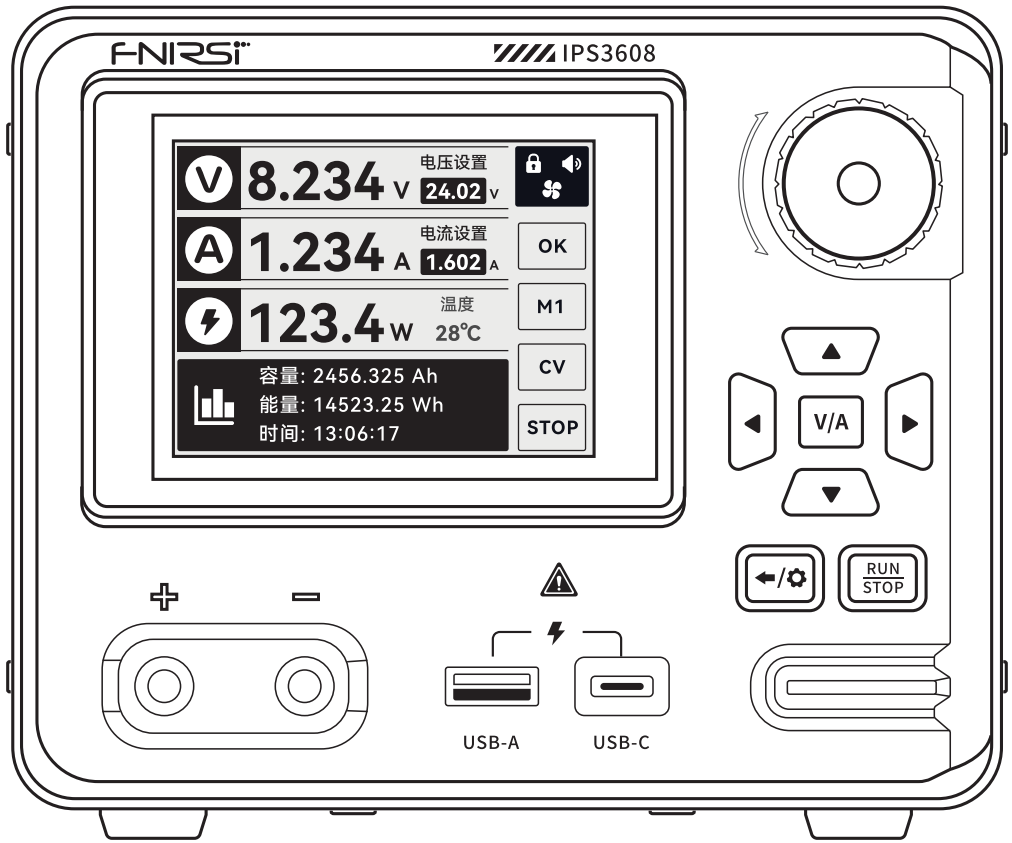
FNIRSi 菲尼瑞斯

IPS3608

AC-DC智能数控电源说明书 V1.0

AC-DC INTELLIGENT DIGITAL CONTROL POWER SUPPLY USER MANUAL



※使用产品前请仔细阅读本说明书，并妥善保管。

※Please read this instruction manual carefully before using the product and keep it properly.

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CONTENT

一、安全要求

1.1 环境要求

注意事项

●避免高温、明火、腐蚀性气体、潮湿或多尘环境，以防设备故障。

●操作前准备，须检查电源外壳是否破损、变形，电源接口是否松动、损坏，确认连接电缆有无破损、断裂等问题，如有会影响电源正常工作，甚至损坏设备。

●使用前请确保散热口，无异物遮挡，保障设备有一个良好的散热性能。

●使用前请认真阅读电源的操作手册，熟悉设备的使用方法，有助于正确、高效地操作电源，能够及时发现和解决电源在使用过程中出现的问题，确保电源的安全、稳定运行。

●操作过程中，在连接负载时，请事先关闭电源开关，确保电源处于断电状态，正确连接负载后，方可打开电源开关。

●在打开电源开关后，请不要将电压或电流调正到最大值输出，应先调节输出参数到较低的值，然后根据负载的实际需求，逐步缓慢地调整输出电压或电流。

●在使用 AC-DC 智能数控电源的过程中，要时刻注意负载的运行情况，避免出现过载和短路现象。

●在电源运行过程中，须关注电源的工作状态，包括输出电压、电流是否稳定，电源是否有异常噪音、发热等情况。

●在完成使用后，通过操作面板将电源的输出电压和电流调整为零，再关闭电源的输出。避免因突然切断电源而产生的反电动势或浪涌电流对负载设备和电源本身造成损害。

远离以下物品

●加热器：避免过热或火灾风险。

●水源、化学品：溶剂泄漏可能损坏设备或引发火灾。

●强磁性设备：防止磁场干扰设备正常运行。

废旧处理

请勿随生活垃圾丢弃废旧电池或设备，应按国家或当地法规处理。

二、产品概览

2.1 产品简介

IPS3608是一款以数字控制技术将交流电高效转换为直流电，智能化远超传统电源的AC-DC智能数控电源。其具有参数调节便利、高精度输出、动态响应强、便捷数控界面、多重电气保护等特点。适应用于个人测量供电、工业制造、实验设备供电、医疗供电等多种场景。满足多样化、高精度用电需求，为电子设备供稳定直流电能，是现代科技产业关键力量。

2.2 产品操作示意图

①**编码器按键:**在主界面，旋钮滚动对应左右切换页面，长按中键清除数据统计。当进入输入框时，旋钮调整数值。在设置界面，旋钮滚动选择，短按中键进行进入/确认操作。

