DATA SHEET
Hall Effect Current Sensor

PN: CHB500LTS15D100	I_{PN}=500A

Feature

- Closed- loop (compensated) current transducer
- Supply voltage: DC ±15~24V
- High accuracy type, it can really measure resolution 1000:1
- Capable precision measurement of currents: DC, AC,pulse with galvanic isolation between primary circuit and secondary circuit.

Advantages

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

Applications

- AC variable speed drives and servo motor drives
- Static converters for DC motor drives
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Power supplies for welding applications.

CE RoHS

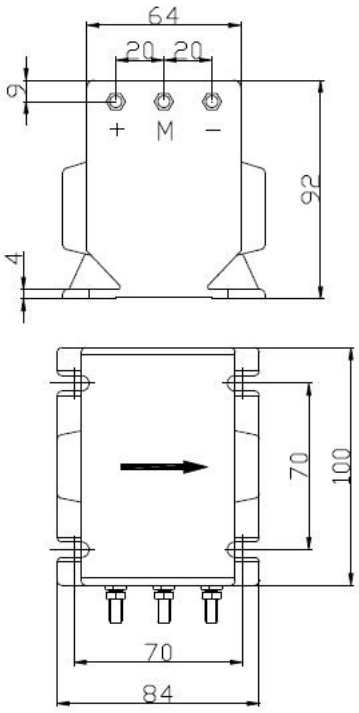
Electrical data：（Ta=25℃±5℃）

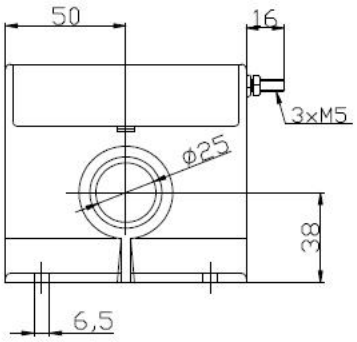
Parameter \ Ref	CHB500LTS15D100			
Rated input Ipn(A)	500			
Measuring range Ip(A)	0~±1000			
Turns ratio Np/NS (T)	1:5000			
Output current (A)	Nominal output current 100mA, for primary nominal current I_N =500A			
Measure resister R_M (Ω)	with±15V	@500Amax	0(min)	40(max)
	with±15V	@1000Amax	0(min)	40(max)
	with±24V	@500Amax	7(min)	75(max)
	with±24V	@1000Amax	7(min)	20(max)
Accuracy (Ta =+25)	I_N ±0.5%			
Supply voltage VC(V)	(±15～±24) ±5%			
Isolation voltage	Between primary and secondary circuit: 6KV RMS/50Hz/1min.			
Offset current (Ta =+25℃)	±0.3mA max, for primary current I_N=0			
Temperature drift	I_M of 0.02%/℃ (-25℃…+85℃)			

Linearity error εr(%FS)	@Ip=0-±Ipn	≤0.1
Di/dt accurately followed（A/μs）		> 50
Response time tra(μs)	@50A/μS	＜1
Frequency bandwidth		0~100KHz
Current consumption		35mA+I_M (Output current)
Secondary resistance		80Ω（Ta =+70℃）
Primary resistance		-----

General data：	
Parameter	**Value**
Operating temperature TA(°C)	-50℃…+85℃
Storage temperature TS(°C)	-50℃…+90℃
Mass M(g)	500
Plastic material	UL94-V0.
Standards	EN60947-1:2004
	IEC60950-1:2001
	EN50178:1998
	SJ 20790-2000

Dimensions(mm):

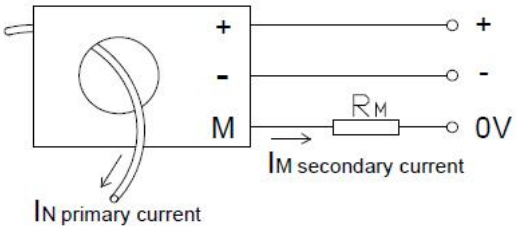




Secondary terminals:
Terminal +: supply voltage +15…24V
Terminal - : supply voltage -15…24V
Terminal M: output

Remarks：
1. All dimensions are in mm.
2. General tolerance ±1mm.

Wiring diagram:



Remarks：

1. Output I_M is positive, when the primary current flows in the direction of the arrow.
2. Primary current is input by a bus bar.

Directions for use：

- When the current goes through the primary pin of a sensor, the voltage will be measured at the output end.
- Is will be in a forward direction when the Ip flows according to the direction of arrowhead.
- 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 ≤120°C.

WARNING : Incorrect wiring may cause damage to the sensor.