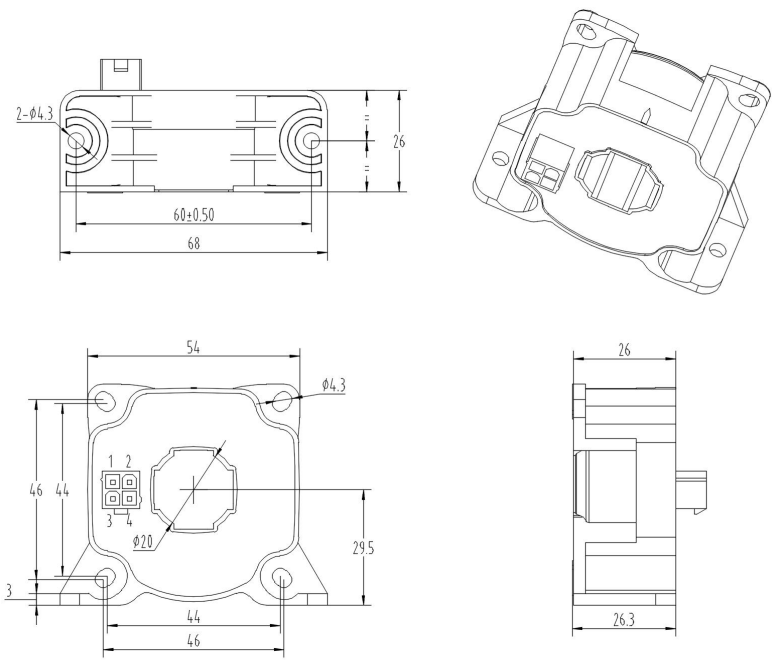
Electrical data：（Ta=25℃，Vc=±15VDC）			
Parameter Ref	**CHB300L3F15D150S-S1**		
Rated input I_{PN}(A)	±300		
Measuring range I_P(A)	0～±500		
Turns ratio NP/NS (T)	1：2000		
Secondary coil resistance RS (Ω)	@ T_A=+ 25℃	21.5	
	@ T_A=+ 85℃	25.0	
Output current Is (mA)	±150*I_P/I_{PN}		
Inside resistance R_M(Ω)	@ TA=+ 85℃	[(V_C-0.6V)/(I_S*0.001)]-R_S	max
Supply voltage V_C(V)	(±12～±15) ±5%		
Accuracy X_G(%)	@I_{PN},T=25℃	< ±0.5	
Offset current I_{OE}(mA)	@I_P=0,T=25℃	< ±0.2	
Temperature variation of I_{OE} (mA)	@I_P=0,-40～+85℃	TYP< ±0.12 MAX< ±0.40	
Magnetic offset current I_{OH} (mA)	@I_P=0→3*I_{PN}	< ±0.1	
Linearity error εr(%FS)	< 0.1		
Di/dt accurately followed（A/μs）	> 100		
Response time tra(μs)	@90% of I_{PN}	< 1.0	
Power consumption I_C(mA)	@±15V	17+Is	

Bandwidth BW (KHZ)	@-3dB, IPN	DC-100
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	6.0

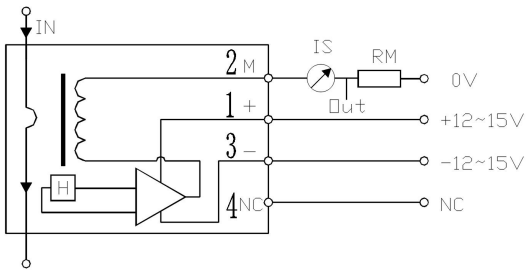
General data:

Parameter	Value
Operating temperature T_A(°C)	-40 ~ +85
Storage temperature T_S(°C)	-55~ +125
Mass M(g)	95
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: D 20.0±0.50mm

Connection of Secondary : MOLEX 39-28-8040(old part number:5566-04A-210)

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.

WARNING : Incorrect wiring may cause damage to the sensor.