

**tNtrol-NACL.500Q1-S3 (TE6898000000-001) 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 speed drives	EN50178
线性度好 Very good linearity	私服电机驱动 Servo motor drives	EN50155
低温漂 Low temperature drift	电池供电 Battery supplied applications	
宽频带 Wide frequency bandwidth	变流器/逆变器 converter /inverter	
快速响应 Optimized response time	UPS/SVG	

**主要电气参数 Main electrical data**

额定测量电流 $I_{PN}$ (A)	Primary nominal current rms	500A
测量范围 $I_P$ (A)	Primary current measuring range	0~±1200
匝比	Conversion ratio	1:4000
电源电压 $V_C$ (V)	Supply voltage	DC±(15~24)×(1±10%)V
额定测量输出 $I_{SN}$ (mA)	Secondary nominal current rms	125mA
测量电阻 $R_M$ (Ω)	Measuring resistance	
	$R_{Mmin}$ $R_{Mmax}$	
with ±15V @±500A max:	0Ω   50Ω	
@±900A max:	0Ω   7Ω	
with ±24V @±500A max:	0Ω   110Ω	
@±1200A max:	0Ω   20Ω	
二次侧电流消耗 $I_C$ (@±24V)	Current consumption	≤35mA+ Secondary output current $I_{SN}$
隔离耐压	Isolation test: Between the primary circuit to the secondary circuit	10kVrms/50Hz/1min

**精度 - 动态参数 Accuracy - Dynamic performance data**

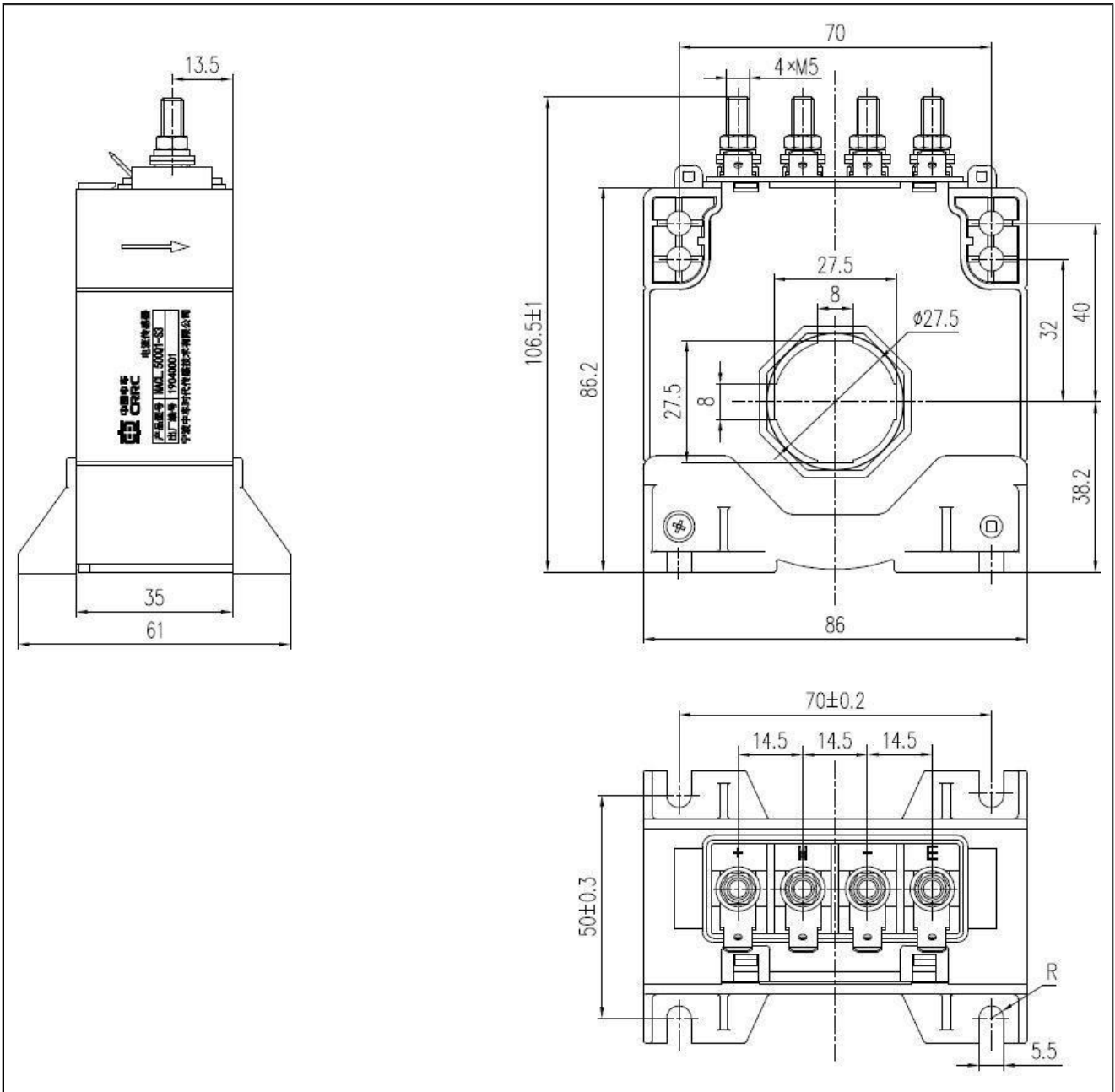
基本误差 $\delta_i$	≤±0.6%
-----------------	--------

