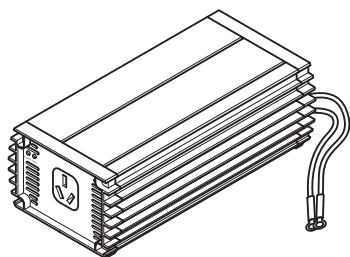


↗ DOMETIC

ENERGY & LIGHTING

PERFECTPOWER

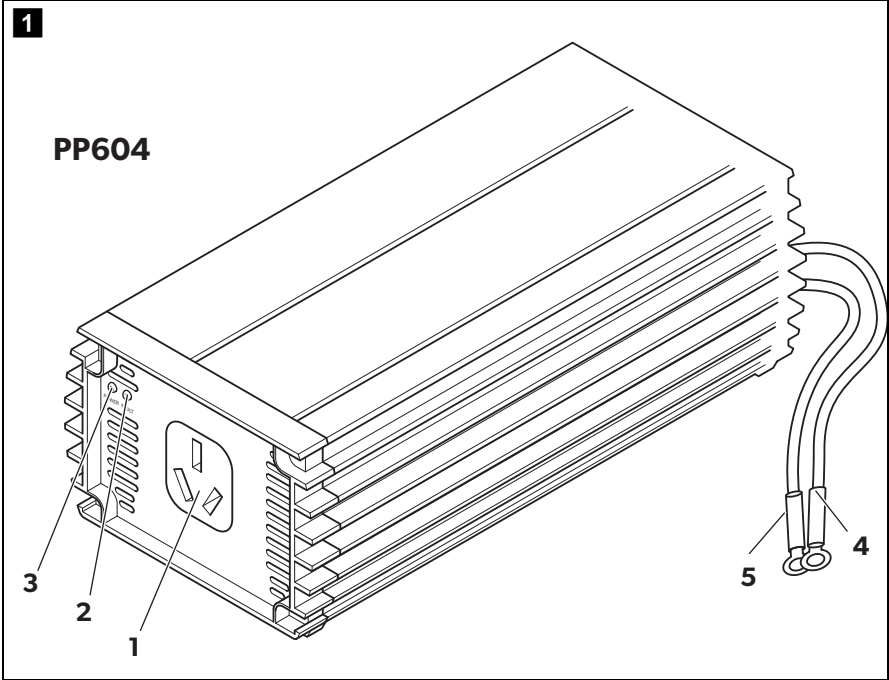


PP604

EN	Modified sine wave inverter Installation and Operating Manual 5
ZH	改良版正弦波逆变器 安装和操作说明 15

