1. 适用范围 Application：

本规格书适用 PUM-00011

The specifications apply　PUM-00011　use。

2. 测试环境 Standard test environment:

2-1	测试环境温度 Environment test	周围温度 20℃相对湿度 65%RH 为标准，如无争议发生可以在下述环境测试：周围温度 5-30℃相对湿度 40-85%RH。 The standard of environment test is the ambient temperature of 20℃ and relative humidity of 65%RH. If no disputes occur,the test can be conducted under the blow circumstance: the ambient temperature of 5~30℃ and relative humidity of 40~85%RH.
2-2	测试姿势（Position）	水平（Horizontal）
2-3	额定负载（Load）	空气压 50KPa（Air pressure 50 KPa）
2-4	使用温度范围 Operation temperature range	-20 ~60° C(Humidity to 30% to 85%RH)
2-5	保存温度范围 Preservation temperature range	-20 ~60° C(Humidity to 30% to 85%RH)

3　电气特性 Electrical characteristics:

3-1	额定电压 Rated voltage	DC12.0±0.5V	
3-2	使用电压范围 Operating voltage range:	DC9.6V~14.4V	
3-3	额定电流 Rated current	供电 DC12.0V，气泵空载工作时的最高电流＜1350 mA The highest current is less than 1350mA while the pump no load.	≤1350mA Less than 1350mA
3-4	空载流量 No load air flow	DC12V 输入气泵空载时的流量≥15.0 L/min While pressuring with DC12V the flow rate is required to be more than15.0 L/min	≥15.0 L/min More than 15.0 L/min
3-5	噪音 Noise	下垫 5cm 之海绵，距噪音计 50cm 之处，依 DC 12V 之电源充气压力从 0 到 50kpa 之后，所测得之 dB 值小于 65dB. The underlying 5 cm of the sponge, is apart from the noise	≤65dB Less than 65dB

		plan the place of 50 cm, to 5the DC 12 V power supply of air pressure from 0 to 50 kpa after before, the dB value is less than 65 dB.	
3-6	最大真空度 Maximum vocuum	输入 DC12V 之电压吸气压力从 0 到停止减压之最高真空值小于-58KPa. The maximum vocuum value shall be Less than -58KPa while pressurizing with DC 12V tank from 0 till dead-head vocuum value.	<-58kpa） Less than -58 kpa
3-7	再起动电压 Restart　voltage	500CC 容器中升压至-40 KPa 时暂停，再加压到-58KPa 时的最低启动电压。 In pressure -40 KPa input 9.0V voltage ,the pump well be action in one second .	≤DC9. 0V

4　环境试验　Environmental Tests：

4-1	低温放置试验 Low-temperature characteristic	放置在-20℃经 72 小时后，再取出置于常温(20±5℃)中 2 小时依下列专案测试无异状 3-3，3-4，3-5，3-6,3-7. Putting the pump in the temperature at negative -20 ℃　for 72 hours;then taking it out and putting it in a room temperature at 20± 5℃　for 2 hours,Under this circumstance,running through test 3-3，3-4，3-5，3-6,3-7 and finding out that the pump still performs well.
4-2	高温放置试验 High-temperature characteristic	在 60℃经 72 小时放置后，在放常温(20±5℃)中 2 小时依下列专案测试无异状 3-3, 3-4,3-5,3-6,3-7 Putting the pump in the temperature at 60℃　for 72 hours; then taking it out and putting it in a room temperature at 20±5 ℃　for 2 hours,Under this circumstance,running through test 3-2,3-3，3-4，3-5，3-6,3-7 and finding out that the pump still performs well.
4-3	高温高湿放置试验 High-temperature & High humidity	在温度 60℃，湿度 95%环境中经 72 小时取出置于常温(20±5℃)中 2 小时依下列专案测试无异状 3-3，3-4，3-5，3-6,3-7，3-8. Putting the pump in the temperature at 60℃　and the humidity at 95% for 72 hours;then taking it out and putting it in a room temperature at 20 ± 5 ℃　　for 2 hours.Under this circumstance,running through test 3-3，3-4，3-5，3-6,3-7，3-8 and finding out that the pump still performs well.
4-4	温湿度循环放置测试 Temperature & humidity cycle test	在经过12次的温湿度循环测试后:-20℃*2Hr → +25℃*1Hr →+60℃ 85%RH* 2Hr →+25℃*1Hr,需维持相同的性能.依下列专案测试无异状 3-3，3-4，3-5，3-6,3-7，3-8.After doing the temperature and humidity cycle test,-20℃*2Hr → +25℃*1Hr→

地址：深圳市坪山新区坑梓镇彤田社区龙兴南路104-2号

		+60℃ 85%RH* 2Hr → +25℃*1Hr,for twelve times,the pump shall still perform the same functions proved by running through test 3-3, 3-4，3-5，3-6,3-7.
4-5	寿命试验 Life test	500CC 气缸，DC12V 输入，气泵充气 15 秒后停止，排气 15 秒为一次，共进行 50000 次，累计时间 500 小时以上。 500 CC cylinder, DC12V input, air pump inflatable 15 seconds after stop, exhaust 15 seconds for a time, a total of 50000 times, total time 500 hours.

