



深圳市中科世纪科技有限公司

产品规格书

Product Specification

产品型号: 无刷直流水泵 DC55B

发布日期: _____

版本号: V1.0

| 供方 VENDOR | | | 客户 CUSTOMER | | |
|----------------|---------------|----------------|----------------|---------------|----------------|
| 编制 PREPARED | 审核 CHECKED | 批准 APPROVED | 编制 PREPARED | 审核 CHECKED | 批准 APPROVED |
| | | | | | |

深圳市中科世纪科技有限公司

shenzhen zhongke century technology co,ltd

深圳市宝安区潭头西部工业园区编号 B33 栋

No. B33, Western Industrial Park,

Tan Tou, Bao'an District, Shenzhen City

Tel:86-755-27811557

Fax:86-755-27811571

www.microwaterpump.com

www.smalldc泵.com

一. 产品特征简介 Product Features

| | | |
|----|-------------------------|--|
| 1 | 产品名称 Product name: | 无刷直流水泵 DC55B Brush-less dc pump DC55B |
| 2 | 型号 Model No: | DC55B |
| 3 | 重量 Weight: | 0.52kg |
| 4 | 寿命 Life span: | ≥30000h(连续 continuous) |
| 5 | 防护等级 Waterproof Grade: | IP68 |
| 6 | 颜色 Color: | 黑色 Black |
| 7 | 认证 Certificate: | CE,ROSH |
| 8 | 壳体材料 Material of pump | PPS+30%GF |
| 9 | 噪音 Noise class: | ≤35dB |
| 10 | 工作压力 Bearing pressure: | ≤0.5MPa |
| 11 | 绝缘等级 Insulation grade: | H Grade (180°) |
| 12 | 工作原理 Working principle: | 离心泵 Centrifugal pump |
| 13 | 用途 Application: | 电动汽车散热系统, 循环散热系统 ECO Car cooling system, Cooling circulation system |

二. 应用范围 Range of application

| | | |
|---|-------------------------------------|---|
| 1 | 使用液体类型: Liquid Type: | 油性介质, 水, 酸碱盐以及其他流动性液体 Water, oil, or normal acid/ alkaline and other liquids(need to test) |
| 2 | 使用液体温度: Liquid Temperature: | -30° —100° (超过 80° 需特殊定制) -30°—100°(Above 80° need special customization) |
| 3 | 调速方式: Power regulation function: | <ul style="list-style-type: none"> ● PWM 调速: 幅值 5V 50-800HZ 可定制 ● Speed adjustable by PWM (5V,50~800HZ) can be customized ● 0-5V 调速, 电位器 (4.7k~20K) 0~5V analogical signal or potentiometer (4.7k~20K) |
| 4 | 使用电源类型: Power: | 直流电源, 太阳能板, 蓄电池 PSU,Solar panel,Battery |

三. 基本参数(参数可以定制) Parameter (Parameter can be customized)

