

**NACL1000Q-S3/N(NT1000C-S/SP2)电流传感器 Current Transducer**

版本: A

产品说明

Applications

NACL1000Q-S3/N 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 EN50155
线性度好 Very good linearity	变流器/逆变器 converter /inverter	
低温漂 Low temperature drift	UPS/SVG	
宽频带 Wide frequency bandwidth		
快速响应 Optimized response time		

**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> (A)	Primary nominal current	1000
测量范围 I <sub>PM</sub> (A)	Primary current measuring range	±2400
电源电压 V <sub>C</sub>	Supply voltage	DC ±(15~24)×(1±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	200mA
匝比	Conversion ratio	1:5000
负载电阻 R <sub>M</sub>	Load resistance	@ ±15V, ±1000A: 0~15Ω @ ±15V, ±1200A: 0~7Ω @ ±24V, ±1000A: 0~50Ω @ ±24V, ±2000A: 0~7Ω

**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) (@I <sub>PN</sub> , T <sub>A</sub> =-40°C~+85°C)	Overall Accuracy	≤ ±0.4% ≤ ±1%
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> (@IP=0, T <sub>A</sub> = 25°C)	Offset current	≤ ±0.5mA
零点温度漂移 I <sub>OT</sub> (T <sub>A</sub> =-40°C~+85°C)	Temperature coefficient of δ <sub>Zt</sub>	≤ ±1.0mA

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 $I_{PN}$	$\leq 1\mu\text{S}$
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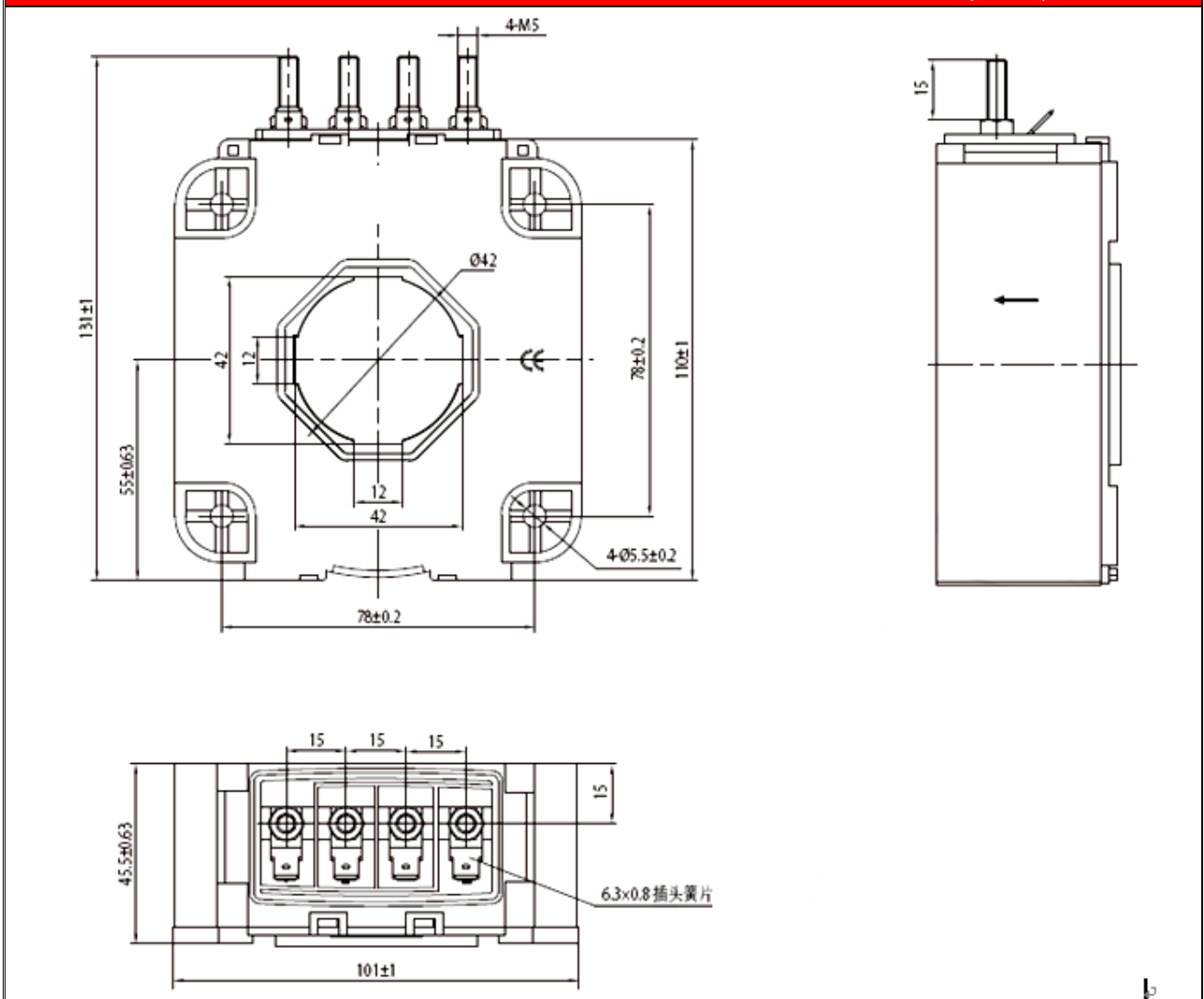
**一般数据 General data**

