



DATA SHEET

Hall Effect Current Sensor

PN: CHB_LF15D120/150/200/240S2 IPN=300~1200A

Feature

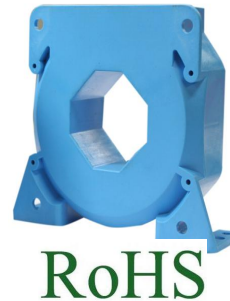
- Closed- loop (compensated) current transducer
- Capable measurement of currents: DC, AC,pulse with galvanic isolation between primary circuit and secondary circuit.
- Supply voltage: DC $\pm 24V$
- S2--connector Model VH3.96-3P

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°C, Vc= ±24VDC)

Ref Parmeter	CHB300LFD24 D150S2	CHB600LFD24 D120S2	CHB1000LFD24 D200S2	CHB2000LFD24 D240S2
Rated input Ipn(A)	300	600	1000	1200
Measuring range Ip(A)	0 ~ ±900	0 ~ ±1500	0 ~ ±1500	0~±1900 (normal state)
				0~±2400 (transient state)
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	±240*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)	±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 er(%FS)	< 0.1			
Di/dt accurately followed	> 100			



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(A/μs)		
Response time $t_{ra}(\mu s)$	@90% of IPN	< 1.0
Power consumption IC(mA)		20+I _s
Bandwidth BW(KHZ)	@-3dB,IPN	DC-150
Insulation voltage V _d (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: $\pm 0.5\text{mm}$
 Primary through-hole : D 38.5±0.2
 Connection of Secondary : VH3.96-03P (S2)

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 <math>< 100^{\circ}\text{C}</math>.

WARNING : Incorrect wiring may cause damage to the sensor.

