

## NACA.20T-P6/VN 电流传感器 Current Transducer

版本: A1

产品说明

Applications

NACA.20T-P6/VN 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	新能源 New energy	EN50178:2017
优秀线性度 Very good linearity	光伏逆变器 Solar inverter	IEC61010-1:2010
		IEC62109-1:2010

极限参数 maximum ratings		
供电电压 (不损坏)	Power supply (not destructive)	7.5V
供电电压 (不进入非标模式)	Power supply (not entering non standard mode)	6.5V
原边导体最高温度	Primary conductor max temperature	110°C
人体模式 ESD	HMB ESD	2KV

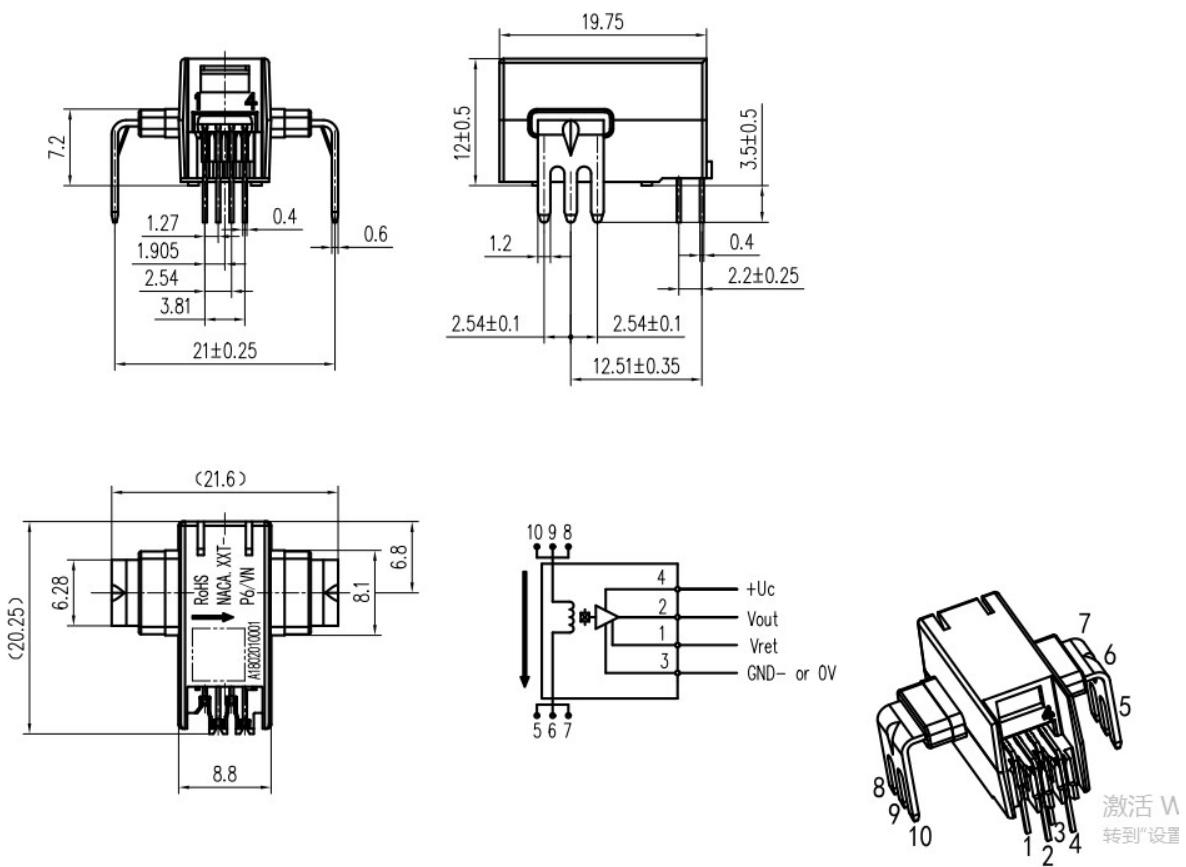
主要电气参数 Main electrical data (@ $\pm I_{PN}$ , $T_A = 25^\circ C$ )		
额定测量电流 $I_{PN}$	Primary nominal current	20A
测量范围 $I_{PM}$	Primary current measuring range	$\pm 50A$
电源电压 $V_C$	Supply voltage	+ 5 (1±5%)V
灵敏度 $G$	Sensitivity	40mV/A
电流消耗 $I_C$	Current consumption	$\leq 23mA$
额定测量输出 $V_{OUT}$	Output voltage	$2.5V \pm 0.8V$
外接参考电压范围 $V_{REF}$	$V_{REF}$ external range	1V—2.65V (Input)
输出内阻 $R_{OUT}$	Output internal resistance	$\leq 10 \Omega$
原边导体电阻 $R_P$	Primary conductor resistance	$0.3m\Omega$
电容负载 $C_L$	Allowed capacitive load	$< 1nf$

