



# DATA SHEET

## Hall Effect Current Sensor

PN: CHB\_LTM15D200S1

I<sub>PN</sub>=1000A

### Feature

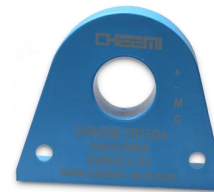
- Closed- loop (compensated) current transducer
- Capable measurement of currents: DC, AC,pulse with galvanic isolation between primary circuit and secondary circuit.
- Supply voltage: DC ±15~24V

### 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: (Ta=25°C, Vc= ±15VDC)

Parameter	Ref	CHB1000LTM15D200S1
Rated input I <sub>pn</sub> (A)		1000
Measuring range I <sub>p</sub> (A)		0 ~ ±2000
Turns ratio N <sub>p</sub> /N <sub>s</sub> (T)		1:5000
Inside resistance R <sub>M</sub> (Ω)		20±0.1%
Rated Output Current I <sub>s</sub> (mA)		±200
Supply voltage V <sub>c</sub> (V)		(±15 ~ ±24) ±5%
Accuracy X <sub>G</sub> (%)	@I <sub>PN</sub> ,T=25°C	< ±0.5
Offset current I <sub>OE</sub> (mA)	@I <sub>p</sub> =0,T=25°C	< ±0.2
Temperature variation of I <sub>OE</sub> I <sub>OT</sub> (mA/°C)	@I <sub>p</sub> =0,-40 ~ +85°C	< ±0.005
Linearity error ε <sub>r</sub> (%FS)		< 0.1
Di/dt accurately followed (A/μs)		> 100
Response time τ <sub>ra</sub> (μs)	@90% of I <sub>PN</sub>	< 1.0
Power consumption I <sub>c</sub> (mA)		20+I <sub>s</sub>



Cheemi Technology Co., Ltd

Tel: 025-85996365

E-mail: info@cheemi-tech.com

www.cheemi-tech.com

Add:N22, Xianlongwan, Xianyin South Road, Qixia District, Nanjing - China.

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Bandwidth BW(KHZ)	@-3dB, I <sub>PN</sub>	DC-100
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	6.0

## General data:

Parameter	Value
Operating temperature T <sub>A</sub> (°C)	-40 ~ +85
Storage temperature T <sub>S</sub> (°C)	-55 ~ +125
Mass M(g)	465
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

## Dimensions(mm):

**Connection**

**General tolerance**

General tolerance: <math>\pm 0.5\text{mm}</math>  
 Primary through-hole:  $D 45.5 \pm 0.15$   
 Connection of Secondary :  
 DG301-5.0-03P

## 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.**

