

PN : BJHCS-LT205M/S

IPN = 50A - 100A - 200A - 300A

Features

- Closed loop
- High accuracy
- Good linearity
- Fast response time
- Low temperature drift
- High anti-jamming capability
- Strong current overload
- Supply voltage : ± 12 to ± 18 V 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)



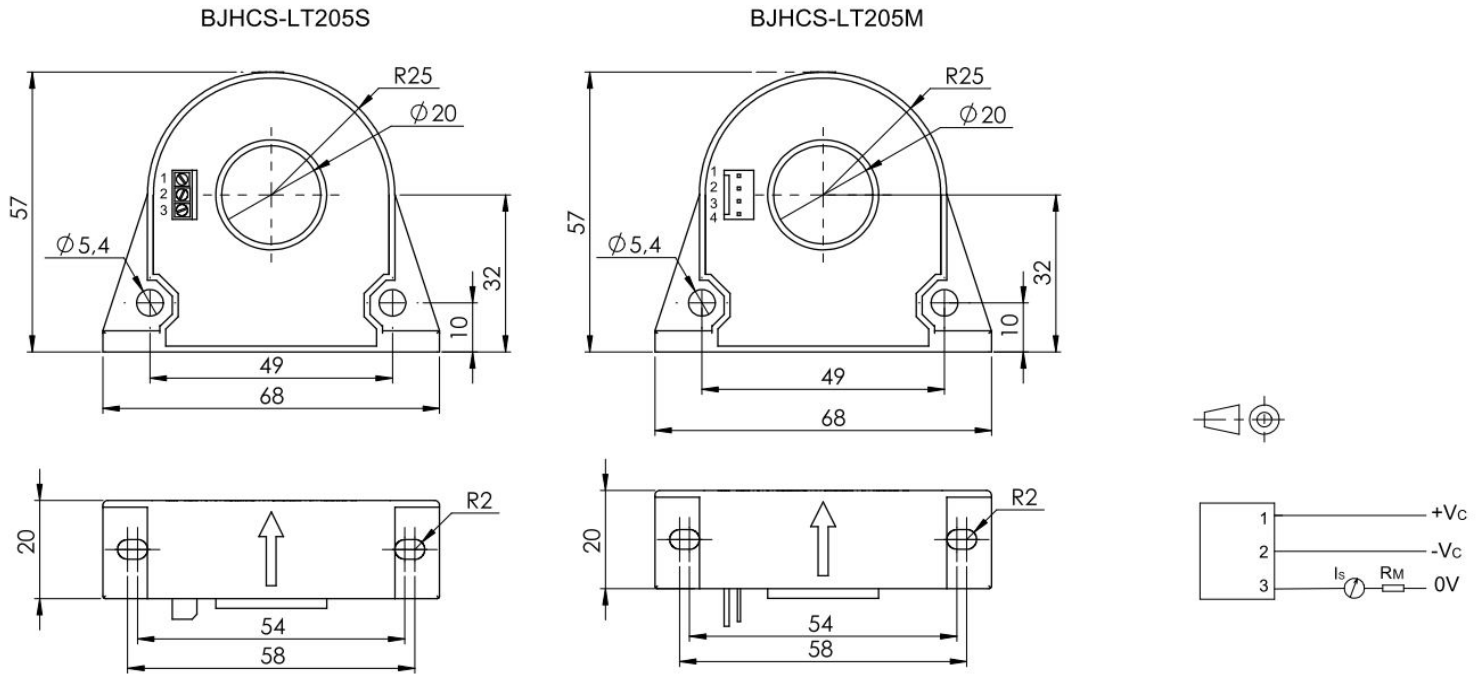
REACH ✓

ELECTRICAL DATA

BJHCS-LT205M/S-...			50A	100A	200A	300A1	300A2
Nominal rms current I_{PN} (A)			50	100	200	300	300
Sensed current range I_{PM} (A)			±150	±300	±600	±600	±900
<i>with $V_C = \pm 18V$ and $R_M (\Omega) =$</i>			<i>100</i>	<i>90</i>	<i>35</i>	<i>35</i>	<i>20</i>
Measuring resistance with $V_C =$	± 12 V	@ ± I_P (A)	50	100	200	300	300
		$R_M \max(\Omega) =$	210	200	90	53	75
		@ ± I_P (A)	100	200	500	500	600
		$R_M \max(\Omega) =$	100	90	22	22	20
	± 15 V	@ ± I_P (A)	50	100	200	300	300
		$R_M \max(\Omega) =$	250	250	120	72	100
		@ ± I_P (A)	100	200	500	500	600
		$R_M \max(\Omega) =$	130	120	36	36	36
Coil turns ratio K ($P^y:S^y$)			1:1000	1:2000	1:2000	1:2000	1:3000
Secondary coil resistance $R_S (\Omega)$			10	20	20	20	34
Rated output current I_{SN} (mA)			50	50	100	150	100
Supply voltage V_C (Vdc)			±12 ^{±5%} to ±18 ^{±5%}				
Static current consumption I_{C0} (mA)			≤ 20				
Current consupion I_C (mA)			20 + I_S				

ACCURACY DYNAMIC PERFORMANCE			GENERAL & ISOLATION CHARACTERISTICS		
Accuracy X_G @ I_{PN} , $T=25^\circ\text{C}$	$\pm 0,5$	%	Operating temperature	-40 to +85	$^\circ\text{C}$
Zero offset Current I_O @ $I_P=0$, $T=25^\circ\text{C}$	$\pm 0,2$	mA	Storage temperature	-40 to +125	$^\circ\text{C}$
Current offset drift I_O @ -40°C to 85°C	$\leq \pm 0,5$	mA	Weight	70	g
Linearity error ε_L	$\leq 0,1$	% FS	Insulation voltage (50Hz, 1mn)	6	KV
di/dt accurately followed	> 200	A/ μs			
Response time t_r	< 1	μs			
Bandwidth (-1db)	DC to 100	kHz			

DIMENSIONS



MECHANICAL CHARACTERISTICS

General tolerance		$\pm 0,5 \text{ mm}$
Through hole dimension		$\varnothing 20 \text{ mm}$
Transducer fastening		2 holes $\varnothing 5,4 \text{ mm}$
Terminal connection	BJHCS-LT205M	Molex 5045-04A
	BJHCS-LT205S	Terminal block 3 screw, 5mm pitch

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.