



DATA SHEET

Hall Effect Current Sensor

P/N: CHB300LAE15D60S-S11

I_{PN}=300A

Feature

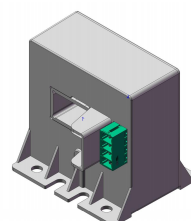
- Closed- loop (compensated) current transducer
- Capable measurement of currents: DC, AC, pulse with galvanic isolation between primary circuit and secondary circuit.
- Supply voltage: DC $\pm 15 \sim 24$ V

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



- Very good linearity
- Can be customized



RoHS

Electrical data: (T_a=25°C, V_c= ± 24 VDC)

Parameter Ref	CHB300LAE15D60S-S11
Nominal current RMS I _{pn} (A)	300
Measuring range I _p (A)	0 ~ ± 700
Turns ratio N _p /N _s (T)	1:5000
Output current I _s (mA)	$\pm I_p \cdot 1000 / N_s$
Secondary coil resistance R _s (Ω)	88 (only for reference)
Measuring resistance R _M (Ω)	R _{M MAX} $\approx [(V_c - 0.5V) / (I_s \cdot 0.001)] - R_s$
	@ $\pm 15V$ I _{pn} 0 (min), 150 (max)
	@ $\pm 15V$ 2XI _{pn} 0 (min), 30 (max)
	@ $\pm 24V$ I _{pn} 0 (min), 300 (max)
	@ $\pm 24V$ 2XI _{pn} 0 (min), 100 (max)
Supply voltage V _c (V)	($\pm 15 \sim \pm 24$) $\pm 5\%$
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



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Linearity error $\epsilon_r(\%FS)$		< 0.1
Di/dt accurately followed (A/ μs)		> 100
Response time $\tau_{ra}(\mu s)$	@90% of I_{PN}	< 1.0
Power consumption $I_c(mA)$		25+ I_s
Bandwidth BW(KHZ)	@-3dB, I_{PN}	DC-100
Insulation voltage $V_d(KV)$	@50/60Hz, 1min, AC	5.5

General data:

Parameter	Value
Operating temperature $T_A(^{\circ}C)$	-40 ~ +85
Storage temperature $T_s(^{\circ}C)$	-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: < $\pm 0.5mm$ Primary through-hole: $13*30 \pm 0.15mm$ Secondary pin: S11:15EDGVC-3.81-04P Matting connector P/N: 15EDGK-3.81-04P</p>
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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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