



# DATA SHEET

## Hall Effect Current Sensor

**P/N: CHB300LAE15D150M**

**I<sub>PN</sub>=300A**

### Feature

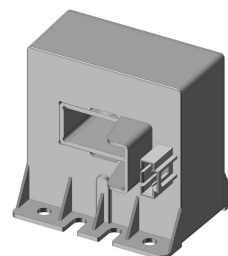
- Closed- loop (compensated) current transducer
- Capable measurement of currents: DC, AC, pulse with galvanic isolation between primary circuit and secondary circuit.
- Supply voltage: DC  $\pm 12 \sim 18$  V
- Can be customized

### 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



RoHS

### Electrical data: (T<sub>a</sub>=25°C, V<sub>c</sub>= $\pm 15$ VDC)

Parameter Ref	CHB300LAE15D150M
Rated input I <sub>pn</sub> (A)	300
Measuring range I <sub>p</sub> (A)	0 ~ $\pm 700$
Turns ratio N <sub>p</sub> /N <sub>s</sub> (T)	1:2000
Output current rms I <sub>s</sub> (mA)	$\pm 150 \cdot I_p / I_{PN}$
Secondary coil resistance R <sub>s</sub> (Ω)	100 (only for reference)
Inside resistance R <sub>M</sub> (Ω)	$[(V_c - 0.5V) / (I_s \cdot 0.001)] - R_s$
Supply voltage V <sub>c</sub> (V)	( $\pm 18 \sim \pm 24$ ) $\pm 5\%$
Accuracy X <sub>G</sub> (%)	@I <sub>PN</sub> , T=25°C < $\pm 0.5$
Offset current I <sub>OE</sub> (mA)	@I <sub>p</sub> =0, T=25°C < $\pm 0.2$
Temperature variation of I <sub>OE</sub> I <sub>OT</sub> (mA/°C)	@I <sub>p</sub> =0, -40 ~ +85°C < $\pm 0.5$
Linearity error $\epsilon_r$ (%FS)	< 0.1
Di/dt accurately followed (A/μs)	> 100
Response time $\tau_{ra}$ (μs)	@90% of I <sub>PN</sub> < 1.0



Cheemi Technology Co., Ltd

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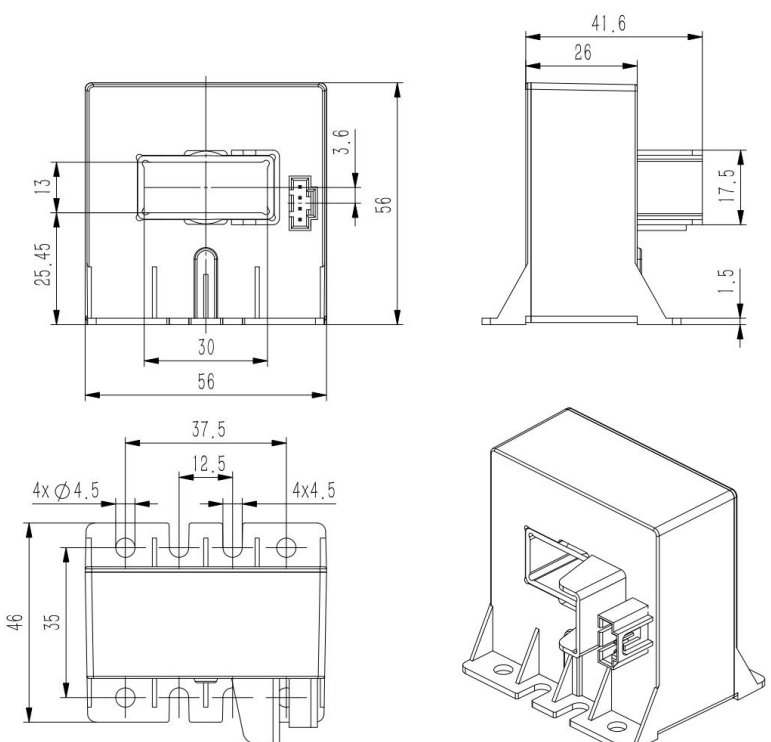
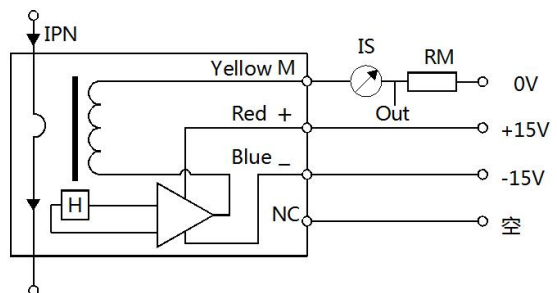
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Power consumption $I_C$ (mA)	25+ $I_S$
Bandwidth $B_W$ (KHZ)	@-3dB, $I_{PN}$ DC-100
Insulation voltage $V_d$ (KV)	@50/60Hz, 1min, AC 5.5

## General data:

Parameter	Value
Operating temperature $T_A$ (°C)	-40 ~ +85
Storage temperature $T_S$ (°C)	-55 ~ +125
Mass $M$ (g)	130
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: &lt; ±0.5mm</p> <p>Primary through-hole: 13*30±0.15mm</p> <p>Secondary pin: MOLEX 70543-0003</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 <100°C.

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



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