



DATA SHEET

Hall Effect Current Sensor

PN: CHB_LFD15D120/150/200S1

IPN=300~1000A

Feature

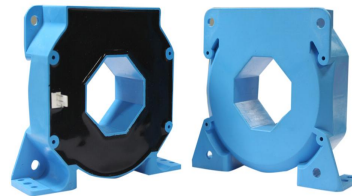
- Closed- loop (compensated) current transducer
- Capable measurement of currents: DC, AC,pulse with galvanic isolation between primary circuit and secondary circuit.
- Supply voltage: DC $\pm 15\sim 24V$
- S1--connector Model S3P-VH

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	CHB1300LFD15 D260S1
Rated input Ip(A)	300	600	1000	1300
Measuring range Ip(A)	0 ~ ±900	0 ~ ±1500	0 ~ ±1500	0 ~ ±1500
Turns ratio Np/NS (T)	1:2000	1:5000	1:5000	1:5000
Output current rms IS(mA)	±150*IP/IPN	±120*IP/IPN	±200*IP/IPN	±260*IP/IPN
Secondary coil resistance RS (Ω)	25	39	39	39
Inside resistance RM (Ω)	[(VC-0.5V)/(IS*0.001)]-RS			
Supply voltage VC(V)	(±15 ~ ±24) ±5%			
Accuracy XG(%)	@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 εr(%FS)				< 0.1
Di/dt (A/μs)				> 100
Response time tra(μs)	@90% of IPN	< 1.0		



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Power consumption IC(mA)		20+Is
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)	-50~ +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):

	<p style="text-align: center;">Connection</p>
	<p style="text-align: center;">General tolerance</p> <p>General tolerance: <math>\leq \pm 0.5\text{mm}</math> Primary through-hole: $D 38.5 \pm 0.2$ Connection of Secondary : S3P-VH (S1)</p>

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 $<100^{\circ}\text{C}$.

WARNING : Incorrect wiring may cause damage to the sensor.



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