



DATA SHEET

Hall Effect Current Sensor

P/N: CHB_LAE15D150/200S-S11

$I_{PN}=50\sim300A$

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 $\pm 12\sim 18V$

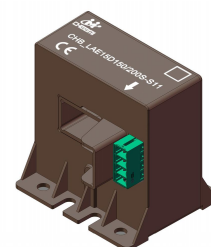
Advantages

- 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: ($T_a=25^\circ C$, $V_c=\pm 15VDC$)

Parameter Ref	CHB50 LAE15D500S -S11	CHB100 LAE15D100S -S11	CHB200 LAE15D100S -S11	CHB300 LAE15D60S- S11	CHB400 LAE15D200S -S11	CHB500 LAE15D250S -S11
Rated input $I_{pn}(A)$	50	100	200	300	400	500
Measuring range $I_p(A)$	$0 \sim \pm 150$	$0 \sim \pm 300$	$0 \sim \pm 600$	$0 \sim \pm 700$	$0 \sim \pm 800$	$0 \sim \pm 800$
Turns ratio $N_p/N_s (T)$	1:1000	1:1000	1:2000	1:5000	1:2000	1:2000
Output current rms $I_s(mA)$	$\pm 50 * I_p / I_{PN}$	$\pm 100 * I_p / I_{PN}$	$\pm 100 * I_p / I_{PN}$	$\pm 60 * I_p / I_{PN}$	$\pm 200 * I_p / I_{PN}$	$\pm 250 * I_p / I_{PN}$
Secondary coil resistance $R_s (\Omega)$	8	8	33	88 (only for reference)	15	33
Inside resistance $R_M (\Omega)$	$[(V_c - 0.5V) / (I_s * 0.001)] - R_s$					
Supply voltage $V_c(V)$	$(\pm 12 \sim \pm 18) \pm 5\%$					
Accuracy $X_G(\%)$	@ $I_{PN}, T=25^\circ C$ $< \pm 0.5$					
Offset current $I_{OE}(mA)$	@ $I_p=0, T=25^\circ C$ $< \pm 0.2$					
Temperature variation of I_{OE} $I_{OT}(mA/^\circ C)$	@ $I_p=0, -40 \sim +85^\circ C$ $< \pm 0.5$					
Linearity error $\epsilon_r(\%FS)$	< 0.1					
Di/dt accurately followed ($A/\mu s$)	> 100					
Response time $t_{ra}(\mu s)$	@90% of I_{PN} < 1.0					



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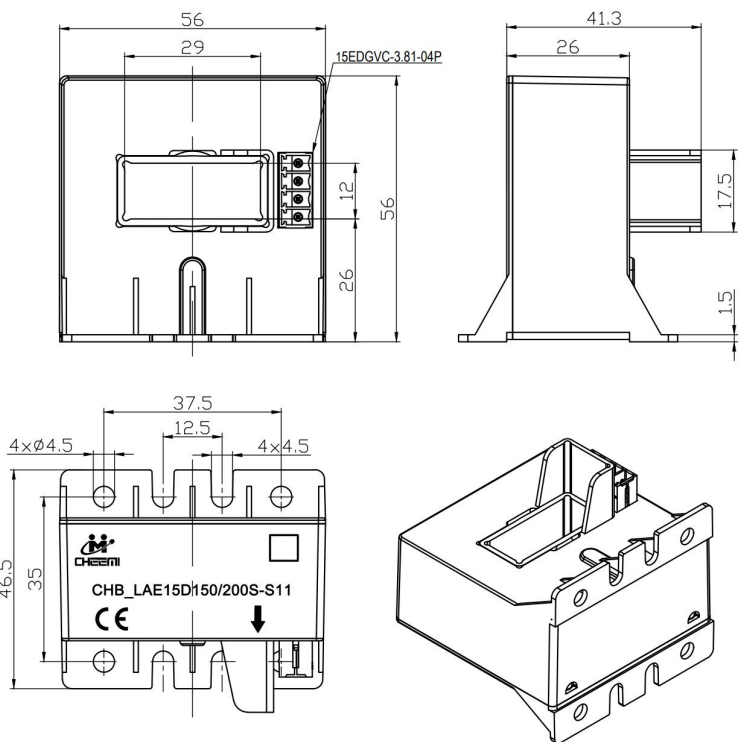
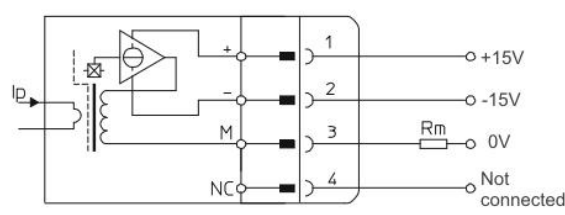
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Power consumption $I_C(\text{mA})$	25+Is
Bandwidth BW(KHZ)	@-3dB, I_{PN} DC-100
Insulation voltage $V_d(\text{KV})$	@50/60Hz, 1min, AC 5.5

General data:

Parameter	Value
Operating temperature $T_A(^{\circ}\text{C})$	-40 ~ +85
Storage temperature $T_S(^{\circ}\text{C})$	-55 ~ +125
Mass $M(\text{g})$	130
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):

		Connection 
		General tolerance General tolerance: < $\pm 0.5\text{mm}$ Primary through-hole: $13*30 \pm 0.15\text{mm}$ 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 is fully filled with.
- The primary conductor should be $< 100^{\circ}\text{C}$.

WARNING : Incorrect wiring may cause damage to the sensor.



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