

DATA SHEET Hall Effect Current Sensor

PN: CHB LTB15D100

IPN=200~500A

Feature

- Closed- loop (compensated) current transducer
- Supply voltage: DC ±15~24V 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

Applications

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



- Very good linearity
- Can be customized







RoHS

Electrical data: (Ta=25°C, Vc=±15VDC)					
Ref Parmeter	CHB200 LTB15D100S	CHB300 LTB15D100S	CHB400 LTB15D100S	CHB500 LTB15D100S	
Rated input Ipn(A)	200	300	400	500	
Measuring range Ip(A)	0~±600	0 ~ ±900	0~±1200	0 ~ ±1500	
Turns ratio Np/NS (T)	1:2000	1:3000	1:4000	1:5000	
Output current rms IS(mA)	±100*IP/IPN	$\pm 100*IP/IPN$	±100*IP/IPN	±100*IP/IPN	
Secondary coil resistance RS (Ω)	20	28	40	58	
Inside resistance RM (Ω)	[(VC-0.4V)/(IS*0.001)]-RS				
Supply voltage VC(V)	(±15 ~ ±24) ±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 \sim +85°C $< \pm 0.005$				
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)	20+Is				
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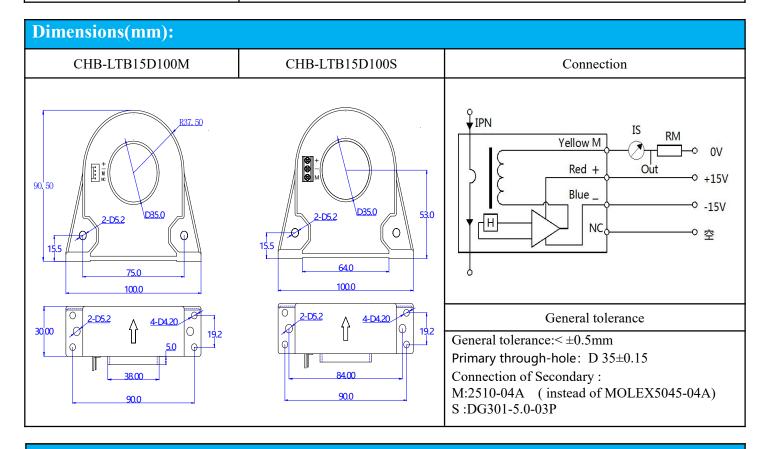
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Bandwidth BW(KHZ)	@-3dB,IPN	DC-100
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	6.0

General data:				
Parameter	Value			
Operating temperature TA(°C)	- 40 ∼ +85			
Storage temperature TS(°C)	- 55∼ +125			
Mass M(g)	295			
Plastic material	PBT G30/G15, UL94- V0;			
Standards	IEC60950-1:2001			
	EN50178:1998			
	SJ20790-2000			



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.

