

NACF.300C-S5/V(NCA1C-300A) 电流传感器 Current Transducer

版本: A

产品说明

Applications

NACF.300C-S5/V 开环霍尔电流传感器适用于对交流、直流、脉冲电流的隔离精确测量，测量时一次侧与二次侧间完全绝缘。

For the electronic measurement of currents: AC, DC, pulsed..., with galvanic separation between the primary circuits and the secondary circuits.



产品优点 Advantages	产品应用领域 Applications	参照标准 Standards
体积小 Small size and space savings	变频器 Static converters 不间断电源 Uninterruptible Power Supplies (UPS)	EN 50178: 1997 IEC60950-1:2001

主要电气参数 Main electrical data
 (@ ±I_{PN}, R_L = 10 kΩ, T_A = 25°C)

额定测量电流 I _{PN}	Primary nominal current	300A
测量范围 I _{PM}	Primary current measuring range	±900A
电源电压 V _C	Supply voltage	DC ±15(1±5%)V
电流消耗 I _C	Current consumption	≤ ±30mA
额定测量输出 V _{OUT}	Output voltage	±4V
输出内阻 R _{OUT}	Output internal resistance	100Ω
负载电阻 R _L	Load resistance	≥10kΩ

精度 - 动态参数 Accuracy - Dynamic performance data

基本误差 δ _i (I _{PN} , T _A =25°C)	Accuracy(excluding offset)	≤ ±1% of I _{PN}
线性度 δ _L (0 ... ±I _{PN})	Linearity error	≤ ±1% of I _{PN}
零点输出误差 δ _z (T _A = 25°C)	Electrical offset voltage	≤ ±30mV
磁滞失调电压 V _{OH} (I _p =0, 1×I _{PN} 冲击后)	Hysteresis offset voltage @ I _p =0, after an excursion of 1×I _{PN}	≤ ±35mV
零点温度漂移 δ _{zt} (T _A = -40°C~+85°C)	Temperature coefficient of δ _{zt}	≤ ±1mV/°C
满量程温度漂移	Temperature coefficient of V _{OUT}	≤ ±0.1%/°C
响应时间	Step response time to 90 % of I _{PN}	≤ 3μS
T _R (90% of I _{PN} & di/dt > 50 A/μS)		

带宽(-3dB)BW	Frequency bandwidth (-3dB)	DC ... 25kHz
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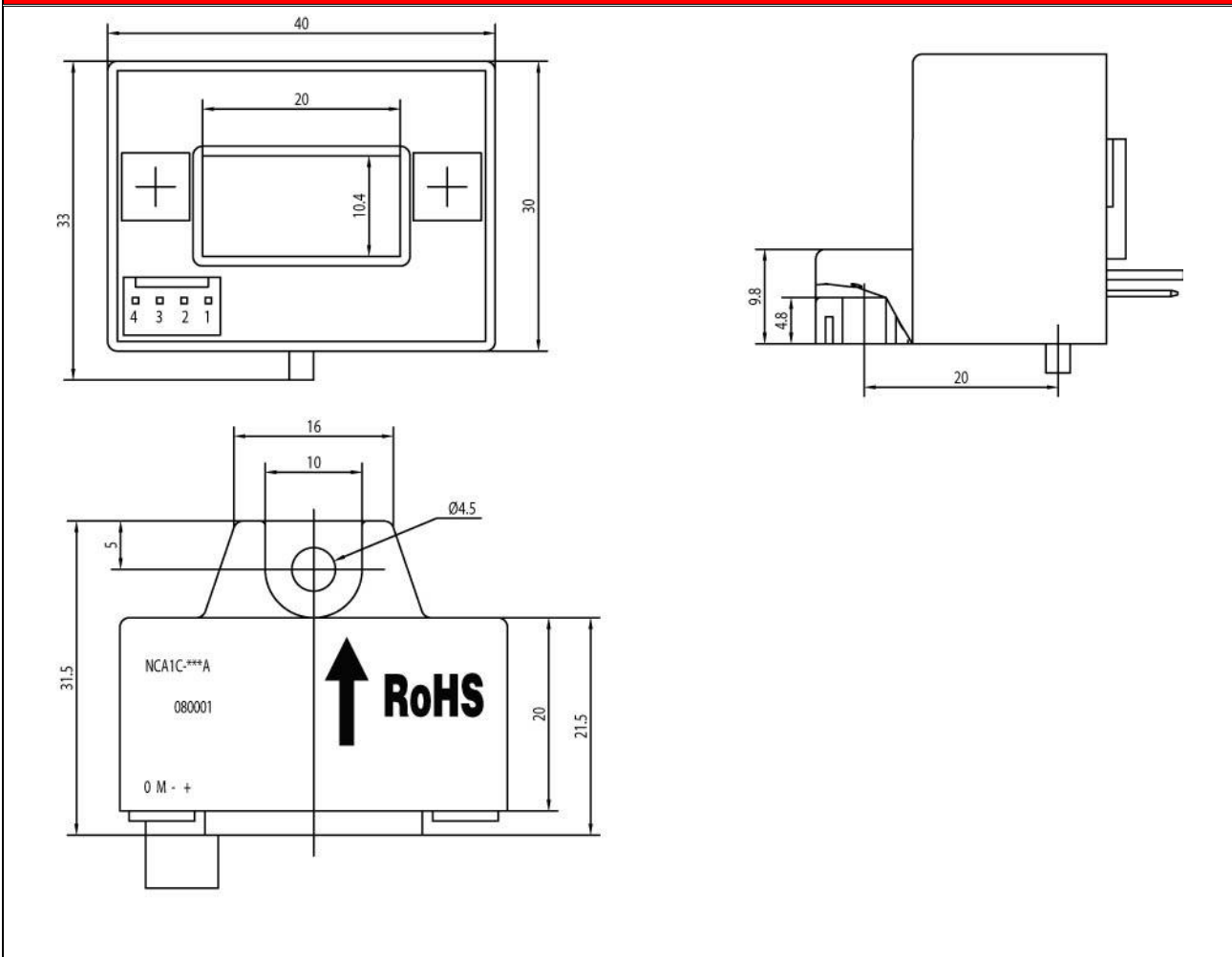
一般数据 General data

