DATA SHEET
Hall Effect Current Sensor

PN : BJHCS-SH | **IPN = 1000A**

Features

- **Closed loop**
- **High accuracy**
- Good linearity
- Fast response time
- Low temperature drift
- High anti-jamming capability
- Strong current overload
- **Supply voltage : ±15 to ±24V DC**
- **Current output**
- **Through hole primary**
- **Can be customized**

Applications

- AC/DC variable speed motor driver
- Battery applications
- Uninterruptible power supplies (UPS)
- Power supplies for welding applications

ELECTRICAL DATA

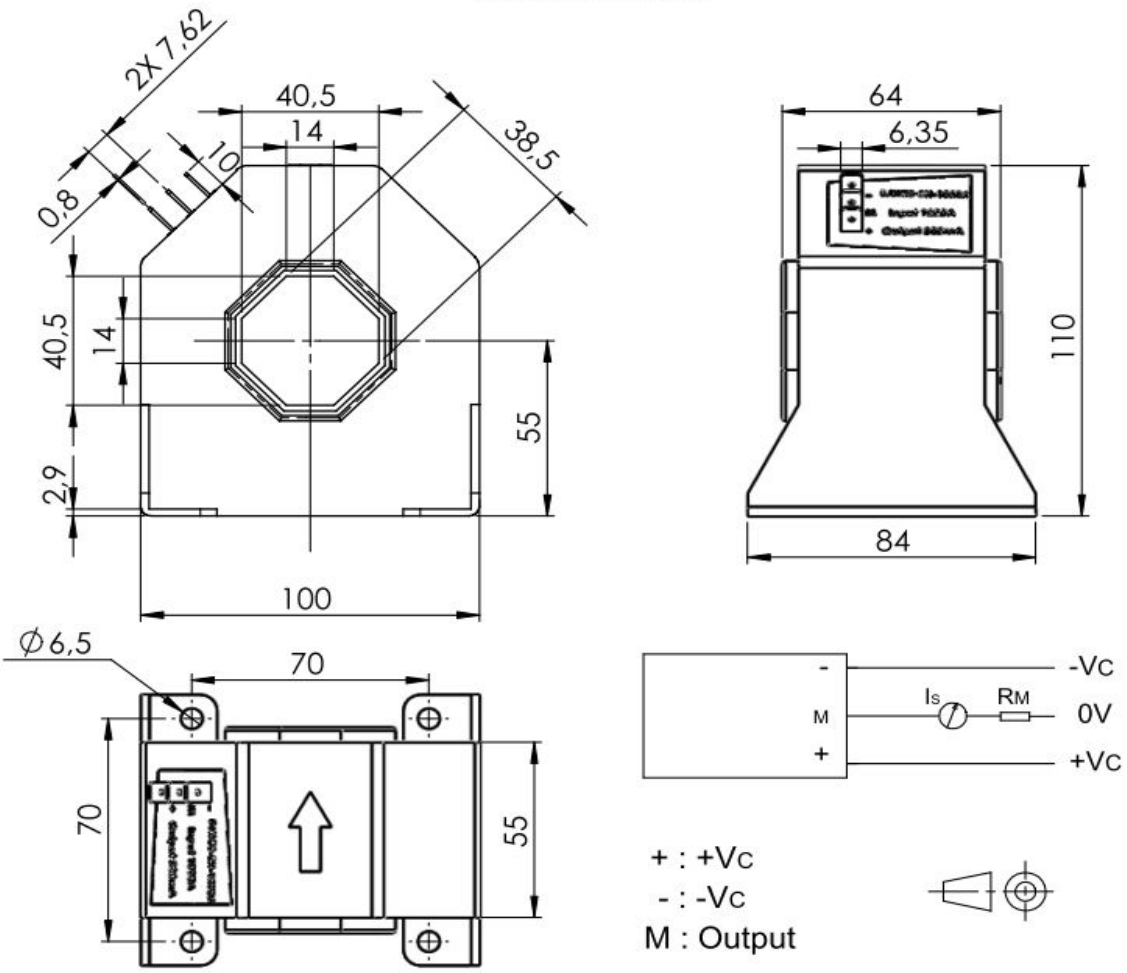
BJHCS-SH-…			1000A
Nominal rms current I_{PN} (A)			1000
Sensed current range I_{PM} (A)			± 2000
Measuring Resistance R_M max (Ω)	With V_C = ± 15 Vdc	@ 1000 A	30
		@ 1500 A max	10
	With V_C = ± 24 Vdc	@ 1000 A	75
		@ 2000 A max	21
Coil turns ratio K (P^{ry}:S^{ry})			1:5000
Secondary resistance R_S (Ω)			32
Rated output current I_{SN} (mA)			200
Supply voltage V_C (Vdc)			±15 $^{±0,5\%}$ to ±24 $^{±0,5\%}$
Static current consuption I_{C0} (mA)			≤ 28
Current consumption I_C (mA)			28+I_S

ACCURACY DYNAMIC PERFORMANCE			GENERAL & ISOLATION CHARACTERISTICS		
Accuracy X_G @ I_{PN}, T=25℃	± 0,2	%	Operating temperature	-40 to +85	℃
Zero offset Current Io @ I_P=0, T=25℃	≤ ± 0,2	mA	Storage temperature	-40 to +125	℃
Zero current drift @ - 40℃ to 85℃	≤ ± 0,5	mA	Weight	620	g
Linearity error ε_L	< 0,1	% FS	Insulation voltage (50Hz, 1mn)	6	KV
di/dt accurately followed	> 100	A/µs			
Response time tr	< 1	µs			
Bandwidth (- 3db)	DC to 150	kHz			

Tech Power electronics
ZI Les plaines - 39570 Courlaoux - FRANCE - Tél. : +33 (0) 384 252 626 - Fax : +33 (0) 384 252 610
SAS au capital de 160 000 € - SIRET 353 587 645 00055 - Code NAF 2711Z - TVA intracommunautaire FR 47 353 587 645
www.techpowerelectronics.com

DIMENSIONS

BJHCS-SH1000



MECHANICAL CARACTERISTICS

Octagonal through hole size	min 38,5 mm / max 40,5 mm
Installation	4 holes ∅ 6,5 mm
General tolerance	± 0,5 mm
Terminal connection	3 flat blades type "FASTON"

Cautions :

- I_S is positive when I_P flows in accordance whith the arrow direction (see the top of the sensor);
- Primary conductor temperature should not exceed 100 ℃;
- Best dynamic performances (di/dt and response time) are achieved with a single electrical conductor completely filling the through hole;
- To achieve the best magnetic coupling, the primary winding must be wound around the top edge of the sensor;
- For the required connection circuit, see the drawing above.

WARNING : Incorrect wiring may cause damage to the sensor.