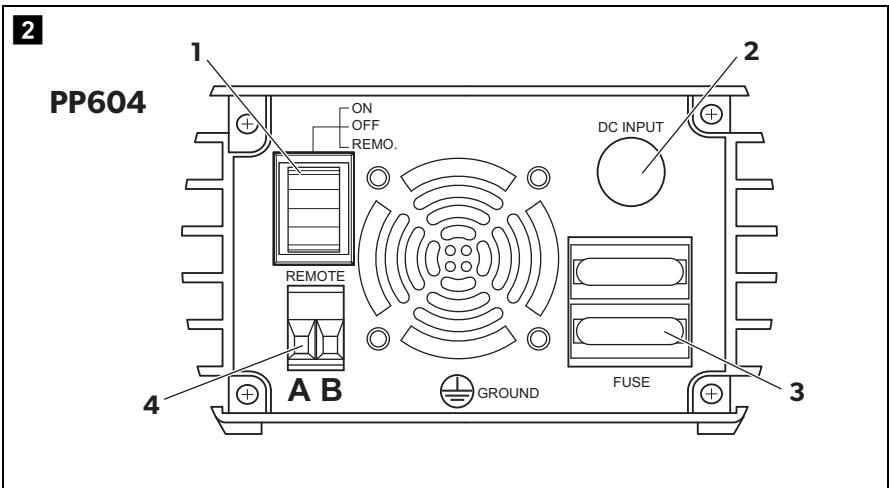
1

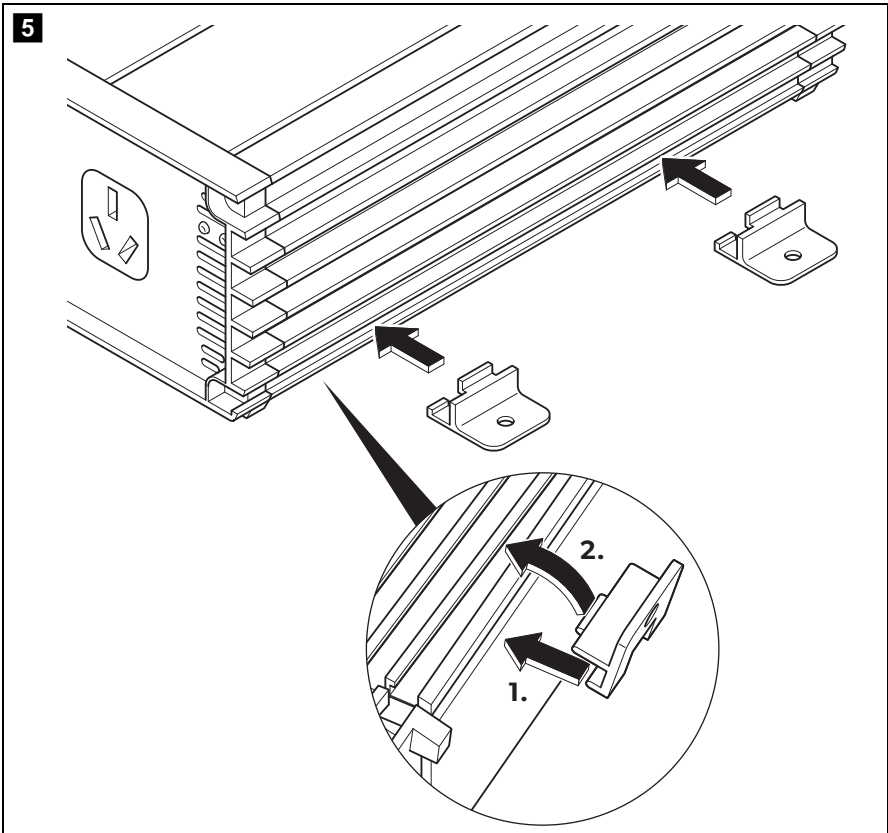
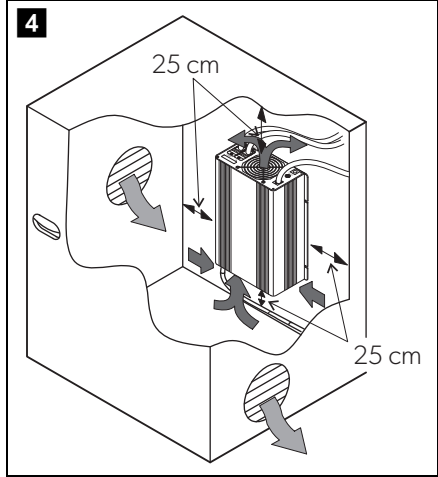
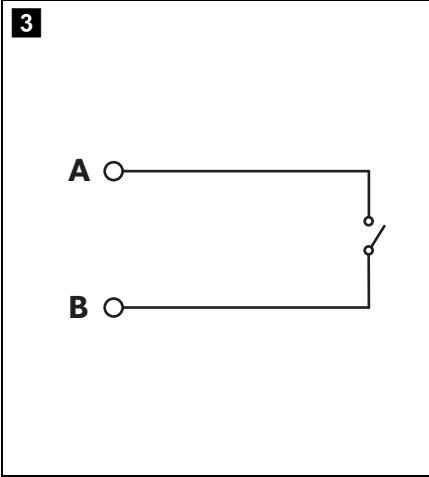
PP604



2

PP604





Please read this instruction manual carefully before installation and first use, and store it in a safe place. If you pass on the product to another person, hand over this instruction manual along with it.