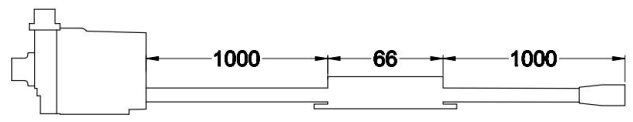
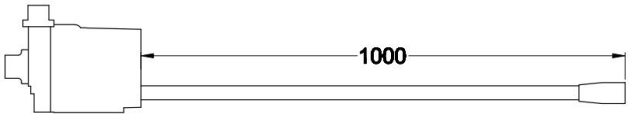
| | | | | | | |
|---|-----------------------------------|---|--|--|--|---|
| 1 | 产品型号: Product model: | DC55B-12120PWM DC55B-12120VR DC55B-12120VS DC55B-12120S | DC55B-18160PWM DC55B-18160VR DC55B-18160VS DC55B-18160S | DC55B-24160PWM DC55B-24160VR DC55B-24160VS DC55B-24160S | DC55B-36160PWM DC55B-36160VR DC55B-36160VS DC55B-36160S | PWM:PWM 调速 PWM speed regulation (50~800HZ/ 5V) VR:0~5V/电位器调速 potentiometer speed regulation VS:0~5V 模拟电压信号调速 Voltage signal speed regulation S:固定转速 Fixed speed |
| 2 | 额定电压: Rated Voltage: | 12V DC | 18V DC (太阳能) | 24V DC | 36V DC | |
| 3 | 工作电压范围: Working voltage range: | 10-18V | 10-24V | 10-28V | 15-40V | 此范围内, 水泵能够正常工作 The pump can out put constant power when the voltage is higher than rated voltage. |
| 4 | 额定电流: Rated Current: | 3.5A(4.5A)±10% | 3.5A(4.5A)±10% | 2.7A(3.3A)±10% | 1.8(2.2A)±10% | 封闭出水口电流 (敞口抽水电流) Closed outlet current(open outlet current) |
| 5 | 输入功率: Input Power: | 42W(54W)±10% | 65W(80W)±10% | 65W(80W)±10% | 65W(80W)±10% | 封闭出水口功率 (敞口抽水功率) Closed outlet power(open outlet power) |
| 6 | 最大流量: Max. Flow rate: | 2000L/H ±10% | 2400L/H ±10% | 2400L/H ±10% | 2400L/H ±10% | 敞口流量 Open outlet flow |
| 7 | 最大扬程: Max. Head: | 12M ±7% | 16M ±7% | 16M ±7% | 16M ±7% | 静态扬程 Static lift |
| 8 | 推荐输入电源: Min. power supply: | 12V-5A | 18V (太阳能) | 24V-4A | 36V-3A | |
| 9 | 恒功率输出: Constant power output: | 例如 12V(24V)10W 的水泵, 用 12-18V(24-30V)都是 10W,并且可以长期运转。 For example, a 12V (24V) 10w pump with 12-18V (24-30V) is 10w and suitable for a long time working under this condition | | | | |

备注:参数可以向下兼容, 例如最大 80W 可以定制 80W 以内任何参数。

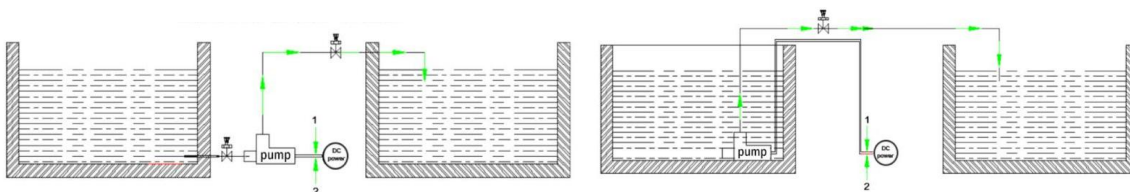
四. 附加功能说明 Additional function instructions

| | | |
|---|--------------------------------|--|
| 1 | 卡死保护 Jam protection | 卡死的时候水泵停止工作 When jam it will Stop to protect itself |
| 2 | 缺水/空转保护 Dry run protection | 水泵缺水或者空转时水泵会循环的停转（4秒）运转（2秒），可定制保护策略 The pump will Stop(4s) and start(2s) repeatedly to protect itself(can be customized) |
| 3 | 过压保护 Overloading protection | 当电压不稳定或者其他原因导致超过水泵额定功率，水泵停止运行 When the voltage exceeds the rated power, the pump will stop |
| 4 | 电源反接 Reverse protection | 电源正负极接反，水泵停止运行，重新接后，正常工作 Wrong connection of the power supply(positive and negative), the water pump will stop running, and then re-connected, can work normally. |

五. 控制板位置说明

| | | | |
|---|--|--|--|
| 1 | 水泵驱动器外置 Controller Internal install |  | 适合潜水或陆用场合 Suitable for submersible install or external installation |
| 2 | 水泵驱动器内置 Controller Internal install |  | 适合外置陆用场合 Suitable for external installation |

