

DATA SHEET

Hall Effect Current Sensor



PN: CHB_LF15D200/400T

IPN=1000~2000A

Feature

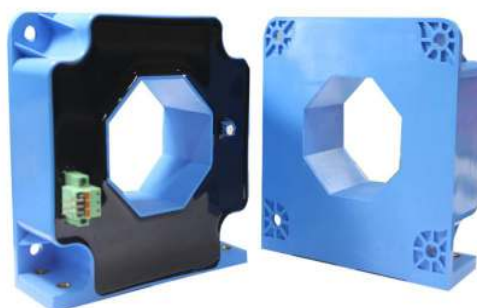
- Closed- loop (compensated) current transducer
- Capable measurement of currents: DC, AC,pulse with galvanic isolation between primary circuit and secondary circuit.
- Supply voltage: DC $\pm 15\sim 24V$

Advantages

- High accuracy
- Easy installation
- Low temperature drift
- Optimized response time
- High immunity to external interference

Applications

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



RoHS



Electrical data: (Ta=25°C, Vc= ±15VDC)

Parameter \ Ref	CHB1000 LF15D200T	CHB1200 LF15D200T	CHB2000 LF15D400T
Rated input I _{pn} (A)	1000	1200	2000
Measuring range I _p (A)	0 ~ ±3000	0 ~ ±2000	0 ~ ±3000
Turns ratio N _p /N _s (T)	1:5000	1:6000	1:5000
Output current rms I _S (mA)	±200*IP/IPN	±200*IP/IPN	±400*IP/IPN
Secondary coil resistance R _S (Ω)	32	45	32
Inside resistance R _M (Ω)	[(V _C -0.4V)/(I _S *0.001)]-R _S		
Supply voltage V _C (V)	(±15 ~ ±24) ±5%		
Accuracy X _G (%)	@IPN,T=25°C	< ±0.2	
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 ε _r (%FS)		< 0.1	
Di/dt accurately followed (A/μs)		> 100	
Response time τ _{ra} (μs)	@90% of IPN	< 1.0	
Power consumption I _C (mA)		20+I _S	
Bandwidth BW(KHZ)	@-3dB,IPN	DC-150	

Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	6.0
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General data:

Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-55~ +125
Mass M(g)	1100
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):

	<p style="text-align: center;">Connection</p> <p style="text-align: center;">General tolerance</p> <p>General tolerance: <math>\pm 0.5\text{mm}</math> Primary through-hole: $D 60.5 \pm 0.3$ Connection of Secondary : KF15EDGM3.5-03P</p>
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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 is fully filled with.
- The primary conductor should be $< 100^\circ\text{C}</math>.$

WARNING : Incorrect wiring may cause damage to the sensor.