



DATA SHEET

Hall Effect Current Sensor

PN: CHB_LFT15D100S

$I_{PN}=200\sim500A$

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

- 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: ($T_a=25^{\circ}C$, $V_c=\pm 15VDC$)

Ref Parmeter	CHB200LFT15 D100S	CHB300LFT15 D100S	CHB500LFT15 D100S
Rated input I _p (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 I _S (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 X _G (%)	@I _P N,T=25°C	< ±0.2	
Offset current I _{OE} (mA)	@I _P =0,T=25°C	< ±0.2	
Temperature variation of I _{OE} I _{OT} (mA/°C)	@I _P =0,-40 ~ +85°C	< ±0.5	
Linearity error ε _r (%FS)	< 0.1		



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.

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

General data:

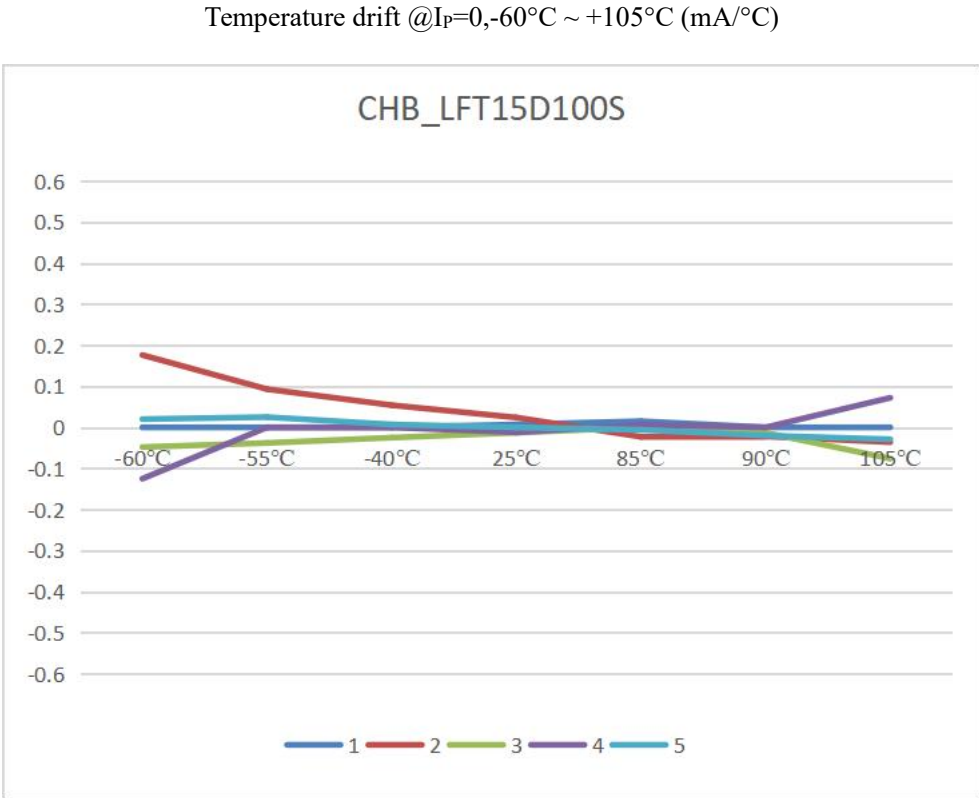
Parameter	Value
Operating temperature $T_A(^{\circ}C)$	-50~ +85
Storage temperature $T_S(^{\circ}C)$	-55~ +125
Mass $M(g)$	300
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):

	Connection
	General tolerance
	General tolerance: < ± 0.5mm Primary through-hole: $D 28 \pm 0.2$ Connection of Secondary : 2510-3



Characteristics chart:



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.