②**按键选择区:**按键上、下、左、右、**V/A**键。

③**输出电源键:**输出电源开关RUN/STOP、锁定键。

④**电源指示灯:**指示设备电源开启状态。

⑤**设置菜单键:**进入退出设置菜单，进入设置参数后为返回键。

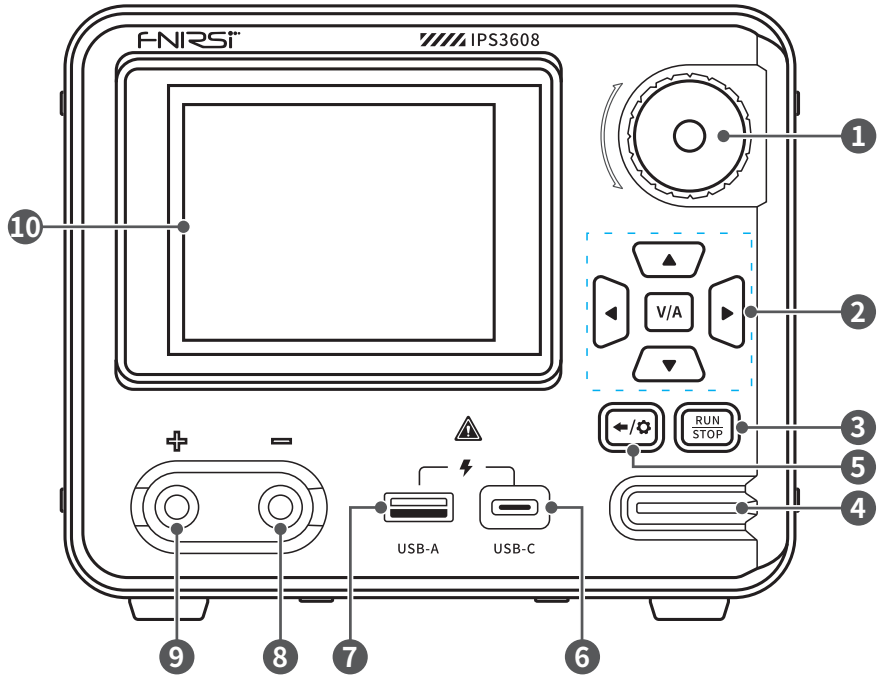
⑥**USB-C:**接口USB-C。

⑦**USB-A:**接口USB-A。

⑧**电源输出负端:**接负载负端。

⑨**电源输出正端:**接负载正端。

⑩**显示屏:**设备显示输出数据区域，屏幕可适当进行向上向下旋转一定角度方便观测。



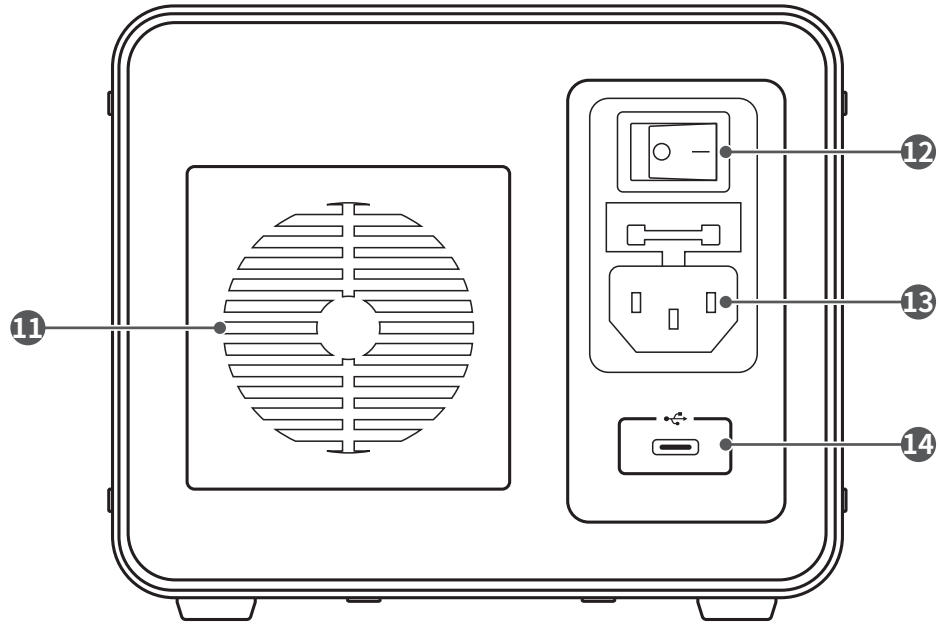
⑪**设备散热出风口**

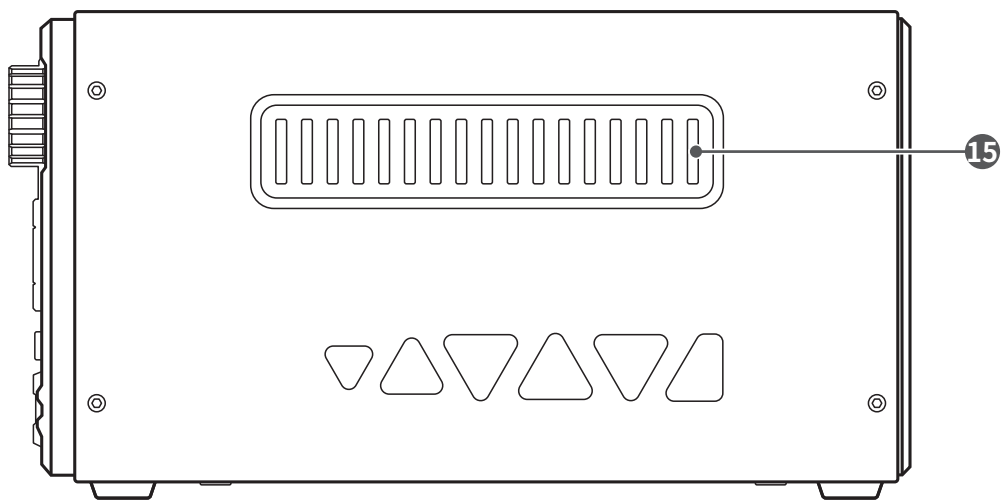
⑫**电源开关键：**开启/关闭设备电源。

⑬**设备电源线接口：**市电输入口。

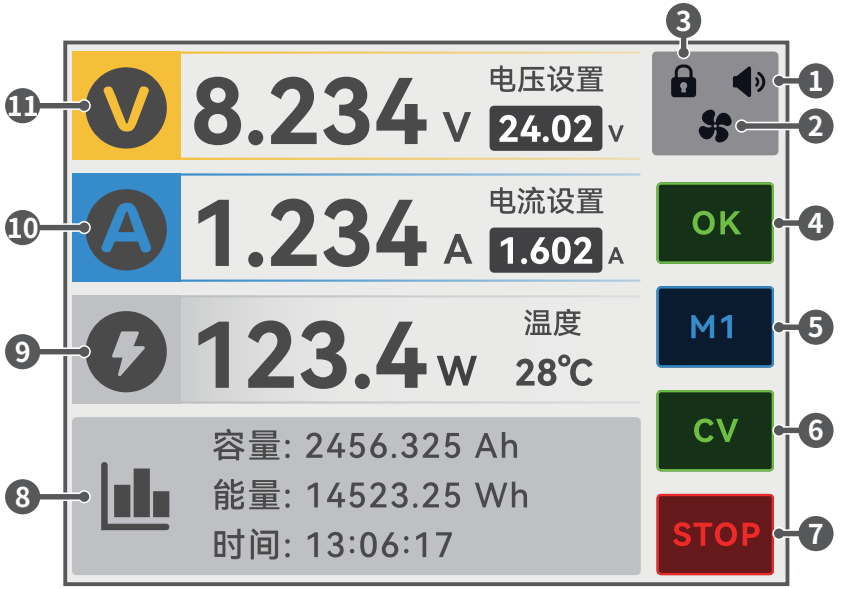
⑭**USB接口：**USB-C充电接口。

⑮**散热口：**设备左右两侧设计内凹散热口，提高设备散热，便于设备拿取。





2.3 AC-DC智能数控电源主页面示意图



①**音量开启指示:**指示设备音量开启情况,图标为黑色说明已开启。

②**散热风扇:**当设备达到一定温度时,会自动打开风扇进行散热,此时图标显示为黑色,风扇关闭图标显示为白色。

③**锁定指示:**长按输出电源键,设备进入锁定功能。此刻图标显示黑色,页面与参数锁定,除输出电源键有效,其余按键无效。

④**OK键有效:**点击OK键,进入电压电流设置。

⑤**数据组:**此区域显示设备当前使用的数据组,设备支持6组数据组。切换数据组可通过上下按键切换。

⑥**CV:**此区域显示CV,表示为恒压。

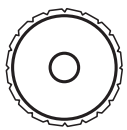
⑦**RUN/STOP:**此区域显示设备电源输出情况,可通过输出电源按键进行切换。

⑧**数据统计区域:**此区域显示容量、能量、设备使用时间。

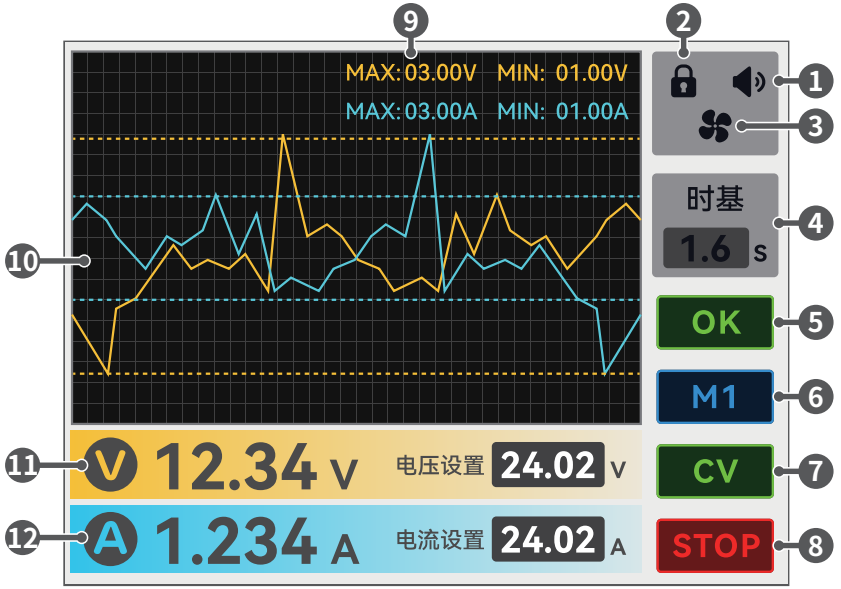
⑨**温度区域:**此区域显示输出功率与设备温度(不可手动调节),温度单位 为℃。

