

Split Core Hall effect Current Sensor

SCY7



Product description

Features

- Based on Hall effect measurement principle, open loop circuit mode.
- The isolation voltage between primary and secondary is greater than 3000VAC.
- Can be opened and closed up and down, no need to disassemble the busbar, easy to install.
- Comply with UL94-V0 flame retardant rating.

Performance

- It can measure DC, AC, pulse, and various irregular waveform currents of cable conductors under isolation conditions.
- Wide measurement range, fast response speed, low zero drift, low temperature drift, high accuracy and good linearity.
- Dynamic performance (di/dt and response time) is optimal when the busbar is fully filled with primary perforations.
- Strong ability to resist external electromagnetic interference (BCI, EFT, CS, CE, ESD, dv/dt, etc.).

Application

- It can be widely used in communication power supply, UPS, photovoltaic inverter, electric vehicle drive and other products.

Implementation standards

- GB/T 7665-2005
- JB/T 7490-2007
- JB/T 25480-2010
- JB/T 9473-2020
- SJ 20792-2000

Certification



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Technical Parameters

| Model | SCY7T- | | | | | | |
|---|--------|-------|--------|--------|--------|--------|--------|
| | 200A | 300A | 500A | 800A | 1000A | 1500A | 2000A |
| Parameters (25°C) | 200A | 300A | 500A | 800A | 1000A | 1500A | 2000A |
| Primary Current (A) I _{PN} | 200A | 300A | 500A | 800A | 1000A | 1500A | 2000A |
| Primary Current Max. Peak Value (A) I _{PM} | ±600A | ±900A | ±1500A | ±2400A | ±3000A | ±3000A | ±3000A |
| Output voltage (V) V _{out} @±I _{PN} , R _L =10KΩ | ±4V±1% | | | | | | |

Electrical Data

| Item | Min. | Typical | Max. | Unit |
|--|--|---------|-------|------------------|
| Input power supply voltage range V _c (±5%) (Remark 1, Remark 2) | ±11 | ±15 | ±18 | V _{DC} |
| Current consumption I _c | - | ±15 | ±20 | mA |
| Withstand resistance R _{INS} @500V DC | 1000 | - | - | MΩ |
| Output voltage V _{out} @I _{PN} , R _L =10KΩ, T _A =25°C | $V_{OUT} = 4.04 * \frac{R_L}{102 + R_L} * \frac{I_P}{I_{PN}} + V_{OE}$ | | | V |
| Output internal resistance R _{OUT} | - | 102 | - | Ω |
| Load Resistance R _L (Remark 3) | 1 | 10 | - | KΩ |
| Accuracy X @I _{PN} , T _A =25°C | - | ±1 | - | % |
| Linearity ε _L @R _L =10KΩ, T _A =25°C | - | ±1 | - | %I _{PN} |
| Offset voltage V _{OE} @T _A =25°C | - | ±20 | ±25 | mV |
| Hysteresis voltage V _{OM} @ I _{PN} →0 | - | ±10 | ±20 | mV |
| Temperature Coefficient of Offset Voltage TCV _{OE} | - | ±0.5 | ±1 | mV/°C |
| Output voltage temperature coefficient TCV _{out} | - | ±0.08 | ±0.15 | %/°C |
| Response time t _D @ 0→I _{PN} (Remark 4) | - | 3 | 5 | us |
| Ambient operating temperature T _A | -40 | 25 | 125 | °C |
| Ambient storage temperature T _s | -40 | 25 | 125 | °C |
| Withstand voltage V _D @50Hz,60s,0.1mA | | 3000 | | V _{AC} |
| Weight m | | 240 | | g |

Remarks:

1. VC is less than the minimum value, which will lead to inaccurate measurement, VC is greater than the maximum value, which may cause permanent failure of the measurement device.

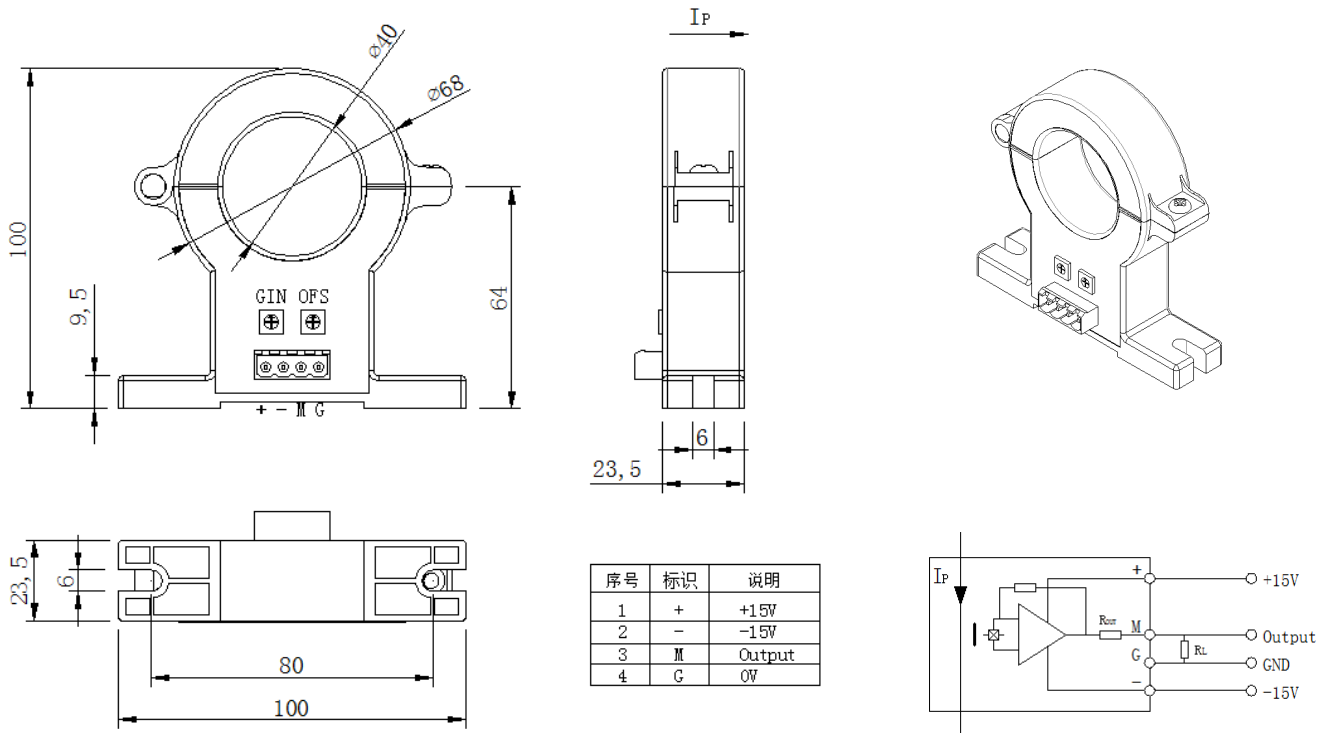
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2. When $\pm 12V < VC < \pm 15V$, the measurement range will be reduced.

Dimensions (in mm)



Notes:

1. Size error: ± 1 mm;
2. Primary aperture: $\phi 40$ mm;
3. Output terminal: 2EDGVC-5.08-4P

Mating plug: 2EDGK-5.08-4P;

4. The I_P indication direction is the positive direction of the current, OFS is the zero adjustment, and GIN is the output regulation;
5. Incorrect wiring may cause damage to the sensor.