

**PN : BJHCS-LT305M/S**

**IPN = 300A - 400A - 500A**

### Features

- Closed loop
- High accuracy
- Good linearity
- Fast response time
- Low temperature drift
- High anti-jamming capability
- Strong current overload
- Supply voltage :  $\pm 15$  to  $\pm 24$ 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)



### ELECTRICAL DATA

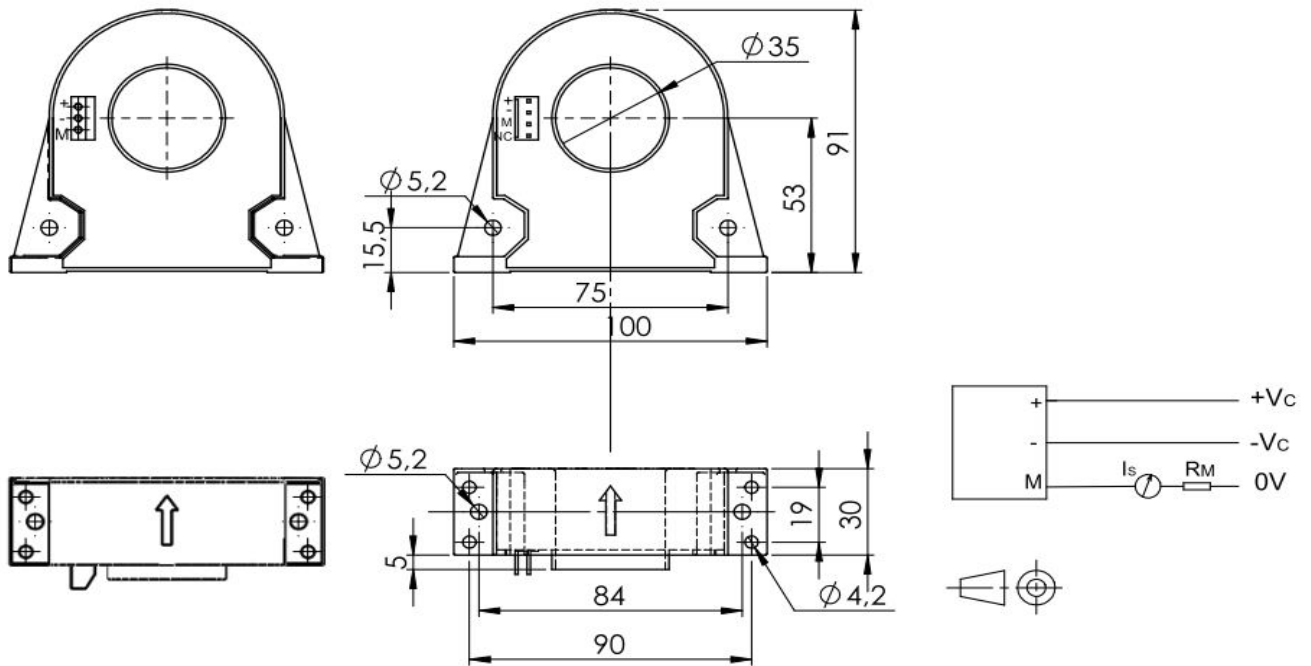
ELECTRICAL DATA							
BJHCS-LT305M/S-...		300A		400A		500A	
Nominal rms current $I_{PN}$ (A)		300		400		500	
Sensed current range $I_{PM}$ (A) with $V_C = \pm 24$ V		$\pm 900$		$\pm 1200$		$\pm 1500$	
<i>and <math>R_M</math> (<math>\Omega</math>) =</i>		43		39		30	
Measuring resistance with $V_C =$	$\pm 15$ V	@ $\pm I_P$ max (A)	300	400	500		
		$R_M$ max( $\Omega$ ) =	110	110	100		
		@ $\pm I_P$ max (A)	600	800	1000		
		$R_M$ max( $\Omega$ ) =	36	36	25		
	$\pm 18$ V	@ $\pm I_P$ max (A)	300	400	500		
		$R_M$ max( $\Omega$ ) =	130	130	120		
		@ $\pm I_P$ max (A)	600	800	1000		
		$R_M$ max( $\Omega$ ) =	51	51	39		
Coil turns ratio K ( $P^Y:S^Y$ )		1:3000		1:4000		1:5000	
Secondary coil resistance $R_S$ ( $\Omega$ )		31		35		45	
Rated output current $I_{SN}$ (mA)				100			
Supply voltage $V_C$ (Vdc)				$\pm 15^{\pm 5\%}$ to $\pm 24^{\pm 5\%}$			
Static current consumption $I_{C0}$ (mA)				$\leq 25$			
Current consumption $I_C$ (mA)				$25 + I_S$			

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 $I_0$ @ $I_P=0$ , $T=25^\circ\text{C}$	$\leq \pm 0,2$	mA	Storage temperature	-40 to +125	$^\circ\text{C}$
Current offset drift $I_0$ @ $-40^\circ\text{C}$ to $85^\circ\text{C}$	$\leq \pm 0,5$	mA	Weight	295	g
Linearity error $\varepsilon_L$	$< 0,1$	% FS	Insulation voltage (50Hz, 1mn)	6	KV
di/dt accurately followed	$> 100$	A/ $\mu\text{s}$			
Response time $t_r$	$< 1$	$\mu\text{s}$			
Bandwidth (-3db)	DC to 100	kHz			

## DIMENSIONS

BJHCS-LT305S

BJHCS-LT305M



## MECHANICAL CHARACTERISTICS

General tolerance		$\pm 0,5$ mm
Through hole dimension		$\varnothing 35$ mm
Transducer fastening		Holes $\varnothing 5,2$ or $\varnothing 4,2$ 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  $100^\circ\text{C}$
- 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, see the drawing above

WARNING : Incorrect wiring may cause damage to the sensor.



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Components

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