⑩**电流设置区域:**此区域显示输出电流与设置电流参数。

⑪**电压设置区域:**此区域显示输出电压与设置电压参数。

按键	操作	功能描述
	拨动	设备开机/关机
RUN/STOP	长按	长按后，设备进入锁定模式。再次长按，退出锁定。
	短按	RUN/STOP
	旋转	未选中输入框，旋转旋钮进行页面切换；在首页输入框中旋转旋钮调整数值
	长按	中键长按，进行清除数据统计
上下按键	短按	切换数据组，上/下键分别进行增大/减小数据组号
左右键	短按	进入输入框内，左右键切换数值位数
V/A键	短按	进入电压设置输入框，再次按下进入电流设置，第三次按下退出输入框。 若超过15s未进行操作，退出输入框
←/⚙	短按	进入设置菜单，再次按下退出菜单界面

2.4 VI界面页面示意图



①**音量开启指示:**指示设备音量开启情况,图标为黑色说明已开启。

②**锁定指示:**长按输出电源键,设备进入锁定功能。此刻图标显示黑色,页面与参数锁定,除输出电源键有效,其余按键无效。

③**散热风扇:**当设备达到一定温度时,会自动打开风扇进行散热,此时图标显示为黑色,风扇关闭图标显示为白色。

④**时基:**时基范围0.1s~0.5s。

⑤**OK键:**点击OK键,进入电压电流设置。

⑥**数据组:**此区域显示设备当前使用的数据组,设备支持6组数据组。切换数据组可通过上下按键切换

⑦**CV:**此区域显示CV,表示为恒压。

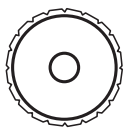
⑧**RUN/STOP:**此区域显示设备电源输出情况,可通过输出电源按键进行切换。

⑨**MAX/MIN区:**此区域显示VI曲线的最大值与最小值,其中蓝色表示电流、黄色表示电压。

⑩**VI曲线:**反映电压、电流输出情况,其中蓝色表示电流、黄色表示电压。

⑪**电压设置区域:**此区域显示输出电压与设置电压参数。

⑫**电流设置区域:**此区域显示输出电流与设置电流参数。

按键	操作	功能描述
	拨动	设备开机/关机
RUN/STOP	长按	长按后，设备进入锁定模式。再次长按，退出锁定。
	短按	RUN/STOP
	旋转	未选中输入框，旋转旋钮进行页面切换；在输入框中旋转旋钮调整数值
	长按	中键长按，进行清除数据统计
上下按键	短按	切换数据组，上/下键分别进行增大/减小数据组号
左右键	短按	左右键调整时基，时基调整范围：0.1s~0.5s
V/A键	短按	进入电压设置输入框，再次按下进入电流设置，第三次按下退出输入框。 若超过15s未进行操作，退出输入框
←/⚙	短按	进入设置菜单，再次按下退出菜单界面

2.5 A/C输出页面示意图

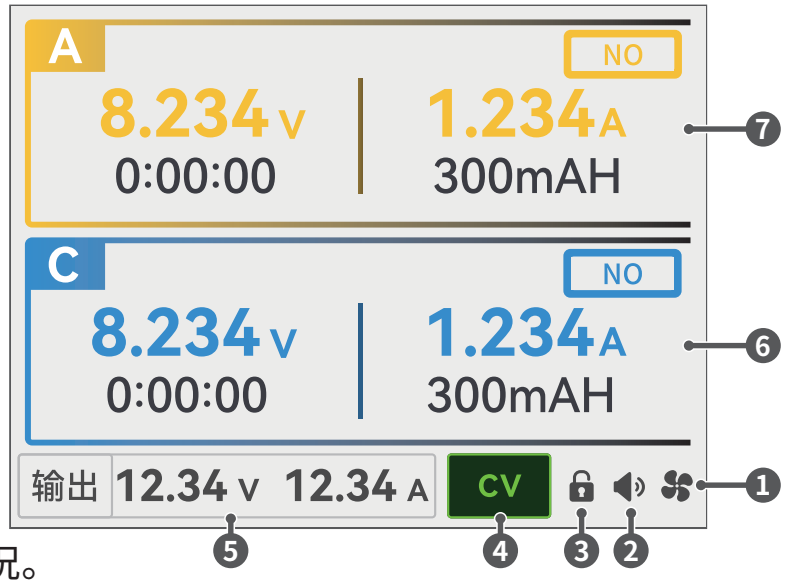
①**音量开启指示:**指示设备音量开启情况,图标为黑色说明已开启。

②**散热风扇:**当设备达到一定温度时,会自动打开风扇进行散热,此时图标显示为黑色,风扇关闭图标显示为白色。

③**锁定指示:**长按输出电源键,设备进入锁定功能。此刻图标显示黑色,页面与参数锁定,除输出电源键有效,其余按键无效。

④**CV:**此区域显示CV,表示为恒压。

⑤**输出区域:**此区域显示输出电压、电流,其输出数值根据为设置的数值。

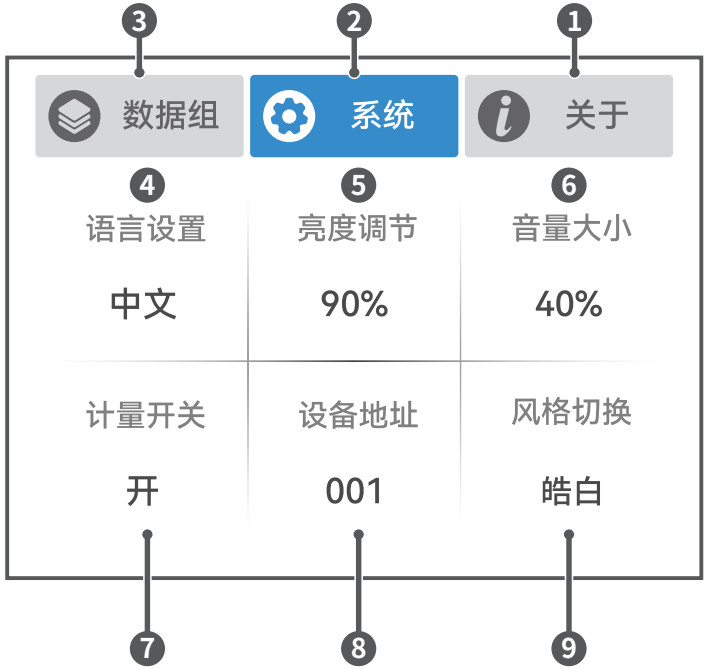


⑥**快充C显示区域:**此区域显示USB-C输出电压、电流,开启情况。

⑦**快充A显示区域:**此区域显示USB-A输出电压、电流,开启情况。

按键	操作	功能描述
	拨动	设备开机/关机
RUN/STOP	长按	长按后,设备进入锁定模式。再次长按,退出锁定
	短按	RUN/STOP
	旋转	未选中输入框,旋转旋钮进行页面切换
←/⚙	短按	进入设置菜单,再次按下退出菜单界面

2.6 设置页面示意图



①**关于:**此区域显示设备型号,版本号以及恢复出厂设置等。

②**系统指示:**此区域为设置菜单中的系统设置,当字体变为蓝色时当前选择为系统设置。

③**数据组:**数据组共六组,每组可设置参数有电压设置0~36V、电流设置0~8.2A、过压保护0V~36.10V、过流保护0~8.2A、过功率保护0W~295.2W、过温保护0~99°C等。

④**语言设置:**设备支持简体中文、English。

⑤**亮度调节:**屏幕亮度调节范围5%~100%,可通过旋钮快速调节。

⑥**音量大小:**设备音量调节范围0%~100%,可通过旋钮快速调节。

⑦**计量开关:**开启/关闭设备计量。

⑧**设备地址:**设备地址可设置范围000~255。

⑨**风格切换:**设备支持皓白、暗黑两种风格模式。

按键	操作	功能描述
	拨动	设备开机/关机
	旋转	未选中输入框，旋转旋钮进行选择操作
	短按	单击进入设置选项，再次单击保存并退出输入框
←/⚙	短按	退出设置菜单，再次进入菜单界面
按键选择区域	短按	可进行上、下、左、右等基础操作，进入输入框左右键进行位号选择，上下键进行参数设置。 注：在一级导航时，光标选中数据组/系统/关于等，可直接按下键进入二级导航选择相关设置选项