六. 参数测试安装示意图 Installation Drawing



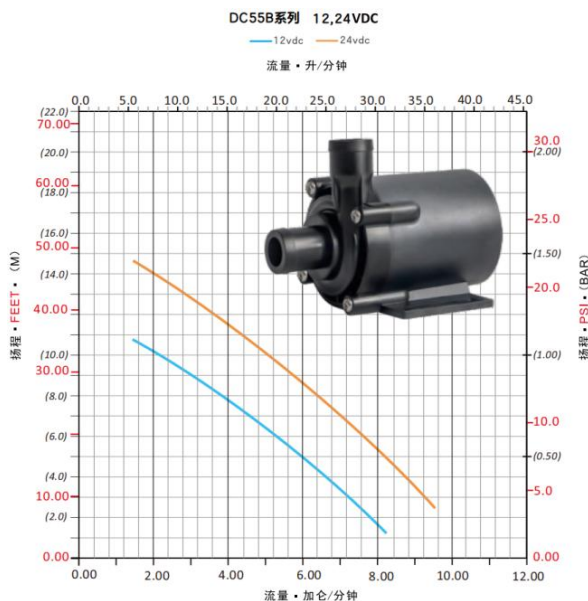
非潜水安装
Outside Install

潜水安装
Submersible Install

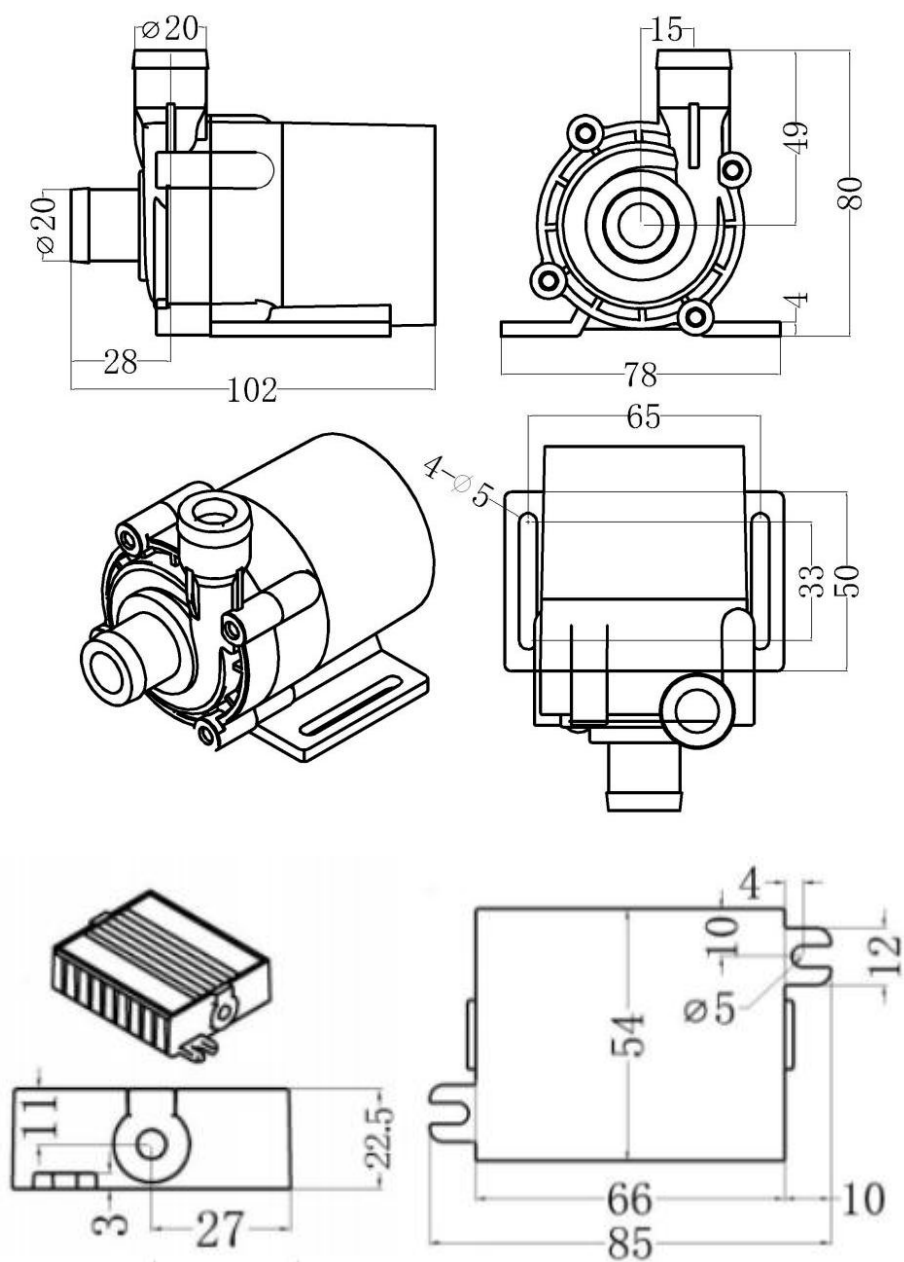
注意：本产品不具备自吸功能，因此在安装时，需要保证压盖腔内具有足够的水，即安装时需要保证水泵中心位置低于水箱内液面，以保证水泵能够正常运行！

