承　认　书
SPECIFICATION FOR APPROVAL

客　户 Customer：

产品名称 Project：　可调电阻

规格型号 Part No：　3266W系列

贵公司承认印 Approval signatures

料 号/Part No.	签　章/Signatures

日期 Date:

拟制/Drawn	王宗华	
审核/Check	陈淼淼	
批准/Approved	张春华	

1、一般事项 GENERAL

1.1 适用范围	Scope
此规格书适用于 3266 预调电位器	This specification applies to 3266 preset potentiometer
1.2 使用温度范围： -55℃ ~ 125℃	Operating temperature range
1.3 保存温度范围：-55℃ ~ 125℃	Storage temperature range
1.4 标准状态 除另外有规定外，测量应在以下状态下进行：	Standard atmospheric conditions Unless otherwise specified,the standard range of atmospheric conditions for making measurements And test is as following limits
温 度 Ambient temperature ：	15℃ ~ 35℃
相对湿度 Relative humidity ：	45% ~ 85%
气 压 Air pressure ：	86kpa ~ 106kpa
如果对上述所提到的条件中所做的实测值有疑问的话，应使用以下条件进行测量：	If doubt arises on the decision based on the measured values under the above-mentioned conditions,the following conditions shall be employed
温 度 Ambient temperature ：	20℃±2℃
相对湿度 Relative humidity ：	60% ~ 70%
气 压 Air pressure ：	86kpa ~ 106kpa

2、电气性能 ELECTRICAL SPECIFICATIONS

项目 Item		条件 Conditions	规格 Specifications
2.1	总阻值 Total Resistance	电位器 1～3 端全部电阻值。 Measurement shall be made by the resistance between terminal R1and R3.	500Ω
2.2	阻值线性 Resistance taper	电阻值变化规律 Resistance changes	直线 B （line）
2.3	总阻值允许差 Total Resistance tolerance	电位器 1～3 端总阻值之公差。 Measurement shall be made by the resistance tolerance between terminal R1 and R3.	±10%
2.4	额定功率 Rated power	电位器 1～3 端能连续承受之最大之功率 Rated power is based on continuous full load operation at the maximum voltage between terminal R1 and R3.	Taper B: 0.25W(70℃)
2.5	残留电阻 Residual resistance	电位器 1～2 端（将轴心旋转至 1 端底部测）及 2～3 端（将轴心旋转至 3 底部测）残留 Test residual resistance beteen terminal R1 andR2;terminal R2 andR3	≤1%RΩ
2.6	转动噪声 rotation of noise	轴心从电位器 1 端以 30 转/分匀速旋转至 3 端时电位器所呈现之杂音情况,DC12V The murmur will appear when shaft turn from terminal 1 to terminal 3 by 30 rounds/minute equably speed. DC12V	≤3%R

2.7	额定电压 Rated voltage	额定电压超过最高使用电压时，最高使用电压为额定电压 When the rated voltage exceeds the maximum operating voltage,the maximum operating voltage shall rated voltage 最高使用电压 Maximum operating voltage	Rated voltage $E = \sqrt{P*R}$ Taper B: 220V (DC or AC 峰值）
2.8	耐电压 Withstand voltage	频率 50~60Hz，电流 2mA AC 500V 1 分钟，端子与本体间。 Measuring frequency:50~60Hz Current:2mA 500V AC for 1 minute,Between terminals and body.	电气性能符合规定要求 Electrical characteristics shall be satisfied with specification

3、机械性能 MECHANICAL SPECIFCATIONS

项目 Item		条件 Conditions	规格 Specifications
3.1	旋转角度 Total rotation angle	指轴置于 1 端最底部转往 3 端最底部之旋转角度 The angle is measured by rotating shaft from the end of terminal R1 to the end of terminal R3.	12 圈±2 圈
3.2	回转力矩 Rotation torque	指轴在周围温度 5°～35°以每秒钟 60°匀速转动所需之力矩 Rotational torque when turn the shaft :without special provision,rotational speed is 60°/s in ambient temperature 5-35°C	≤25mN.m