Contents

1	Explanation of symbols	6
2	General safety instructions	6
3	Device guides	8
4	Intended use	8
5	Technical description	9
6	Connecting the inverter	10
7	Using the inverter	11
8	Replacing the fuse	12
9	Cleaning and caring for the inverter	12
10	Rectifying faults	13
11	Guarantee	13
12	Disposal	14
13	Technical data	14

1 Explanation of symbols

**WARNING!**

Safety instruction: Failure to observe this instruction can cause fatal or serious injury.

**NOTICE!**

Failure to observe this instruction can cause material damage and impair the function of the product.

**NOTE**

Supplementary information for operating the product.

2 General safety instructions

The manufacturer accepts no liability for damage in the following cases:

- Faulty assembly or connection
- Damage to the product resulting from mechanical influences and excess voltage
- Alterations to the product without express permission from the manufacturer
- Use for purposes other than those described in the operating manual

2.1 General safety

**WARNING!**

- Use the device only as intended.
- People (including children) whose physical, sensory or mental capacities or whose lack of experience or knowledge prevent them from using this product safely should not use it without the supervision or instruction of a responsible person.
- Do **not** operate the device in a damp or wet environment.
- Maintenance and repair work may only be carried out by qualified personnel who are familiar with the risks involved and the relevant regulations.

2.2 Safety when installing the device



WARNING!

- Never connect more than **one** consumer device to the inverter. If you connect more than one device, a short circuit may occur.



CAUTION!

- Ensure the device is standing firmly.
The device must be set up and fastened in such a way that it cannot tip over or fall down.
- Take the precautions necessary to ensure that children cannot interfere with operation. Dangerous situations may occur which cannot be recognised by children!
- Do not expose the device to a heat source (such as direct sunlight or heating). Avoid additional heating of the device in this way.

Electrical cables

- If cables have to be fed through metal walls or other walls with sharp edges, use ducts or wire bushings to prevent damage.
- Do not lay cables which are loose or bent next to electrically conductive material (metal).
- Do not pull on the cables.
- Do not lay the 230 V mains cable and the 24 V DC cable in the same duct.
- Fasten the cables securely.
- Lay the cables so that they cannot be tripped over or damaged.

2.3 Operating the appliance safely



WARNING!

- Note the following basic safety information when using electrical devices to protect against:
 - Electric shock
 - Fire hazards
 - Injury
- Do not operate the device near gas or flammable material; the surface temperature can reach up to 60 °C.
- Operate the device only if you are certain that the housing and the cables are undamaged.
- Make sure the air inlets and outlets of the device are not covered.
- Ensure good ventilation.
- Do **not** connect the 230 V output of the inverter (fig. **1** 1, page 3) to a different 230 V source.
- Even after the fuse triggers, parts of the inverter remain live.
- Always disconnect the power supply when working on the device.

3 Device guides

- PerfectPower PP604: inverter with terminals for a 24 V vehicle battery and four holders

4 Intended use



NOTICE!

This device is exclusively intended for vehicle use.

The inverters are used to convert a direct current of 24 V into a 230 V AC supply of 50 Hz.

5 Technical description

The PerfectPower inverter can be operated wherever there is a 24 V DC vehicle socket. The device is additionally cooled with a load and temperature dependent fan.

Never connect devices that have a higher power requirement.

The inverter is equipped with protection against thermal and electrical overloading, as well as excess and insufficient voltage. The inverter switches off:

- If its internal temperature is too high
- If the load exceed the values stated above
- If the input voltage is too high or too low

The inverter can be switched on and off using the switch directly on the device or using an external switch.



NOTE

Note when connecting devices with an electrical drive (such as power drills and refrigerators), that they often need more power than is stated on the type plate.

