Cheemi Technology Co., Ltd

DATA SHEET
Hall Effect Current Sensor

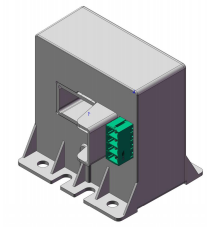
P/N: CHB500LAE15D250S-S11 | **I_{PN}=500A**

Feature

- Closed- loop (compensated) current transducer
- Supply voltage: DC ±15~24 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
- 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

CE RoHS

Electrical data：（Ta=25℃，Vc= ±24VDC）

Parameter Ref	CHB500LAE15D250S-S11	
Nominal current RMS Ipn(A)	500	
Measuring range Ip(A)	0～±700	
Turns ratio N_P/N_S (T)	1:2000	
Output current I_S(mA)	$\pm I_P*1000/N_S$	
Secondary coil resistance R_S (Ω)	33 (only for referance)	
Measuring resistance R_M (Ω)	$[(V_C-0.5V)/(I_S*0.001)]-R_S$	
Supply voltage V_C(V)	(±15～±24) ±5%	
Accuracy X_G(%)	@I_{PN},T=25°C	< ±0.5
Offset current I_{OE}(mA)	@I_P=0,T=25°C	< ±0.2
Temperature variation of I_{OE} I_{OT}(mA/°C)	@I_P=0,-40～+85°C	< ±0.5
Linearity error εr(%FS)	< 0.1	
Di/dt accurately followed （A/μs）	> 100	
Response time tra(μs)	@90% of I_{PN}	< 1.0

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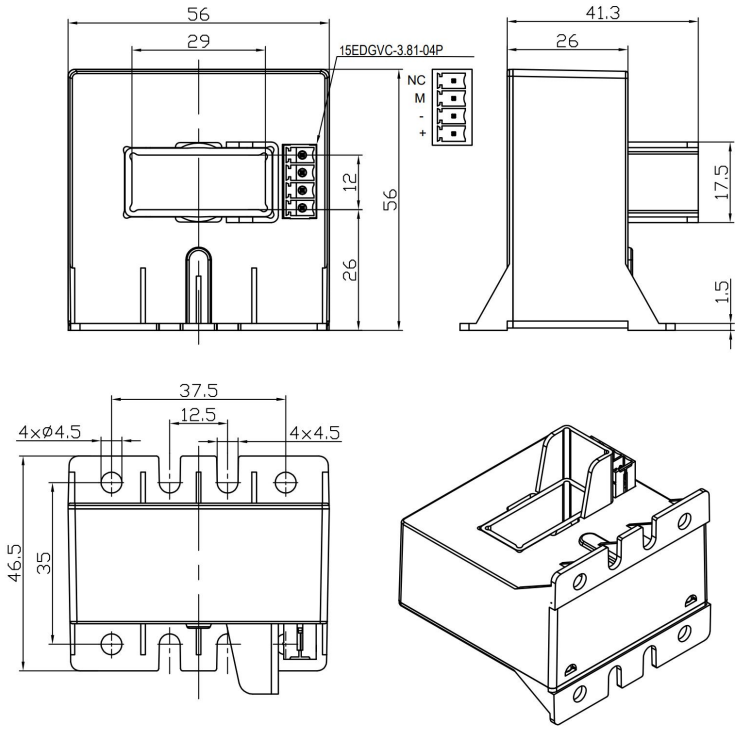
Power consumption I_C(mA)	25+Is	
Bandwidth BW(KHZ)	@-3dB, I_{PN}	DC-100
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	5.5

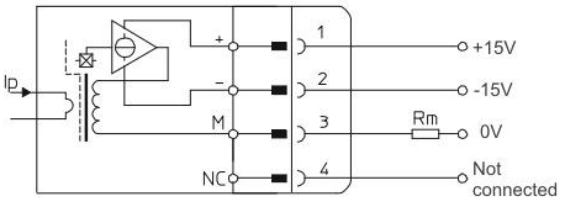
General data:

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):



Connection



General tolerance

General tolerance:< ±0.5mm

Primary through-hole：13*30±0.15mm

Secondary pin: S11:15EDGVC-3.81-04P

Matting connector P/N：15EDGK-3.81-04P

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.
- The primary conductor should be <100°C.

WARNING : Incorrect wiring may cause damage to the sensor.

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