4、使用上的事项 APPLICATION NOTES

避免储藏于高温、高湿及腐蚀的场所。产品购入后需在 12 个月内使用完。开箱后未使用的产品应存放在防潮、防毒的环境中。

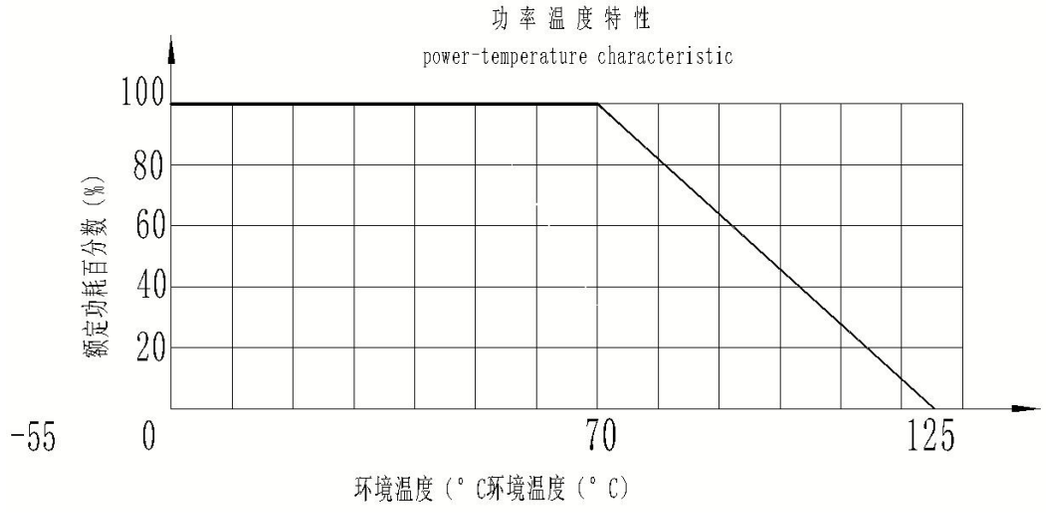
Avoid storing the products in a place at high humidity and in Corrosive gases. please use this product with 12 months limitation. The unused products after unpacking should be stored in a moisture-proof and virus-proof environment.

5、耐久性能 ENDURANCE CHARACTERISTICS

	项目 Item	条件 Conditions	规格 Specifications
5.1	使用寿命 Rotation life	在无负荷条件下轴以 300-600 周/小时的速度，有效旋转角度 90%以上。 Under no-load conditions, the shaft can rotate more than 90% at a speed of 300-600 cycles/hour 200 次 200cycles	全阻值变化：初期值的±10% Change in total resistance is relative to the value before test:10%
5.2	焊锡耐热性 Resistance to soldering heat	手工焊接 Manual soldering： 温度 300℃以下，时间 3 秒以内。 Bit temperature of soldering iron:300℃less than Application time of soldering iron:within 3S. 槽焊 Dip soldering: 使用基板：t=1.6mm 的单面覆铜板。 Printed wiring board:single-sided copper clad laminate board with thickness of 1.6mm, 预热：基板表面温度 100℃以下，时间 1 分钟以内。 Preheating:1:Surface temperature of board:100℃ or less 2:preheating time:within 1 min. 焊接：温度 260℃ ±5℃或以下，时间 3 秒以内。 Soldering:Solder temperature:260℃ ±5℃ or less.Immersion time:within 3S.	不得有绝缘体的破损、变形、接触无异常。 Electrical characteristics shall be satisfied No mechanical abnormality.
5.3	可焊性 Soldering ability	260℃ ±5℃，持续时间 3S ±0.5S Dip the terminals into tin tank at 260℃±5℃ for 3±0.5 seconds	焊锡覆盖面积大于 75%以上 he soldering area should be more than 75%.
5.4	电阻随温度的变化 Resistance changes with temperature	干燥：在温度为 55℃±2℃，相对温度不超过±20%的烘箱中放置（24±4）小时，将电位器从箱中取出后应放在具有适当干燥剂的干燥器中冷却，并保持到规定的试验开始 Drying: At a temperature of 55℃ ±2℃,the relative temperature does not exceed ±20% in the oven for (24±4) hours, the potentiometer removed from the box should be placed in a dryer with an appropriate desiccant after cooling, and maintained until the specified test begins	-55℃~+20℃: △R/R≤±1.5% +20℃~+70℃: △R/R≤±1% +20℃~+125℃: △R/R≤±2.1%
5.5	干燥 dry	温度为 70℃,持续 16 小时 The temperature is 70℃for 16 hours atmospheric conditions for 1h.	观应无可见损伤,标志清晰 There should be no visible damage and clear signs

