

PN : HCS-SH

IPN = 1000A

Features

- Closed loop
- High accuracy
- Supply voltage : ± 15 to ± 24 V DC
- Current output
- Through hole primary
- Can be customized

Good linearity
Fast response time
Low temperature drift
High anti-jamming capability
Strong current overload



Applications

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

ELECTRICAL DATA

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

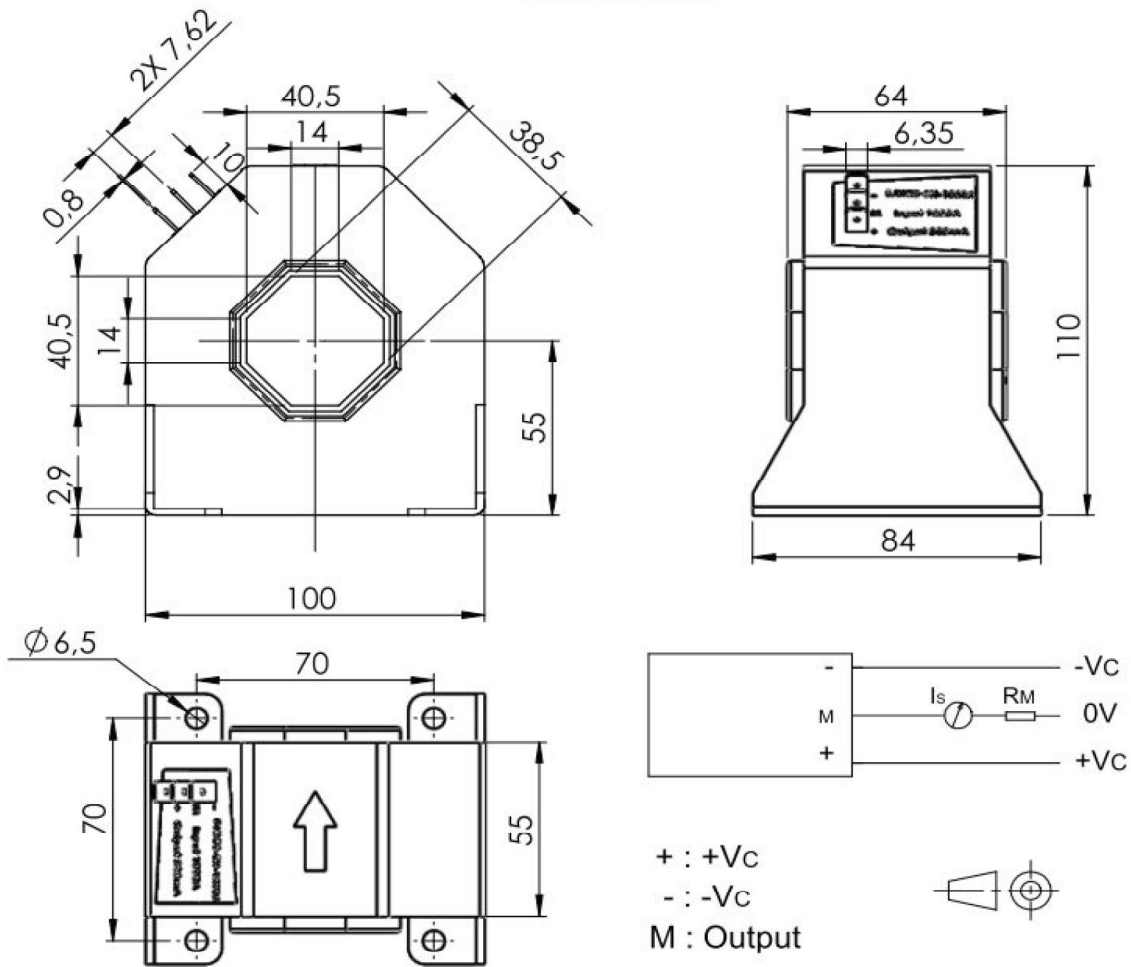
ACCURACY DYNAMIC PERFORMANCE

GENERAL & ISOLATION CHARACTERISTICS

Accuracy X_G @ I_{PN} , T=25°C	$\pm 0,2$	%	Operating temperature	-40 to +85	°C
Zero offset Current I_0 @ $I_P=0$, T=25°C	$\leq \pm 0,2$	mA	Storage temperature	-40 to +125	°C
Zero current drift @ - 40°C to 85°C	$\leq \pm 0,5$	mA	Weight	620	g
Linearity error ϵ_L	$< 0,1$	% FS	Insulation voltage (50Hz, 1mn)	6	KV
di/dt accurately followed	> 100	A/ μ s			
Response time t_r	< 1	μ s			
Bandwidth (- 3db)	DC to 150	kHz			

DIMENSIONS

HCS-SH1000



MECHANICAL CHARACTERISTICS

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

Cautions :

I_s is positive when I_p flows in accordance with the arrow direction (see the top of the sensor);

Primary conductor temperature should not exceed 100 °C;

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.