

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°C)

额定测量电流 I_{PN}	Primary nominal current rms	100A
测量范围 I_P (@ $V_C = \pm 15V$)	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}	Secondary nominal current rms	50mA
负载电阻 R_L	Load resistor	25°C
(@±12V, ±100A)		0Ω~42Ω
(@±12V, ±120A)		0Ω~14Ω
(@±15V, ±100A)		20Ω~100Ω
(@±15V, ±150A)		20Ω~25Ω
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_1 (@Ta=+25°C, $I_P=I_{PN}$)	Overall Accuracy	≤±0.7%
线性度误差 δ_L (@Ta=+25°C, $I_P=I_{PN}$)	Linearity error	≤0.2%
零点输出误差 δ_z (Ta=+25°C)	Electrical offset current	≤±0.1mA
零点温度漂移 δ_{zt} (Ta=-40°C~+85°C)	Temperature coefficient of δ_{zt}	≤±0.25mA (@-25°C~+85°C) ≤±0.5mA (@-40°C~-25°C)
响应时间 t_r	Step response time	≤1 us

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

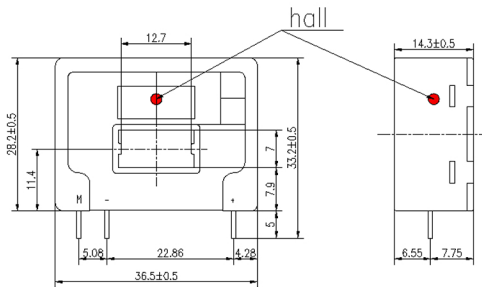
一般数据 General data

工作温度 T _a	Ambient operating temperature	-40℃~+85℃
储存温度 T _s	Ambient storage temperature	-45℃~+90℃
重量	Mass	≤25g

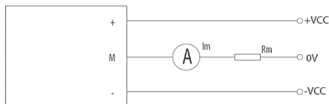
绝缘参数 Insulation data

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

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



电气连接 Connection



1. 传感器安装方式：电路板焊接安装

Installation method: circuit board welding installation

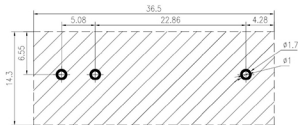
2. 次边连接端子尺寸：0.63×0.56mm

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.