Notice: The pump is not self-priming pump. When install, please make sure there is enough water in pump gland. Meanwhile, the pump must be installed below the liquid level in the tank.

七. 扬程-流量曲线图 Flow -Head Chart



八. 尺寸与外观图 Dimension and appearance



九. 故障与维修 Failure and maintenance

| | 故障现象 Failure phenomenon | 原因 Cause | 解决方案 Solution |
|---|--|--|--|
| 1 | 电流大, 流量小 High current, low flow | 转子内有杂质 Impurities in the rotor | 拆开水泵清洗转子 Disassemble the pump to clean the rotor |
| 2 | 电流变小, 抽水断续 pumping intermittent Current becomes low, | 缺水 What shortage | 加水 Add water |
| 3 | 不转, 电流时大时小 No rotation, current is high and low | 转子因异物卡死 Rotor jammed by a foreign object | 排除转子卡死异物 Remove foreign matter from rotor |
| | 不转, 出现短路电流 No rotation, short-circuit current | 控制板损坏 Damaged control board | 更换水泵 Change a new pump |
| | 不转无电流 No current without rotation | 电源线没有接好 The power cord is not connected. | 检查连接件或插头是否正常 Check if connected |
| 4 | 噪音大 Noisy | 泵内有杂质 Impurities in the pump | 排除杂质 Remove impurities |
| | | 泵内有气体无法排出 air in the pump cannot be discharged | 将出水口朝上放置, 使液体中没有空气 Place the outlet facing up so that there is no air in the liquid |
| | | 泵内无液体, 水泵干磨 No liquid in the pump, pump dry running | 使泵内有液体即可 have enough liquid in the pump |

十. 注意事项 Notice

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| 1. 严禁使用带有大于 0.35mm 的杂质和陶磁性颗粒的液体。 It is forbidden to use liquids with impurities greater than 0.35mm and ceramic or magnetic particles. |
| 2. 长时间不使用时, 通电前最好先使用泵内有一定的液体。 If it is not used for long time, make sure water goes inside the pump before power on. |
| 3. 通电前请先确认连接无误, 否则可能产生故障。 If not used for long time, please make sure cord connection correctly. |
| 4. 严禁泵内无液体时长时间使用。 Do not let pump dry run . |
| 5. 低温环境使用时, 请确保使用液体不会出现结冰或者变得很粘稠。 If use in low temperature environment, please make sure the water won't be frozen or thick.. |
| 6. 连接器的针脚处有水渍, 请将水渍处理干净后再使用。 Please check if there is water on connection plug, and clean it before us |
| |