

NACF.1000J-S5/V 电流传感器 Current Transducer

版本: A

产品说明

Applications

NACF.1000J-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	EN 50178: 1997 GB/T 25119-2010

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	1000A
测量范围 I _{PM}	Primary current measuring range	±3000A
电源电压 V _C	Supply voltage	DC ±15(1±5%)V
电流消耗 I _C	Current consumption	≤ ±20mA
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	≤ ±20mV
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}	≤ ±30mV
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 δ _{FSt} (T _A = -40°C~+85°C)	Temperature coefficient of V _{OUT}	≤ ±0.1%/°C
响应时间 T _R (90% of I _{PN} & di/dt > 50 A/μS)	Step response time to 90 % of I _{PN}	≤ 5μS
带宽(-3dB)BW	Frequency bandwidth (-3dB)	DC ... 25kHz

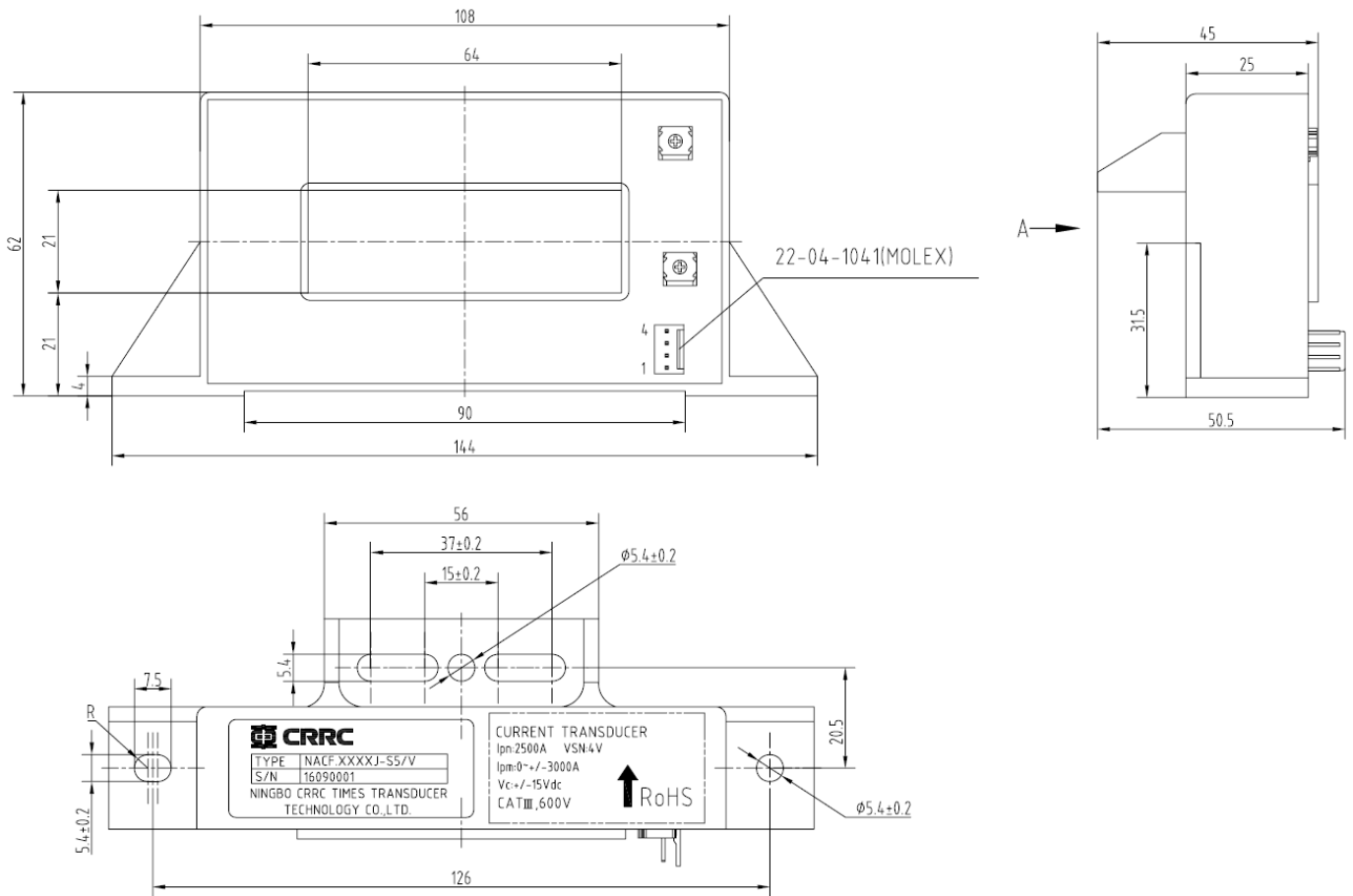
一般数据 General data

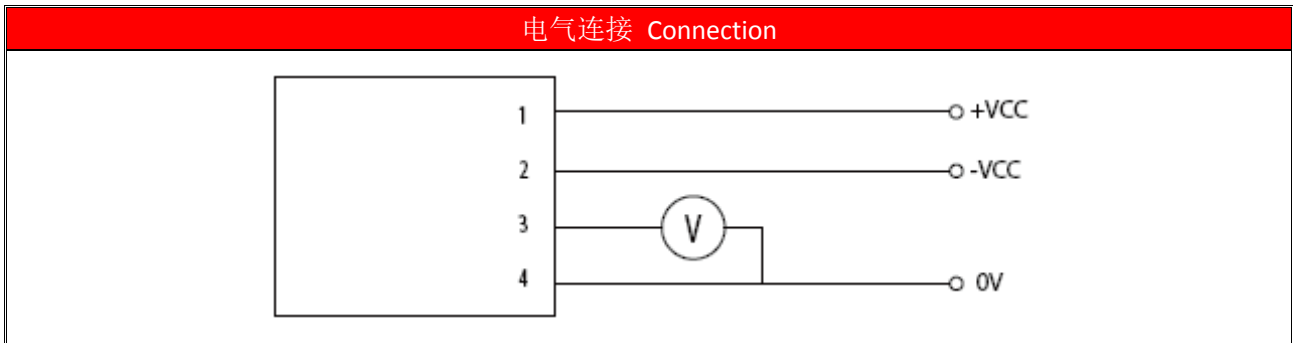
工作温度 Ta	Ambient operating temperature	-40~+85℃
储存温度 Ts	Ambient storage temperature	-45~+90℃
重量 m	Mass	≤460g

绝缘耐压 Insulation coordination

耐压	Voltage for AC insulation test, 50Hz,1min	5kV
绝缘电阻 R _{IS}	Isolation resistance	≥1000MΩ
爬电距离	Creepage distance	15.7mm
电气间隙	Clearance	12.7mm

NACF.1000J-S5/V 电压传感器外形图 Dimensions NACF.1000J-S5/V Series (in mm)





机械特征 Mechanical characteristics		备注 Remark
未注公差 General tolerance	±1 mm	<ol style="list-style-type: none"> 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. 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. 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). 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); (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;
传感器安装方式一 Transducer fastening	1 hole and 1 notch $\varnothing 5.5\text{mm}$ 2 M5 steel screws	
传感器安装方式二 Transducer fastening	1 hole and 2 notches $\varnothing 5.5\text{mm}$ 3 M5 steel screws	
推荐力矩 Recommended fastening torque	2.5 N · m	
穿心孔 Primary through-hole	64 × 21mm	
次边电气连接 Connection of secondary	Molex 22-04-1041	