



DATA SHEET

Hall Effect Current Sensor

PN: CHB_LX15D4

IPN=05~50A

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 $\pm 12\sim 15V$
- PCB installation

Advantages

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

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= ±15VDC, RL=2KΩ, CL=10000pF)

Parameter	Ref	CHB05 LX15D4	CHB10 LX15D4	CHB15 LX15D4	CHB20 LX15D4	CHB30 LX15D4	CHB50 LX15D4				
Rated input Ip(A)		05	10	15	20	30	50				
Measuring range Ip(A)		0 ~ ±15	0 ~ ±30	0 ~ ±45	0 ~ ±60	0 ~ ±90	0 ~ ±150				
Size of Input pin *d (MM)		Ø0.6	Ø0.8	Ø1.0	Ø1.4	Ø1.6	2×Ø2.4×1.6				
Turns ratio Np/NS (T)		4:2000	3:3000	2:3000	1:2000	1:3000	1:3125				
Inside resistance RM (Ω)		400±0.1%	400±0.1%	400±0.1%	400±0.1%	400±0.1%	250±0.1%				
Output voltage Vo(V)		$\pm 4.0^*(IP/IPN)$									
Supply voltage VC(V)		(±12 ~ ±15) ±5%									
Accuracy XG(%)		@IPN,T=25°C		< ±0.5							
Offset Voltage VOE(mV)		@IP=0,T=25°C		< ±30							
Temperature variation of VOE VOT(mV/°C)		@IP=0,-40 ~ +85°C		< ±0.5							
Linearity error er(%FS)		< 0.1									
Di/dt accurately followed (A/μs)		> 50									
Response time tra(μs)		@90% of IPN		< 1.0							
Power consumption IC(mA)		15+Is									
Bandwidth BW(KHZ)		@-3dB,IPN		DC-100							



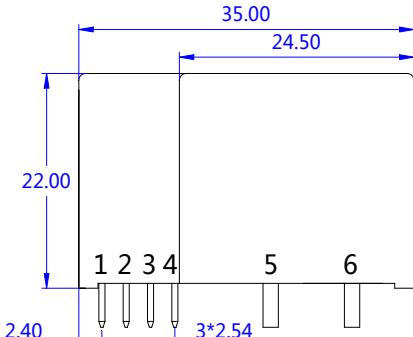
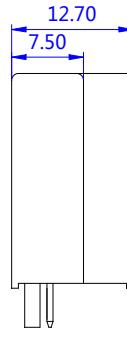
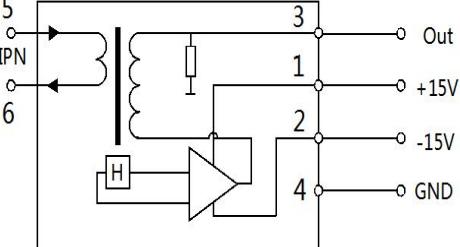
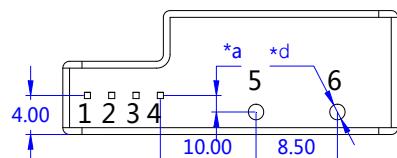
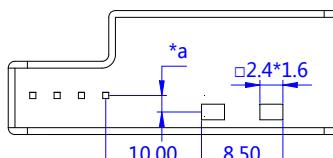
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Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	5.0
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General data:

Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-55~ +125
Mass M(g)	17
Plastic material	PBT G30/G15, UL94- V0; IEC60950-1:2001
Standards	EN50178:1998 SJ20790-2000

Dimensions(mm):

		Connection							
 									
 		General tolerance							
Size of primary pin & Distance,in mm		General tolerance:< ±0.5mm Secondary Pin size :0.25*0.5±0.1mm							
Type	05LX	10LX	15LX	20LX	25LX	30LX	40LX	50LX	
*a	1.3	1.4	1.6	1.6	1.6	1.7	1.7	1.7	
d	0.6	0.8	1.0	1.4	1.4	1.6	1.6	2.4 1.6	

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 if fully filled with.
- The primary conductor should be <100°C.

WARNING : Incorrect wiring may cause damage to the sensor.

