



DATA SHEET

Hall Effect Current Sensor

PN: CHB_AP15D50/100/125

IPN=50~200A

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 $\pm 9\sim 15$ V

Advantages

- High accuracy
- Easy installation
- Low temperature drift
- Optimized response time
- Low power consumption
- 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: (Ta=25°C, Vc= ±15VDC)

Parameter	Ref	CHB50 AP15D50	CHB100 AP15D50	CHB125 AP15D125	CHB200 AP15D100
Rated input Ip(A)		50	100	125	200
Measuring range Ip(A)		0~±150	0~±300	0~±375	0~±600
Turns ratio Np/NS (T)		1:1000	1:2000	1:1000	1:2000
Output current rms IS(mA)		±50*IP/IPN	±50*IP/IPN	±125*IP/IPN	±100*IP/IPN
Secondary coil resistance RS (Ω)		30	50	30	50
Inside resistance RM (Ω)		[(VC-0.6V)/ (IS*0.001)]-RS			
Supply voltage VC(V)		(±9~±15) ±5%			
Accuracy XG(%)		@IPN,T=25°C	< ±0.5		
Offset current IOE(mA)		@IP=0,T=25°C	< ±0.2		
Temperature variation of IOE IOT(mA/°C)		@IP=0,-40 ~ +85°C	< ±0.005		
Linearity error εr(%FS)			< 0.1		
Di/dt accurately followed (A/μs)			> 100		
Response time tra(μs)		@90% of IPN	< 1.0		



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Power consumption IC(mA)		15+Is
Bandwidth BW(KHZ)	@-3dB,IPN	DC-200
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	3.0

General data:

Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-55~ +125
Mass M(g)	21
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):

CHB-AP15D50/100	CHB125AP15D125	Connection
		General tolerance
		General tolerance: $\pm 0.5\text{mm}$ Primary through-hole : 10.5*16.2±0.15mm Secondary pin: 3pin 0.6*0.65

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.

