



DATA SHEET

Hall Effect Current Sensor

PN: CHB_LFAH15D

IPN=10-1000A

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 $\pm 15\sim 24V$

Advantages

- High accuracy
- Easy installation
- Low temperature drift
- Optimized response time
- High immunity to external interference
- Very good linearity
- Can be customized

Applications

- AC variable speed drives and servo motor drives
- Static converters for DC motor drives
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Power supplies for welding applications.



RoHS

Electrical data $T_a=25^\circ C$ $V_c= \pm 15VDC$

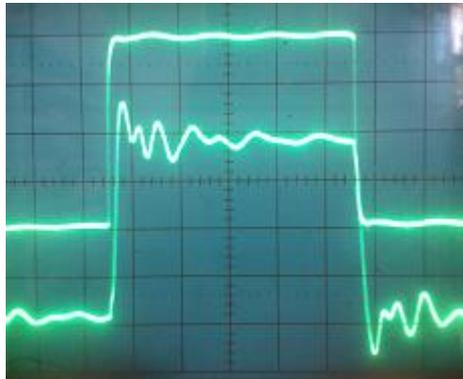
Parameter	Ref	CHB1000LFAH15D	
Rated input $I_{pn}(A)$		10-1000	
Measuring range $I_p(A)$		2000	
Turns ratio $N_p/N_S (T)$		1:5000	
Output current rms $I_S(mA)$		$2\pm 0.1\%FS(10A)$, $200\pm 0.1\%FS(1000A)$	
Secondary coil resistance $R_S (\Omega)$	@ $85^\circ C$	48	
Measure resister $R_M (\Omega)$	with $\pm 15V$ @ $\pm 1000A_{max}$	0(min)	20(max)
	with $\pm 15V$ @ $\pm 1200A_{max}$	0(min)	7.5(max)
	with $\pm 24V$ @ $\pm 1000A_{max}$	0(min)	65(max)
	with $\pm 24V$ @ $\pm 2000A_{max}$	0(min)	7.5(max)
Supply voltage $V_C(V)$		$(\pm 15 \sim \pm 24) \pm 5\%$	
Offset current $IOE(mA)$	@ $I_p=0$	$\leq \pm 0.2$	
Offset drift(mA)	@ $I_P=0, -40 \sim +85^\circ C$	$< \pm 0.005$	



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

Characteristics chart:

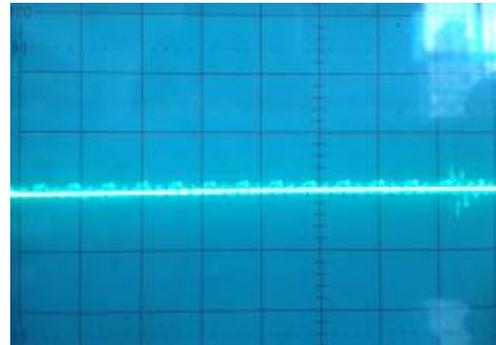
Pulse current signal response characteristic



← input signal

← output signal

Effects of impulse noise



← Output voltage

Directions for use

- When the current goes through the primary pin of a sensor, the voltage will be measured at the output end.
- It will be in a forward direction when the IP flows according to the direction of the arrowhead.
- 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 $\leq 120^{\circ}\text{C}$.

WARNING : Incorrect wiring may cause damage to the sensor.

