Closed Loop Hall Current Sensor CYHCS-B6

This Hall Effect current sensor is based on closed loop compensating principle and can be used for measurement of DC and AC current, pulse currents etc. The output of the transducer reflects the real wave of the current carrying conductor.

Product Characteristics	Applications
• Excellent accuracy • Very good linearity • Small size and encapsulated • Less power consumption • Current overload capability	• **Photovoltaic equipment** • General Purpose Inverters • AC/DC Variable Speed Drivers • Battery Supplied Applications • Uninterruptible Power Supplies • Switched Mode Power Supplies

ELECTRICAL CHARACTERISTICS

Part number	CYHCS-B6-50A (CYHCS-B6-25A)	CYHCS-B6-100A	Unit
Nominal current	50 (25A)	100	A
Measuring range	±75 (±55)	±150	A
Turns ratio	1:1000	1:2000	
Measuring resistance (T_A=85°C)	with±12V @±50Amax 60(min) 95(max)	with±12V @±100Amax 0(min) 42(max)	Ω
	@±70Amax 60(min) 60(max)	@±120Amax 0(min) 14(max)	Ω
	with±15V @±50Amax 135(min) 155(max)	with±15V @±100Amax 20(min) 102(max)	Ω
	@±70Amax,135(min) 135(max)	@±150Amax,20(min) 25(max)	Ω
Supply voltage	±12 ~ ±15±5%		V
Nominal RMS output current	50±0.5% (25±0.5%)	50±0.5%	mA
Accuracy at +25°C	0.1		%
Galvanic isolation	50(60)HZ,1min, 2.5		kV
Current consumption	10 + output current		mA

ACCURACY DYNAMIC PERFORMANCE

Part number	CYHCS-B6-50A (CYHCS-B6-25A)	CYHCS-B6-100A	Unit
Zero offset current	±0.1	±0.2	mA
Thermal drift of offset current	-40°C～+85°C, ±0.25 ~ ±0.5		mA
Response time	<1.0		μs
Linearity	≤0.1		%FS
Bandwidth(-3dB)	DC…200		kHz
di/dt	>200		A/μs

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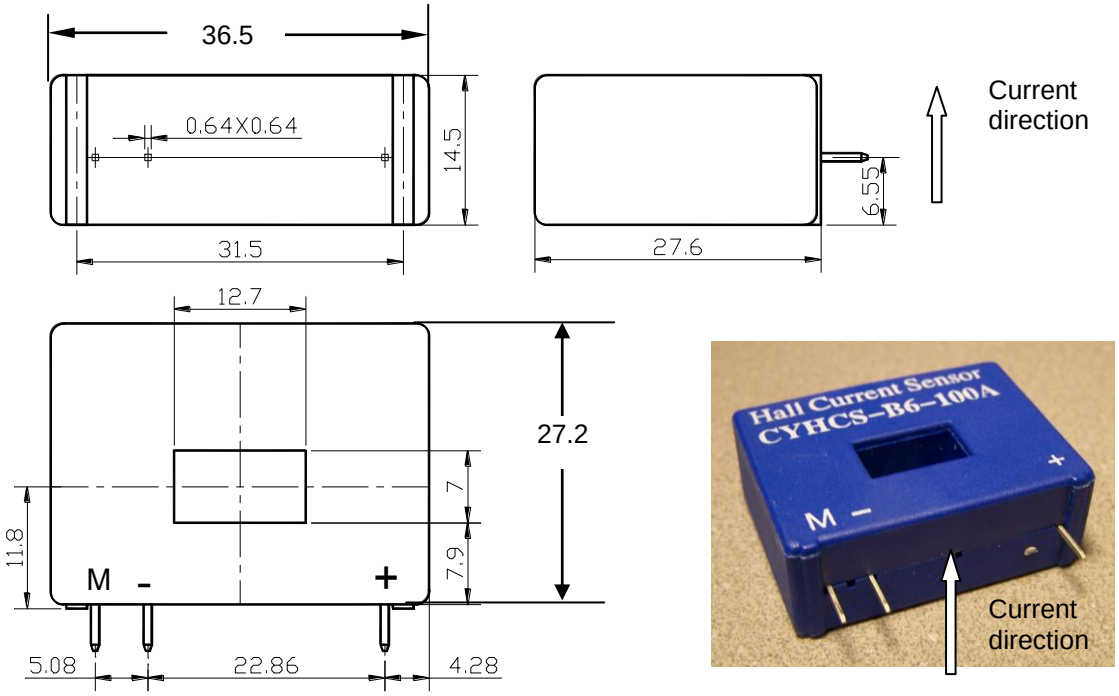
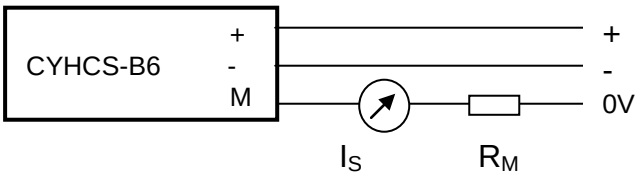
GENERAL CHARACTERISTICS

Part number	CYHCS-B6-50A (CYHCS-B6-25A)	CYHCS-B6-100A	Unit
Secondary coil resistance	80	120	Ω
Operating temperature	-40~+85		°C
Storage temperature	-40~+125		°C

Dimensions (mm)



Terminal +: +12V~ 15V, Terminal -: -12V~ -15V, Terminal M: Output



Operating instructions

1. To guarantee the high performance of the sensor, please use the low temperature soldering tin and shorten the welding time.
2. The temperature of primary conductor should be lower than 100°C.
3. When the mother arranges fills completely the primary perforation, the dynamic performance (di/dt and the response time) of sensor is best.
4. In order to achieve the best magnetic coupling, primary turns should circle in the sensor crown.

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