

DATA SHEET Hall Effect Current Sensor

PN: CHB EC15D50

IPN=50~100A

Feature

- Closed- loop (compensated) current transducer
- Supply voltage: DC ±12~15 V 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 induction cooker
- AC/DC variable-speed drive
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Inverter applications



- Very good linearity Can be customized







Electrical data: (Ta=25°C, Vc=±15VDC)				
Ref Parmeter	CHB50EC15D50	CHB75EC15D50	CHB100EC15D50	
Rated input Ipn(A)	50	75	100	
Measuring range Ip(A)	0~±100	0~±150	0 ~ ±200	
Turns ratio Np/NS (T)	1:1000	1:1500	1:2000	
Output current rms IS(mA)	±50*IP/IPN	±50*IP/IPN	±50*IP/IPN	
Secondary coil resistance RS (Ω)	30	32	42	
Inside resistance RM (Ω)	[(VC-2.0V)/(IS*0.001)]-RS			
Supply voltage VC(V)	(±12 ~ ±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 sr(%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			



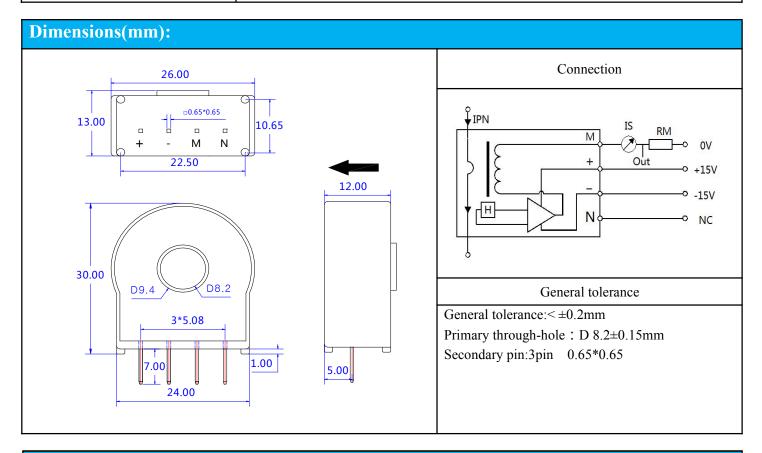
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Bandwidth BW(KHZ)	@-3dB,IPN	DC-200	
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	3.0	

General data:			
Parameter	Value		
Operating temperature TA(°C)	-40 ~ +85		
Storage temperature TS(°C)	- 55∼ +125		
Mass M(g)	15		
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.

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The primary conductor should be <100°C.

WARNING: Incorrect wiring may cause damage to the sensor.

