

NA100-P(NACL100P-S6) 电流传感器 Current Transducer

版本: A

产 品 说 明

Applications

NA100-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。

NA100-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	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	100A
测量范围 I_P (@ ±15V)	Primary current measuring range	0 ~ ±150A
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} (@ $I_P = \pm I_{PN}$)	Secondary nominal current rms	50mA
负载电阻 R_m (@ ±12V, ±100A)	Load resister	25℃ 0 Ω ~ 42 Ω
(@ ±12V, ±120A)		0 Ω ~ 14 Ω
(@ ±15V, ±100A)		20 Ω ~ 100 Ω
(@ ±15V, ±150A)		20 Ω ~ 25 Ω
二次侧电流消耗 I_C	Static Current consumption	≤15mA + 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	≤ ±0.7%
线性度误差 δ_L (@Ta=+25℃, $I_P = I_{PN}$)	Linearity error	≤ 0.2%

零点输出误差 $\delta_z(T_a=+25^\circ\text{C})$	Electrical offset current	$\leq \pm 0.1\text{mA}$
零点温度漂移 δ_{zt} ($T_a=-40^\circ\text{C} \sim +85^\circ\text{C}$)	Temperature coefficient of δ_{zt}	$\leq \pm 0.25\text{mA} (@-25^\circ\text{C} \sim +85^\circ\text{C})$ $\leq \pm 0.5\text{mA} (@-40^\circ\text{C} \sim -25^\circ\text{C})$
响应时间 t_r ($@di/dt=100\text{A}/\mu\text{s}, 90\% I_{PN}$)	Step response time	$\leq 1\ \mu\text{s}$
带宽 BW (-3dB)	Frequency bandwidth (-3dB)	DC $\sim$ 100 kHz

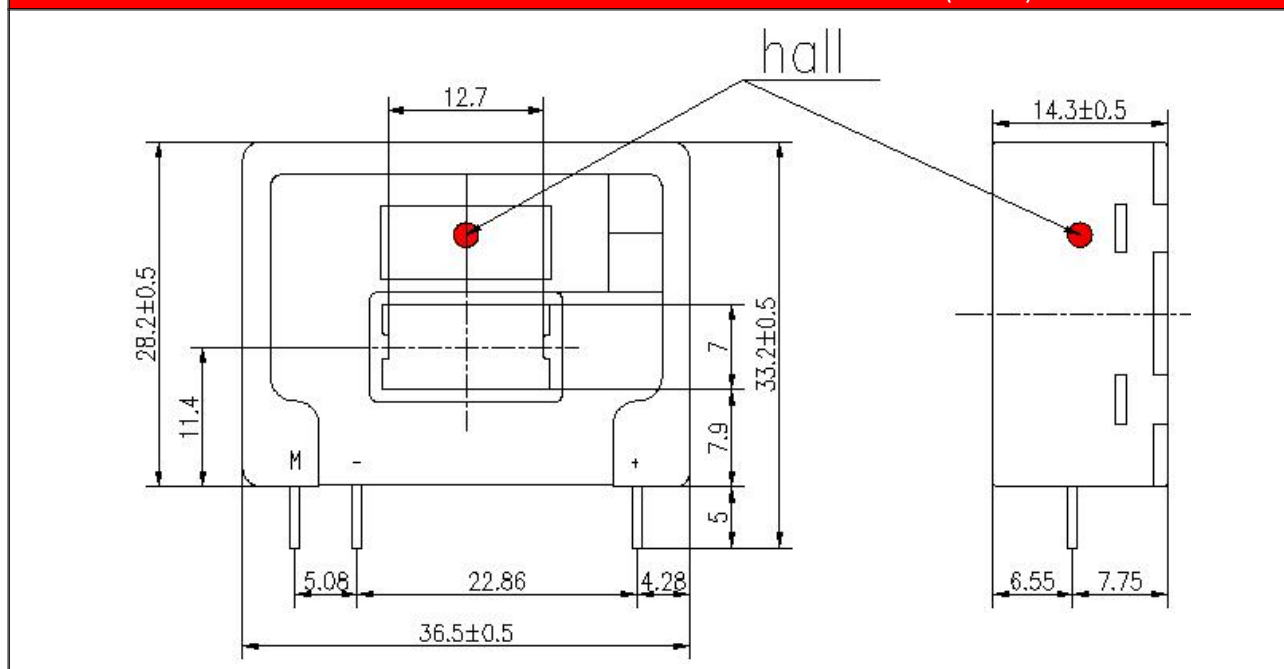
一般数据 General data

工作温度 T_a	Ambient operating temperature	$-40^\circ\text{C} \sim +85^\circ\text{C}$
储存温度 T_s	Ambient storage temperature	$-45^\circ\text{C} \sim +90^\circ\text{C}$
重量	Mass	$\leq 25\text{g}$

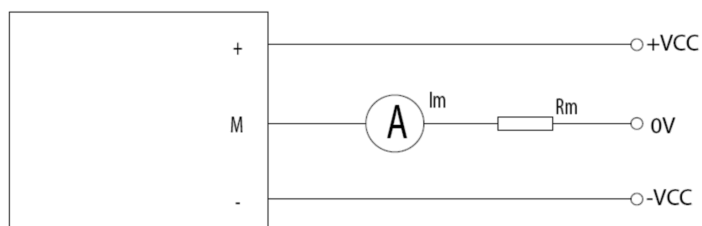
绝缘参数 Insulation data

绝缘电压 U_d ($@50\text{Hz}, 1\text{min}$)	Rms voltage for AC insulation test	2.5KV
绝缘电阻 R_{is} ($@2500\text{V}$)	Isolation resistance	$\geq 500\ \text{M}\Omega$
电气间隙	Clearance	14.1mm
爬电距离	Creepage distance	14.1mm

NA100-P 电流传感器外形图 Dimensions NA100-P Series (in mm)



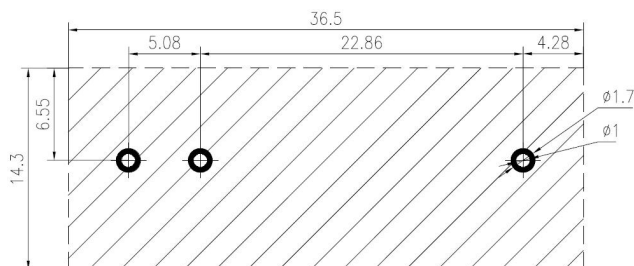
电气连接 Connection



机械特征 Mechanical characteristics

备注 Remark

1. 传感器安装方式：电路板焊接安装
Installation method: circuit board welding installation
2. 次边连接端子尺寸：0.63×0.56mm
connector size: 0.63 mm×0.56mm
3. 原边安装方孔：7×12.7mm
The original installation square hole: 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.