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	$\leq 900\text{g}$

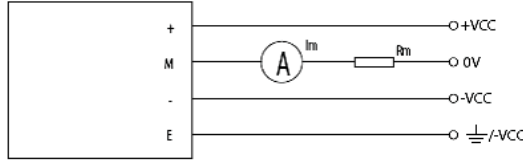
**绝缘耐压 Insulation coordination**

耐压	Voltage for AC insulation test, 50Hz, 1min	13.4kV
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**NACL.1000Q-S3/N 电流传感器外形图 Dimensions NACL.1000Q-S3/N Series (in mm)**



**电气连接 Connection**



机械特征 Mechanical characteristics	备注 Remark
<p>1. 传感器安装孔径: <math>4 \times \phi 5.5\text{mm}</math> Sensors installed aperture: <math>4 \times \phi 5.5 \text{ mm}</math></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>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 <math>0V</math>。Product secondary side connecting line optimization shielding wire, cable shielding layer close to the product end can connect chassis, negative power or power <math>0 \text{ v}</math>.</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 <math>0.06</math> 以下)。Power sensor mounting screw hole of the vertical degree requirements: requirements in the national standard grade 8 or above (or below <math>0.06</math>).</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 <math>0.25\text{mm}</math>); Planeness national standard installation grade 11 or above (or surface fluctuation is less than <math>0.25 \text{ mm}</math>); (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 <math>0.5\text{mm}</math>); When mounting surface with a small round convex platform design flatness requirement of national standard grade 12 or more (or less than <math>0.5 \text{ mm}</math>) in plane ups and downs;</p> <p>5. 未注公差 <math>\pm 0.5\text{mm}</math>; Did not note the tolerance <math>+ / - 1\text{mm}</math>;</p>
<p>2. 推荐使用: M5 螺栓固定 It is recommended to use: M5 bolt</p>	
<p>3. 安装固定力矩: <math>3.5\text{N} \cdot \text{m}</math> The installation of fixed torque: <math>3.5 \text{ N} \cdot \text{m}</math></p>	
<p>4. 原边通孔: <math>\phi 42\text{mm}</math> The original hole: <math>\phi 42\text{mm}</math></p>	
<p>5. 次边电气连接: M5 的螺栓 (或 <math>6.3 \times 0.8</math> 的插头簧片) <math>2.2\text{N} \cdot \text{m}</math> Electrical connections: The plug of the M5 bolt (or <math>6.3 \times 0.8</math> reed) <math>2.2\text{N} \cdot \text{m}</math></p>	