6 Connecting the inverter



NOTICE!

The cable between the battery and the inverter may not exceed a maximum length of 2 m.

6.1 Fastening the inverter

You can fasten the inverter using the four holders supplied.

When selecting the installation location, observe the following instructions:

- The inverter can be mounted horizontally or vertically.
- The inverter must be installed in a place that is protected from moisture.
- The inverter may not be installed in the presence of flammable materials.
- The inverter may not be installed in a dusty environment.
- The place of installation must be well-ventilated. A ventilation system must be present for installations in small, enclosed spaces. The clearance around the inverter must be at least 25 cm (fig. **4**, page 4).
- The air intake on the underside or the air outlet on the back of the inverter must remain clear.
- For ambient temperatures higher than 40 °C (such as in engine or heating compartments, or direct sunlight), the heat from the inverter under load can lead to the automatic shut-off of the inverter.
- The installation surface must be level and sufficiently sturdy.



NOTICE!

Before drilling any holes, ensure that no electrical cables or other parts of the vehicle can be damaged by drilling, sawing and filing.

Fasten the inverter as follows (fig. **5**, page 4):

- Clip two holders on the lower left bar and two on the right.
You can move the holders as required.
- Fasten the inverter by screwing one screw through each hole in the holders.

6.2 Connecting the PP604



WARNING!

Do not reverse the polarity. Reversing the polarity of the connections will cause a great spark and the internal fuses will melt.

- To set up the inverter, connect the red cable (fig. **1** 4, page 3) to the positive pole (+) of the battery and the black cable (fig. **1** 5, page 3) to the negative pole (-) of the battery. Make sure the vehicle battery terminals are clean when connecting them.

7 Using the inverter

The main switch (fig. **2** 1, page 3) on the back of the device has three positions:

- **ON**: the inverter is switched on.
 - **OFF**: the inverter is switched off.
 - **REMOTE**: the inverter is switched on and off by an external switch.
- Connect your power consuming device, to the socket (fig. **1** 1, page 3) of the inverter.

Switching on at the device

- Set the main switch (fig. **2** 1, page 3) to "ON".
- ✓ The green LED (fig. **1** 3, page 3) lights up.

Switching off the device

- Set the main switch (fig. **2** 1, page 3) to "OFF".
- ✓ The green LED (fig. **1** 3, page 3) goes out.

Switching on with an external device

You can also switch the inverter on and off with an external switch.

- Set the main switch (fig. **2** 1, page 3) to "REMOTE".
- Connect the external switch to the remote port (fig. **2** 4, page 3) in accordance with the following circuit diagrams:
 - External switch, voltage supply from the inverter: fig. **3**, page 4
- ✓ If the inverter is switched on via an external switch, the green LED (fig. **1** 3, page 3) lights up.

Observe the following when using the device

If the battery voltage falls below 21.5 V during operation, a warning tone sounds. If the battery voltage falls further, the inverter switches off and the red error LED (fig. **1** 2, page 3) lights up.

If the inverter overheats, it switches off – the red error LED (fig. **1** 2, page 3) lights up.

► If this happens, switch the inverter off with the switch.

When it cools down, you can use the inverter again.

When operating the inverter at a high load for lengthy periods, it is advisable to start the engine in order to recharge the vehicle battery.

You can operate the inverter with the engine running or switched off. However, do not start the engine while the inverter is switched on, since the power supply to the cigarette lighter is disconnected during ignition.

8 Replacing the fuse

This is how to change the fuse of the inverter:

- Take the defective fuse (fig. **2** 3, page 3) out of the holder on the back.
- Put in a new fuse of the same rating.

9 Cleaning and caring for the inverter



NOTICE!

Do not use sharp or hard objects or cleaning agents for cleaning as these may damage the product.

- Occasionally clean the product with a damp cloth.