(@I <sub>PN</sub> , T <sub>A</sub> =25℃)	Overall Accuracy	
线性度误差 δ L (@I <sub>PN</sub> , T <sub>A</sub> =25℃)	Linearity error	<0.1%
零点输出电流 I <sub>0</sub> (@I <sub>P</sub> =0, T <sub>A</sub> =25℃)	Offset current	≤±0.5mA
零点温漂 I <sub>OT</sub>	Thermal drift	≤±0.8mA (-40℃~+85℃)
响应时间 t <sub>r</sub>	Response time to 90% of I <sub>PN</sub> step	≤1us
di/dt 精确度	di/dt Accurately followed	>100A/us
频率带宽 BW	Frequency bandwidth(-1dB)	DC..100kHz

**一般数据 General data**

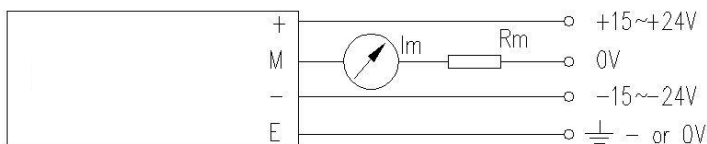
工作温度 T <sub>a</sub>	Ambient operating temperature	-40℃~+85℃
储存温度 T <sub>s</sub>	Ambient storage temperature	-45℃~+90℃
电气间隙	Clearance distance dCl mm	57
爬电距离	Creepage distance dCp mm	44
相对漏电起痕指数	CTI	>175
重量	Mass	≤400g

**外形图 Dimensions (in mm)**



电气连接 Connection

Connection of secondary: 4 M5 threaded studs or Faston 6.3×0.8



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  $\blackrightarrow$  方向一致时，传感器输出  $I_{SN}$  为正。The sensor output  $I_{SN}$  is positive when IP flows in the direction of the arrow .

传感器安装方式(推荐) Transducer fastening (Recommended)	4 hole $\varnothing$ 5.5mm 4 screws M5	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。 Shielded wire recommended for secondary connection, cable shielding layer close to the terminals can be connected to housing case, negative power terminal or 0V(GND).
推荐力矩 Recommended fastening torque	3.5 N · m	
母排尺寸(推荐) Bus bar(Recommended)	$\varnothing$ 27.5mm	
次边电气连接 Connection of secondary	4 M5 threaded studs Faston 6.3×0.8	
推荐力矩 Recommended fastening torque	2.2 N · m	