三、技术规格

3.1 机型参数

设备名称	AC-DC智能数控电源		
设备型号	IPS3608	**屏幕材质**	2.8寸彩屏
背光	背光亮度可调	**语言**	中文, English
产品尺寸	≈138×214×115mm	**产品重量**	≈1539g

3.2 电源参数

类别	参数描述	
输入	电压范围	100-240VAC(50/60HZ)
设定分辨率	电压	0.01V
	电流	0.001A
回读值精度	输出电压	±(0.3%+3 个字)
	输出电流精度	±(0.15%+5 个字)
工作环境	-10°C~40°C, 0%~75%RH	
保护机制	●过压保护 ●过流保护 ●过功率保护 ●过温保护 ●欠压保护 ●输入防反接 ●输出防反灌 ●短路保护	
输出	电压	DC 0~36V
	电流	0~8A
	功率	0~285W
负载调整率	±(0.2%+2 个字)	

※**精度计算方法**:一个字为一最小分辨率,5V时误差为±(5x0.3%+3x0.01),即5±0.045V

3.3 快充参数

输出端类别	快充协议
USB-C	PD3.0
USB-A	华为FCP
	华为SCP
	AFC
	QC2.0
	QC3.0

四、操作指南

4.1 开机

●拨动设备背面电源开关键打开电源开启设备，等待系统加载，进入AC-DC智能数控电源主界面。

4.2 语言设置

●在主界面短按 ←/⚙ ，进入系统菜单，短按选择键/滚动编码器选择系统，短按**V/A**确认键/按键下键/编码器中键进入系统设置，短按选择键/滚动编码器选择语言设置，后短按**V/A**确认键/编码器中键进入语言设置，左右键/滚动编码器选择中英文，短按**V/A**确认键/编码器中键确认即可。

4.3 设置数据组

数据组调节：

●在主界面短按 ←/⚙，进入系统菜单，短按选择键/滚动编码器选择数据组，短按**V/A**确认键/按键下键/编码器中键进入数据组设置，短按选择键/滚动编码器选择对应的数据组序号，后短按**V/A**确认键/编码器中键进入选中的数据组设置。数据组可设置电压、电流、过压保护、过流保护、过功率保护、过温保护。通过按键或旋钮选中需要调节的设置选项，点击**V/A**确认键/编码器中键进入输入框调节参数后，点击 ←/⚙ 退出设置。

4.4 亮度调节

亮度调节：

●在主界面短按 ←/⚙，进入系统菜单，短按选择键/滚动编码器选择系统，短按 **V/A** 确认键/按键下键/编码器中键进入系统设置，短按选择键/滚动编码器选择亮度调节，后短按**V/A**确认键/编码器中键进入亮度调节，左右键/滚动编码器调节屏幕亮度，短按**V/A** 确认键/编码器中键确认即可

系统设置其他功能调节：

●对应功能选择与开启同以上操作导航大致相同，省略步骤描述。

五、快速入门

5.1 快速输出

●打开AC-DC智能数控电源启动设备，设备开启后，进入主界面等待下一步操作。

●如果有设置好数据组参数的前提下，可以直接通过上下按键进行快速切换需要的数据组。没有设置数据组，用户可查看下方按键操作与如何设置数据组。

• 按键设置输出参数，点击**V/A**键进行电压、电流设置进入对应的输入框选内可通过按键与编码器（滚轮）调节参数。注意设置参数请不要超过过压保护，以免输出被过压保护限值。

• 按下设置菜单键，选择进入数据组设置数据组参数。数据组可设置：电压设置、电流设置、过压保护、过流保护、过功率保护、过温保护等。

●当参数设置好后，需根据负载电源需求情况，务必确认好设置的电源参数符合负载设备安全范围之内，确认好参数设置的安全性后，方可开启**RUN/STOP**按键输出电源。

●观察设备屏幕，输出电压电流数据是否正常，可旋转旋钮进行其他界面切换，VI界面观测输出电源变化情况。

●使用完毕后，建议将设置电压电流调整最低后关闭**RUN/STOP**。

5.2 固件升级

●设备关机,先按住上按键，在打开设备电源，此时设备会弹出固件升级firmware upgrade界面,插入MICRO USB数据线连接电脑,进入固件更新update界面进行固件升级。

●进入固件更新update后，电脑识别出U盘，把固件文件直接拖动到U盘即可。

●在固件更新update界面，短按**RUN/STOP**电源输出键可进行开机。

六、故障排查

6.1 无法开机

●可能原因:

· 电源线损坏。

· 电源接口连接松动或损坏。

●解决方法:

· 更换电源线，请不要使用损坏的电源线。

· 断开设备电源，放置一段时间以防余电后，打开设备查看接口松动原因，若是结构松动可尝试加固设备结构。若此操作无效，建议进行维修或更换接口。

6.2 屏幕无法显示

●可能原因:

· 屏幕背光关闭。

· 显示屏硬件故障。

· 系统软件异常。

●解决方法:

· 按照手册检查并调节背光亮度设置。

· 尝试重启设备，确保系统恢复正常。

· 如果屏幕仍无法正常显示，可能需要维修或更换显示屏。

七、维护保养

7.1 清洁设备外部

●频率：每3-6月清洁一次，具体取决于使用环境。

●方法：首先应断开电源与市电的连接，并确保电源内部的电容器已经放电完毕，以免发生触电事故。使用干净的湿布或毛刷对电源的外壳进行清洁，去除外壳表面的灰尘、污垢等杂质。避免使用化学清洁剂，特别是含有酒精或强酸、强碱的清洁剂，以免损坏外壳或屏幕。

●注意事项：

·定期清理设备和按钮周围的灰尘，以保持设备良好状态。

·确保设备无任何液体、灰尘或杂物进入设备接口。

7.2 存放与携带

●存放环境：设备应存放在干燥、通风的环境中，避免高温、高湿或剧烈的温度变化。避免将其放置在阳光直射的地方。

●携带：使用时应小心避免摔落，尤其是在携带过程中。推荐使用保护套或专用包进行携带。

7.3 软件更新

●定期检查设备是否有新的固件更新。最新的固件可以修复已知的BUG并提升设备性能。

●更新时确保操作步骤正确，使用官方发布的固件文件，并避免断电或其他干扰。

7.4 恢复出厂设置

●若设备出现异常或无法正常工作，可尝试恢复出厂设置。恢复设置后，设备将清除所有自定义配置，恢复到初始状态。

●恢复出厂设置的方法可以参考用户手册或联系厂商客服。

八、生产信息

产品名称：AC-DC智能数控电源

品牌/型号：FNIRSI/IPS3608

生产商：深圳市菲尼瑞斯科技有限公司

地址：广东省深圳市龙华区大浪街道伟华达工业园C栋西侧8楼

服务热线：0755-28020752

服务邮箱：support@fnirsi.com

商务邮箱：business@fnirsi.com

官方网站：www.fnirsi.cn

执行标准：GB 20943-2013

九、保修说明

※此页为保修卡基本凭证，请妥善保管

感谢您选择本公司产品，本产品自销售之日起计保修期。在产品保修期内，凡按照产品使用说明书安装使用于正常环境、条件使用之下，因原物料及加工过程中之瑕疵而导致故障，可依据本保修条款的内容享受无偿维修服务，本保修卡请用户妥善保存，以作保修凭证，丢失恕不补发。

以下情况将实施有偿维修服务:

●不能出示有效保修卡原件；

●产品安装不符合产品要求、标准和相关规范造成 的损坏；

●产品安装环境中相关配件不符合产品要求、标准和相关规范造成的损坏；

●用户对产品使用不当、保管不妥或擅自拆机、私自维修等原因造成的损坏；

●超过保修期；

1. Safety Requirements

1.1 Environmental Requirements

Precautions

- Avoid high temperature, open flame, corrosive gas, humid or dusty environment to prevent equipment failure.
- Before operation, check whether the power supply shell is damaged or deformed, whether the power supply interface is loose or damaged, and confirm whether the connecting cable is damaged or broken. If there are any problems, it will affect the normal operation of the power supply and even damage the equipment.
- Before use, please ensure that the heat dissipation port is not blocked by foreign objects to ensure that the equipment has good heat dissipation performance.
- Please read the operating manual of the power supply carefully before use and be familiar with the use of the equipment, which will help to operate the power supply correctly and efficiently, and timely discover and solve problems that occur during the use of the power supply to ensure the safe and stable operation of the power supply.
- During operation, when connecting the load, please turn off the power switch in advance to ensure that the power supply is in a power-off state. After the load is correctly connected, the power switch can be turned on.
- After turning on the power switch, please do not adjust the voltage or current to the maximum output. You should first adjust the output parameters to a lower value, and then gradually and slowly adjust the output voltage or current according to the actual needs of the load.
- When using the AC-DC intelligent digital control power supply, always pay attention to the operation of the load to avoid overload and short circuit.