10 Rectifying faults

Fault	Cause	Remedy
No output voltage	No contact to the battery	Check contact and cable. Switch on the ignition if necessary.
No output voltage	Overheating	Switch off power consuming devices. Let the inverter cool down and ensure better ventilation.
No output voltage	Defective fuse (in the inverter or the vehicle)	Replace the the fuse with one of the same specifications.
No output voltage	Device defective	Replace the device.
The device switches on and off repeatedly	Excessive constant load	Reduce the load.
The inverter switches off when the consumer is switched on	Starting current too high	Compare the device power with the maximum power of the inverter.
The output voltage is too low.	Batter voltage below 21,5 V	Charge the battery (start the engine).

11 Guarantee

The statutory warranty period applies. If the product is defective, please contact the manufacturer's branch in your country (see the back of the instruction manual for the addresses) or your retailer.

For repair and guarantee processing, please include the following documents when you send in the device:

- A copy of the receipt with purchasing date
- A reason for the claim or description of the fault

12 Disposal

- Place the packaging material in the appropriate recycling waste bins wherever possible.



If you wish to finally dispose of the product, ask your local recycling centre or specialist dealer for details about how to do this in accordance with the applicable disposal regulations.

13 Technical data

	PP 604
Ref. no.:	9600000021, 96000000330
Constant output power:	550 W
Peak output power:	1100 W
Output voltage:	210 – 230 V _~ ^{UL}
Output frequency:	50 Hz ± 2 Hz
Idle current consumption:	< 0.25 A
Rated input voltage:	24 V ₌₌
Low voltage alarm:	21.5 V
Low voltage cut-off:	20 V
Overvoltage circuit breaker:	30.5 V
Heat dissipation:	Housing/fan
Maximum ambient temperature:	0 °C – 50 °C
Dimensions:	222 x 129 x 71 mm
Weight:	1350 g
Testing/certification:	 

安裝和調試前，請仔細閱讀本說明書並妥善保管。如果轉送該設備，請將說明書一併轉交給用戶。

目录

1	标志说明	16
2	一般安全信息	16
3	设备指南	18
4	预期用途	18
5	技术说明	18
6	连接逆变器	19
7	使用逆变器	20
8	更换保险丝	21
9	清洗和维护逆变器	21
10	纠正故障	22
11	保修	22
12	废弃处置	22
13	技术数据	23

1 标志说明

**警告！**

安全提示：不遵守操作规则会导致死亡或重大人身伤害。

**注意！**

不遵守操作规则会导致物品损坏或影响产品的功能。

**提示**

产品操作的补充信息。

2 一般安全信息

價窳袂柅矧筵鞣戾值甕

- 安装或接线错误
- 外力影响和电压过载造成的产品损坏
- 在没有制造商明确许可下对产品进行改装
- 将产品用于说明书描述以外的用途

2.1 一般安全

**警告！**

- 仅按预期用途使用设备。
- 对于因身体、感官或精神能力限制，或是缺乏相应经验或知识而无法安全使用本产品的人群（包括儿童），不得在未经责任人员监督或指导的情况下使用该产品。
- 请勿在潮湿环境中使用设备。
- 维修工作只能由熟悉相关风险和有关规定的专业人员进行。

2.2 设备安装安全规范

**警告！**

- 请勿将一个以上的消费者设备连接到逆变器。连接多个设备可能会导致短路。



小心!

- 请确保将设备稳定放置。请妥善放置和固定设备，以防止翻倒或掉落。
- 请采取必要的预防措施，防止儿童随意操作设备。使用设备时可能会发生儿童无法识别的危险情况!
- 请勿将设备暴露在热源（如阳光直射或加热）中。避免以这种方式额外加热设备。

电缆

- 如果安装电缆时必须通过金属墙壁或其他具有锋利边缘的墙壁，请使用导管或电线套管以防止损坏。
- 请勿将松散或弯曲的电缆放置在导电材料（金属）附近。
- 请勿拉扯电缆。
- 请勿将 230 V 电源线和 24 V 直流电缆放在同一导管中。
- 紧固电缆。
- 放置电缆时请确保电缆不会绊倒行人或遭到损坏。

2.3 安全设备操作



警告!

