NACL.200B4-S5/SP1 电流传感器 Current Transducer

版本：A

产 品 说 明 Applications

NACL.200B4-S5/SP1 系列高精度闭环型霍尔电流传感器的初、次级之间是绝缘的，具有超强抗干扰能力；用于测量直流、交流和脉动电流。

NACL.200B4-S5/SP1 series high-precision current sensor is a closed loop device based on the measuring principle of the hall effect, with a galvanic isolation between primary and secondary circuit. It has strong anti-jamming ability and it provides accurate electronic measurement of DC, AC or pulsed currents.

CE RoHS COMPLIANT

产品优点 Advantages	产品应用领域 Applications	参照标准 Standards
高精度 Excellent accuracy	变频调速系统 Variable speed drives	UL 94-V0
温度系数小 Low temperature of offset	通信电源 Battery supplied applications	EN 60947-1:2004
体积小 Small size	不间断电源 UPS Uninterruptible Power Supplies	EN50178:1998

主要电气参数 Main electrical data (Ta=+25℃)			
额定测量电流 I_{PN}	Primary nominal current rms	200A	
测量范围 I_P (@±24V)	Primary current measuring range	0～±420A	
电源电压 V_C	Supply voltage	±12V～±15V×(1±5%)	
匝比 K	Turns ratio	1:2000	
额定测量输出 I_{SN} ($@I_p=±I_{pn}$)	Secondary nominal current rms	100mA	
负载电阻 R_L	Load resister	25℃	85℃
(@±12V, ±200A)		0Ω～80Ω	0Ω～69Ω
(@±12V, ±420A)		0Ω～21Ω	0Ω～12Ω
(@±15V, ±200A)		0Ω～110Ω	23Ω～98Ω
(@±15V, ±420A)		0Ω～35Ω	23Ω～26Ω
二次侧电流消耗 I_C	Static Current consumption	≤18mA +输出测量电流 I_{SN}	

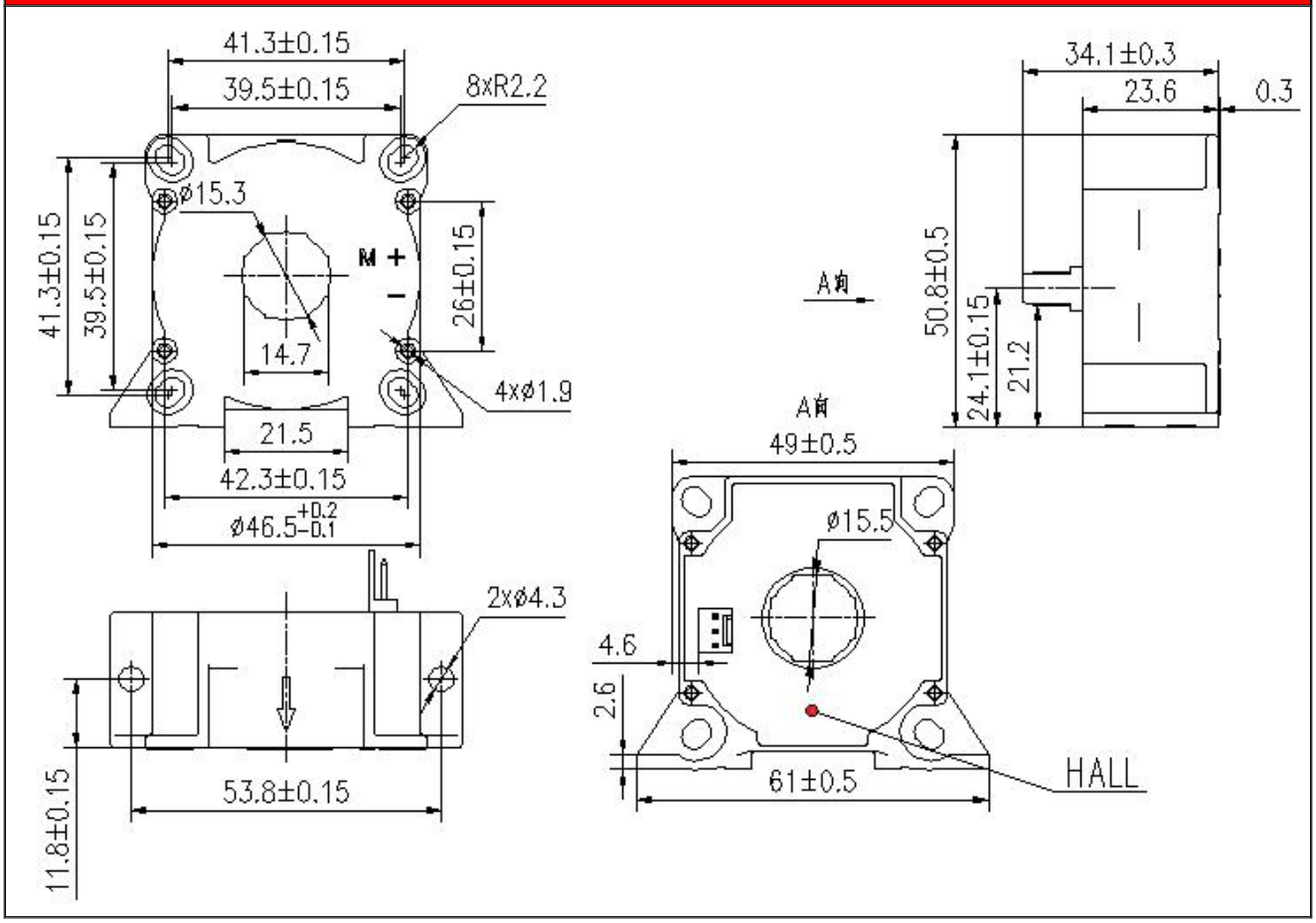
精度 - 动态参数 Accuracy - Dynamic performance data		
基本误差 δ_i ($@Ta=+25℃, I_p=I_{PN}$)	Overall Accuracy	≤±0.5%

