

DATA SHEET Hall Effect Current Sensor

PN: CHB BA15D50/100

IPN=50~400A

Feature

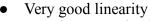
- Closed- loop (compensated) current transducer
- Supply voltage: DC $\pm 12 \sim 18 \text{ V}$ Capable measurement of currents: DC, AC, pulse with galvanic isolation between primary circuit and secondary circuit.

Advantages

- High accuracy
- Easy installation
- Low temperature drift
- Optimized response time
- Low power consumption
- 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



Can be customized









Electrical data: (Ta=25°C, Vc=±15VDC)						
Parmeter Ref	CHB50 BA15D50	CHB100 BA15D100	CHB200 BA15D100	CHB300 BA15D100	CHB400 BA15D100	
Rated input Ipn(A)	50	100	200	300	400	
Measuring range Ip(A)	0 ~ ±150	0 ~ ±300	0 ~ ±600	0 ~ ±750	0~±600	
Turns ratio Np/NS (T)	1:1000	1:1000	1:2000	1:3000	1:4000	
Output current rms IS(mA)	±50*IP/IPN	$\pm 100*IP/IPN$	±100*IP/IPN	±100*IP/IPN	±100*IP/IPN	
Secondary coil resistance RS (Ω)	30	30	45	55	85	
Inside resistance RM (Ω)	[(VC-0.6V)/ (IS*0.001)]-RS					
Supply voltage VC(V)	$(\pm 12 \sim \pm 18) \pm 5\%$					
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 $\varepsilon r(\%FS)$	< 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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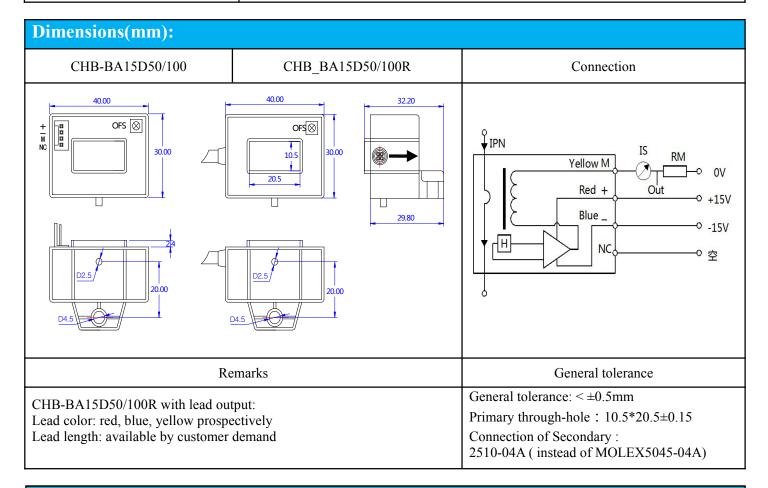


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Bandwidth BW(KHZ)	@-3dB,IPN	DC-200
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	3.0

General data:				
Parameter	Value			
Operating temperature TA(°C)	-40 ~ +85			
Storage temperature TS(°C)	-55~ +125			
Mass M(g)	33			
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.

