

**PN : BJHCS-LF1005**

**IPN = 500A - 1000A**

### 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

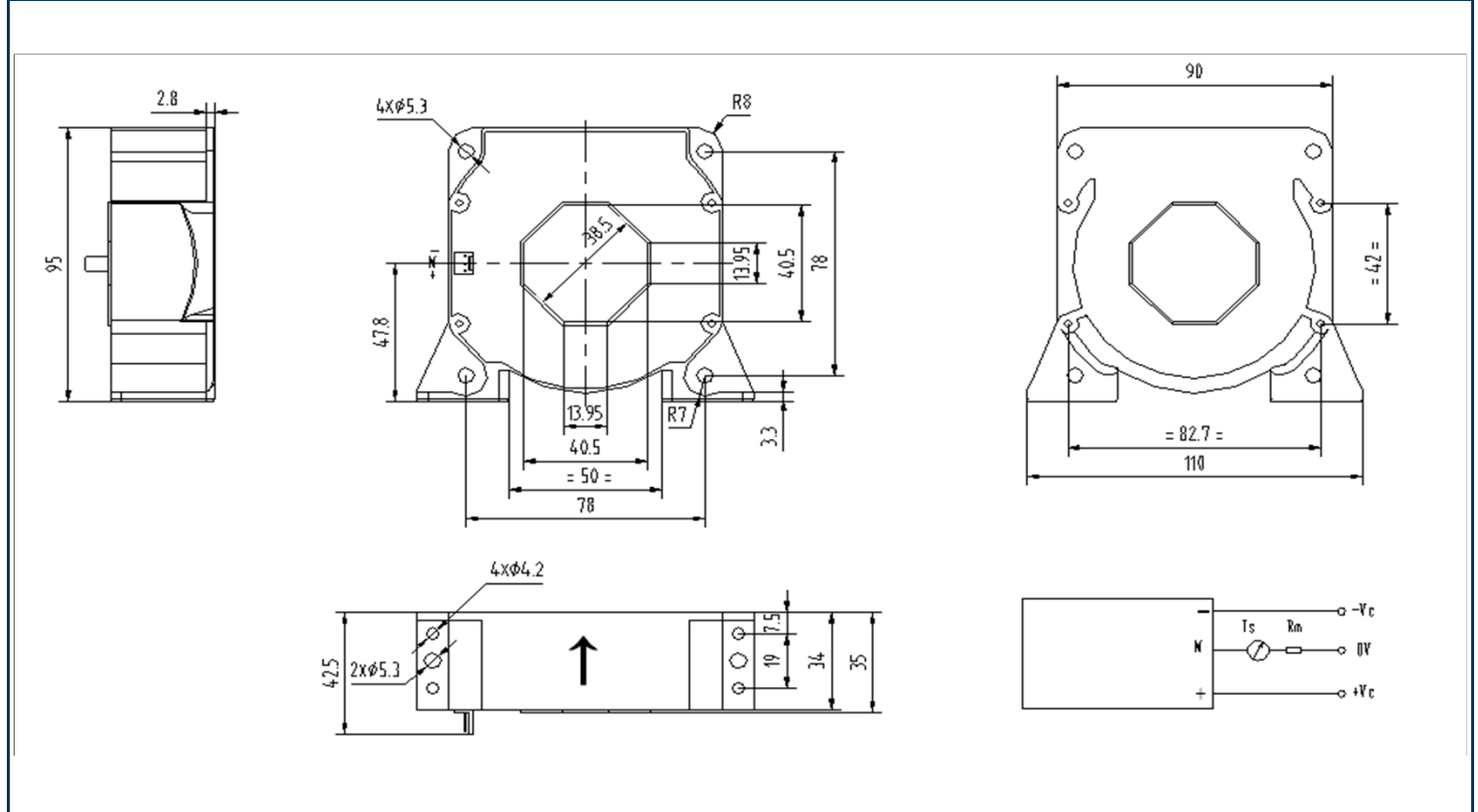


### ELECTRICAL DATA

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BJHCS-LF1005-...		500A	1000A
Nominal rms current $I_{PN}$ (A)		500	1000
Sensed current range $I_{PM}$ (A)		$\pm 1200$	$\pm 1500$
Measuring resistance with $V_C =$	$\pm 15$ V	$@ \pm I_P$ (A)	500
		$R_M \max(\Omega) =$	100
		$@ \pm I_P \max$ (A)	1200
		$R_M \max(\Omega) =$	19
	$\pm 24$ V	$@ \pm I_P$ (A)	500
		$R_M \max(\Omega) =$	180
		$@ \pm I_P \max$ (A)	1200
		$R_M \max(\Omega) =$	52
Coil turns ratio K ( $P^y:S^y$ )		1:5000	
Secondary coil resistance $R_S$ ( $\Omega$ )		39	
Rated output current $I_{SN}$ (mA)		100	200
Supply voltage $V_C$ (Vdc)		$\pm 12^{\pm 5\%}$ to $\pm 24^{\pm 5\%}$	
Static current consumption $I_{CO}$ (mA)		$\leq 28$	
Current consumption $I_C$ (mA)		$28 + I_S$	

ACCURACY DYNAMIC PERFORMANCE			GENERAL & ISOLATION CHARACTERISTICS		
Accuracy $X_G$ @ $I_{PN}$ , $T=25^{\circ}\text{C}$	$\pm 0,2$	%	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 @ $-40^{\circ}\text{C}$ to $85^{\circ}\text{C}$	$\leq \pm 0,5$	mA	Weight	510	g
Linearity error $\epsilon_L$	$\leq 0,1$	% 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 150	kHz			

## DIMENSIONS



## MECHANICAL CHARACTERISTICS

General tolerance	$\pm 0,5$ mm	
Octagonal through hole size	min 38,5 mm / max 40,5 mm	
Transducer fastening	vertical installation	4 holes $\varnothing 4,2$ and 4 holes $\varnothing 5,3$ mm
	horizontal installation	4 holes $\varnothing 5,3$ mm
Terminal connection	Molex 6410	

- 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.

**WARNING : Incorrect wiring may cause damage to the sensor.**



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