

$I_{PN} = 100...300A$

**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

**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)

| <b>TYPES OF PRODUCTS</b> |  |   |  |
|--------------------------|--|---|--|
| <b>Type</b>              | <b>Primary nominal current<br/>r. m. s <math>I_{PN}</math> (A)</b> | <b>Primary current measuring range<br/><math>I_P</math> (A)</b> | <b>Measuring resistance<br/><math>R_M</math> (<math>\Omega</math>)</b> |
| SICF3SV2                 | 100  | 0~±150  | 0~187 with±15V@±100Amax  |
|                          |  |   | 0~112 with±15V@±150Amax  |
| SICF3SV2                 | 200  | 0~±300  | 0~80 with±15V@±200Amax   |
|                          |  |   | 0~42 with±15V@±300Amax   |
| SICF3SV2                 | 300  | 0~±500  | 0~40 with±15V@±300Amax   |
|                          |  |   | 0~13 with±15V@±500Amax   |

## General 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)

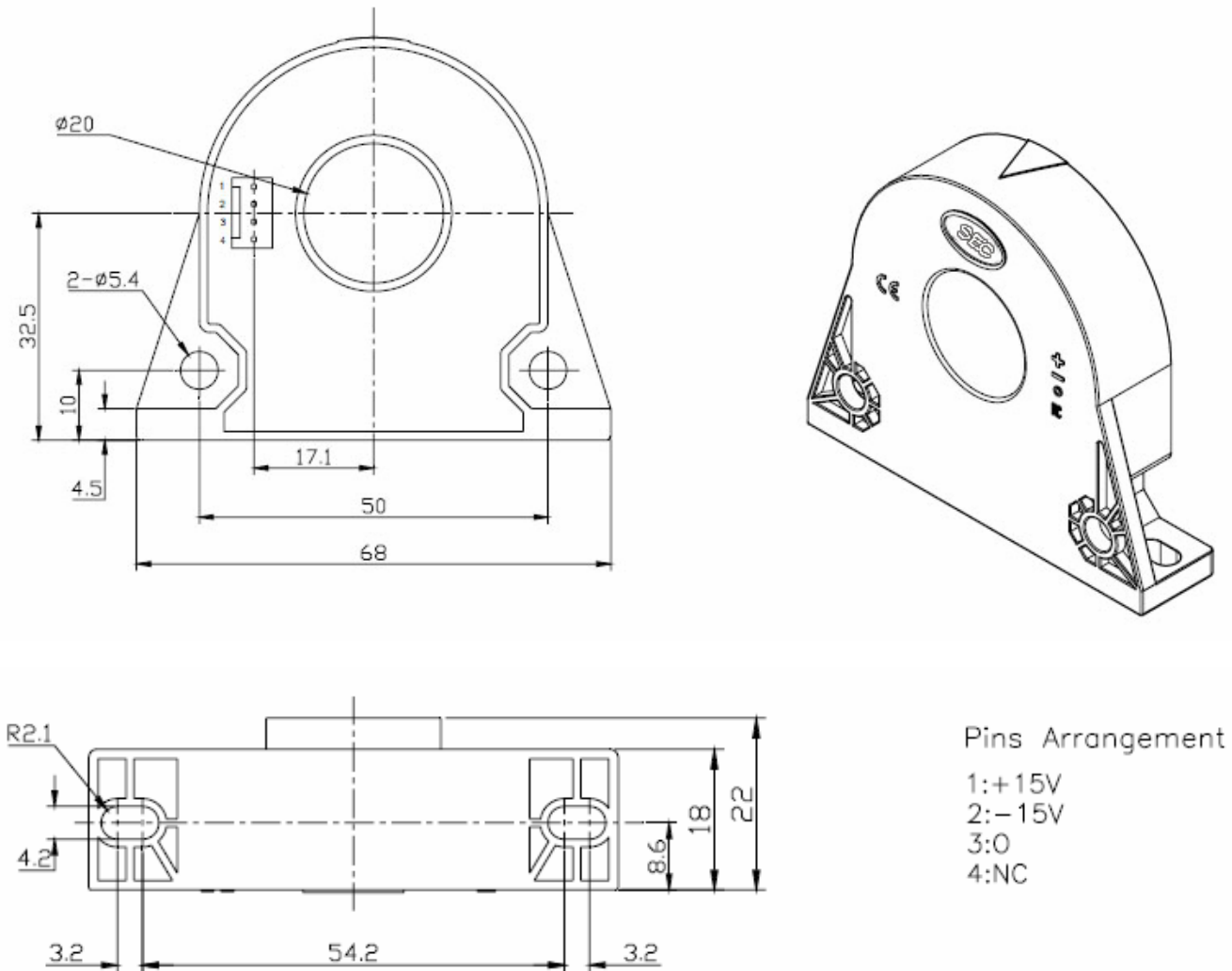
## Parameters Table

| PARAMETERS                                 | SYMBOL       | UNIT       | VALUE      | CONDITIONS                        |
|--|--------------|------------|------------|-----------------------------------|
| <b>Electrical data</b>                     |              |            |            |                                   |
| Supply voltage( $\pm 5\%$ )                | $V_C$        | V          | $\pm 15$   |                                   |
| 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                      |
| <b>Accuracy - Dynamic performance data</b> |              |            |            |                                   |
| Linearity                                  | $\epsilon_L$ | %          | $<\pm 0.1$ |                                   |
| Accuracy                                   | $X_G$        | %          | $<\pm 0.5$ | @ $I_{PN}$ , $T_A = 25^\circ C$   |
| Offset current                             | $I_O$        | mA         | $<\pm 0.2$ | @ $I_P = 0, T_A = 25^\circ C$     |
| Thermal drift of $I_o$                     | $I_{OT}$     | mA         | $\pm 0.6$  | @ $I_P = 0, -10 \sim +70^\circ C$ |
| Response time                              | $t_r$        | $\mu S$    | $< 1$      | @ 90% of $I_{PN}$ step            |
| di/dt accurately followed                  | $d_i/dt$     | A/ $\mu S$ | $> 100$    |                                   |
| Frequency bandwidth (1)                    | BW           | kHz        | DC~100     | @-3dB                             |
| <b>General data</b>                        |              |            |            |                                   |
| Ambient operating temperature              | $T_A$        | $^\circ C$ | -40 ~ +85  |                                   |
| Ambient storage temperature                | $T_S$        | $^\circ C$ | -40 ~ +105 |                                   |
| Secondary coil resistance                  | $R_s$        | $\Omega$   | 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 SICF3SV2** (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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