5 特殊环境测试 Thermal test performance:

在经过发下 5-1 和 5-2 项目之特殊环境测试后，要产品须可满足项目 3-3 至 3-8 之基本性能。

After the pump has been tested through test 5-1 and 5-2, it must be suitable the basic

performance required by item 3-2 to 3-8.

| 5-1	低温环境测试 Low-temperature environment test	在温度 0℃经五小时后,在此温度下依下列专案测试无异状，3-3，3-4，3-5，3-6,3-7. Under a temperature of 0 ℃ for 5 hours, then examining the pump by test 3-3，3-4，3-5，3-6,3-7 and finding out it still perform well.
5-2	高温环境测试 High-temperature environment test	在温度 50℃经五小时后,在此温度下依下列专案测试无异状，3-3，3-4，3-5，3-6,3-7. Under a temperature of 50 ℃ for 5 hours, then examining the pump by test 3-3，3-4，3-5，3-6,3-7 and finding out it still perform well.

6 其它 Others:

| 6-1	端子强度 The lead tension	以 0.5 公斤法码与端子平行负载无异常者. Hanging a 0.5 Kg static load on the terminal of the pump will not cause a damage on the pump.
6-2	落下实验 Fall test	使用标准的包装方式,在水泥地上将其从 50cm 的高度分别从正面,侧面,及边角落下,其性能及结构需无异常. Basic performance and the struture shall not be defected after following test;With a standard packaging conditions,then dropping it at the front,side,and edges part from the height of 50 cm to the concrete floor.
6-3	外观 Appearance	产品无不适当的外观和刮伤, 脏污…等. The appearances of the pump shall not contain cracks and impurities.
6-4	异常试验	以 DC12V 连续 8 小时通电无燃烧,发烟现象.

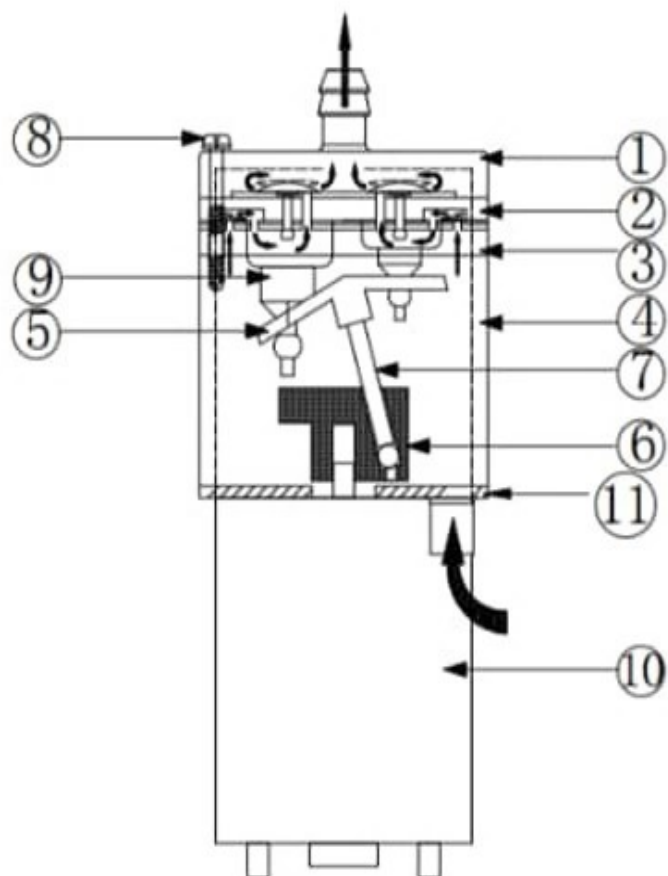|		
	Unusual test	There is no burning and smoking occurrence while the power is on with DC 12V for 8 hours continuously.
6-5	焊锡要求	马达端子焊锡作业需在焊锡温度 380℃下,3 秒内操作完成. Motor terminal for Soldering process the heat temp. is controlled by 380℃,and operating time is for 3 sec only.