- During the operation of the power supply, you must pay attention to the working status of the power supply, including whether the output voltage and current are stable, whether the power supply has abnormal noise, heat, etc.
- After use, adjust the output voltage and current of the power supply to zero through the operation panel, and then turn off the output of the power supply. Avoid damage to the load equipment and the power supply itself caused by the back electromotive force or surge current generated by sudden power cut-off.

⚠ Keep away from the following items:

- Heaters: Avoid overheating or fire risks.
- Water, chemicals: Solvents Leakage may damage the meter or cause a fire.
- Strong magnetic meters: Prevent magnetic fields from interfering with the normal operation of the meter.

♻ Waste Disposal

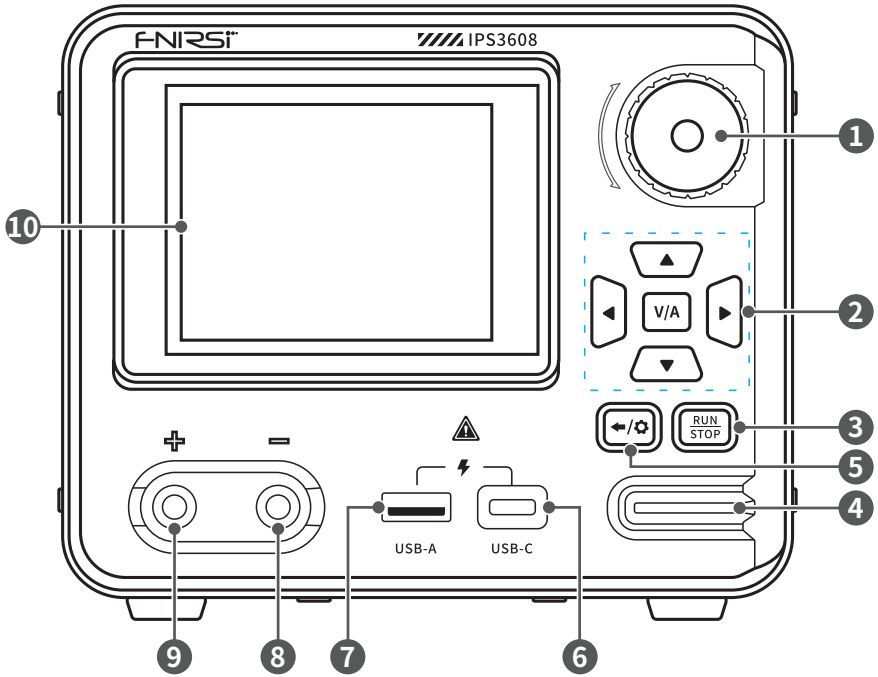
Do not discard used batteries or meters with household waste. Dispose of in accordance with national or local regulations.

2. Product Overview

2.1 Product Introduction

IPS3608 is an AC-DC intelligent digital control power supply that uses digital control technology to efficiently convert AC power into DC power. It is much more intelligent than traditional power supplies. It has the characteristics of convenient parameter adjustment, high-precision output, strong dynamic response, convenient digital control interface, and multiple electrical protections. It is suitable for various scenarios such as personal measurement power supply, industrial manufacturing, experimental equipment power supply, and medical power supply. It meets the diverse and high-precision power demand and provides stable DC power for electronic equipment, which is a key force in the modern science and technology industry.

2.2 Product operation



①**Encoder button:**In the main interface, the knob scrolls to switch pages left and right, and long press the middle button to clear data statistics. When entering the input box, rotate the knob to adjust the value. In the setting interface, the knob scrolls to select, and short press the middle button to enter/confirm the operation.

②**Button selection area:**press the up, down, left, right, V/A button.

③**Output power button:**output power switch RUN/STOP, lock button.

④**Power indicator:**indicates the power on status of the device.

⑤**Setting menu button:**enter and exit the setting menu, and it is the return button after entering the setting parameters.

⑥**USB-C:**USB-C interface.

⑦**USB-A:**USB-A interface.

⑧**Power output negative terminal:**connected to the negative end of the load.

⑨**Power output positive terminal:**connected to the positive end of the load.

⑩**Display screen:**The device displays the output data area, and the screen can be rotated up and down at a certain angle for easy observation.

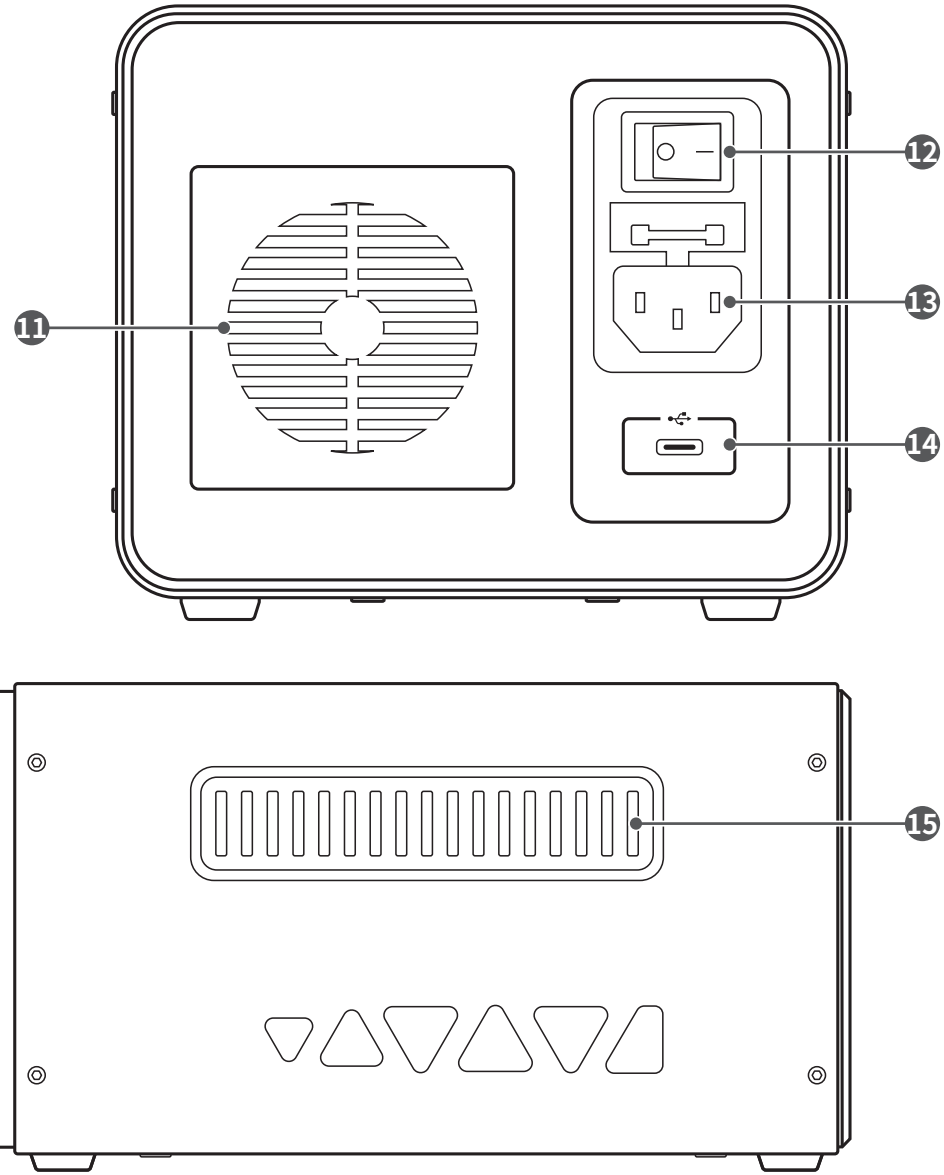
⑪**Equipment heat dissipation outlet**

⑫**Power switch:** turn on/off the device power.

