DATA SHEET
Hall Effect Current Sensor

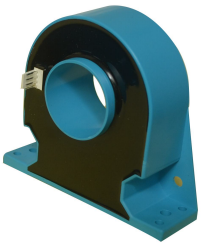
PN: CHB_LTA15D50/100 | **IPN=50~300A**

Feature

- Closed- loop (compensated) current transducer
- Supply voltage: DC ±12~18V
- 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

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

Electrical data：（Ta=25℃，Vc= ±15VDC）

Parmeter \ Ref	CHB50 LTA15D50	CHB100 LTA15D100	CHB200 LTA15D100	CHB300 LTA15D100
Rated input Ipn(A)	50	100	200	300
Measuring range Ip(A)	0～±150	0～±300	0～±600	0～±900
Turns ratio Np/NS (T)	1:1000	1:1000	1:2000	1:3000
Output current rms IS(mA)	±50*IP/IPN	±100*IP/IPN	±100*IP/IPN	±100*IP/IPN
Secondary coil resistance RS (Ω)	15	15	22	38
Inside resistance RM (Ω)	[(VC-0.6V)/(IS*0.001)]-RS			
Supply voltage VC(V)	(±12～±18) ±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			

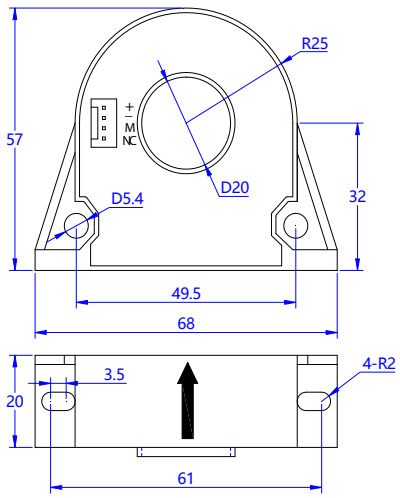
Bandwidth BW(KHZ)	@-3dB,IPN	DC-200
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	6.0

General data:

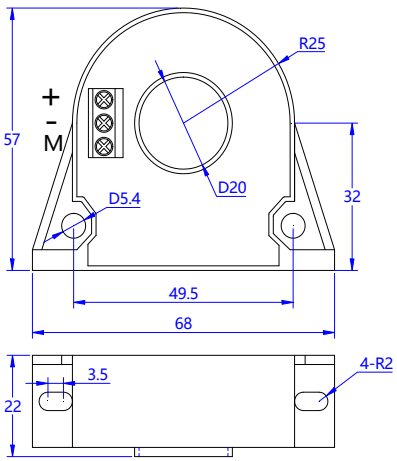
Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-55~ +125
Mass M(g)	70
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):

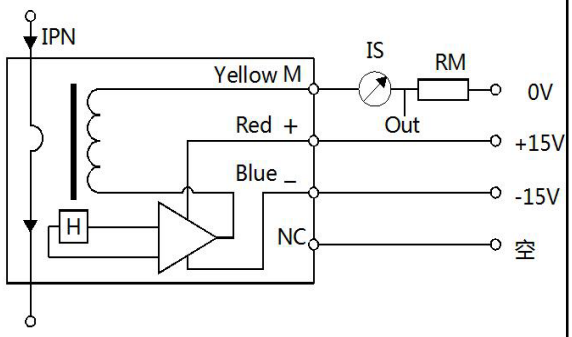
CHB-LTA15D50/100M



CHB-LTA15D50/100S



Connection



General tolerance

General tolerance:< ±0.5mm
Primary through-hole: D 20±0.15
Connection of Secondary :
M:2510-04A (instead of MOLEX5045-04A)
S :DG301-5.0-03P

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.