

产品说明

Applications

NA200-P 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。

NA200-P 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.

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	EN50178:1998
体积小 Small size	不间断电源 UPS Uninterruptible Power Supplies	

主要电气参数 Main electrical data ($T_a=+25^{\circ}\text{C}$)

额定测量电流 I_{PN}	Primary nominal current rms	200A
测量范围 I_P ($V_C=\pm 15\text{V}$)	Primary current measuring range	$0\sim\pm 300\text{A}$
电源电压 V_C	Supply voltage	$\pm 12\text{V}\sim\pm 15\text{V}\times(1\pm 5\%)$
匝比 K	Turns ratio	1:2000
额定测量输出 I_{SN}	Secondary nominal current rms	100mA
负载电阻 R_L	Load resistor	25 $^{\circ}\text{C}$
($\pm 12\text{V}, \pm 200\text{A}$)		$0\Omega\sim 26\Omega$
($\pm 15\text{V}, \pm 200\text{A}$)		$0\Omega\sim 56\Omega$
($\pm 15\text{V}, \pm 300\text{A}$)		$0\Omega\sim 8\Omega$
二次侧电流消耗 I_C	Static Current consumption	$\leq 16\text{mA} + \text{输出测量电流 } I_{SN}$

精度 - 动态参数 Accuracy - Dynamic performance data

基本误差 δ_i ($T_a=+25^{\circ}\text{C}, I_P=I_{PN}$)	Overall Accuracy	$\leq \pm 0.6\%$
线性度误差 δ_L ($T_a=+25^{\circ}\text{C}, I_P=I_{PN}$)	Linearity error	$\leq 0.15\%$
零点输出误差 $\delta_z(T_a=+25^{\circ}\text{C})$	Electrical offset current	$\leq \pm 0.25\text{mA}$
零点温度漂移 δ_{zt} ($T_a=-25^{\circ}\text{C}\sim+85^{\circ}\text{C}$)	Thermal drift	$\leq \pm 0.25\text{mA} (@ 0^{\circ}\text{C}\sim+70^{\circ}\text{C})$ $\leq \pm 0.25\text{mA} (@ -25^{\circ}\text{C}\sim+85^{\circ}\text{C})$
响应时间 t_r ($di/dt=100\text{A}/\mu\text{s}, 90\% I_{PN}$)	Response time	$\leq 1\mu\text{s}$

带宽 BW (-1dB)	Frequency bandwidth (-1dB)	DC~100 kHz
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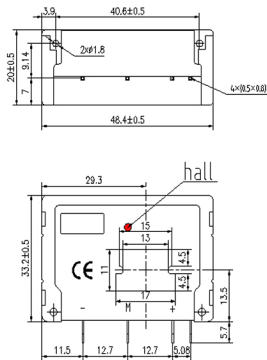
一般数据 General data

工作温度 Ta	Ambient operating temperature	-25℃~+85℃
储存温度 Ts	Ambient storage temperature	-40℃~+90℃
重量	Mass	≤50g

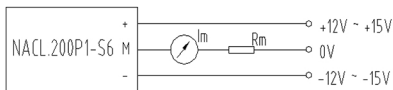
绝缘参数 Insulation data

绝缘电压 U _d (@50Hz,1min)	Rms voltage for AC insulation test	3KV
绝缘电阻 R _{IS} (@2500V)	Isolation resistance	≥500 MΩ

NA200-P 电流传感器外形图 Dimensions NA200-P Series (in mm)



电气连接 Connection



机械特征 Mechanical characteristics

1. 传感器安装方式：电路板焊接安装

Installation method: circuit board welding installation

2. 次边连接端子尺寸：0.63 mm×0.56mm

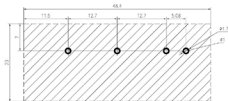
connector size: 0.63 mm×0.56mm

3. 原边安装方孔：13 mm×11mm

The original installation square hole: 13 mm×11mm

4. 推荐封装（单位 mm）：

Recommend encapsulation (mm):



备注 Remark

产品的箭头方向为 I_p 的方向。

It will be in a forward direction when the IP flows according to the direction of the arrowhead.