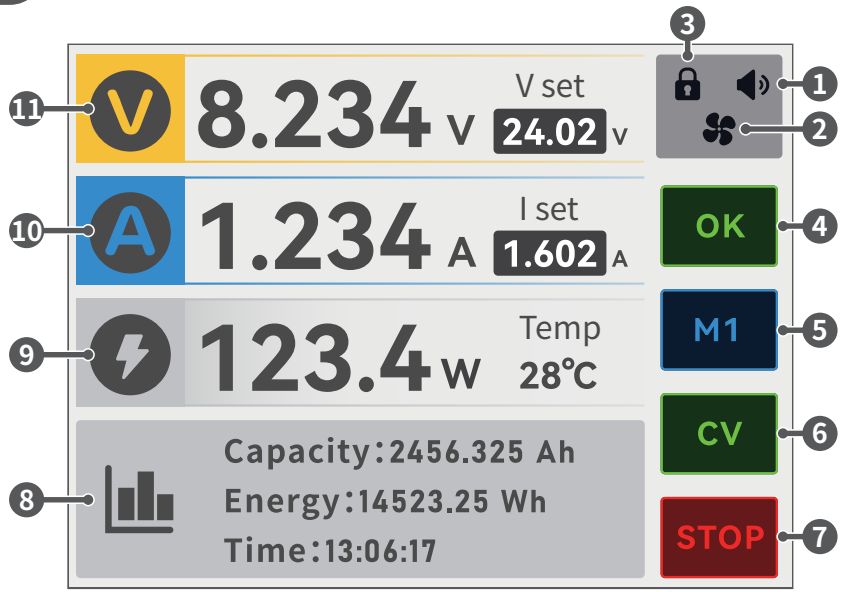
⑬**Equipment power cord interface:** Mains power input port.

⑭**USB interface:** USB-C charging port.

⑮**Heat dissipation outlet:** concave heat dissipation outlets are designed on the left and right sides of the device to improve the heat dissipation of the device and facilitate the device to be taken.



2.3 Main Page of AC-DC Control Power Supply



①**Volume On Indicator:**Indicates the volume on status of the device. If the icon is black, it is on.

②**Cooling Fan:**When the device reaches a certain temperature, the fan will automatically turn on for cooling. At this time, the icon will be black, and the fan off icon will be white.

③**Lock Indicator:**Long press the output power button, and the device will enter the lock function. At this moment, the icon is black, the page and parameters are locked, and the output power button is valid, and the other buttons are invalid.

④**OK key is valid:**Click the OK button to enter the voltage and current settings.

⑤**Data Group:**This area displays the data group currently used by the device. The device supports 6 data groups. Switching data groups can be switched by pressing the up and down buttons.

⑥**CV:**This area displays CV, indicating constant voltage.

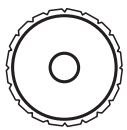
⑦**RUN/STOP:**This area displays the power output of the device, which can be switched by pressing the output power button.

⑧**Data Statistics Area:**This area displays capacity, energy and device usage time.

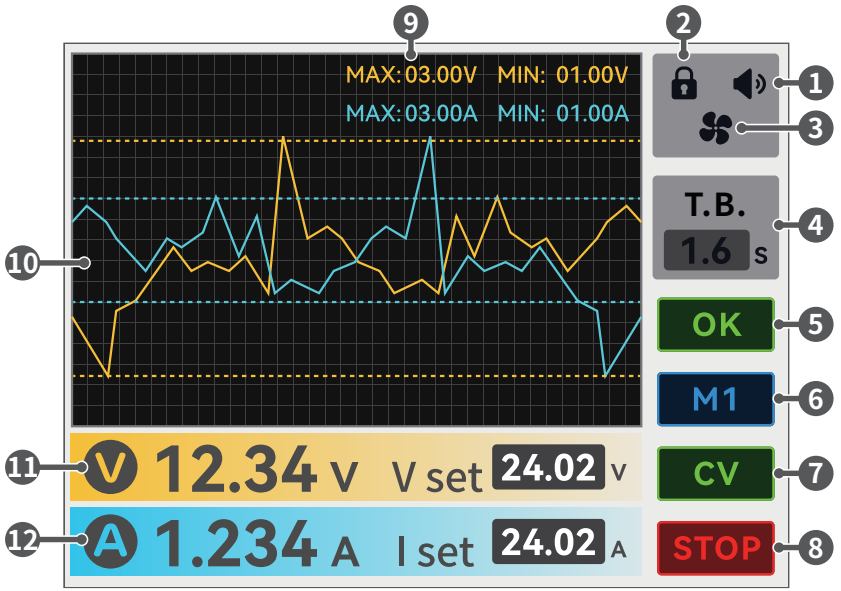
⑨**Temperature Area:**This area displays output power and device temperature (cannot be adjusted manually), and the temperature unit is °C.

⑩**Current Setting Area:**This area displays output current and setting current parameters.

⑪**Voltage Setting Area:**This area displays output voltage and setting voltage parameters.

Button	Operation	Function Description
	Switch	Power on/off the device.
RUN/STOP	Long Press	Long press to enter the lock mode. Press and hold again to exit the lock.
	Short Press	RUN/STOP
	Rotate	If the input box is not selected, rotate the knob to switch pages; rotate the knob to adjust the value in the home input box.
	Long Press	Long press the middle button to clear data statistics.
▲ ▼	Short Press	Switch data groups, and the up/down buttons increase/decrease the data group number respectively.
◀ ▶	Short Press	Enter the input box, and the left and right buttons switch the number of digits.
V/A	Short Press	Enter the voltage setting input box, press again to enter the current setting, and press the third time to exit the input box. If no operation is performed for more than 15s, exit the input box.
←/⚙	Short Press	Enter the setting menu, and press again to exit the menu interface.

2.4 VI interface page



①**Volume on indication:**indicates the device volume on status, the icon is black, indicating it is on.

②**Lock indication:**Long press the output power button, the device enters the lock function. At this moment, the icon is black, the page and parameters are locked, except the output power button is valid, the other buttons are invalid.

③**Cooling fan:**When the device reaches a certain temperature, the fan will automatically turn on for cooling, and the icon will be black. When the fan is turned off, the icon will be white.

④**Time base:**Time base range 0.1s~0.5s.

⑤**OK button:**Click the OK button to enter the voltage and current settings.

⑥**Data group:**This area displays the data group currently used by the device. The device supports 6 data groups. The data group can be switched by the up and down buttons.

⑦**CV:**This area displays CV, indicating constant voltage.

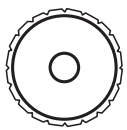
⑧**RUN/STOP:**This area displays the output of the device power supply, which can be switched by the output power button.

⑨**MAX/MIN area:**This area displays the maximum and minimum values of the VI curve. Blue indicates current and yellow indicates voltage.

