



DATA SHEET

Hall Effect Current Sensor

P/N: CHB1000LTC15D250SFC-SP2

I_{PN}=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 ±15~24V

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: (T_a=25°C, V_c= ±15VDC)

Parameter	Ref	CHB1000LTC15D250SFC/SP2	CHB1000LTC15D200SFC/SP2
Rated input I _{pn} (A)		1000	1000
Measuring range I _p (A)		0 ~ ±3000	0 ~ ±2400
Turns ratio N _p /N _s (T)		1:4000	1:5000
Output current rms I _s (mA)		I _p /N _s	I _p /N _s
Secondary coil resistance R _s (Ω)		26	45
Inside resistance R _M (Ω)		$R_{M \max} = N_s \frac{V_{c \min} - 0.5V}{I_p} - R_{s \max} - 1.1 \Omega$	
Supply voltage V _c (V)		(±15 ~ ±24) ±5%	
Accuracy XG(%)	@I _{PN} ,T=25°C	< ±0.4	
Offset current I _{OE} (mA)	@I _p =0,T=25°C	< ±0.5	
Temperature variation of I _{OE}	@I _p =0,-40 ~ +85°C	< ±0.5	
I _{OT} (mA/°C)			
Linearity error εr(%FS)		< 0.1	



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Di/dt (A/μs)		> 100
Response time t_{ra} (μs)	@90% of I_{PN}	< 1.0
Power consumption I_c (mA)		< 32+ I_s
Bandwidth BW(KHZ)	@-1dB, I_{PN}	DC-100
Insulation voltage V_d (KV)	@50/60Hz, 1min,AC	10.0

General data:

Parameter	Value	
Operating temperature T_A (°C)	-50~ +85	
Storage temperature T_S (°C)	-55~ +90	
Mass M (g)	/	/
Plastic material	PBT G30/G15, UL94- V0;	
Standards	IEC60950-1:2001	
	EN50178:1998	
	SJ20790-2000	

Dimensions(mm):

	<p>Connection</p>
	<p>General tolerance</p> <p>General tolerance: <math>\pm 0.5\text{mm}</math> Primary through-hole: 42mm Through-hole clamp(bus bar): 40*8mm Connection of Secondary : SMS6GE6</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 <math>< 100^{\circ}\text{C}</math>.



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WARNING : Incorrect wiring may cause damage to the sensor.



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