

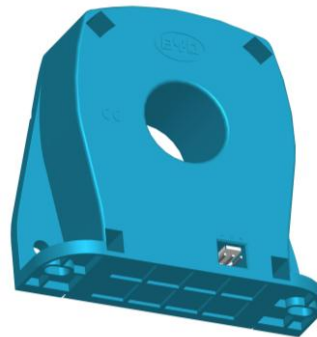


Description

For the electronic measurement of currents: DC, AC, pulsed, mixed, with a galvanic isolation between the primary circuit (high power) and the secondary circuit (electronic circuit).

Features

- ◆ Hall effect measuring principle
- ◆ Galvanic isolation between primary and secondary circuit
- ◆ Low power consumption
- ◆ Extended measuring range
- ◆ Insulated plastic case recognized according to UL 94-V0



$$I_{PN} = 500A$$

Advantages

- ◆ Excellent linearity
- ◆ High accuracy
- ◆ Low temperature drift
- ◆ Wide frequency bandwidth
- ◆ Rapid response time
- ◆ No insertion losses
- ◆ High immunity against external interference
- ◆ Excellent performance and price

Industrial applications

- ◆ AC variable speed drives
- ◆ Battery supplied applications
- ◆ Uninterruptible Power Supplies (UPS)
- ◆ Power supplies for welding applications
- ◆ Static converters for DC motor drives
- ◆ Switched-Mode Power Supplies (SMPS)

TYPES OF PRODUCTS				
Type	Primary nominal current r. m. s I_{PN} (A)	Primary current measuring range I_P (A)	Measuring resistance R_M (Ω) @ $T_A = 70^\circ\text{C}$	
BSX2-500ICV3HA	500	0~ ± 1200	0~75	with $\pm 15V$ @ $\pm 500A_{max}$
			0~10	with $\pm 15V$ @ $\pm 1000A_{max}$
			0~100	with $\pm 18V$ @ $\pm 500A_{max}$
			0~5	with $\pm 18V$ @ $\pm 1200A_{max}$

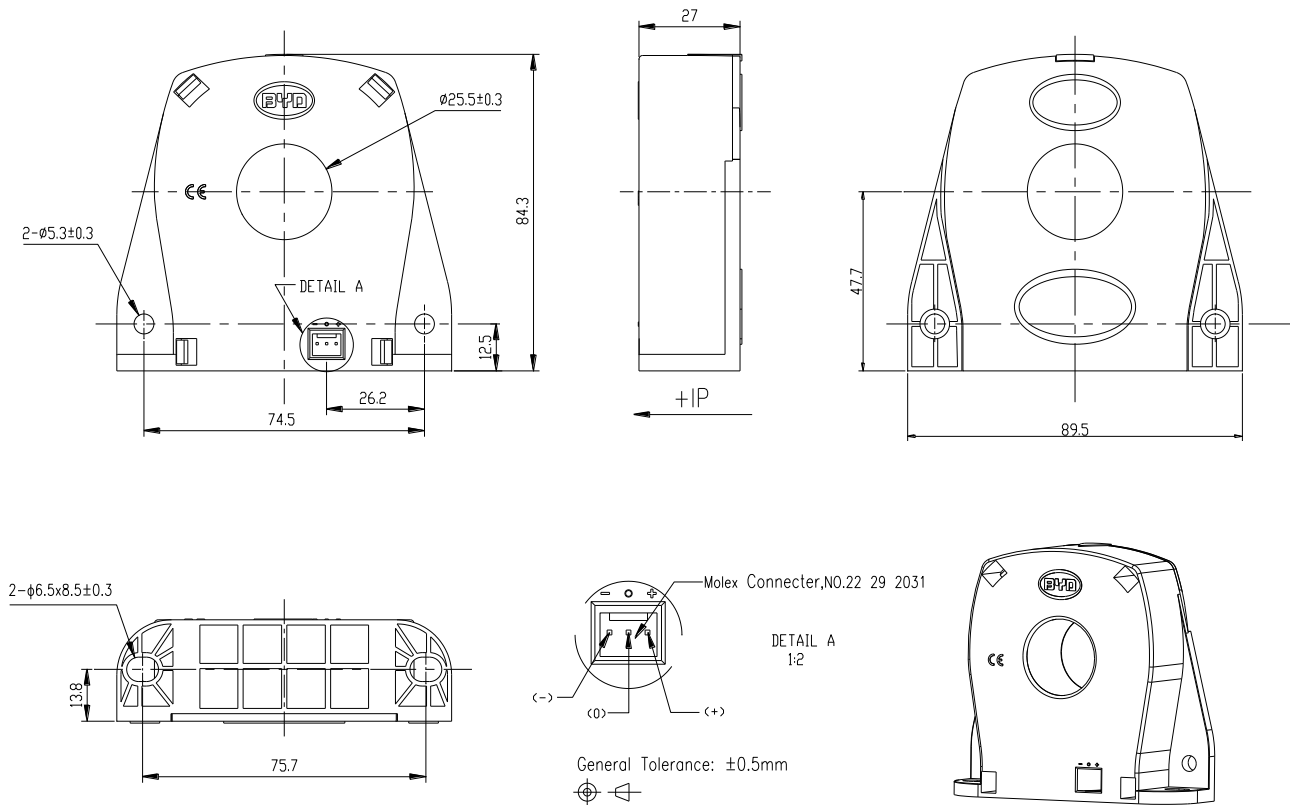
**Parameters Table**

PARAMETERS	SYMBOL	UNIT	VALUE	CONDITIONS
Electrical data				
Supply voltage ($\pm 5\%$)	V_C	V	$\pm 15 \sim 18$	
Current consumption	I_C	mA	$20 + I_s$	
Secondary nominal r. m. s. current	I_{SN}	mA	100	
Conversion ratio	K_N		1:5000	
R. m. s voltage for AC isolation test	V_d	KV	6	@ 50Hz, 1 min
Accuracy - Dynamic performance data				
Linearity	ϵ_L	%	$< \pm 0.1$	
Accuracy	X_G	%	$< \pm 0.5$	@ I_{PN} , $T_A = 25\text{ }^\circ\text{C}$
Offset current	I_o	mA	$< \pm 0.1$	@ $I_P = 0$, $T_A = 25\text{ }^\circ\text{C}$
Thermal drift of I_o	I_{OT}	mA	$< \pm 0.3$	@ $I_P = 0$, $-20\text{ }^\circ\text{C} \sim +85\text{ }^\circ\text{C}$
Response time	t_r	μS	< 1	@ 90% of I_{PN} step
d_i/d_t accurately followed	d_i/d_t	A/ μS	> 100	
Frequency bandwidth ⁽¹⁾	BW	kHz	DC~100	@ -3dB
General data				
Ambient operating temperature	T_A	$^\circ\text{C}$	$-40 \sim +105$	
Ambient storage temperature	T_S	$^\circ\text{C}$	$-40 \sim +125$	
Secondary coil resistance	R_s	Ω	60	@ $T_A = 70\text{ }^\circ\text{C}$
			70	@ $T_A = 125\text{ }^\circ\text{C}$

Notes:

- (1) Please refer to derating curves in the technical file to avoid excessive core heating at high frequency.

Dimensions BSX2-500ICV3HA (in mm. 1 mm = 0.0394 inch)



◆ Instructions of use

1. When the test current passes through the sensor, you can get the size of the output current.
(Warning: wrong connection may lead to sensors damage.)
2. According to user needs, different rated input currents and output currents of the sensors can be customized.

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