

产品说明

Applications

NACL.50P-S6/SP2 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/SP2 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 Ta=+25°C)

额定测量电流 $I_{PN}$	Primary nominal current rms	50A
测量范围 $I_p$ (@ $V_C = \pm 15V$ )	Primary current measuring range	0 ~ $\pm 70A$
电源电压 $V_C$	Supply voltage	$\pm 12V \sim \pm 15V \times (1 \pm 5\%)$
匝比 K	Turns ratio	1:1000
额定测量输出 $I_{SN}$	Secondary nominal current rms	50mA
负载电阻 $R_L$ (@ $\pm 12V, \pm 50A$ )	Load resistor	70°C 0 $\Omega$ ~ 95 $\Omega$
(@ $\pm 12V, \pm 70A$ )		0 $\Omega$ ~ 60 $\Omega$
(@ $\pm 15V, \pm 50A$ )		50 $\Omega$ ~ 155 $\Omega$
(@ $\pm 15V, \pm 70A$ )		50 $\Omega$ ~ 90 $\Omega$
二次侧电流消耗 $I_c$	Static Current consumption	$\leq 10mA$ + 输出测量电流 $I_{SN}$

精度 - 动态参数 Accuracy - Dynamic performance data

基本误差 $\delta_i$ (@ $T_a = +25^\circ C, I_p = I_{PN}$ )	Overall Accuracy	$\leq \pm 0.7\%$
线性度误差 $\delta_L$ (@ $T_a = +25^\circ C, I_p = I_{PN}$ )	Linearity error	$\leq 0.2\%$
零点输出误差 $\delta_z(T_a = +25^\circ C)$	Electrical offset voltage	$\leq \pm 0.2mA$
零点温度漂移 $\delta_{zt}$ ( $T_a = -25^\circ C \sim +85^\circ C$ )	Temperature coefficient of $\delta_{zt}$	$\leq \pm 0.5mA$ (@ $0^\circ C \sim +70^\circ C$ ) $\leq \pm 0.6mA$ (@ $-25^\circ C \sim +85^\circ C$ )
响应时间 $t_r$	Step response time	$\leq 1 \mu s$

@di/dt=100A/us ,90% I <sub>PN</sub> )		
带宽 BW (-3dB)	Frequency bandwidth (-1dB)	DC~100 kHz

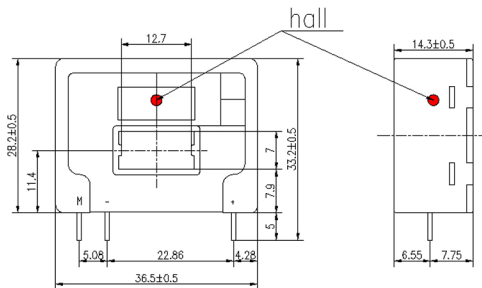
### 一般数据 General data

工作温度 T <sub>a</sub>	Ambient operating temperature	-25℃~+85℃
储存温度 T <sub>s</sub>	Ambient storage temperature	-45℃~+90℃
重量	Mass	≤25g

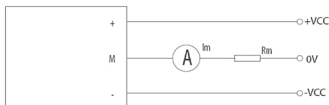
### 绝缘参数 Insulation data

绝缘电压 U <sub>d</sub> (@50Hz,1min)	Rms voltage for AC insulation test	2.5KV
绝缘电阻 R <sub>is</sub> (@2500V)	Isolation resistance	≥500 MΩ

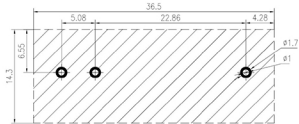
### NACL50P-S6/SP2 电流传感器外形图 Dimensions NACL50P-S6/SP2 Series (in mm)



### 电气连接 Connection



1. 传感器安装方式：电路板焊接安装
2. 次边连接端子尺寸： $0.63 \times 0.56\text{mm}$
3. 原边安装方孔： $7 \times 12.7\text{mm}$
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.