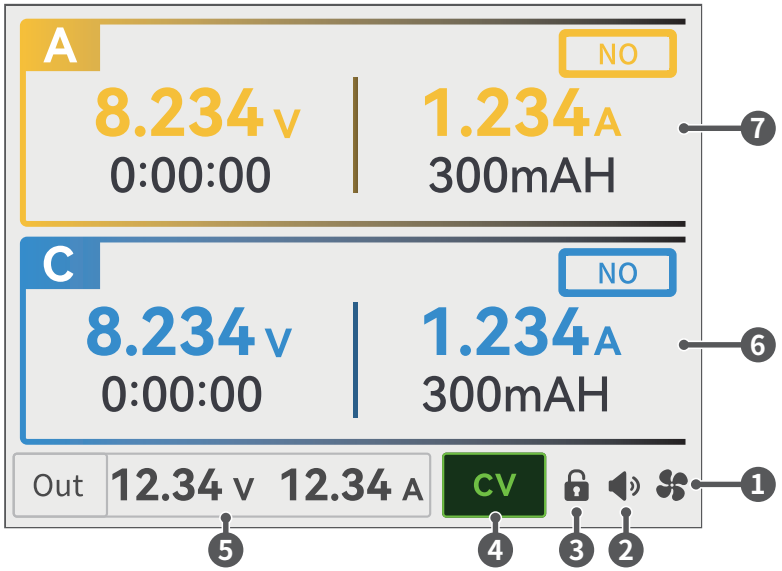
⑩**VI curve:**reflects the output of voltage and current, blue indicates current and yellow indicates voltage.

⑪**Voltage setting area:**This area displays the output voltage and setting voltage parameters.

⑫**Current setting area:**This area displays the output current and setting current parameters.

Button	Operation	Function Description
	Switch	Power on/off the device.
RUN/STOP	Long Press	Long press to enter the lock mode. Press and hold again to exit the lock.
	Short Press	RUN/STOP
	Rotate	If the input box is not selected, rotate the knob to switch pages; rotate the knob to adjust the value in the home input box.
	Long Press	Long press the middle button to clear data statistics.
▲ ▼	Short Press	Switch data groups, and the up/down buttons increase/decrease the data group number respectively.
◀ ▶	Short Press	Use the left and right buttons to adjust the time base, the time base adjustment range: 0.1s~0.5s
V/A	Short Press	Enter the voltage setting input box, press again to enter the current setting, and press the third time to exit the input box. If no operation is performed for more than 15s, exit the input box.
←/⚙	Short Press	Enter the setting menu, and press again to exit the menu interface.

2.5 A/C output



①**Volume on indication:**indicates the volume on status of the device. If the icon is black, it is turned on.

②**Cooling fan:**When the device reaches a certain temperature, the fan will be automatically turned on for cooling. At this time, the icon is black and the fan off icon is white.

③**Lock indication:**Long press the output power button and the device enters the lock function. At this moment, the icon is black and the page and parameters are locked. Except for the output power button, the other buttons are invalid.

④**CV:**This area displays CV, indicating constant voltage.

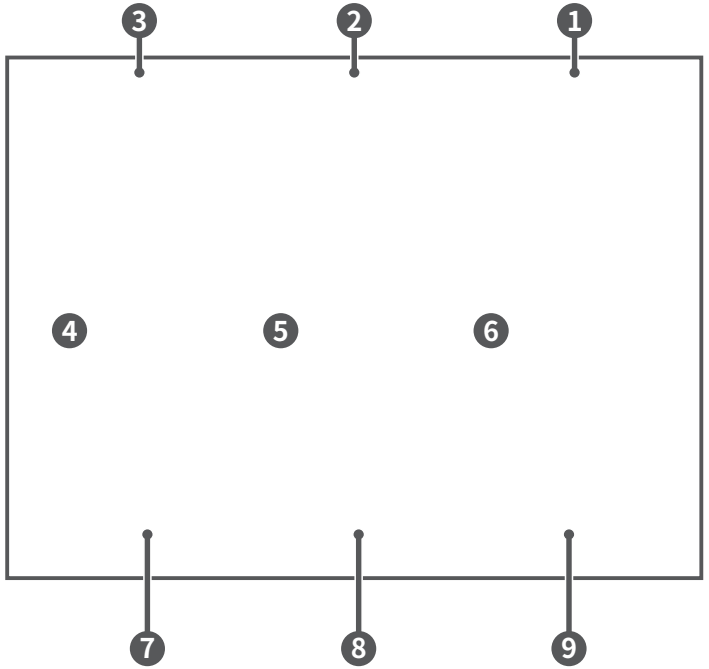
⑤**Output area:**This area displays the output voltage and current, and its output value is based on the set value.

⑥**Fast charge C display area:**This area displays the USB-C output voltage, current and opening status.

⑦**Fast charge A display area:**This area displays the USB-A output voltage, current and opening status.

Button	Operation	Function Description
	Switch	Power on/off the device.
RUN/STOP	Long Press	Long press to enter the lock mode. Press and hold again to exit the lock.
	Short Press	RUN/STOP
	Rotate	If the input box is not selected, rotate the knob to switch pages.
←/⚙	Short Press	Enter the setting menu, and press again to exit the menu interface.

2.6 Setting



①**About:**This area displays the device model, version number, and factory reset, etc.

②**System indication:**This area is the system setting in the setting menu. When the font turns blue, the current selection is the system setting.

③**Data group：**There are six data groups, and each group can set parameters such as voltage setting 0~36V, current setting 0~8.2A, overvoltage protection 0V~36.10V, overcurrent protection 0~8.2A, overpower protection 0W~295.2W, overtemperature protection 0~99°C, etc.

④**Language setting：**The device supports simplified Chinese and English.

⑤**Brightness adjustment:**The screen brightness adjustment range is 5%~100%, which can be quickly adjusted by the knob.

⑥**Volume:**The device volume adjustment range is 0%~100%, which can be quickly adjusted by the knob.

⑦**Metering switch：**Turn on/off device metering.

⑧**Device address：**The device address can be set in the range of 000~255.

⑨**Style switching：**The device supports two style modes: white and dark.

Button	Operation	Function Description
	Switch	Device power on/off
	Rotate	Uncheck the input box, rotate the knob to select the operation
	Short Press	Click to enter the setting option, click again to save and exit the input box
←/⚙	Short Press	Exit the setting menu and enter the menu interface again
	Short Press	You can perform basic operations such as up, down, left, and right. Enter the input box and press the left and right buttons to select the bit number, and press the up and down buttons to set the parameters **Note:** In the first-level navigation, the cursor selects the data group/system/about, etc., and you can directly press the down button to enter the second-level navigation to select the relevant setting options

3.Technical Specifications

3.1 Model Parameters

Device name	AC-DC Intelligent Digital Control Power Supply Manual		
Device model	IPS3608	**Screen material**	2.8-inch color screen
Backlight	Adjustable backlight brightness	**Language**	中文, English
Product size	≈138×214×115mm	**Product weight**	≈1539g

3.2 Battery Parameters

Category	Parameter description	
Input	**Voltage range**	100-240VAC(50/60HZ)
Setting resolution	**Voltage**	0.01V
	Current	0.001A
Readback value accuracy	**Output voltage**	±(0.3%+3 bits)
	Output current accuracy	± (0.15%+5 bits)
Operating Environment	-10°C~40°C, 0%~75%RH	
Protection mechanism	●Overvoltage protection ●Overcurrent protection ●Overpower protection ●Overtemperature protection ●Undervoltage protection ●Short circuit protection ●Output reverse injection protection ●Input reverse connection protection	
Output	**Voltage**	DC 0~36V
	Current	0~8A
	Power	0~285W
Load regulation rate	± (0.2%+2 bits)	

※**Accuracy calculation method**：one byte is the minimum resolution, such as 5V, the error is ± (5x0.3% + 3x0.01), that is, 5 ± 0.045V

3.3 Fast charging parameters

Output terminal category	Fast charging protocol
USB-C	PD3.0
USB-A	HUAWEI FCP
	HUAWEI SCP
	AFC
	QC2.0
	QC3.0

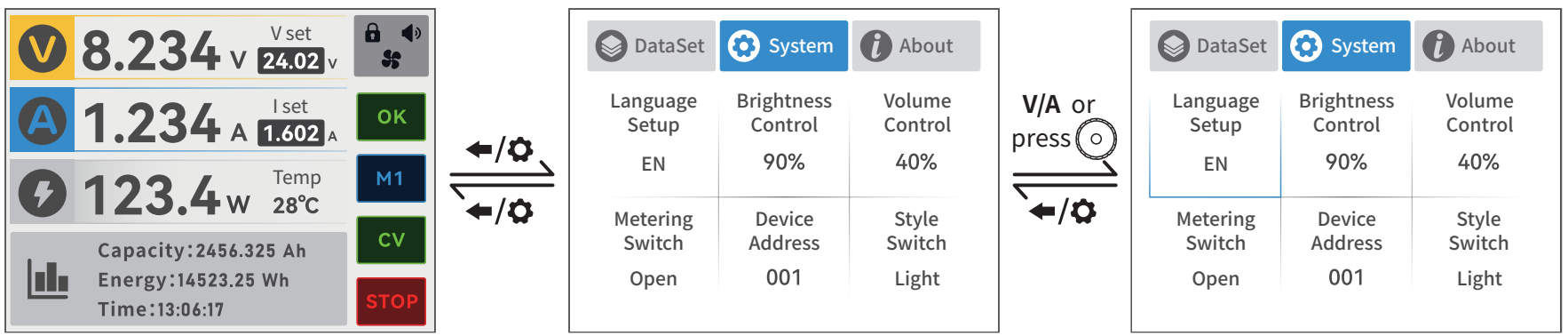
4.Operation Guide

4.1 Boot

●Slide the power switch on the back of the device to turn on the power, wait for the system to load, and enter the main interface of the AC-DC intelligent digital control power supply.

