

tNetrol-NACL300C-S5 电流传感器 Current Transducer

版本: A

产品说明

Applications

该磁平衡式霍尔电流传感器适用于对交流、直流和脉动电流的隔离精确测量，测量时一次侧与二次侧之间完全绝缘。

For the electronic measurement of currents: AC, DC IMPL.,etc.,with galvanic isolation between the primary (high power) and the secondary (electronic) circuits.



产品优点 Advantages	产品应用 Applications	参照标准 Standards
高精度 Excellent accuracy	交流变频器 AC variable-frequency drives	EN50178
线性度好 Very good linearity	电池供电 Battery supplied applications	EN50155
低温漂 Low temperature drift	变流器/逆变器 converter /inverter	
宽频带 Wide frequency bandwidth	UPS/SVG	
快速响应 Optimized response time		

主要电气参数 Main electrical data

额定测量电流 I_{PN}	Primary nominal current rms	300A
测量范围 I_P	Primary current measuring range	$\pm 700A$
匝比	Conversion ratio	1:2000
电源电压 V_C	Supply voltage	$\pm 15V(1\pm 5\%)$
额定测量输出 I_{SN}	Secondary nominal current rms	150mA
二次侧电流消耗 $I_C(@\pm 24V)$	Current consumption	$\leq 25mA + I_{SN}$
隔离耐压	Isolation test:Between the primary circuit to the secondary circuit	5.5 kVrms/50Hz/1min

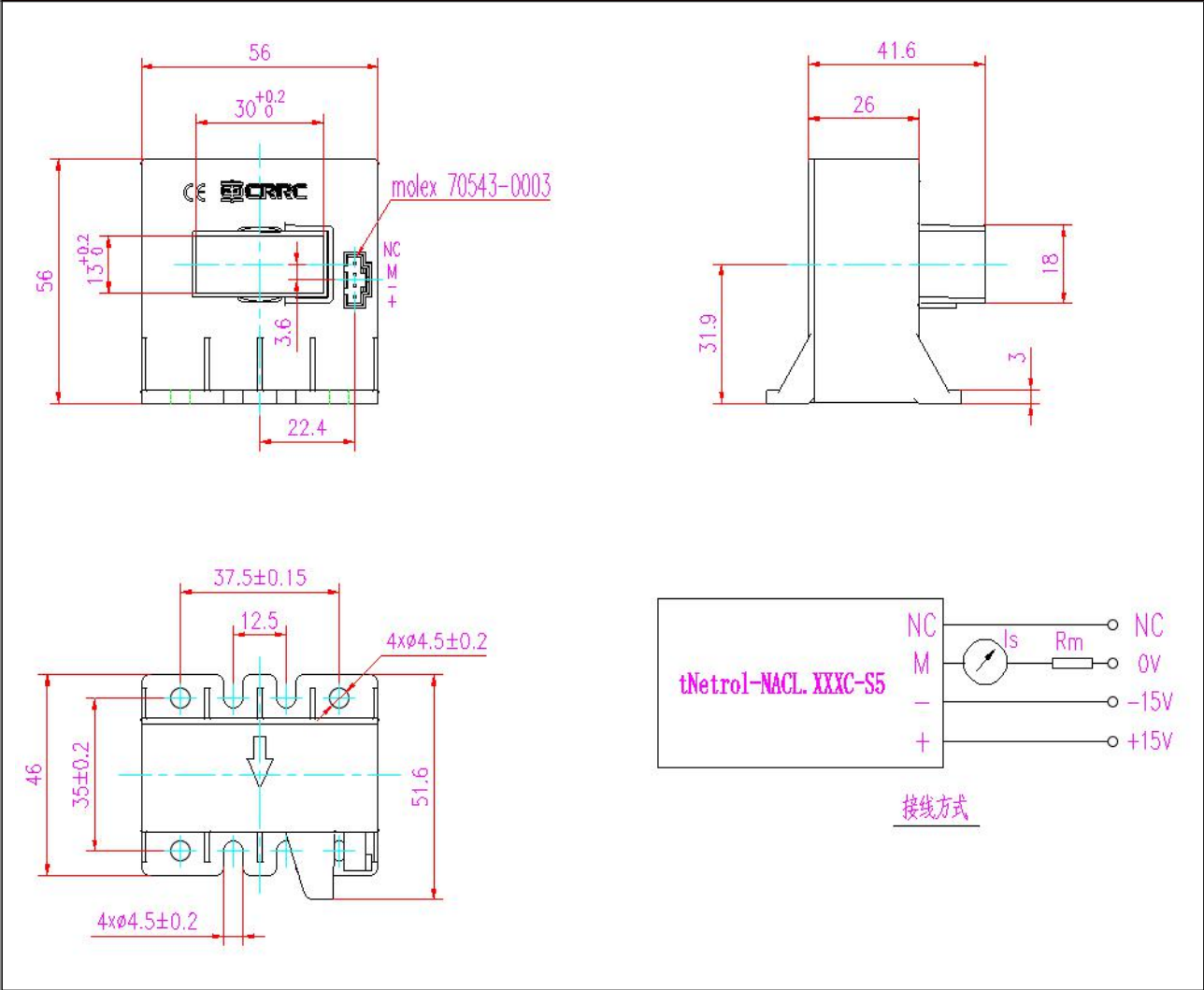
精度 - 动态参数 Accuracy - Dynamic performance data

