



DATA SHEET

Hall Effect Current Sensor

PN: CHB_LTA24S2H

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 +24.0V
- Very good linearity
- Can be customized

Advantages

- High accuracy
- Low temperature drift
- Optimized response time, no insertion losses
- Low power consumption

Applications

- The application of variable frequency electrical appliances
- AC/DC variable-speed drive
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Inverter applications



Electrical data: (Ta=25°C, Vc=+24.0VDC,RL=2KΩ,CL=10000pF)

Ref	CHB50LTA24S2H	CHB100LTA24S2H	CHB200 LTA24S2H
Parameter			
Rated input Ipn(A)	50	100	200
Measuring range Ip(A)	0 ~ ±50	0 ~ ±100	0 ~ ±200
Turns ratio Np/NS (T)	1:2000	1:4000	1:4000
Inside resistance RM(Ω)	20±0.1%	20±0.1%	10±0.1%
Output voltage Vo(V)	2.500±2.0*(IP/IPN)		
Output voltage Vo(V)	@IP=0,T=25°C 2.500		
Reference voltage VR(V)	@Internal reference,re out 2.500		
Supply voltage VC(V)	+24.0±5%		
Accuracy XG(%)	@IPN,T=25°C < ±0.2		
Repeat accuracy XGR(%)	@IPN,T=25°C < ±0.2		
Offset voltage VOE(mV)	@IP=0,T=25°C < ±5.0		
Temperature variation of VOE VOT(mV/°C)	@IP=0,-40 ~ +85°C < ±0.02		
Temperature variation of Vo VMT (mV/°C)	@IP=0,-40 ~ +85°C < ±0.05		



Cheemi Technology Co., Ltd

Tel: 025-85996365

E-mail: info@cheemi-tech.com

www.cheemi-tech.com

Add:N22, Xianlongwan, Xianyin South Road, Qixia District, Nanjing - China.

Cheemi Technology Co., Ltd

Linearity error ϵ_r (%FS)		< 0.1
Di/dt accurately followed (A/ μ s)		> 50
Response time τ_a (μ s)	@90% of IPN	< 1.0
Power consumption I_C (mA)		10+Is
Bandwidth BW(KHZ)	@-3dB,IPN	DC-100
Insulation voltage V_d (KV)	@50/60Hz, 1min,AC	3.0

General data:

Parameter	Value
Operating temperature T_A ($^{\circ}$ C)	-40 ~ +125
Storage temperature T_S ($^{\circ}$ C)	-55~ +150
Mass M (g)	50
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: <math>\pm 0.5\text{mm}</math> Primary through-hole: $D20 \pm 0.3\text{mm}$; Connection of Secondary : 2510-04A (Instead of Molex 5045-04A)</p>

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.



Cheemi Technology Co., Ltd
 Tel: 025-85996365 E-mail: info@cheemi-tech.com www.cheemi-tech.com
 Add: N22, Xianlongwan, Xianyin South Road, Qixia District, Nanjing - China.