



DATA SHEET

Hall Effect Current Sensor

PN: CHB_LFT15D100SP

I_{PN}=200~500A

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 ±15~24V
- Molex 4.2mm 2*2P

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



RoHS



Electrical data: (Ta=25°C, Vc=±15VDC)

Parameter	Ref	CHB200LFT15 D100SP	CHB300LFT15 D100SP	CHB500LFT15 D100SP
Rated input I _{pn} (A)		200	300	500
Measuring range I _p (A)		0 ~ ±628	0 ~ ±940	0 ~ ±1570
Turns ratio N _p /N _S (T)		1:2000	1:3000	1:5000
Output current rms IS(mA)		I _p /N _s (±100)	I _p /N _s (±100)	I _p /N _s (±100)
Secondary coil resistance R _S (Ω)		21	31	52
Inside resistance R _M (Ω)		$R_{M\max} = N_s \frac{V_{C_{min}} - 0.5V}{I_p} - R_{S\max} - 1.1\Omega$		
Supply voltage V _C (V)		(±15 ~ ±24) ±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 < ±0.5		
Linearity error εr(%FS)		< 0.1		



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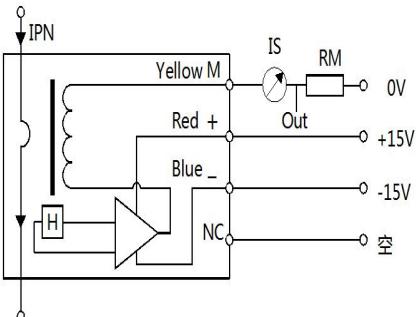
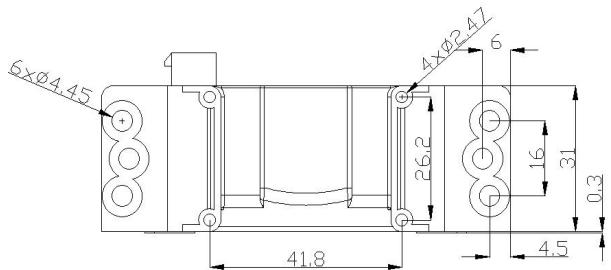
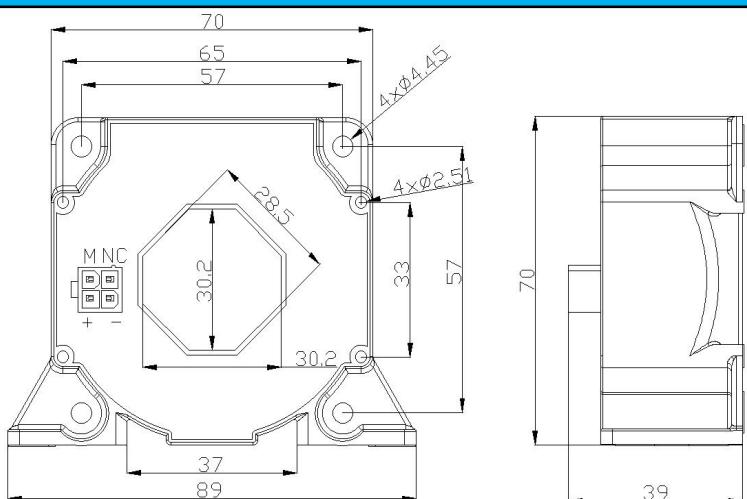
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Di/dt (A/ μ s)	> 100	
Response time tra(μ s)	@90% of I_{PN}	< 1.0
Power consumption IC(mA)	20+ I_s	
Bandwidth BW(KHZ)	@-3dB, I_{PN}	DC-150
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	6.0

General data:

Parameter	Value
Operating temperature TA(°C)	-50~ +85
Storage temperature TS(°C)	-55~ +125
Mass M(g)	300
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):



General tolerance

General tolerance:<±0.5mm
Primary through-hole: D 28±0.2
Connection of Secondary :
SP: Molex 4.2mm 2*2P

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°C.

WARNING : Incorrect wiring may cause damage to the sensor.



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