基本误差 δ_i (@ I_{PN} , $T_A=25^\circ C$)	Overall Accuracy	$\leq \pm 0.9\%$
线性度误差 δ_L (@ I_{PN} , $T_A=25^\circ C$)	Linearity error	$< 0.1\%$
零点输出电流 I_O (@ $I_P=0$, $T_A=25^\circ C$)	Offset current	$\leq \pm 0.3mA$
零点温漂 I_{OT}	Thermal drift	$\leq \pm 0.5mA(-40^\circ C \sim +85^\circ C)$
响应时间 t_r	Response time to 90% of I_{PN} step	$\leq 1\mu s$
di/dt 精确度	di/dt Accurately followed	$> 50A/\mu s$

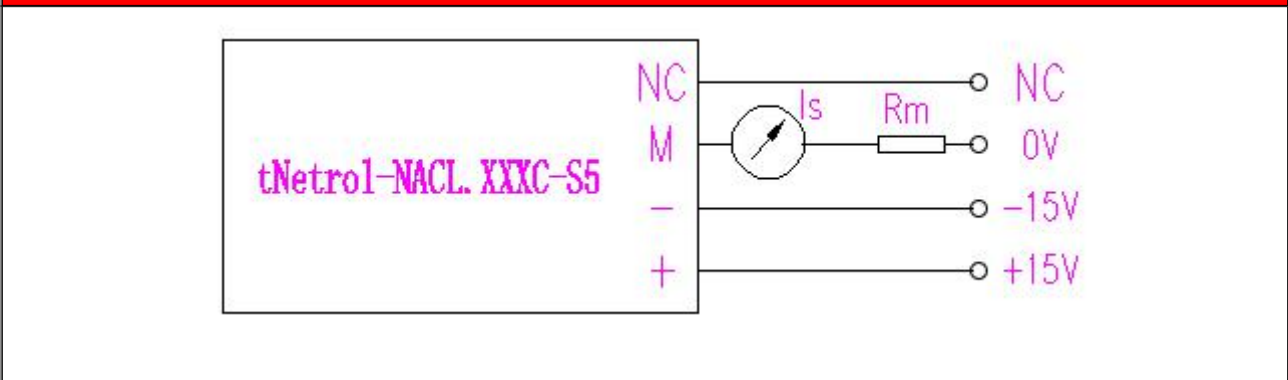
一般数据 General data

工作温度 Ta	Ambient operating temperature	-40°C~+85°C
储存温度 Ts	Ambient storage temperature	-45°C~+90°C
重量 m	Mass	≤145g

外形图 Dimensions (in mm)



电气连接 Connection



机械特征 Mechanical characteristics		备注 Remark
未注公差 General tolerance	$\pm 1 \text{ mm}$	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. 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. 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). 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); (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; 5. 未注公差 $\pm 1 \text{ mm}$ ； Did not note the tolerance $\pm 1 \text{ mm}$ ；
传感器安装方式(推荐) Transducer fastening (Recommended)	4hole $\varnothing 4.5 \text{ mm}$	
推荐力矩 Recommended fastening torque	$2.5 \text{ N} \cdot \text{m}$	
母排尺寸(推荐) Bus bar (Recommended)	$13 \text{ mm} \times 30 \text{ mm}$	
次边电气连接 Connection of secondary	molex 70543-0003	