



DATA SHEET

Hall Effect Current Sensor

PN: CHB_SH15D

IPN=10-1000A

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 $T_a=25^\circ C$ $V_c= \pm 15VDC$		
Parmeter	Ref	CHB1000SH15D
Rated input $I_{pn}(A)$		10-1000
Measuring range $I_p(A)$		2500
Turns ratio $N_p/NS (T)$		1:5000
Output current rms $I_S(mA)$		$2.0\pm 0.1\%FS(10A)$, $200\pm 0.1\%FS(1000A)$
Secondary coil resistance $R_S (\Omega)$	@ $+85^\circ C$	43
Measure resister $R_M (\Omega)$	with $\pm 15V @ \pm 1000A_{max}$	0(min) 30(max)
	with $\pm 15V @ \pm 1500A_{max}$	0(min) 5(max)
	with $\pm 24V @ \pm 1000A_{max}$	0(min) 68(max)
	with $\pm 24V @ \pm 2500A_{max}$	0(min) 3(max)
Supply voltage $V_C(V)$		$\pm 15 \sim \pm 24$
Offset current $I_{OE}(mA)$	@ $I_p=0$	$\leq \pm 0.2$
Offset drift(mA)	@ $-40^\circ C \sim +85^\circ C$	$\leq \pm 0.25$
Accuracy $XG(\%)$	@ $IPN, T=25^\circ C$	$< \pm 0.1$
Linearity error $\epsilon_r(\%FS)$	@ $I_p=0 \sim I_{pn}$	≤ 0.1



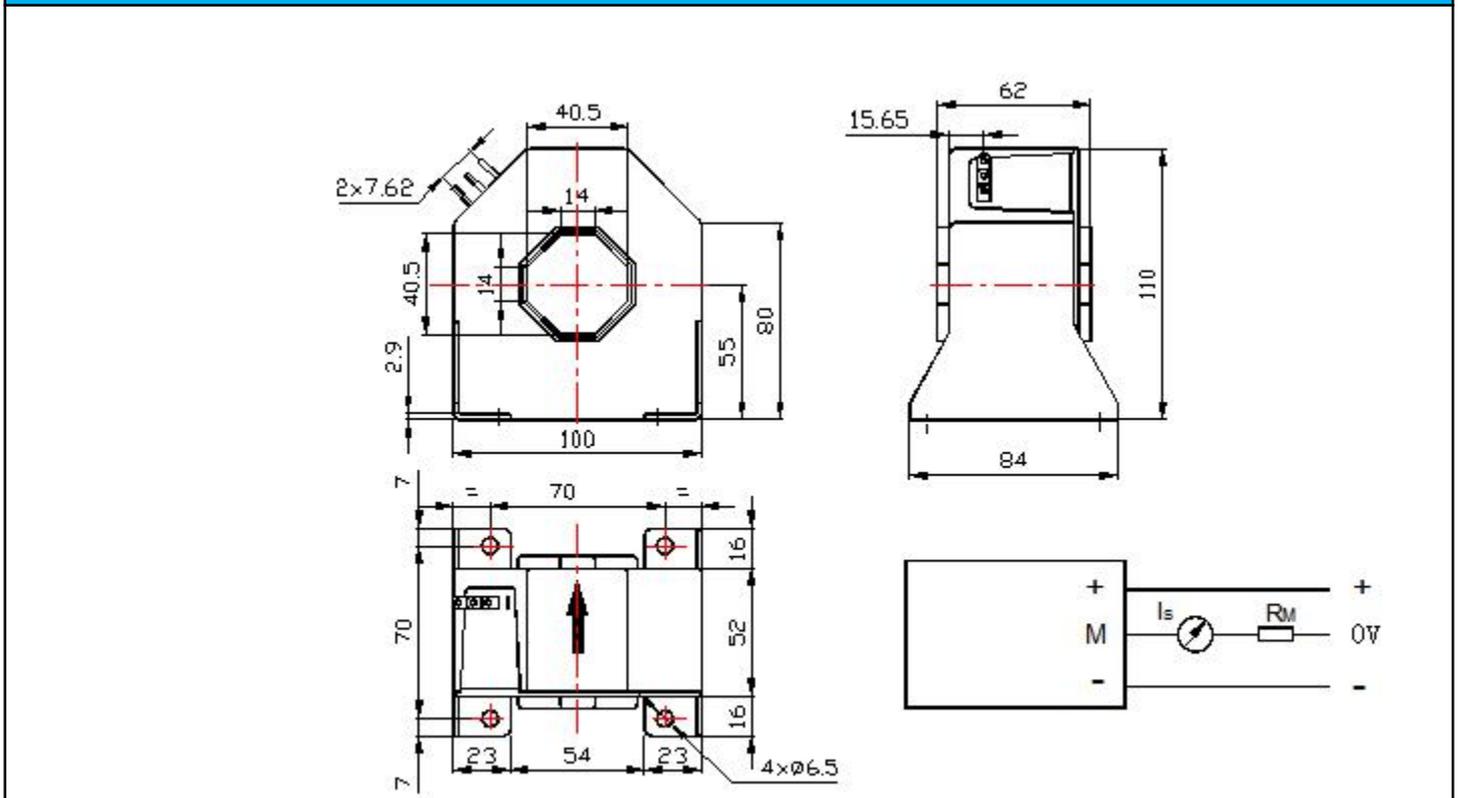
Cheemi Technology Co., Ltd

Di/dt accurately followed A/μs		> 100
Response time tra(μs)	@100A/μS,10%-90%	< 1
Power consumption IC(mA)		≤20+IpX(Np/Ns)
Bandwidth BW(KHZ)	@ -3db	DC...150
Insulation voltage Vd(KV)	@ 50HZ,AC,1min	6

General data

Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-40~ +125
Mass M(g)	600
Plastic material	UL94-V0.
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):



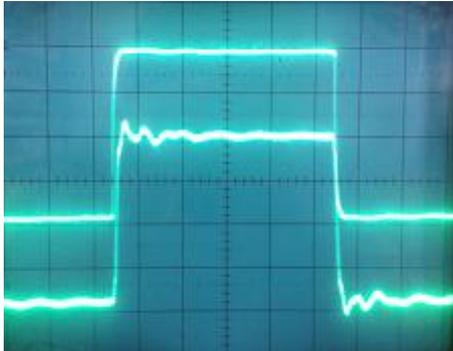
Remarks

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



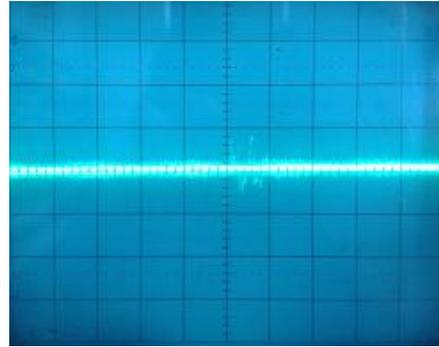
Characteristics chart :

Pulse current signal response characteristic



← input signal
← output signal

Effects of impulse noise



← Output voltage

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 I_p 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 $\leq 120^\circ\text{C}$.

WARNING : Incorrect wiring may cause damage to the sensor.