工作温度 Ta	Ambient operating temperature	-40~+85℃
储存温度 Ts	Ambient storage temperature	-45~+125℃
重量 m	Mass	≤80g

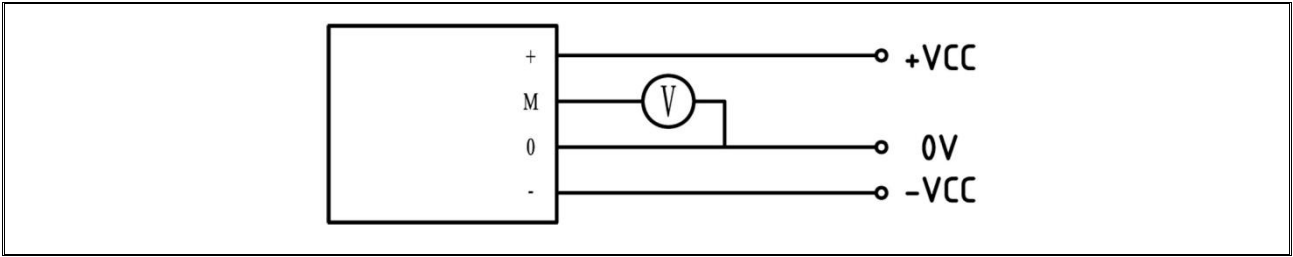
绝缘耐压 Insulation coordination


耐压	Voltage for AC insulation test, 50Hz,1min	3kV
绝缘电阻 R _{IS}	Isolation resistance	≥1000MΩ
爬电距离	Creepage distance	7.08mm
电气间隙	Clearance	6.23mm

NACF.300C-S5/V 电压传感器外形图 Dimensions NACF.300C-S5/V Series (in mm)



电气连接 Connection



机械特征 Mechanical characteristics		备注 Remark
未注公差 General tolerance	±0.5mm	1. 当测量电流方向与传感器上标示的  方向一致时，传感器输出 I_{SN} 为正。When measuring the current direction of arrow mark on direction and sensor, the sensor output I_{SN} is positive.
传感器安装 Transducer fastening	1 hole $\varnothing 4.5\text{mm}$ 1 M4 steel screws	2. 产品二次侧连接线优选屏蔽线，屏蔽层接近产品端连接线可接机壳，负电源或电源 0V。Product secondary side connecting line optimization shielding wire, cable shielding layer close to the product end can connect chassis, negative power or power 0 v.
推荐力矩 Recommended fastening torque	0.75 N · m	3. 电量传感器安装螺钉孔的垂直度要求：要求在国家标准 8 级或以上(或 0.06 以下)。Power sensor mounting screw hole of the vertical degree requirements: requirements in the national standard grade 8 or above (or below 0.06).
穿心孔 Primary through-hole	20.4 × 10.4mm	4. 电量传感器安装面平面度要求：Sensor mounting surface flatness requirements: (a).大平面安装平面度国家标准 11 级或以上（或平面起伏小于 0.25mm）； Planeness national standard installation grade 11 or above (or surface fluctuation is less than 0.25 mm);
次边电气连接 Connection of secondary	MOLEX 6410	(b).安装面加有小圆凸台设计时平面度要求达国家标准 12 级或以上（或平面起伏小于 0.5mm）； When mounting surface with a small round convex platform design flatness requirement of national standard grade 12 or more (or less than 0.5 mm) in plane ups and downs;