5.6	循环湿热试 Cyclic humid heat test	从室温逐渐升温至 55℃,保持一段时间,再降至室温,总共持续 24 小时 The temperature rises gradually from room temperature to 55℃, holds for a period of time, and then drops to room temperature for a total of 24 hours	第一周期 First period
5.7	寒冷 cold	温度为-55℃， 持续 2 小时 The temperature is -55℃ for 2 hours	回转力矩: Rotation torque: ≤35mN.m
5.8	低气压 low-pressure	气压 8.5Kpa,试验温度 15℃～35℃之间,持续 1 小时 The pressure was 8.5Kpa and the test temperature was 15℃ ～35℃For one hour	无击穿或飞弧现象 No breakdown and flaring phenomenon
5.9	引出端强度 Outlet strength	当引出端处于它的正常位置,并用该元件的本体固定后,沿着它的轴向以 5N 的力加到引出端上,并在离开元件本体的方向上起作用,该拉力应(无任何冲击地)逐渐施加,然后保持（10±1）秒钟 When the leading end is in its normal position and fixed with the body of the element, a force of 5N is applied to the leading end along its axis and acts in the direction away from the body of the element, the tension should be applied gradually (without any impact) and then held for (10±1) seconds	外观无可见损伤 No visible damage to appearance △R≤ ±（5%R+0.1Ω）
5.10	振动 vibration	频率 10Hz～500Hz,振幅 0.75mm,在 X.Y.Z 三个方向上各保持 2 小时 The frequency is 10Hz ~ 500Hz, the amplitude is 0.75mm, and it is held in the three directions of X.Y.Z for 2 hours each	外观无可见损伤 No visible damage to appearance △R≤ ±（1%R+0.1Ω）
5.11	碰撞 impact	加速度:390m/S2,碰撞 4000 次, Acceleration :390m/S2, 4000 collisions,	△R≤ ±（1%R+0.1Ω）

附图



阻值简码表
Resistance SR code table

阻值 Resistance	代码 Code	阻值 Resistance	代码 Code
100Ω	101	47KΩ	473
500Ω	501	50KΩ	503
1KΩ	102	100KΩ	104
2KΩ	202	200KΩ	204
3.3KΩ	332	250KΩ	254
4.7KΩ	472	500KΩ	504
5KΩ	502	1MΩ	105
10KΩ	103	2MΩ	205
20KΩ	203	2.2MΩ	225

关于电路设计和布局结构设计的几点建议
Some suggestions on circuit design and layout structure design

1、由于电阻的存在，电位器在外加负载下会产生一定的热量，在设计时请于考虑。

Due to the presence of resistors, the potentiometer generates a certain amount of heat under an additional load. Please consider when designing.

2、 最好能将电位器当作四端组件作为调整电压的分压器使用，且接线方式宜选择“1”端接地，同时电位器的负载电阻 RI 应不小于电位器公称阻值 Rt 的 10 倍（见图 1）。除为了特别的设计需要，应避免将电位器当作二端组件作变阻器使用。因为电阻体与接触簧片之间的接触电阻不利于大电流通过，同时，由于仅使用了有效行程的一部分，如果动触点电流过大，可能造成局部过载而失效（见图 2）。

It is best to use the potentiometer as a four-end component as a voltage-adjusting divider, and the wiring method is appropriate to select "1" end ground, while the load resistance RI of the potentiometer should be no less than 10 times the nominal resistance value of the potentiometer Rt (see Figure1). Except for special design needs, the potentiometer should be avoided as a variant resistor for a second-end component. Because the contact resistance between the resistor and the contact reed is not conducive to the passage of large currents, and because only a portion of the effective stroke is used, the active contact current may be too large and may fail due to local overload (see Figure2).

3、 当电位器在直流电路中作为电流调节使用时，将有直流电流通过电位器的滑动臂。此时由于阳极氧化的原因，会导致电阻值的异常增加。在这种情况下，建议将电阻体的引出端子接负极，将滑动臂的引出端子接正极（见图 3）。

When the potentiometer is used as a current regulation in the DC circuit, the DC current passes through the sliding arm of the potentiometer. This causes an abnormal increase in the resistance value due to anode oxidation. In this case, it is recommended that the mains of the resistor be connect the terminal negative and the lead-out terminal positive pole of the sliding arm (see fig 3).