4.2 Language Settings

●Short press ←/⚙ on the main interface to enter the system menu, short press the selection button/scroll encoder to select system, short press **V/A** confirmation button/down button/encoder middle button to enter system settings, short press the selection button/scroll encoder to select language settings, then short press **V/A** confirmation button/encoder middle button to enter language settings, left and right buttons/scroll encoder to select Chinese and English, short press **V/A** confirmation button/encoder middle button to confirm.



4.3 DataSet

Data group adjustment:

●Short press ←/⚙ on the main interface to enter the system menu, short press the selection button/scroll encoder to select the data group, short press the **V/A** confirmation button/down button/encoder middle button to enter the data group setting, short press the selection button/scroll encoder to select the corresponding data group number, and then short press the **V/A** confirmation button/encoder middle button to enter the selected data group setting. The data group can set voltage, current, overvoltage protection, overcurrent protection, overpower protection, and overtemperature protection. Select the setting option to be adjusted by pressing the button or knob, click the **V/A** confirmation button/encoder middle button to enter the input box to adjust the parameters, and then click ←/⚙ to exit the setting.

4.4 Brightness adjustment

Brightness adjustment:

●Short press ←/⚙ on the main interface to enter the system menu, short press the selection button/scroll encoder to select system, short press **V/A** confirmation button/down button/encoder middle button to enter system settings, short press the selection button/scroll encoder to select brightness adjustment, then short press **V/A** confirmation button/encoder middle button to enter brightness adjustment, left and right buttons/scroll encoder to adjust screen brightness, short press **V/A** confirmation button/encoder middle button to confirm.

Other function adjustment of General settings:

●The corresponding function selection and opening are roughly the same as the above operation navigation, and the step description is omitted.

5.Quick Start

5.1 Rapid measurement

- Turn on the AC-DC Intelligent Digital Control Power Supply. After the device is turned on, enter the main interface and wait for the next operation.
- If the data group parameters are set, you can directly use the up and down buttons to quickly switch the required data group. If the data group is not set, the user can view the button operation below and learn how to set the data group.
  - Press the button to set the output parameters, click the **V/A** button to set the voltage and current, enter the corresponding input box, and adjust the parameters by pressing the button and encoder (roller). Note that the setting parameters should not exceed the overvoltage protection to prevent the output from being over-voltage protection limit.
  - Press the setting menu button and select to enter the data group to set the data group parameters. The data group can be set: voltage setting, current setting, overvoltage protection, overcurrent protection, overpower protection, overtemperature protection, etc.
- After the parameters are set, it is necessary to confirm that the set power parameters are within the safety range of the load equipment according to the load power demand. After confirming the safety of the parameter settings, the **RUN/STOP** button can be turned on to output the power.
- Observe the device screen to see if the output voltage and current data are normal. You can rotate the knob to switch to other interfaces and observe the changes in the output power supply on the VI interface.
- After use, it is recommended to adjust the set voltage and current to the minimum and then turn off **RUN/STOP**.

5.2 Upgrade firmware

●Turn off the device, press and hold the upper button, then turn on the device power. At this time, the device will pop up the firmware upgrade interface. Insert the MICRO USB data cable to connect the computer and enter the firmware update interface to upgrade the firmware.

●After entering the firmware update, the computer recognizes the USB flash drive and drags the firmware file directly to the USB flash drive.

●In the firmware update interface, short press the **RUN/STOP** power output button to turn on the device.

6.Troubleshooting

6.1 Unable to boot

●Possible reasons:

·The power cord is damaged.

·The power interface is loose or damaged.

●Solutions:

·Replace the power cord. Do not use a damaged power cord.

·Disconnect the power supply of the device and leave it for a while to prevent residual power. Then turn on the device to check the cause of the loose interface. If the structure is loose, try to strengthen the device structure. If this operation does not work, it is recommended to repair or replace the interface.

6.2 Screen does not display

●Possible causes:

·The screen backlight is off. ·Display hardware malfunction. ·System software abnormality

●Solution:

·Check and adjust the backlight brightness settings according to the manual.

·Try restarting the device to ensure the system returns to normal.

·If the screen still does not display properly, the display may need to be repaired or replaced.

7.Maintenance

7.1 Cleaning the outside of the device

●Frequency: Clean once every 3-6 months, depending on the use environment.

●Method: First, disconnect the power supply from the mains and ensure that the capacitor inside the power supply has been discharged to avoid electric shock accidents. Use a clean damp cloth or brush to clean the power supply housing to remove dust, dirt and other impurities on the surface of the housing. Avoid using chemical cleaners, especially those containing alcohol or strong acids or alkalis, to avoid damaging the housing or screen.

●Precautions:

·Clean the dust around the device and buttons regularly to keep the device in good condition.

·Ensure that no liquid, dust or debris enters the device interface.

7.2 Storage and Carrying

- Storage environment: The device should be stored in a dry and ventilated environment, avoiding high temperature, high humidity or drastic temperature changes. Avoid placing it in direct sunlight
- Carrying: Be careful to avoid falling when using, especially during carrying. It is recommended to use a protective case or a special bag for carrying.

7.3 Software Update

- Regularly check whether the device has new firmware upgrades. The latest firmware can fix known bugs and improve device performance.
- When updating, make sure the operation steps are correct, use the officially released firmware files, and avoid power outages or other interference.

7.4 Restore factory settings

- If the device is abnormal or does not work properly, try to restore the factory settings. After restoring the settings, the device will clear all custom configurations and return to the initial state.
- For methods to restore factory settings, please refer to the user manual or contact the manufacturer's customer service.

8.Contact Us

Any FNIRSI users who contact us with questions will receive our promise of a satisfactory solution, plus an extra 6-month warranty as a token of our appreciation for your support! By the way, we have created an exciting community, and we welcome you to contact FNIRSI staff to join.

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9.Warranty Information

※**This page is the basic warranty card. Please keep it.**

Thank you for choosing our company's products. The warranty period of this product starts from the date of sale. During the product warranty period, if the product is installed and used in accordance with the product manual and used in normal environment and conditions, and the fault is caused by defects in the original materials and processing, you can enjoy free repair services according to the content of this warranty clause. Please keep this warranty card properly as a warranty certificate. No reissue will be issued if it is lost.

The following situations will incur paid repair services

1.Unable to present the original valid warranty card.
2.Damage caused by improper installation not meeting product requirements, standards, or relevant specifications.
3.Damage caused by accessories in the installation environment not meeting product requirements, standards, or relevant specifications.
4.Damage caused by improper use, improper storage, unauthorized disassembly, or unauthorized repairs by the user.
5.Expiration of the warranty period.

保修卡

产品型号	**IPS3608**	**数量**	
渠道商名称 （购买商店）		**渠道商地址**	
联系方式		**发票号** （订单号）	
购买时间	**年　　月　　日**		

客户姓名:	**地址:**
联系方式:	**故障说明:**

Warranty Card

Product Model	**IPS3608**	**Qty.**	
Distributor Name (where to buy)		**Address**	
Contact		**Invoice Number** (Order Number)	
Purchase Date (as per invoice)	**Year** **Month** **Day**		

User Name:	**Address:**
Contact:	**Fault Description:**

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