7 标签内容 Labels:
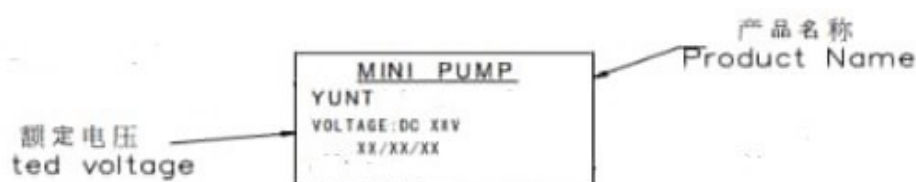
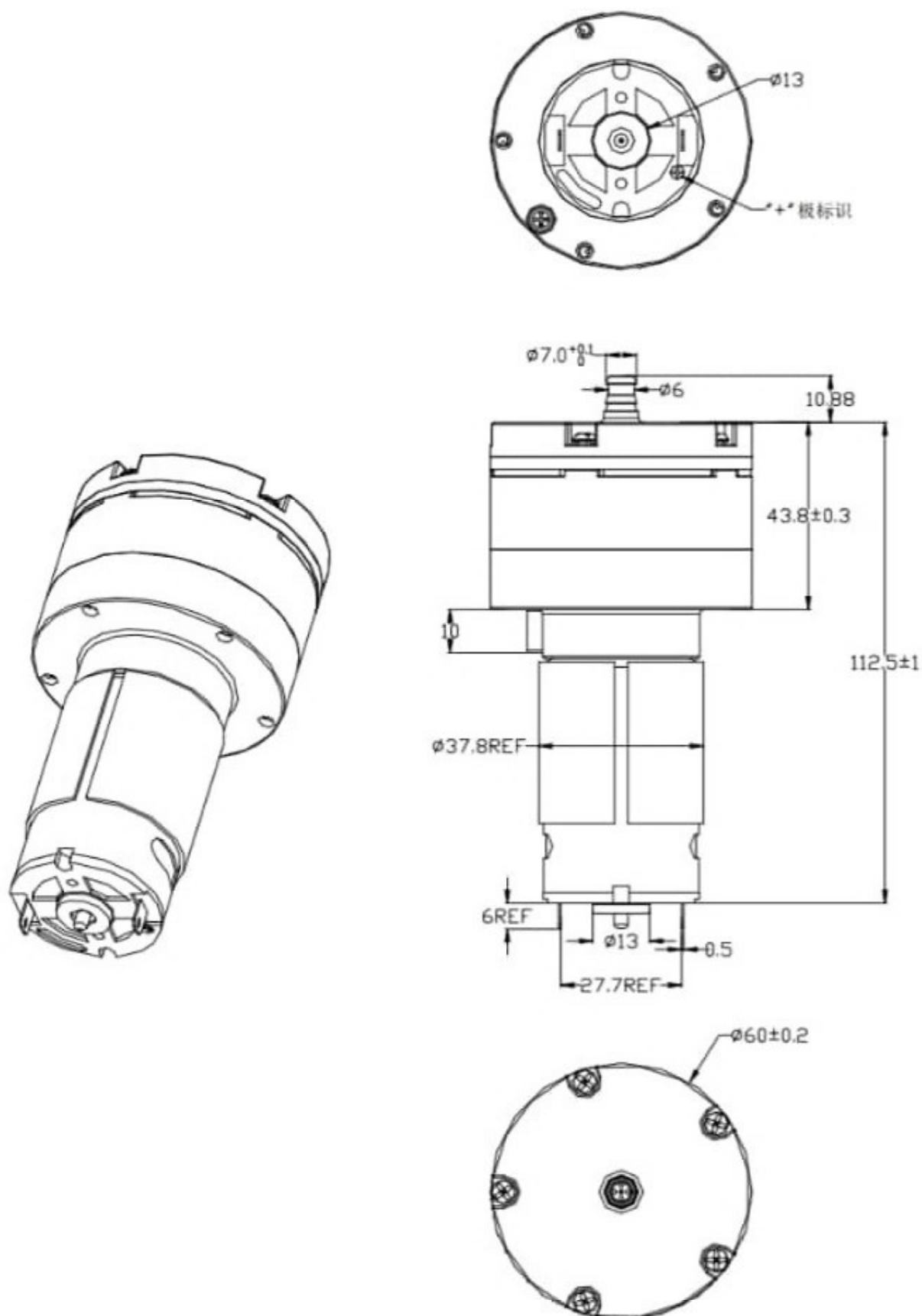
8 噪音测试线路图 Noise test circuit diagram:
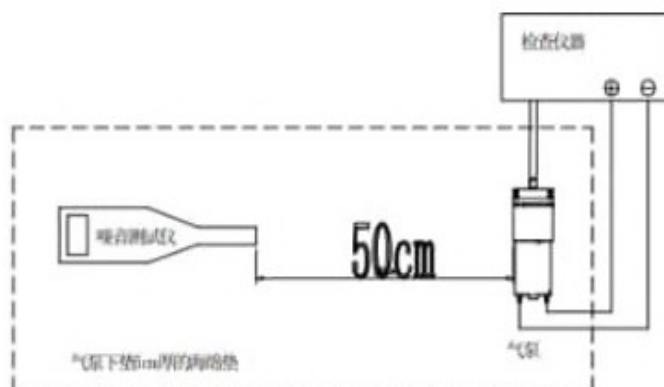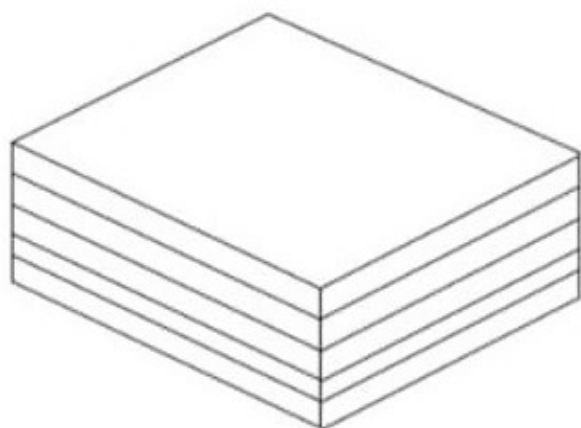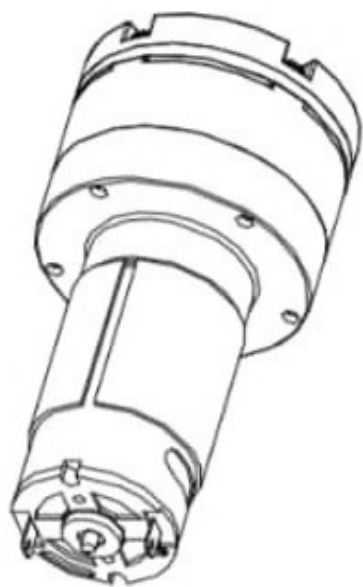
9 结构图 Structural drawing:

