

NACL50P-S6 电流传感器 Current Transducer

版本: A

产 品 说 明

Applications

NACL50P-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。

NACL50P-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 Ta=+25℃)		
额定测量电流 I_{PN}	Primary nominal current rms	50A
测量范围 I_p (@ $\pm 24V$)	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} (@ $I_p = \pm I_{PN}$)	Secondary nominal current rms	50mA
负载电阻 R_L (@ $\pm 12V, \pm 50A$)	Load resister	25℃ 0 Ω ~ 95 Ω
(@ $\pm 12V, \pm 70A$)		0 Ω ~ 60 Ω
(@ $\pm 15V, \pm 50A$)		50 Ω ~ 155 Ω
(@ $\pm 15V, \pm 70A$)		50 Ω ~ 90 Ω
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 δ_i (@Ta=+25℃, $I_p = I_{PN}$)	Overall Accuracy	$\leq \pm 0.7\%$
线性度误差 δ_L (@Ta=+25℃, $I_p = I_{PN}$)	Linearity error	$\leq 0.2\%$
零点输出误差 δ_z (Ta=+25℃)	Electrical offset voltage	$\leq \pm 0.2mA$
零点温度漂移 δ_{zt} (Ta=-25℃ ~ +85℃)	Temperature coefficient of δ_{zt}	$\leq \pm 0.5mA$ (@ 0℃ ~ +70℃) $\leq \pm 0.6mA$ (@ -25℃ ~ +85℃)

响应时间 t_r (@ $di/dt=100A/us$, 90% I_{PN})	Step response time	$\leq 1 \mu s$
带宽 BW (-3dB)	Frequency bandwidth (-1dB)	DC~100 kHz

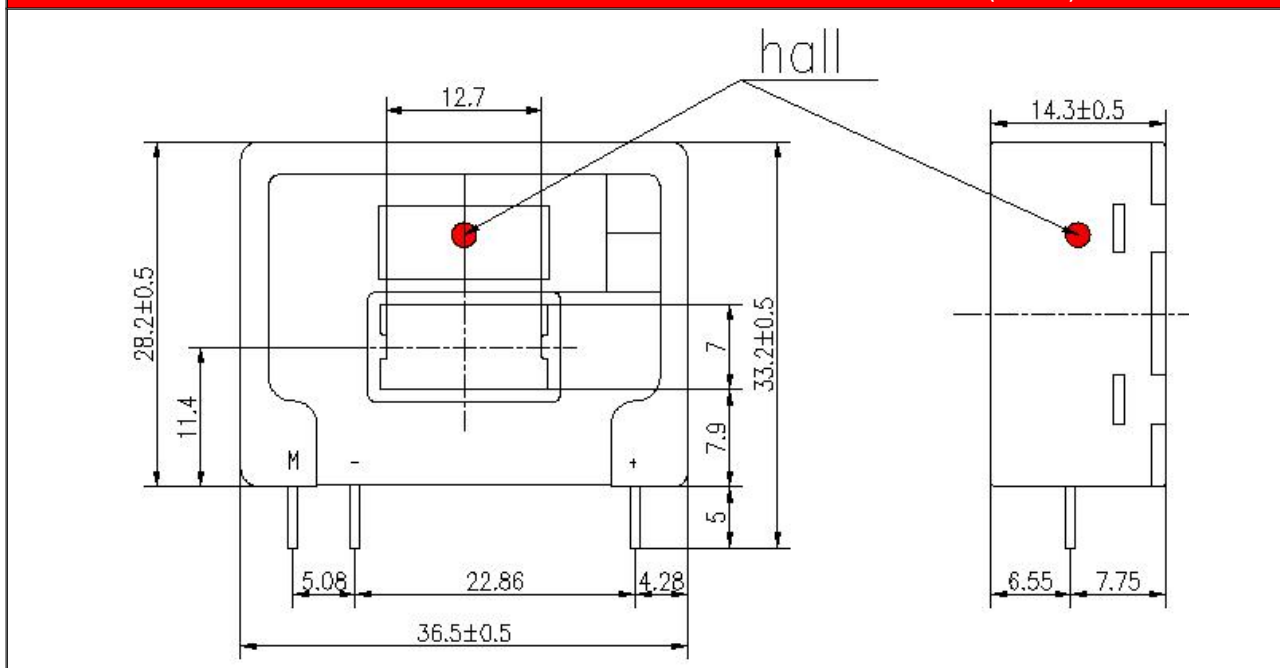
一般数据 General data

工作温度 T_a	Ambient operating temperature	-25℃~+85℃
储存温度 T_s	Ambient storage temperature	-45℃~+90℃
重量	Mass	$\leq 25g$

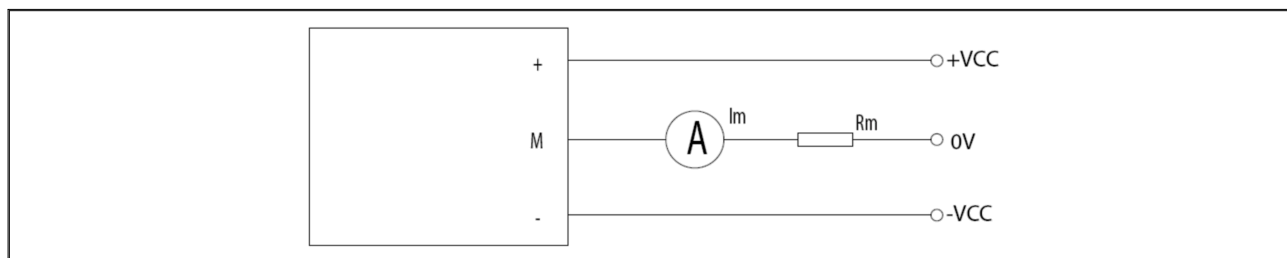
绝缘参数 Insulation data

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	$\geq 500 M \Omega$

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.