

Teamwork Global Group Ltd

天沃环球集团有限公司

ROOM A1, 11/F WINNER BUILDING, 36 MAN YUE STREET, HUNG HOM, KOWLOON, HONG KONG
POST CODE:999077 Tel:0086-0755-85265699 Fax:0086-0755-85266599

承 认 书

SPECIFICATION FOR APPROVAL

客 户

Customer

品 名

Part name

型 号

Model

日 期

Date

页 码

Pages

版本号

Version number

微型真空泵

TQB380-FB-5 3.7V

2023. 8. 28

共 7 页（包括封面）

A/0

本司确认 (Trx approval)

Check 核准	Audit 审核	Make 制作	Seal 签章
龙培田	杨源	刘淑琪	

客户确认 (Customer approval)

Check 核准	Engineering 工程	Quality 品质	Seal 签章

确认结果: ☐合格 ☐不合格 ☐其他

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客户 Customer:		版本号 Ver:	A/0
型号 Model:	TQB380-FB-5 3.7V	页码 Page:	3/7

1. 适用范围 Application:

本规格适用于微型泵 TQB380-FB-5/DC3.7V 之用。

This specification is suitable for micro pumps TQB380-FB-5 /DC3.7V.

2. 测试环境 Test environment:

2-1 测试环境温度湿度: 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—45℃, 相对湿度 30—80%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 5-45℃ and relative humidity of 30-80%RH.

2-2 测试姿势 Position: 水平 Horizontal. 2-3 负荷 Load: 空气压 450mmHg Air pressure is 450mmHg.

3. 性能 Horizontal:

3-1 额定电压 Rated voltage: DC3.7V.

3-2 使用电压范围 Operating voltage: DC2.8V~4.5V.

3-3 空载电流 No Load Current: <600mA.

3-4 吸气流量 Vacuum flow: $\geq 2.6\text{L}/\text{MIN}$

3-5 负载电流 Load current: <620mA

3-6 噪音 Noise: <60dB.

将泵体之下垫 5cm 厚的海绵, 放置在距离噪音仪 30cm 位置, DC3.7V 电压下吸气压力从 0 至 63KPA 所测得的 dB 值 <60dB.

Put a 5cm thick sponge under the pump body and place it 30cm away from the noise meter. The dB value of inspiratory pressure measured from 0 to 63KPA under DC3.7V voltage < 60dB.

3-7 最大吸气压力 Maximum suction pressure: $\leq -63\text{KPA}$.

DC3.7V 电压在 500CC 容器中使吸气压力从 0mmHg 到停止升压之最高压力值 $\leq -63\text{KPA}$.

DC3.7V voltage in a 500CC container makes the inspiratory pressure from 0mmHg to the maximum pressure value $\leq -63\text{KPA}$.

3-8 最大低气压力 Maximum low pressure force: $\leq -61\text{KPA}$.

DC2.1V 电压在 500CC 容器中使吸气压力从 0mmHg 到停止升压之最高压力值 $\leq -61\text{KPA}$.

DC2.1V voltage in a 500CC container makes the inspiratory pressure from 0mmHg to the maximum pressure value $\leq -61\text{KPA}$

3-9 使用温度范围 Operation temperature range:

在温度 5℃ 到 45℃ 及湿度 30%RH 到 80%RH 之间真空泵运作良好。

The temperature have to be between 5C and 45C and humidity must be between 30% and 80% RH to function the pump well.

Min 550mmhg / Max
760mmHg
About 100kPa

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3-10 保存温度范围 Preservation temperature range:

在温度-20℃到 60℃及湿度 10%RH 到 95%RH 之间真空泵保持在良好的状态。

The temperature has to be between negative 20C and positive 60C and humidity has to be between 10% and 95% RH to keep the pump in a good condition.

4. 可靠性试验 Reliability test:

50 dB

在经过 4-1 到 4-7 的测试后,漏气量需低于 18mmHg/min,噪音需低于 70dB.

After running through from test 4-1 to 4-7,the leakage value shall be less than 18mmHg/min.

and noise level shall be less than 70dB.

4-1 低温特性 Low-temperature characteristic:

放置在-20℃经 72 小时,再取出置于常温(20℃±℃)中按#3-3, 3-4, 3-5, 3-6, 3-7 测试无异状。

Putting the pump in the temperature at negative 20C for 72 hours; then taking it out and putting it in a room temperature at 20C ±5C for two 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 高温特性 High-temperature characteristic:

在 60℃经 72 小时放置后,在于常温(20℃±5℃)中 2 小时依#3-3, 3-4, 3-5, 3-6, 3-7 测试无异状。

Putting the pump in the temperature at 60C for 72 hours; then taking it out and putting it in a room temperature at 20℃±5℃for two 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.

4-3 高温高湿 High-temperature & High humidity:

于温度 60℃,湿度 90%环境中经 72 小时取出置于常温(20℃±5℃)中 2 小时依 #3-3, 3-4, 3-5, 3-6, 3-7 测试无异状。

Putting the pump in the temperature at 60C and the humidity at 90% for 72 hours; then taking it out and putting it in a room temperature at 20C ±5C for two hours. Under this circumstance, running through test 3-3,3-4,3-5,3-6,3-7and finding out that the pump still performs well.

