

产品说明

Applications

NACL2000B1-S5/SP1 磁平衡霍尔电流传感器适用于对交流、直流、脉冲电流的隔离精确测量，测量时一次侧与二次侧间完全绝缘。

For the electronic measurement of currents: AC, DC, pulsed ..., with galvanic separation between the primary circuits and the secondary 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	GB/T 25119-2010 EN50178 EN50155
线性度好 Very good linearity	私服电机驱动 Servo motor drives	
低温漂 Low temperature drift	电池供电 Battery supplied applications	
宽频带 Wide frequency bandwidth	变流器/逆变器 converter /inverter	
快速响应 Optimized response time	UPS/SVG	

主要电气参数 Main electrical data

(@ ±I<sub>PN</sub>, T<sub>A</sub> = 25 °C)

额定测量电流 I <sub>PN</sub>	Primary nominal current	2000A
测量范围 I <sub>PM</sub>	Primary current measuring range	± 3800A
电源电压 V <sub>C</sub>	Supply voltage	DC ± (15~24) × (± 5%)V
电流消耗 I <sub>C</sub> (@±24V)	Current consumption	≤ ± 30mA + I <sub>SN</sub>
额定测量输出 I <sub>SN</sub>	Output current	500mA
匝比	Conversion ratio	1:4000
负载电阻 R <sub>M</sub>	Load resistance	@±15V, ±2200A: 0Ω~8Ω @±15V, ±2400A: 0Ω~4.5Ω @±24V, ±2000A: 3Ω~25Ω @±24V, ±3800A: 3Ω~5.5Ω

精度 - 动态参数 Accuracy - Dynamic performance data

基本误差 δ <sub>i</sub> (@I <sub>PN</sub> , T <sub>A</sub> =25 °C)	Overall Accuracy	≤ ± 0.5%
线性度 δ <sub>L</sub> (@I <sub>PN</sub> , T <sub>A</sub> =25 °C)	Linearity error	≤ ± 0.1%
零点输出电流 I <sub>O</sub> (@I <sub>P</sub> =0, T <sub>A</sub> = 25 °C)	Offset current	≤ ± 0.4mA
零点温度漂移 I <sub>OT</sub>	Thermal drift	≤ ± 0.5mA(-25~+85 °C)
响应时间 T <sub>R</sub> (90% of I <sub>PN</sub> & di/dt > 50 A/μs)	Step response time to 90 % of I <sub>PN</sub>	≤ 1μs

一般数据 General data

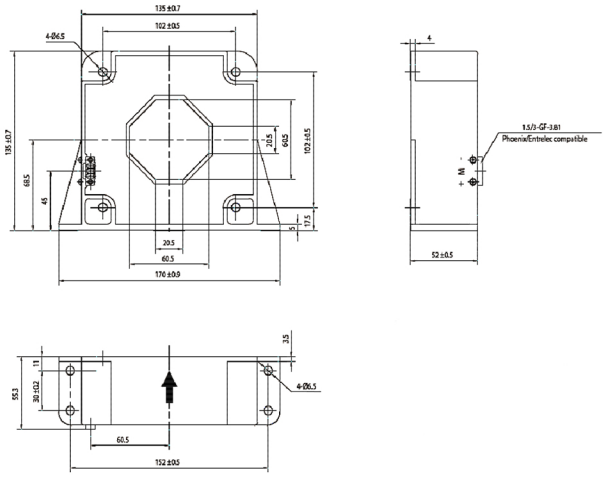
工作温度 T <sub>a</sub>	Ambient operating temperature	-25~+85 °C
储存温度 T <sub>s</sub>	Ambient storage temperature	-40~+90 °C

重量 m	Mass	≤1500g
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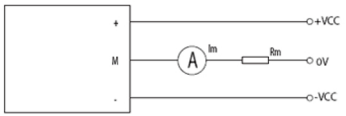
**绝缘耐压 Insulation coordination**

耐压	Voltage for AC insulation test, 50Hz, 1min	3kV
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**NACL.2000B1-S5/SP1 电流传感器外形图 Dimensions NACL.2000B1-S5/SP1 Series (in mm)**



**电气连接 Connection**



1. 传感器安装孔径:  $4 \times \phi 6.5\text{mm}$   
Sensors installed aperture:  $4 \times \phi 6.5\text{ mm}$
2. 推荐使用: M6 螺栓固定  
It is recommended to use: M6 bolt
3. 安装固定力矩:  $4.5\text{N} \cdot \text{m}$   
The installation of fixed torque:  $4.5\text{ N} \cdot \text{m}$
4. 原边通孔:  $\phi 60.5\text{mm}$   
The original hole:  $\phi 60.5\text{mm}$
5. 次边电气连接: phoenix 1.5/3-GF-3.81  
Electrical connections: phoenix 1.5/3-GF-3.81

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  $I_{SN}$  为正。When measuring the current direction of arrow mark on direction and sensor, the sensor output  $I_{SN}$  is positive.
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.
3. 电量传感器安装螺钉孔的垂直度要求: 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).
4. 电量传感器安装面平面度要求: Sensor mounting surface flatness requirements:  
(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  $0.25\text{mm}$ ): Planeness national standard installation grade 11 or above (or surface fluctuation is less than  $0.25\text{ mm}$ );  
(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  $0.5\text{mm}$ ): When mounting surface with a small round convex platform design flatness requirement of national standard grade 12 or more (or less than  $0.5\text{ mm}$ ) in plane ups and downs;
5. 未注公差  $\pm 1\text{mm}$ : Did not note the tolerance  $+ / - 1\text{ mm}$ ;