

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



$I_{PN} = 100 \dots 300 \text{ A}$

Advantages

- ◆ Very good linearity
- ◆ Excellent accuracy
- ◆ Low temperature drift
- ◆ Wide frequency bandwidth
- ◆ Optimized 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)	
BCF3-100ICV2H	100	0~±150	0~187	with±15V@±100Amax
			0~112	with±15V@±150Amax
BCF3-200ICV2H	200	0~±300	0~80	with±15V@±200Amax
			0~42	with±15V@±300Amax
BCF3-300ICV2H	300	0~±500	0~40	with±15V@±300Amax
			0~13	with±15V@±500Amax



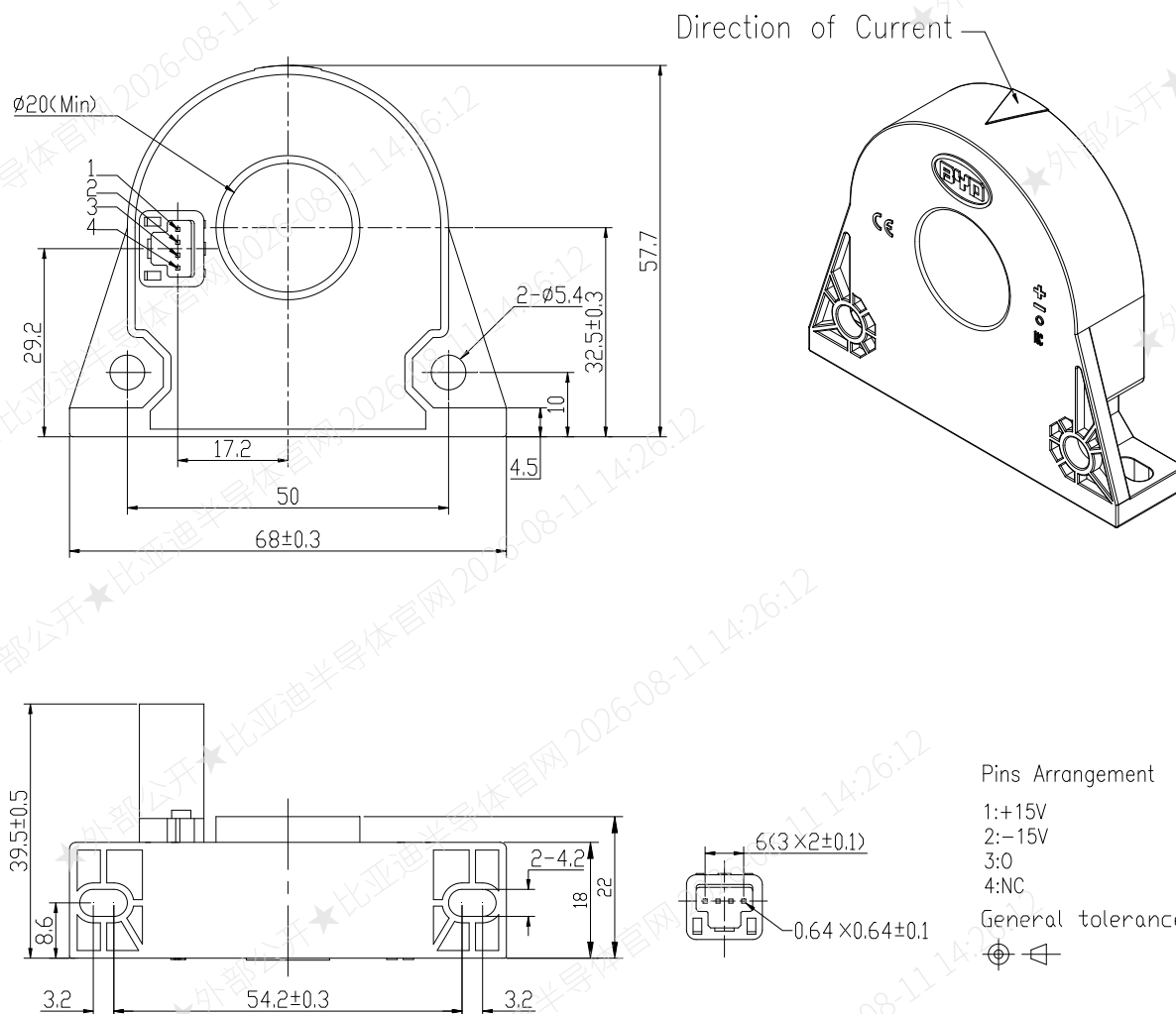
Parameters Table

PARAMETERS	SYMBOL	UNIT	VALUE	CONDITIONS
Electrical data				
Supply voltage($\pm 5\%$)	V_C	V	± 15	
Current consumption	I_C	mA	$22+I_S$	
Secondary nominal r.m.s. current	I_{SN}	mA	50	$I_{PN} = 100A$
			100	$I_{PN} = 200A$
			150	$I_{PN} = 300A$
Conversion ratio	K_N		1:2000	
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} , $T_A = 25^\circ C$
Offset current	I_O	mA	$< \pm 0.15$	@ $I_P = 0$, $T_A = 25^\circ C$
Thermal drift of I_O	I_{OT}	mA	$< \pm 0.6$	@ $I_P = 0$, $-10^\circ C \sim +70^\circ C$
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	$^\circ C$	$-40 \sim +105$	
Ambient storage temperature	T_S	$^\circ C$	$-40 \sim +105$	
Secondary coil resistance	R_S	Ω	28	@ $T_A = 70^\circ C$

Notes:

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

Dimensions BCF3-ICV2H (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.

**RESTRICTIONS ON PRODUCT USE**

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