

产品说明

Applications

该扁平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.



产品特点 Advantages	产品应用 Applications	检测标准 Standards
高精度 Excellent accuracy	交流变频器 AC variable speed drives	EN50178
线性度好 Very good linearity	电池供电 Battery supplied applications	EN50155
低温漂 Low temperature drift	变频器/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_{N1} (A)	Primary nominal current rms	300
测量范围 I_1 (A)	Primary current measuring range	0 ~ ±300
匝比	Conversion ratio	1:2000
电源电压 V_C (V)	Supply voltage	+/-12V/+/-15V(+/-5%)
额定测量输出 I_{N2} (mA)	Secondary nominal current rms	100mA
测量电阻 R_m (Ω)	Measuring resistance	
	R_{min}	R_{max}
with +/-12V @ +/-200A max:	0 ohm	50ohm
@ +/-300A max:	0ohm	26ohm
with +/-15V @ +/-200A max:	0ohm	73ohm
@ +/-300A max:	0ohm	40ohm
二次侧电流消耗 I_2 (@±15V)	Current consumption	≤25mA+ Secondary output current I_{N2}
隔离耐压	Isolation test: Between the primary circuit to the secondary circuit	6 kVrms/50Hz/1min

精度 - 动态参数 Accuracy - Dynamic performance data

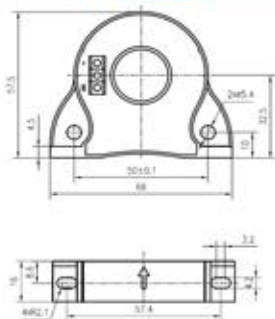
基本误差 δI (@ I_{N1} , T_{20})	Overall Accuracy	≤±0.5%
线性度误差 δL		<0.1%

(@ I_{IQ} , $T_a=25^\circ\text{C}$)	Linearity error	
零点输出电流 I_{IQ} (@ $I=0$, $T_a=25^\circ\text{C}$)	Offset current	$\leq \pm 0.2\text{mA}$
零点温漂 I_{IQ}	Thermal drift	$\leq \pm 0.6\text{mA} (-25^\circ\text{C} \sim +85^\circ\text{C})$
响应时间 t_r	Response time to 90% of I_{IQ} step	$\leq 1\mu\text{s}$
di/dt 精度	di/dt Accurately followed	$> 50\text{A}/\mu\text{s}$
频率带宽 BW	Frequency bandwidth(-1dB)	DC..100kHz

一般数据 General data

工作温度 T_a	Ambient operating temperature	$-25^\circ\text{C} \sim +85^\circ\text{C}$
储存温度 T_s	Ambient storage temperature	$-40^\circ\text{C} \sim +90^\circ\text{C}$
质量 m	Mass	$\leq 100\text{g}$

外形图 Dimensions (in mm)



电气连接 Connection



<p>未注公差 General tolerance</p> <p>±1 mm</p>	<p>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_{S1} 为正。When measuring the current direction of arrow mark on direction and sensor, the sensor output I_{S1} is positive.</p>
<p>传感器安装方式一(推荐) Transducer fastening (Recommended)</p> <p>2hole $\phi 4.2\text{mm}$ 2 M4 steel screws</p>	<p>2. 产品二次侧连接线优选屏蔽线，屏蔽层靠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.</p>
<p>传感器安装方式二(推荐) Transducer fastening (Recommended)</p> <p>2 hole $\phi 5.4\text{mm}$ 2 M5 steel screws</p>	<p>3. 电量传感器安装螺钉孔的垂直度要求：要求国家标准 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).</p>
<p>推荐力矩 Recommended fastening torque</p> <p>2.5 N · m</p>	<p>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);</p>
<p>母排尺寸(推荐) Bus bar (Recommended)</p> <p>$\phi 15\text{mm}$</p>	<p>(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 up and down;</p>
<p>次边电气连接 Connection of secondary</p> <p>Three core pressure coupling</p>	<p>5. 未注公差±1mm。Did not note the tolerance + / - 1 mm;</p>