- 使用电气设备时，请注意以下基本安全信息，以防止发生以下情况：
 - 电击
 - 火灾危险
 - 人员伤亡
- 不要在靠近天然气或易燃材料的地方使用设备；表面温度最高可达 60 °C。
- 仅在确定外壳和电缆未损坏时才能使用设备。
- 请确保设备的进气口和出气口无覆盖物。
- 请确保通风良好。
- 请**不要**将逆变器（第 3 页段落 **1** 1）的 230 V 输出连接到另一 230 V 电源。
- 保险丝熔断后，逆变器的部件仍处于通电状态。
- 在设备上工作时，请务必断开电源。

3 设备指南

- PerfectPower PP 604: 具有可连接 24 V 车载电池和四个支架的逆变器

4 预期用途



注意!
该设备专供车辆使用。

逆变器用于将 24 V 直流电转换为 50 Hz 230 V 交流电。

5 技术说明

PerfectPower 逆变器可在任何具有 24 V 车载插座的情况下使用。该装置通过负载和温控风扇进行散热。

切勿连接具有较高功率要求的设备。

逆变器具有防止过热、电流过载以及过压和电压不足的功能。如有以下情况，请关闭逆变器：

- 内部温度过高
- 负载超过上述数值
- 输入电压过高或过低

可使用设备上的开关直接关闭逆变器，也可使用外部开关将其关闭。



提示
请注意，在连接具有电力驱动器（例如电钻和冰箱）的设备时，其所需功率通常会超出铭牌参数。

6 连接逆变器



注意！

电池与逆变器之间的电缆最长不得超过 2 m。

6.1 固定逆变器

您可以使用随附的四个支架固定逆变器。

选择安装位置时，请遵守以下事项：

- 逆变器可以水平或垂直安装。
- 逆变器必须安装在能够防潮的地方。
- 逆变器不得安装在有易燃材料的地方。
- 逆变器不得安装在多尘环境中。
- 安装场所必须通风良好。安装于狭小的封闭空间时，必须配备通风系统。逆变器四周必须留出至少 25 cm 的间隙（段落 **4**，第 4 页）。
- 逆变器底部的进气口或背面的出气口必须保持清洁。
- 在温度高于 40 °C 的环境中（如发动机或加热室或阳光直射），低负荷逆变器产生的热量可能导致逆变器自动关闭。
- 安装表面必须水平且足够坚固。



注意！

开始钻孔之前，请确保电缆或车辆的其他部件不会在钻孔、锯切和锉平的过程中被损坏。

请按照以下步骤固定逆变器（段落 **5**，第 4 页）：

- ▶ 分别夹住左下方和右侧的两个支架。
您可以根据需要移动支架。
- ▶ 将螺丝拧入支架中的每个钻孔以固定逆变器。

6.2 连接 PP 604



警告！

切勿接反正负极。接反正负极将产生大量火花，并导致内部保险丝熔断。

- ▶ 设置逆变器时，请将红色线缆（第 3 页段落 **1** 4）连接至电池正极（+），将黑色线缆（第 3 页段落 **1** 5）连接至电池负极（-）。连接上述线缆时，请确保车载电池接线柱干净无杂物。

7 使用逆变器

设备背面的主开关（第 3 页段落 **2** 1）有三个选项：

- **ON（开）**：打开逆变器。
 - **OFF（关）**：关闭逆变器。
 - **REMOTE（远程）**：通过外部开关打开和关闭逆变器。
- ▶ 将耗电设备连接到变频器的插座（第 3 页段落 **1** 1）。