10 材料表 Material list:

号 码 NO.	名 称 NAME.	材 料 MATERIAL.
1	塑 胶 B1	PLASTIC
2	塑 胶 B2	PLASTIC
3	塑 胶 B3	PLASTIC
4	塑 胶 B4	PLASTIC
5	塑 胶 B5	PLASTIC
6	塑 胶 B6	PLASTIC
7	钢 针	STEEL
8	螺 丝	SUS1006
9	橡 胶	RUBBER
10	马 达	555电机
11	橡 胶	RUBBER

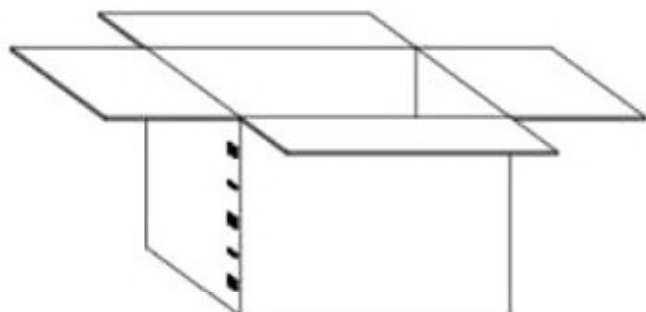## 11.成品外形图 Finish ed Outline

12.包装图 Packaging
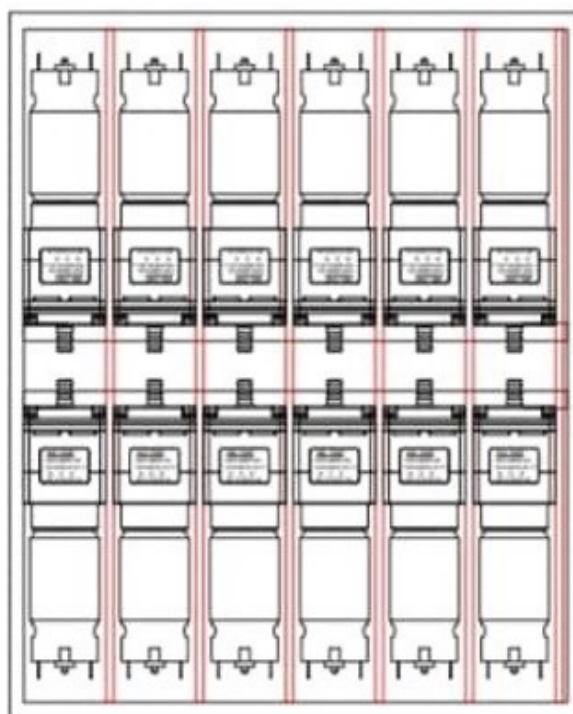
每层 12个
Each layer 12 pcs

每箱5层 共60个
Each box with five layers of 60pcs

TYPE   MIRCO.PUMP
P/O NO:
QTY: PCS
GRS.WT: KG
NET.WT   KG

NO