



DATA SHEET

Hall Effect Current Sensor

PN: CHB_U15D

$I_{PN}=100\sim 400A$

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

- Variable speed drives
- Welding machine
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Electrochemical



RoHS



Electrical data: ($T_a=25^{\circ}C\pm 5^{\circ}C$)

Parameter Ref	CHB100U15D100	CHB200U15D100	CHB300U15D150	CHB400U15D133
Rated input $I_{pn}(A)$	100	200	300	400
Measuring range $I_p(A)$	300 ($\pm 18V, 22\Omega$)	600 ($\pm 18V, 20\Omega$)	750 ($\pm 18V, 15\Omega$)	900 ($\pm 18V, 3.0\Omega$)
Turns ratio $N_p/N_s (T)$	1:1000	1:2000	1:2000	1:3000
Rated output $I_{sn}(mA)$	100 $\pm 0.5\%$	100 $\pm 0.5\%$	150 $\pm 0.5\%$	133.3 $\pm 0.5\%$
Coil resister (Ω)	30	35	30	53
Supply voltage $V_C(V)$	$\pm 12 \sim \pm 18$			
Power consumption $I_C(mA)$	$\leq 20+I_p X(N_p/N_s)$			
Zero current (mA)	@ $I_p=0$	$\leq \pm 0.2$		
Offset drift (mA)	@ $-40^{\circ}C \sim 85^{\circ}C$	$\leq \pm 0.5$		
Response time $t_{ra}(\mu s)$	@100A/ $\mu S, 10\%- 90\%$	< 1.0		
Linearity error $\epsilon_r(\%FS)$	@ $I_p=0-\pm I_{pn}$	≤ 0.1		
Galvanic isolation (KV)	@ 50HZ,AC,1min	6		
Di/dt accurately followed (A/ μs)		> 100		
Bandwidth BW(KHZ)	@ -3dB	DC...100		

REV: A2



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

Dimensions(mm):

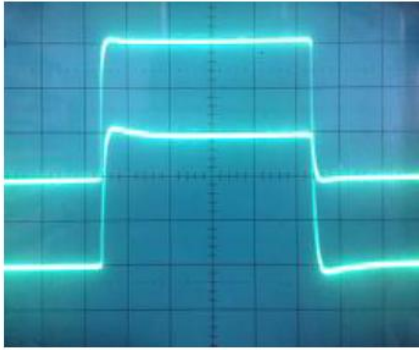
Remarks:

1. All dimensions are in mm.
2. General tolerance ± 1 mm.



Characteristics chart:

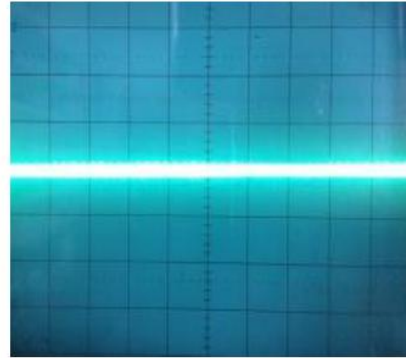
Pulse current signal response characteristic



输入信号
(Input signal)

输出信号
(Output signal)

Effects of impulse noise



输出电压
(Output voltage)

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.