打开设备

- ▶ 将电源开关（段落 **2** 1，第 3 页）设置为“ON”。
- ✓ 绿色 LED 灯（第 3 页段落 **1** 3）亮起。

关闭设备

- ▶ 将电源开关（第 3 页段落 **2** 1）设置为“OFF”。
- ✓ 绿色 LED 灯（第 3 页段落 **1** 3）熄灭。

使用外部开关打开设备

您也可以使用外部开关来打开和关闭逆变器。

- ▶ 将电源开关（第 3 页段落 **2** 1）设置为“REMOTE”。
- ▶ 根据以下电路图将外部开关连接到远程端口（第 3 页段落 **2** 4）：
 - 外部开关，逆变器电源：段落 **3**，第 4 页
- ✓ 通过外部开关打开逆变器时，绿色 LED 灯（第 3 页段落 **1** 3）亮起。

使用设备时请注意以下事项

如果在设备使用期间电池电压降至 21.5 V 以下，则会发出警告音。如果电池电压进一步下降，则逆变器关闭，红色 LED 灯（第 3 页段落 **1** 2）亮起，表示出现错误。

如果逆变器过热，则会自动关闭 - 红色 LED 灯（第 3 页段落 **1** 2）亮起，表示出现错误。

► 如果发生这种情况，请使用开关关闭逆变器。

待逆变器冷却后即可再次使用。

逆变器长时间高负荷运行时，建议启动发动机为车载电池充电。

在发动机运行或关闭的情况下均可使用逆变器。但是，请勿在打开逆变器时启动发动机，因为在车辆点火期间点火器电源被断开。

8 更换保险丝

逆变器保险丝更换方法如下：

- 将故障保险丝（第 3 页段落 **2** 3）从支架背面取出。
- 放入额定功率相同的新保险丝。

9 清洗和维护逆变器



注意！

请勿使用锋利或坚硬的物体或者清洁剂清洁产品，否则会对产品造成损坏。

- 经常用湿布擦拭产品。

10 纠正故障

故障	原因	补救措施
无输出电压	无法连接电池	检查接触点和电缆。 必要时接通点火装置。
无输出电压	过热	关闭耗电设备。 冷却变频器，确保更好的通风。
无输出电压	保险丝故障（逆变器或车辆内）	更换为相同规格的保险丝。
无输出电压	设备故障	更换设备。
设备反复打开和关闭	恒定负载过大	降低负载。
打开耗电设备时，逆变器关闭	启动电流过高	将设备功率与逆变器的最大功率进行比较。
输出电压过低。	电池电压低于 21.5 V	为电池充电（启动发动机）。

11 保修

法定的保修期适用于本产品。如果产品损坏，请联系您的专业经销商或您当地的制造商分公司（具体地址参见说明书背面）。

维修或保养产品时，请出示下列材料：

- 带有购货日期的发票复印件，
- 索赔理由或者故障说明。

12 废弃处置

► 请按照相应的回收垃圾分类标准分类包装材料。



如您最终决定将产品废弃处理，请就近咨询回收中心或者专业经销商，以采取适当的处理措施。

13 技术数据

	PP604
参考编号:	9600000021、9600000330
恒定输出功率:	550 W
峰值输出功率:	1100 W
输出电压:	210 - 230 V _~ [□]
输出频率:	50 Hz ± 2 Hz
待机功耗:	< 0.25 A
额定输入电压:	24 V ₌₌
低压报警:	21.5 V
低压切断:	20 V
过压断路器:	30.5 V
散热:	外壳 / 风扇
最高环境温度:	0 °C - 50 °C
尺寸:	222 x 129 x 71 mm
重量:	1350 g
测试 / 认证:	

中国
多美达唯固贸易（深圳）有限公司
深圳福田中心区福华一路卓越大厦 15 楼
电话: +86 755 82932566 热线: 400 086 5166
邮箱: info.cn@dometic.com

dometic.com



CHINA
Dometic Waeco Trading (Shenzhen) Co., Ltd.
Zhucyue Building
Fuhua 1 Road
15/F Futian Central Zone
Shenzhen
Tel: +86 755 82932566
Cal: 400 086 5166
Mail: info.cn@dometic.com