

NACL.2000B1-S5/SP2 电流传感器 Current Transducer

版本: B

产品说明

Applications

NACL.2000B1-S5/SP2 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	伺服电机驱动 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_{PN}, T_A = 25°C)

额定测量电流 I _{PN}	Primary nominal current	2000A
测量范围 I _{PM}	Primary current measuring range	±3000A
电源电压 V _C	Supply voltage	DC ±(15~24)×(1±5%)V
电流消耗 I _C (@±24V)	Current consumption	≤ ±33mA+I _{SN}
额定测量输出 I _{SN}	Output current	400mA
匝比	Conversion ratio	1:5000
负载电阻 R _M	Load resistance	@ ±15V, ±2000A: 0Ω~7Ω @ ±15V, ±2200A: 0Ω~4Ω @ ±24V, ±2000A: 13Ω~28Ω @ ±24V, ±2800A: 13Ω

精度 - 动态参数 Accuracy - Dynamic performance data

基本误差 δ _i (@I _{PN} , T _A =25°C)	Overall Accuracy	< ±0.3%
线性度 δ _L (@I _{PN} , T _A =25°C)	Linearity error	< ±0.1%
零点输出电流 I _O (@I _P =0, T _A = 25°C)	Offset current	≤ ±0.5mA
零点温度漂移 I _{OT}	Temperature coefficient of δ _{Zt}	≤±0.5mA(-25°C~+85°C) ≤±1.5mA(-40°C~-25°C)

响应时间 $T_R(90\% \text{ of } I_{PN} \& di/dt > 50 \text{ A}/\mu\text{S})$	Step response time to 90 % of I_{PN}	$\leq 1\mu\text{S}$
频率带宽 BW	Frequency bandwidth(-1dB)	DC..100kHz

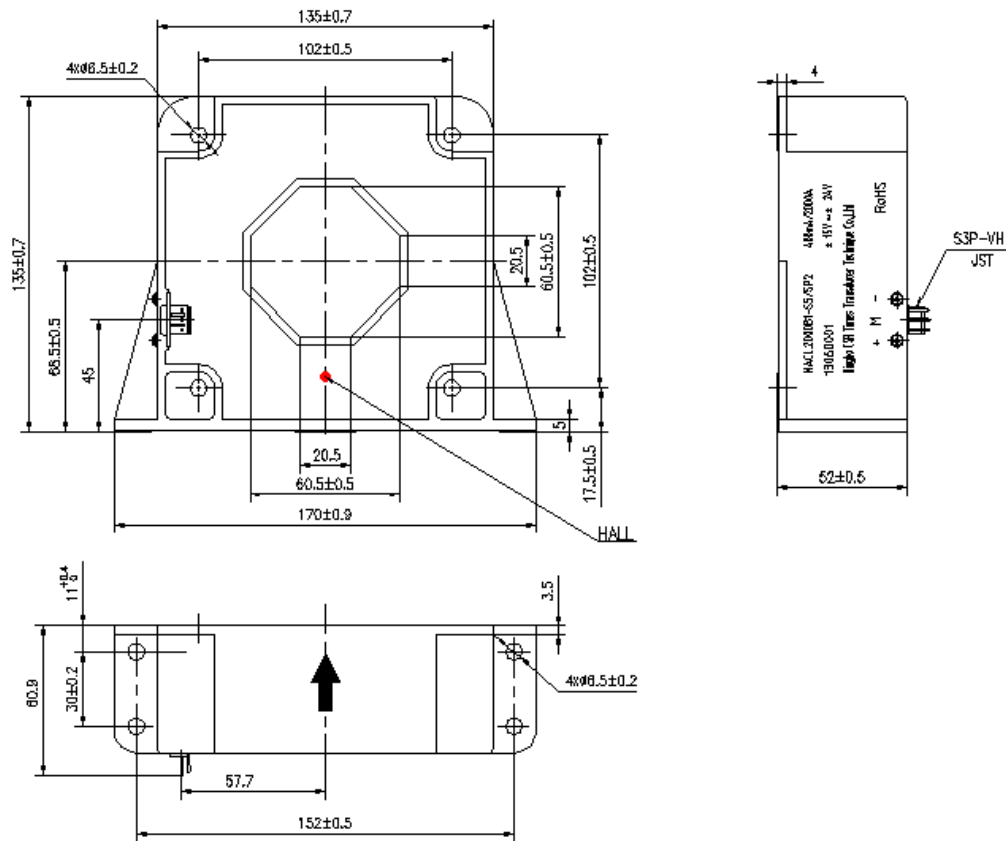
一般数据 General data

工作温度 T_a	Ambient operating temperature	-40~+85°C
储存温度 T_s	Ambient storage temperature	-45~+90°C
重量 m	Mass	$\leq 1500\text{g}$

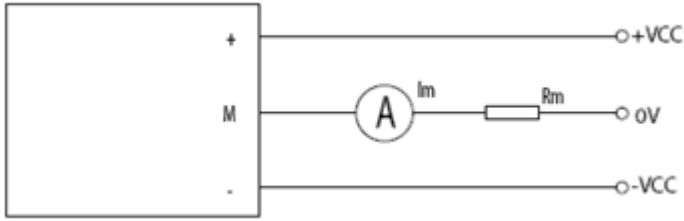
绝缘耐压 Insulation coordination

耐压	Voltage for AC insulation test, 50Hz,1min	6kV
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NACL.2000B1-S5/SP2 电流传感器外形图 Dimensions NACL.2000B1-S5/SP2 Series (in mm)



电气连接 Connection



连接端子 (Connector) : JST S3P-VH

机械特征 Mechanical characteristics	备注 Remark
<p>1. 传感器安装孔径: $4 \times \varnothing 6.5\text{mm}$ Sensors installed aperture: $4 \times \varnothing 6.5 \text{ mm}$</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 I_{SN} 为正。When measuring the current direction of arrow mark on direction and sensor, the sensor output I_{SN} is positive.</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>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).</p> <p>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 0.25mm); Planeness national standard installation grade 11 or above (or surface fluctuation is less than 0.25 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 0.5mm); 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>5. 未注公差 $\pm 0.5\text{mm}$; Did not note the tolerance $+ / - 0.5 \text{ mm}$;</p>
<p>2. 推荐使用: M6 螺栓固定 It is recommended to use: M6 bolt</p>	
<p>3. 安装固定力矩: $4.5\text{N} \cdot \text{m}$ The installation of fixed torque: $4.5 \text{ N} \cdot \text{m}$</p>	
<p>4. 原边通孔: $\varnothing 60.5\text{mm}$ The original hole: $\varnothing 60.5\text{mm}$</p>	
<p>5. 次边电气连接: JST S3P-VH Electrical connections: JST S3P-VH</p>	