精度 - 动态参数 Accuracy - Dynamic performance data		
灵敏度误差 $\delta$ (@ $I_{PN}$ , $T_A = 25^\circ C$ )	Sensitivity error (@ $I_{PN}, T_A = 25^\circ C$ )	$\leq \pm 0.8\%$
总精度 $\delta_{tot}$ (@ $I_{PN}$ , $T_A = -40\sim 105^\circ C$ )	Accuracy (@ $I_{PN}$ )	$\leq \pm 2.5\% @ 85^\circ C$ $\leq \pm 3.4\% @ 105^\circ C$ $\leq \pm 3.9\% @ -40^\circ C$

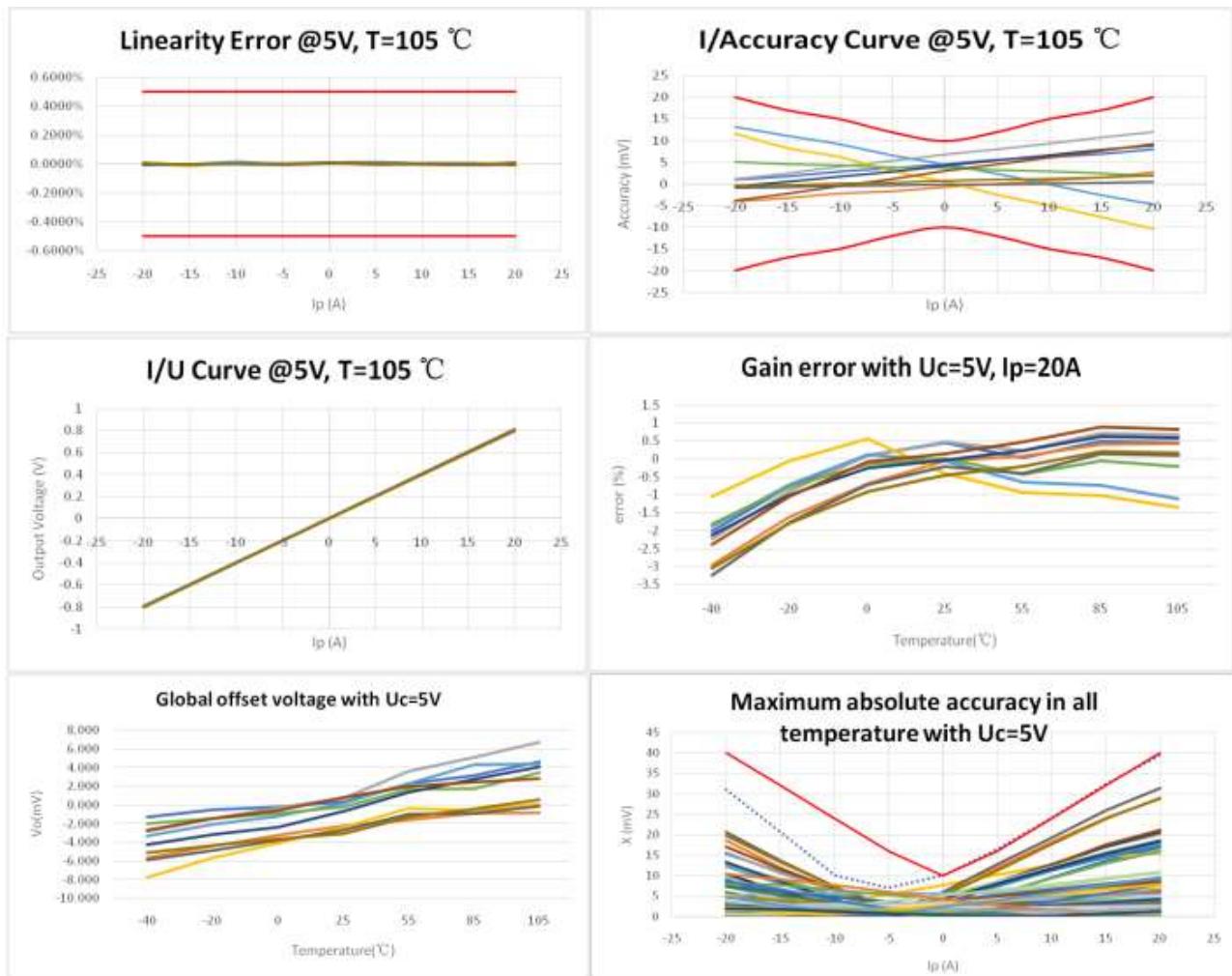
线性度误差 $\delta_L(0 \dots \pm I_{PN}, T_A=25^\circ C)$	Linearity error	$\leq 0.5\%$
零点输出误差 $V_{out}-V_{ref}(T_A = 25^\circ C)$	Electrical offset voltage	$\leq \pm 5mV$
磁偏移电流 ( $10^*I_{pn}$ ) $I_{om}(A)$	Magnetic offset current $I_{om}(A)$	$\leq \pm 0.4A$
零点温度漂移 $V_{out-ref}$ ( $T_A = -40^\circ C \sim +105^\circ C, V_c=5V$ )	Temperature coefficient of $V_{oe}$	$\leq \pm 0.075mv/^\circ C$
增益温度漂移 ( $T_A = -40^\circ C \sim +105^\circ C, V_c=5V$ )	Temperature coefficient of $G$	$\leq \pm 250PPM/^\circ C (-40^\circ C \sim 105^\circ C)$ $\leq \pm 200PPM/^\circ C (-20^\circ C \sim 105^\circ C)$
