

产品说明
Applications

NACL.50P-S6 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.50P-S6 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 | 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

 (At $T_a=+25^{\circ}\text{C}$)

| | | |
|---|---------------------------------|---------------------------|
| 额定测量电流 I_{PN} | Primary nominal current rms | 50A |
| 测量范围 I_P (@ $V_C=\pm 15\text{V}$) | Primary current measuring range | 0~±70A |
| 电源电压 V_C | Supply voltage | ±12V~±15V×(1±5%) |
| 匝比 K | Turns ratio | 1:1000 |
| 额定测量输出 I_{SN} | Secondary nominal current rms | 50mA |
| 负载电阻 R_L (@±12V, ±50A) | Load resistor | 25 Ω |
| (@±12V, ±70A) | | 10 Ω ~95 Ω |
| (@±15V, ±50A) | | 10 Ω ~60 Ω |
| (@±15V, ±70A) | | 50 Ω ~155 Ω |
| 二次侧电流消耗 I_C | Static Current consumption | ≤10mA + 输出测量电流 I_{SN} |

精度 - 动态参数 Accuracy - Dynamic performance data

| | | |
|--|--|--|
| 基本误差 δ_1 (@ $T_a=+25^{\circ}\text{C}$, $I_P=I_{PN}$) | Overall Accuracy | ≤±0.7% |
| 线性度误差 δ_L (@ $T_a=+25^{\circ}\text{C}$, $I_P=I_{PN}$) | Linearity error | ≤0.2% |
| 零点输出误差 $\delta_z(T_a=+25^{\circ}\text{C})$ | Electrical offset voltage | ≤±0.2mA |
| 零点温度漂移 δ_{zT} ($T_a=-25^{\circ}\text{C} \sim +85^{\circ}\text{C}$) | Temperature coefficient of δ_{zT} | ≤±0.5mA (@ $0^{\circ}\text{C} \sim +70^{\circ}\text{C}$) ≤±0.6mA (@ $-25^{\circ}\text{C} \sim +85^{\circ}\text{C}$) |
| 响应时间 t_r | Step response time | ≤1 μs |

| | | |
|--|----------------------------|------------|
| (@di/dt=100A/us, 90% I _{FW}) | | |
| 带宽 BW (-3dB) | Frequency bandwidth (-1dB) | DC~100 kHz |

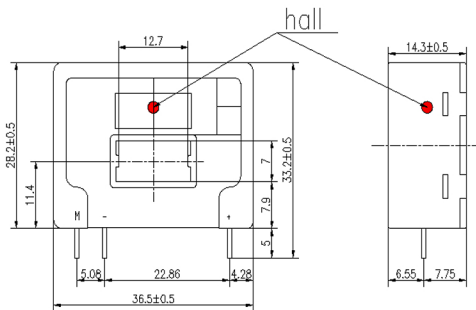
一般数据 General data

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

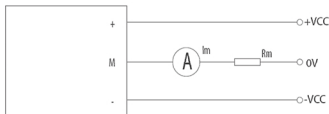
绝缘参数 Insulation data

| | | |
|--------------------------------------|------------------------------------|---------|
| 绝缘电压 U _d (@50Hz, 1min) | Rms voltage for AC insulation test | 2.5KV |
| 绝缘电阻 R _{is} (@2500V) | Isolation resistance | ≥500 MΩ |

NACL.50P-S6 电流传感器外形图 Dimensions NACL.50P-S6 Series (in mm)



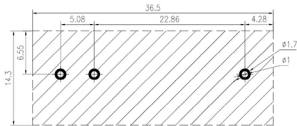
电气连接 Connection



机械特征 Mechanical characteristics

备注 Remark

1. 传感器安装方式：电路板焊接安装
2. 次边连接端子尺寸：0.63×0.56mm
3. 原边安装方孔：7×12.7mm
4. 推荐封装（单位 mm）：



产品的箭头方向为 I_p 的方向。

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