4-4 寿命试验 Life test:

在 500CC 容器中,吸气 10 秒停 5 秒,排气 5 秒为一循环测试 30,000 次以后按#3-3, 3-4 3-5, 3-6, 3-7 的测试要求在 15%衰减范围之内。

In a 500CC container, breathe in for 10 seconds, stop for 5 seconds, exhaust for 5 seconds for a cycle test 30,000 times and then press #3-3,3-4, Test requirements for 3-5,3-6, 3-7 are within the 15% attenuation range.

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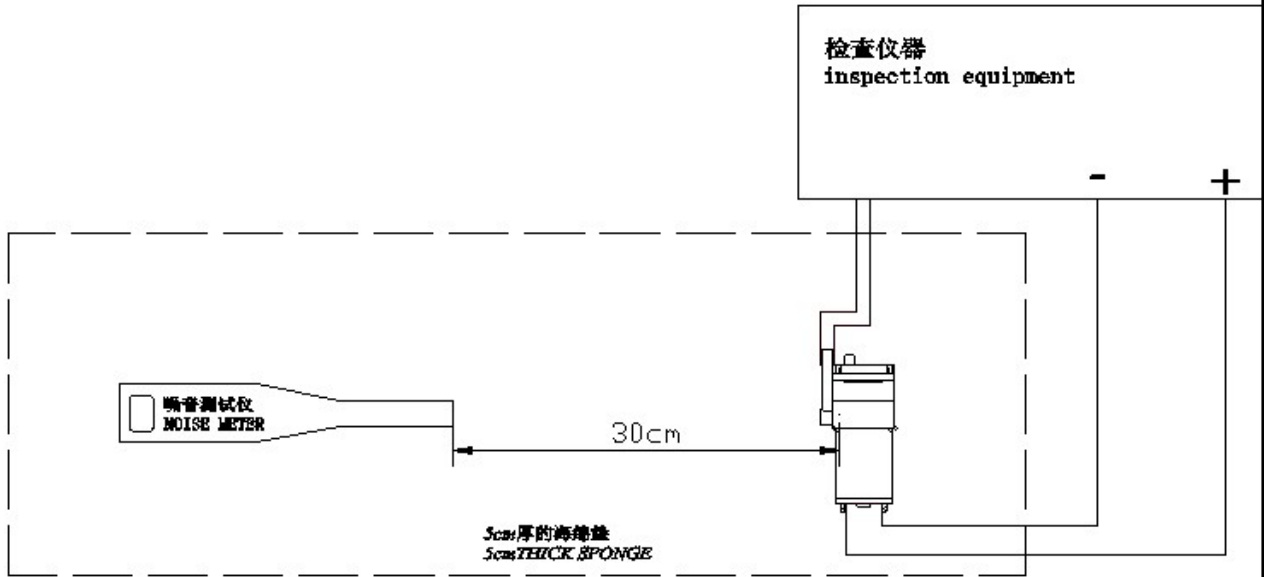
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4-5 温度 5-30℃相對对湿度 40-85%RH 条件下保存一年功能不失效。 Under the condition of 5-30℃temperature & relative humidity 40-85%RH, pump store one year the function is not failure. 4-6 低温环境测试 Low-temperature environment test: 在 0℃放置 5 小时后, 在此温度下通电进行测试无异状。 Putting the pump in the temperature at 0℃ for 5 hours,pump still performs well. 4-7 高温环境测试 High-temperature environment test: 在 50℃经 5 小时后, 在此温度下通电进行测试无异状。 Putting the pump in the temperature at 50℃ for 5 hours,pump still performs well. 4. 其他 Others: 5-1 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. 5-2 跌落试验 Fall test: 使用标准的包装方式, 在水泥地面上将其从 50CM 的高度分别从正面、侧面、边角自由落下其性能及结构无异常。 Basic performance and the structure 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 50cm height to the concrete floor. 5-3 异常试验 Unusual test: 用 DC3.7V 连续通电 8 小时无燃烧、冒烟现象。 There is no burning and smoking occurrence while the power is on with DC3.7V for 8 hours continuously. 5-4 外观 Appearance:产品不能有破损, 脏污。 The appearances of the pump shall not contain cracks and impurities. 5-5 焊锡要求 Solder requirement: 马达端子焊锡作业需在焊锡温度 $380\pm 5^{\circ}\text{C}$ 下, 2 秒内操作完成。 Motor terminal for Soldering process the heat temp. is controlled by $380\pm 5^{\circ}\text{C}$,and operating time is for 2sec only.			
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5. 噪音测试线路图 Noise test circuit diagram:



6. 标签内容 Labels:

产品型号

Product Type

产品名称

Product name

额定电压

Rated Voltage

MINI PUMP
TYPE:TQB380-FB-5
VOLTAGE:DC3.7V23
<https://www.tw-motor.com>

公司网址

Compeany web

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7. 成品图 End-Product Drawing:

