



DATA SHEET

Hall Effect Current Sensor

PN: CHB_LFD15D120/150/200S1

IPN=300~1000A

Feature

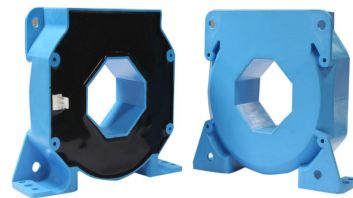
- Closed- loop (compensated) current transducer
- Capable measurement of currents: DC, AC,pulse with galvanic isolation between primary circuit and secondary circuit.
- Supply voltage: DC $\pm 15\sim 24V$
- S1--connector Model S3P-VH

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



RoHS

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

Parameter \ Ref	CHB300LFD15 D150S1	CHB600LFD15 D120S1	CHB1000LFD15 D200S1
Rated input I _{pn} (A)	300	600	1000
Measuring range I _p (A)	0 ~ ±900	0 ~ ±1500	0 ~ ±1500
Turns ratio N _p /N _S (T)	1:2000	1:5000	1:5000
Output current rms I _S (mA)	±150*IP/IPN	±120*IP/IPN	±200*IP/IPN
Secondary coil resistance R _S (Ω)	25	39	39
Inside resistance R _M (Ω)	[(VC-0.5V)/(IS*0.001)]-RS		
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	< ±0.5	
Linearity error ε _r (%FS)		< 0.1	
Di/dt (A/μs)		> 100	
Response time τ _{ra} (μs)	@90% of IPN	< 1.0	
Power consumption I _C (mA)		20+I _s	



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Bandwidth BW(KHZ)	@-3dB,IPN	DC-150
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)	620
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):

Connection

General tolerance

General tolerance: $\leq \pm 0.5\text{mm}$
 Primary through-hole : $D 38.5 \pm 0.2$
 Connection of Secondary : S3P-VH (S1)

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.



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