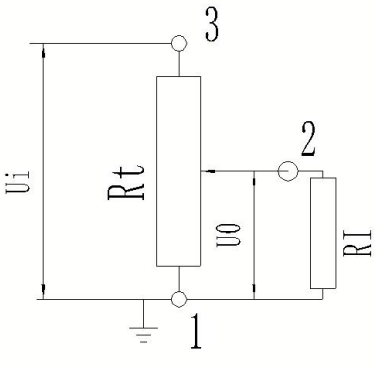


图1 作分压器(推荐)
As a Divider(recommend)

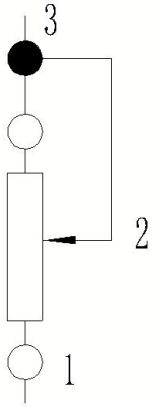


图2 作变阻器(不推荐)
As a Rheostat(Not recommend)

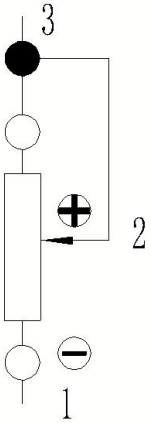
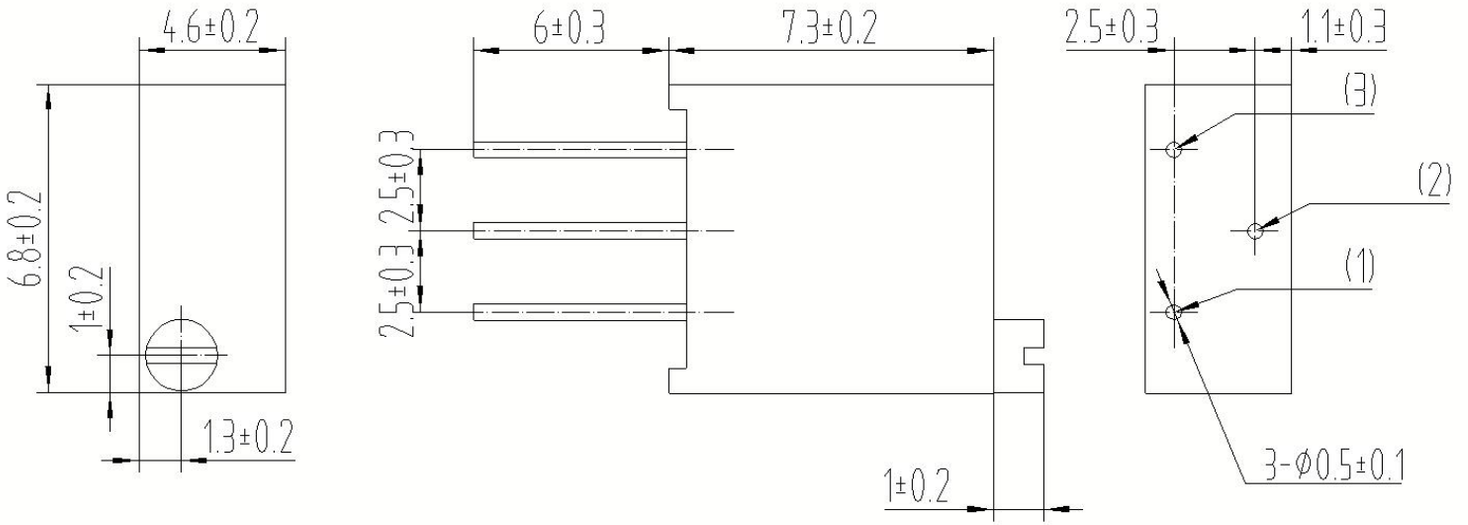
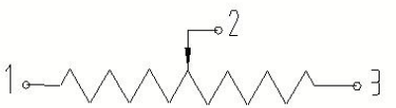
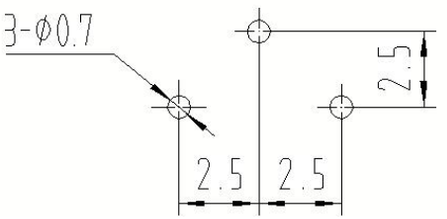


图3 正极接电刷(不推荐)
Positive brush(Not recommend)







		new		2015/5/3		A	瀚源
ECN BO.		DESCRIPTION.		DATE.		REV.	
DESIGNED	CHECKED	APPROVAL	DRAWING NUMBER			SCALT: 1/2	SCALE: 3:1
Mikey	Tom	Jerry	PART NAME	3266W-1-XXX	UNLESS OTHERWISE SPECIFIED,TOLERANCE:		X. ±0.25 X.x ±0.20 X.xx ±0.15 ANGULAIR ±3
			MODEL NAME	3266W-1-XXX			
			3RD ANGLE PROJ	HanElectricity Co.,LTD			FILE.NO.