

产品说明

Applications

NACL-1000B-S1 磁平衡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 Applications	参照标准 Standards
高精度 Excellent accuracy	交流变频器 AC variable speed drives	
线性度好 Very good linearity	私服电机驱动 Servo motor drives	GB/T 25119-2010
低温漂 Low temperature drift	电池供电 Battery supplied applications	EN50178
宽频带 Wide frequency bandwidth	变流器/逆变器 converter /inverter	EN50155
快速响应 Optimized response time	UPS/SVG	

主要电气参数 Main electrical data

(@ $\pm I_{PN}$, $T_A = 25^\circ\text{C}$)

额定测量电流 I_{PN}	Primary nominal current	1000A
测量范围 I_{PM}	Primary current measuring range	$\pm 2100\text{A}$
电源电压 V_C	Supply voltage	DC $\pm (15\sim 24) \times (1 \pm 5\%) \text{V}$
电流消耗 $I_C(@\pm 24\text{V})$	Current consumption	$\leq \pm 35\text{mA} + I_{SN}$
额定测量输出 I_{SN}	Output current	200mA
匝比	Conversion ratio	1:5000
负载电阻 R_M	Load resistance	$\begin{aligned} & @\pm 15\text{V}, \pm 1000\text{A}: \\ & 0\Omega \sim 23\Omega(70^\circ\text{C}) \\ & 0\Omega \sim 19\Omega(85^\circ\text{C}) \\ & @\pm 15\text{V}, \pm 1300\text{A}: \\ & 0\Omega \sim 7\Omega(70^\circ\text{C}) \\ & @\pm 24\text{V}, \pm 1000\text{A}: \\ & 0\Omega \sim 63\Omega(70^\circ\text{C}) \\ & 10\Omega \sim 61\Omega(85^\circ\text{C}) \\ & @\pm 24\text{V}, \pm 2100\text{A}: \\ & 0\Omega \sim 6\Omega(70^\circ\text{C}) \end{aligned}$

精度 - 动态参数 Accuracy - Dynamic performance data

基本误差 $\delta_i(@I_{PN}, T_A=25^\circ\text{C})$	Overall Accuracy	$\leq \pm 0.4\%$
线性度 $\delta_L(@I_{PN}, T_A=25^\circ\text{C})$	Linearity error	$\leq \pm 0.1\%$
零点输出电流 $I_0 (@I_P=0, T_A=25^\circ\text{C})$	Offset current	$\leq \pm 0.4\text{mA}$
零点温度漂移 I_{OT}	Temperature coefficient of δ_{Zt}	$\leq \pm 0.8\text{mA}$

响应时间

 T_R (90% of I_{PN} & $|di/dt| > 50 A/μs$)Step response time to 90 % of I_{PN}

≤1μs

一般数据 General data

工作温度 T_a

Ambient operating temperature

-40~+85 °C

储存温度 T_s

Ambient storage temperature

-45~+90 °C

重量 m

Mass

≤850g

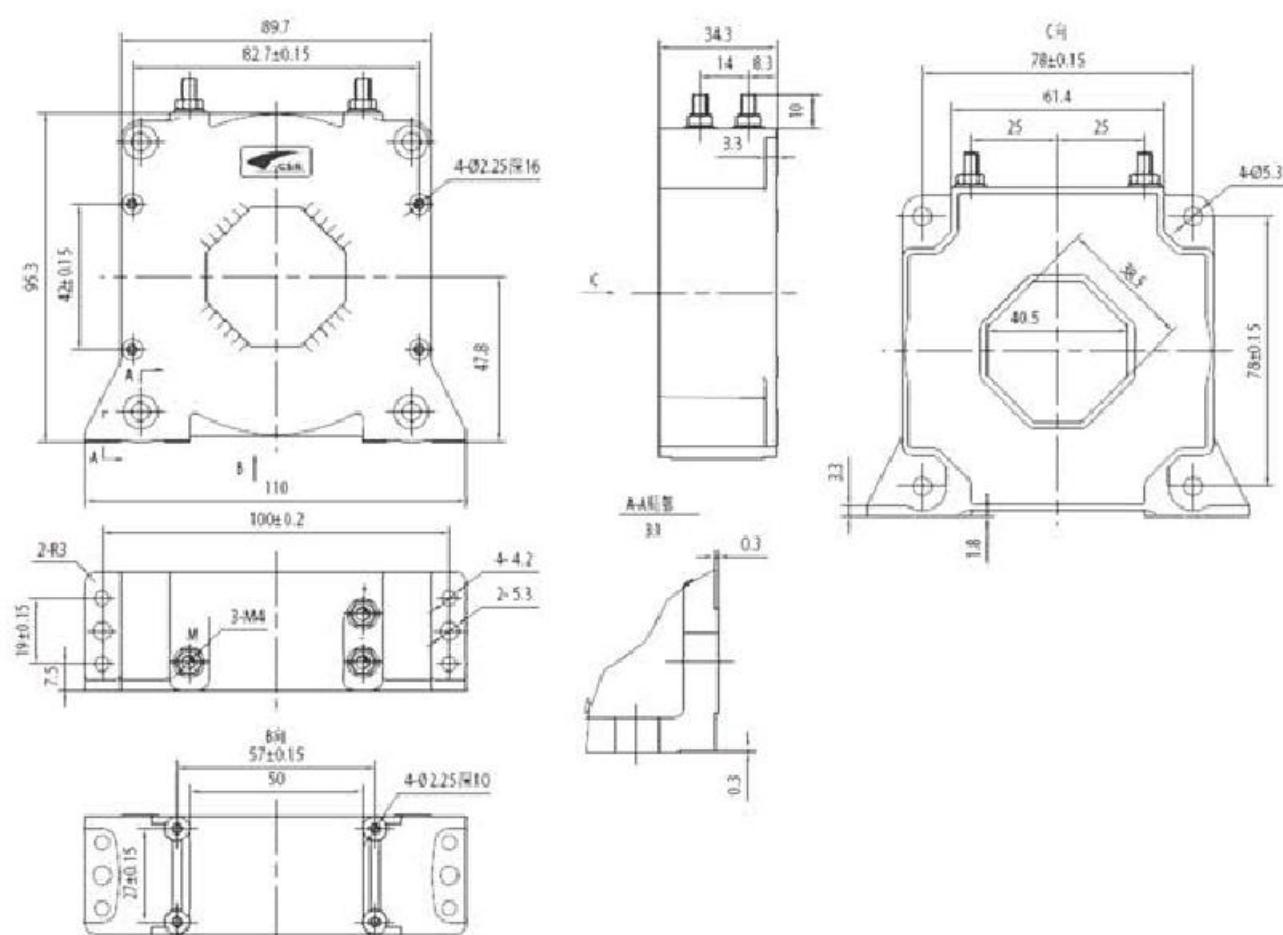
绝缘耐压 Insulation coordination

耐压

Voltage for AC insulation test, 50Hz, 1min

3.8kV

NACL.1000B-S1 电流传感器外形图 Dimensions NACL.1000B-S1 Series (in mm)



电气连接 Connection