线性度误差 δ_L (@Ta=+25℃, $I_p=I_{PN}$)	Linearity error	≤0.1%
零点输出误差 δ_Z(Ta=+25℃)	Electrical offset current	≤±0.2mA
零点温度漂移 δ_{Zt} (Ta=-40℃～+85℃)	Temperature coefficient of δ_{Zt}	≤±0.40mA
响应时间 t_r (@di/dt=100A/us ,90% I_{PN})	Step response time	≤1 μs
带宽 BW（-1dB）	Frequency bandwidth（-1dB）	DC～100 kHz

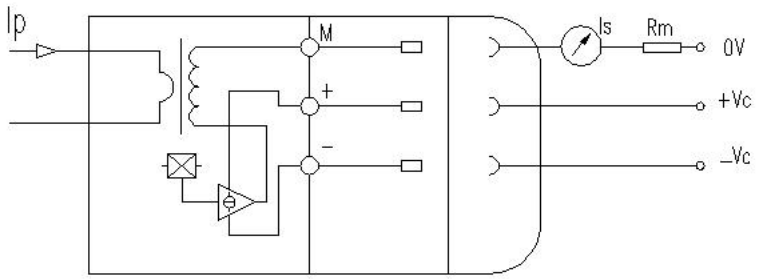
一般数据 General data		
工作温度 Ta	Ambient operating temperature	-40℃~+85℃
储存温度 Ts	Ambient storage temperature	-45℃~+90℃
重量	Mass	≤80g

绝缘参数 Insulation data		
绝缘电压 U_d (@50Hz,1min)	Rms voltage for AC insulation test	3.5 KV
绝缘电阻 R_{IS} (@2500V)	Isolation resistance	≥500 MΩ

NACL.200B4-S5/SP1 电流传感器外形图 Dimensions NACL.200B4-S5/SP1 Series (in mm)



电气连接 Connection



机械特征 Mechanical characteristics

1. 传感器安装孔径：4×φ4.3mm
   Sensors installed aperture: 4 x φ4.3 mm

2. 推荐使用： M4 螺栓固定
   It is recommended to use: M4 bolt

3. 安装固定力矩： 3.2N·m
   The installation of fixed torque: 4.5 N·m

4. 原边通孔： φ15.5mm
   The original hole: φ15.5mm

5. 次边电气连接： Molex 6410
   Electrical connections: Molex 6410

备注 Remark

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 ISN 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 0.25mm）； 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;
5. 未注公差±1mm；Did not note the tolerance + / -1mm;