



# DATA SHEET

## Hall Effect Current Sensor

**PN: CHB\_LE15D50**

**IPN=100A**

### Feature

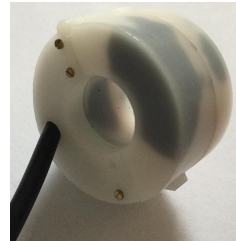
- Closed- loop (compensated) current transducer
- Capable measurement of currents: DC, AC,pulse with galvanic isolation between primary circuit and secondary circuit.
- Supply voltage: DC  $\pm 12\sim 15$  V

### 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)

Parmeter	Ref	CHB100 LE15D50
Rated input Ipn(A)		100
Measuring range Ip(A)		0 ~ 100
Turns ratio Np/NS (T)		1:2000
Output current rms IS(mA)		$\pm 50 * IP/IPN$
Secondary coil resistance RS ( $\Omega$ )		40
Inside resistance RM ( $\Omega$ )		$[(VC-3.0V)/(IS*0.001)]-RS$
Supply voltage VC(V)		( $\pm 12 \sim \pm 15$ ) $\pm 5\%$
Accuracy XG(%)	@IPN,T=25°C	$< \pm 0.5$
Offset current IOE(mA)	@IP=0,T=25°C	$< \pm 0.2$
Temperature variation of IOE IOT(mA/°C)	@IP=0,-40 ~ +85°C	$< \pm 0.005$
Linearity error er(%FS)		$< 0.1$
Di/dt accurately followed (A/ $\mu$ s)		$> 100$
Response time tra( $\mu$ s)	@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)	40
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

## Dimensions(mm):

	<b>Connection</b>
	<b>General tolerance</b>
General tolerance: <math>\pm 0.5\text{mm}</math> Primary through-hole : $D15 \pm 0.15\text{mm}$ Secondary pin: 3pin 0.6*0.65	

## 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>.

**WARNING : Incorrect wiring may cause damage to the sensor.**

