



DATA SHEET

Hall Effect Current Sensor

PN: CHB_LAP15D50/100/125

IPN=50~300A

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 $\pm 9\sim 15$ V

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 induction cooker
- 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	CHB50 LAP15D50	CHB100 LAP15D50	CHB125 LAP15D125	CHB200 LAP15D100	CHB300 LAP15D100
Rated input Ip(A)	50	100	125	200	300
Measuring range Ip(A)	0 ~ ±150	0 ~ ±300	0 ~ ±375	0 ~ ±600	0 ~ ±600
Turns ratio Np/NS (T)	1:1000	1:2000	1:1000	1:2000	1:2000
Output current rms IS(mA)	±50*IP/IPN	±50*IP/IPN	±125*IP/IPN	±100*IP/IPN	±150*IP/IPN
Secondary coil resistance RS (Ω)	30	50	30	50	50
Inside resistance RM (Ω)	[(VC-0.6V)/(IS*0.001)]-RS				
Supply voltage VC(V)	(±9 ~ ±15) ±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 ~ +85°C		< ±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)			15+Is		
Bandwidth BW(KHZ)	@-3dB,IPN		DC-200		



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Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	3.0
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General data:

Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-55~ +125
Mass M(g)	21
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):

Dimensions(mm):		Connection
<p>BJHCS-LAP (SP1) mounting: M2. 5X6. 0</p>	<p>BJHCS-LAP mounting: M2. 5X6. 0</p>	
		<p>General tolerance</p> <p>General tolerance: <math>\pm 0.5\text{mm}</math> Primary through-hole : $10.5 \times 16.2 \pm 0.15\text{mm}$ Secondary pin: 3pin 0.6×0.65</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 $<100^\circ\text{C}</math>.$

WARNING : Incorrect wiring may cause damage to the sensor.

