

## 产品说明

## Applications

该磁平衡式霍尔电流传感器适用于对交流、直流和脉动电流的隔离精确测量，测量时一次侧与二次侧之间完全绝缘。

For the electronic measurement of currents: AC, DC IMPL.,etc.,with galvanic isolation between the primary (high power) and the secondary (electronic) circuits.

| 产品优点 Advantages              | 产品应用 Applications                  | 参照标准 Standards |
|------------------------------|------------------------------------|----------------|
| 高精度 Excellent accuracy       | 交流变频器 AC variable speed drives     | EN50178        |
| 线性度好 Very good linearity     | 电池供电 Battery supplied applications | EN50155        |
| 低温漂 Low temperature drift    | 变流器/逆变器 converter /inverter        |                |
| 宽频带 Wide frequency bandwidth | UPS/SVG                            |                |
| 快速响应 Optimized response time |                                    |                |

## 主要电气参数 Main electrical data

|                       |  |  |
|-----------------------|--|--|
| 额定测量电流 $I_{PN}$ (A)   | Primary nominal current rms  | 50                                       |
| 测量范围 $I_P$ (A)        | Primary current measuring range                                      | 0~±170                                   |
| 匝比                    | Conversion ratio   | 1:1000                                   |
| 电源电压 $V_C$ (V)        | Supply voltage   | +/-12V~+/-15V(+/-5%)                     |
| 额定测量输出 $I_{SN}$ (mA)  | Secondary nominal current rms  | 150mA                                    |
| 测量电阻 $R_M$ (Ω)        | Measuring resistance   |  |
|                       | $R_{Mmin}$ $R_{Mmax}$  |  |
|                       | @±12V, ±50A: 0Ω      140Ω  |  |
|                       | @±12V, ±70A: 0Ω      70Ω   |  |
|                       | @±12V, ±50A: 0Ω      200Ω  |  |
|                       | @±15V, ±70A: 0Ω      110Ω  |  |
| 二次侧电流消耗 $I_C$ (@±15V) | Current consumption  | ≤25mA+ Secondary output current $I_{SN}$ |
| 隔离耐压                  | Isolation test: Between the primary circuit to the secondary circuit | 6 kVrms/50Hz/1min                        |

## 精度 - 动态参数 Accuracy - Dynamic performance data

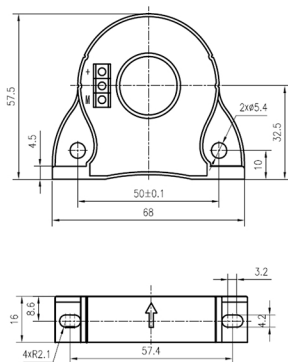
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|--|------------------|---------|
| 基本误差 $\delta_i$<br>(@ $I_{PN}$ , $T_A=25^\circ\text{C}$ )  | Overall Accuracy | ≤±0.8%  |
| 线性度误差 $\delta_L$<br>(@ $I_{PN}$ , $T_A=25^\circ\text{C}$ ) | Linearity error  | <0.1%   |
| 零点输出电流 $I_o$<br>(@ $I_P=0$ , $T_A=25^\circ\text{C}$ )      | Offset current   | ≤±0.2mA |

|               |                                       |  |
|---------------|---------------------------------------|--|
| 零点温漂 $I_{or}$ | Thermal drift                         | $\leq \pm 0.6\text{mA}$ ( $-25^{\circ}\text{C}\sim+85^{\circ}\text{C}$ ) |
| 响应时间 $t_r$    | Response time to 90% of $I_{PN}$ step | $\leq 1\mu\text{s}$  |
| di/dt 精确度     | di/dt Accurately followed             | $> 50\text{A}/\mu\text{s}$   |
| 频率带宽 BW       | Frequency bandwidth(-1dB)             | DC..100kHz   |

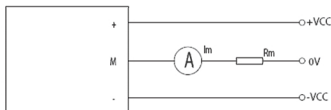
### 一般数据 General data


|            |                               |  |
|------------|-------------------------------|--|
| 工作温度 $T_a$ | Ambient operating temperature | $-25^{\circ}\text{C}\sim+85^{\circ}\text{C}$ |
| 储存温度 $T_s$ | Ambient storage temperature   | $-40^{\circ}\text{C}\sim+90^{\circ}\text{C}$ |
| 重量 $m$     | Mass                          | $\leq 100\text{g}$                           |

### 外形图 Dimensions (in mm)



### 电气连接 Connection



|  |  |   |
|--|--|---|
| <p>未注公差<br/>General tolerance</p>                              | <p>±1 mm</p>   | <p>1. 当测量电流方向与传感器上标示的  方向一致时，传感器输出 <math>I_{SN}</math> 为正。When measuring the current direction of arrow mark on direction and sensor, the sensor output <math>I_{SN}</math> is positive.</p> |
| <p>传感器安装方式一(推荐)<br/>Transducer fastening<br/>(Recommended)</p> | <p>2 hole <math>\varnothing</math>4.2mm<br/>2 M4 steel screws</p>  | <p>2. 产品二次侧连接线优选屏蔽线，屏蔽层接近产品端连接线可接机壳，负电源或电源 0V。Product secondary side connecting line optimization shielding wire, cable shielding layer close to the product end can connect chassis, negative power or power 0 v.</p>  |
| <p>传感器安装方式二(推荐)<br/>Transducer fastening<br/>(Recommended)</p> | <p>2 hole <math>\varnothing</math> 5.4mm<br/>2 M5 steel screws</p> | <p>3. 电量传感器安装螺孔的垂直度要求：要求在国家标准 8 级或以上(或 0.06 以下)。Power sensor mounting screw hole of the vertical degree requirements: requirements in the national standard grade 8 or above (or below 0.06).</p>   |
| <p>推荐力矩<br/>Recommended fastening torque</p>                   | <p>2.5 N · m</p>   | <p>4. 电量传感器安装面平面度要求：Sensor mounting surface flatness requirements:<br/>(a)大平面安装平面度国家标准 11 级或以上（或平面起伏小于 0.25mm）； Planeness national standard installation grade 11 or above (or surface fluctuation is less than 0.25 mm);</p>   |
| <p>母排尺寸(推荐)<br/>Bus bar (Recommended)</p>                      | <p><math>\varnothing</math>15mm</p>                                | <p>(b)安装面加有小圆凸台设计时平面度要求达国家标准 12 级或以上（或平面起伏小于 0.5mm）； When mounting surface with a small round convex platform design flatness requirement of national standard grade 12 or more (or less than 0.5 mm) in plane ups and downs;</p>   |
| <p>次边电气连接<br/>Connection of secondary</p>                      | <p>Three core<br/>pressure coupling</p>                            | <p>5. 未注公差±1mm； Did not note the tolerance + / - 1 mm;</p>  |