



# DATA SHEET

## Hall Effect Current Sensor

PN: CHB\_LF15D200/400T

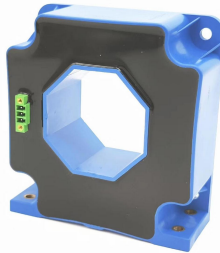
IPN=1000~2000A

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

Parameter \ Ref	CHB1000 LF15D200T	CHB1200 LF15D200T	CHB2000 LF15D400T
Rated input $I_{pn}(A)$	1000	1200	2000
Measuring range $I_p(A)$	0 ~ $\pm 3000$	0 ~ $\pm 2000$	0 ~ $\pm 3000$
Turns ratio $N_p/N_S (T)$	1:5000	1:6000	1:5000
Output current rms $I_S(mA)$	$\pm 200 * I_P / I_{PN}$	$\pm 200 * I_P / I_{PN}$	$\pm 400 * I_P / I_{PN}$
Secondary coil resistance $R_S (\Omega)$	32	45	32
Inside resistance $R_M (\Omega)$	[( $V_C - 0.4V$ ) / ( $I_S * 0.001$ )] - $R_S$		
Supply voltage $V_C(V)$	$(\pm 15 \sim \pm 24) \pm 5\%$		
Accuracy $X_G(\%)$	@ $I_{PN}, T=25^\circ C$	< $\pm 0.2$	
Offset current $I_{OE}(mA)$	@ $I_P=0, T=25^\circ C$	< $\pm 0.2$	
Temperature variation of IOE $I_{OT}(mA/^\circ C)$	@ $I_P=0, -40 \sim +85^\circ C$	< $\pm 0.005$	
Linearity error $\epsilon_r(\%FS)$		< 0.1	
$Di/dt$ accurately followed ( $A/\mu s$ )		> 100	
Response time $t_{ra}(\mu s)$	@90% of $I_{PN}$	< 1.0	
Power consumption $I_C(mA)$		20+ $I_s$	



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Bandwidth BW(KHZ)	@-3dB,IPN	DC-150
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	6.0

## General data:

Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-55~ +125
Mass M(g)	1100
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

## Dimensions(mm):

Connection

General tolerance

General tolerance: <math>\pm 0.5\text{mm}</math>  
 Primary through-hole:  $D 60.5 \pm 0.3$   
 Connection of Secondary :  
 KF15EDGM3.5-03P

## 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 <math>< 100^{\circ}\text{C}</math>.

WARNING : Incorrect wiring may cause damage to the sensor.



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