基准温度漂移 ( $T_A = -40^\circ C \sim +105^\circ C, V_c=5V$ )	Temperature coefficient of $V_{ref}$	$\leq \pm 170ppm/^\circ C$
响应时间 $T_r$ $T_r(90\% \text{ of } I_{PN} \& di/dt > 50 A/\mu s)$	Step response time to 90 % of $I_{PN}$	$\leq 2\mu s$
带宽(-3dB)BW	Frequency bandwidth (-3dB)	240kHz
一般数据 General data		
工作温度 $T_a$	Ambient operating temperature	-40~+105 °C
储存温度 $T_s$	Ambient storage temperature	-40~+125 °C
重量 m	Mass	5g

绝缘 Isolation		
隔离耐压 (primary- secondary)	Isolation test: Between the primary circuit to the secondary circuit	4.3kVrms/50Hz/1min
电气间隙	Clearance	8mm PCB 安装
爬电距离	Creepage distance	8mm PCB 安装
CTI	Comparative tracking index	600
脉冲耐受电压 1.2/50us	Impulse withstand voltage 1.2/50us	8kV
冲击电流 8/20us	Impulse current	20KA
静电等级人体模型	ESD(Human)	2kV
外壳材料	Case material	UL 94-V0

Dimensions (in mm)



测试数据分享



机械特征 Mechanical characteristics	备注 Remark
未注公差 General tolerance	±0.2mm