

PN : BJHCS-AP

IPN = 50A - 100A - 125A - 200A

Features

- Closed loop
- High accuracy
- Good linearity
- Fast response time
- Low temperature drift
- High anti-jamming capability
- Strong current overload
- Supply voltage : ± 12 to $\pm 18V$ DC
- Current output
- Through hole primary
- Can be customized

Applications

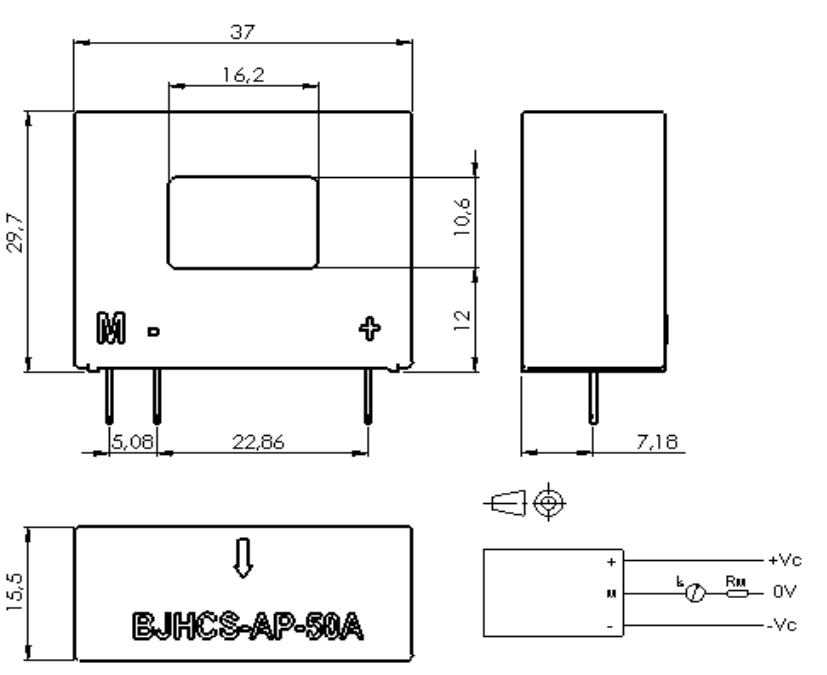
- AC/DC variable speed motor driver
- Battery applications
- Uninterruptible power supplies (UPS)
- Power supplies for welding applications
- Switching power supplies (SMPS)



ELECTRICAL DATA

BJHCS-AP-...		50A	100A	125A	200A
Nominal rms current I_{PN} (A)		50	100	125	200
Sensed current range I_{PM} (A)		± 150	± 300	± 375	± 600
Measuring Resistance with VC = $\pm 15V$, @ $T_A = +75^\circ C$	and @ I_P (A)	± 50	± 100	± 125	± 200
	$R_M \max(\Omega) =$	169	155	58	64
	and @ $I_P \max$ (A)	± 150	± 300	± 375	± 500
	$R_M \max(\Omega) =$	56	42	22	9
Measuring Resistance with VC = $\pm 18V$, @ $T_A = +75^\circ C$	and @ I_P (A)	± 50	± 100	± 125	± 200
	$R_M \max(\Omega) =$	219	205	80	91
	and @ $I_P \max$ (A)	± 150	± 300	± 375	± 600
	$R_M \max(\Omega) =$	75	61	13	10
Coil turns ratio K ($P^N:S^N$)		1:1000	1:2000	1:1000	1:2000
Secondary resistance R_S (Ω) @ $T_A = 75^\circ C$		31	45	31	45
Rated output current I_{SN} (mA)		50	50	125	100
Supply voltage V_C (Vdc)		$\pm 12 \pm 0,5\%$ to $\pm 18 \pm 0,5\%$			
Current consumption I_C (mA)		$10 + I_S$			

ACCURACY DYNAMIC PERFORMANCE			GENERAL & ISOLATION CHARACTERISTICS		
Accuracy X_G @ I_{PN} , $T=25^\circ\text{C}$	$\pm 0,5$	%	Operating temperature range	-40 to +85	$^\circ\text{C}$
Offset current I_0 @ $I_P=0$, $T=25^\circ\text{C}$	$\leq \pm 0,2$	mA	Storage temperature	-40 to +125	$^\circ\text{C}$
Drift of I_0	$\leq \pm 0,005$	mA/ $^\circ\text{C}$	Weight	19	g
Linearity error ε_L	$< 0,1$	% FS	Insulation voltage (50Hz, 1mn)	2,5	KV
di/dt accurately followed	>100	A/ μs	Impulse withstand voltage (1,2/50 μs)	4,5	KV
Response time tr	≤ 1	μs			
Bandwidth	DC to 200	Khz			

DIMENSIONS (mm)	
	

MECHANICAL CHARACTERISTICS	
General tolerance	$\pm 0,2$ mm
Primary square through hole size	12,7 x 7 mm
Terminal connection	3 pins 0,63 X 0,56 mm

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.

WARNING : Incorrect wiring may cause damage to the sensor.