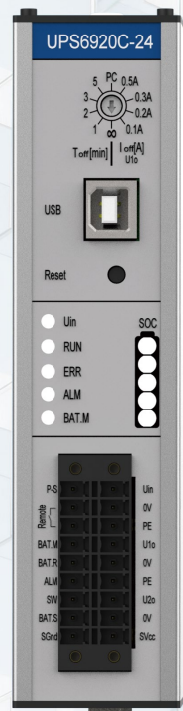


User Operation Manual

UPS6920C-24

Online Uninterruptible DC Power Supply (DC24V-120W)



Publication List

Product model	Company
UPS6920C-24	Shanghai Panelmate Electronics Co., LTD

Review/Approval

	Name/function/Company	Signature
Draw Up	FZJ/Document control assistant/Panelmate electronics	<i>Fzj</i>
Approval	ZJC/Design engineer/Panelmate electronics	<i>Zjc</i>
Authorize	JJY/General manager/Panelmate electronics	<i>Jjy</i>

other

Revision date	Page
June 9, 2025	26 pages

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Declaration Of Conformity

These restrictions are for system operation in a commercial environment from harmful interference in the operation of the system in a commercial environment. This device generates, uses and transmits radio frequency energy. If not properly installed and used correctly to the manual instructions, it may cause harmful interference to radio communications. However, even if the installation and use of the manual instructions are followed, there is no guarantee that there will be no interference. If this device will cause harmful interference with radio or television signal reception, the user can confirm by turning the device on and off. When the device produces harmful interference, the user can take the following measures to solve the interference problem:

1. Adjust the direction or position of the receiving antenna.
2. Increase the distance between this device and the receiver.
3. Plug the power connector of this device into a power socket with different circuit from the receiver.
4. For technical support, consult your dealer or an experienced radio technician.

Technical Support And Service

1. For the latest information and documentation of this product, please visit our official website www.panelmate.cn
2. If you need technical support, please contact your local distributor, sales representative customer service center. Before technical consultation, the user must collect the following product information:
 - Product name and serial number
 - Description of peripheral additional devices
 - Description of the user software (operating system, version, application software, etc.)
 - A complete description of the problem with the product
 - The full content of each error message

Safety Instruction

1. Before installing, wiring, operating, and checking the product, it is necessary to carefully read this manual and related manuals introduced in the manual, and operate the product correctly with full attention to safety.
2. Please keep this user manual for future reference.
3. Please unplug the power cord from the socket before cleaning the device with a damp rag. Do not use liquid or decontamination sprays to clean the equipment.
4. For devices that use power cords, there must be an easily accessible power socket around the device.
5. Ensure that the device is placed on a reliable surface before installation. An unexpected fall may damage the device.
6. Before you connect the device to the power socket, make sure that the power socket voltage meets the requirements.
7. Please place the power cord in a position where people cannot easily trip, and do not cover any debris in the power line.
8. Please pay attention to all warnings and attention signs on the device.
9. If you do not use the device for a long time, please disconnect it from the power socket to avoid the device being damaged by excessive voltage fluctuations.
10. Do not allow any liquid to flow into the equipment, you must disconnect to avoid fire or short circuit.
11. Please do not turn on the device by yourself. To ensure your safety, disconnect all external power supplies used by the system before turning on the device. Turn on the device by a certified professional engineer with sufficient electrical knowledge.

In case of the following situations, please be repaired by professional personnel:

- The power cord or plug is damaged
- There is liquid flowing into the equipment
- The device does not work properly, or you cannot make it work properly through the user manual
- Equipment falls or is damaged
- The equipment has obvious appearance damage

Please do not store the device in an environment beyond our recommended temperature range, that is, not lower than -40 ° C or higher than 80 ° C, otherwise it may damage the device.

Disclaimer

All components are provided with specific hardware and software configurations are suitable for application software. Unauthorized modification and alteration of hardware or software configuration beyond the scope of the document is prohibited, otherwise Shanghai Panelmate Electronics Co., Ltd. shall not be liable for any resulting liability arising therefrom.

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- Failure to comply with the provisions of this document
- Improper use
- Operated by untrained personnel
- Unauthorized replacement of parts

Employee Qualifications and Responsibilities

All operations involving software and hardware should only be performed by qualified personnel with knowledge of control and automation engineering. Qualified personnel must understand the management of control teams and related networks.

All interventions must have knowledge of control planning, and qualified personnel must be familiar with existing standards and guidelines for automated environments.

The operator must ensure that:

- Products are used only as intended
- The product runs in good condition and works normally
- Products are operated, maintained and repaired only by qualified and authorized personnel
- Regularly receive guidance from personnel on safety and be familiar with the operating manual, especially the safety instructions contained in this document
- The operating manual is in good condition, complete and always available for reference at the product location

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Chapter 1 Overview

1.1 File Content

This document contains the information you need to use the product at the appropriate stage of its life cycle, as follows:

- Specification and model
- Product size
- Interface definition
- Installation mode
- Safety statement

1.2 Safety Notice

For security purposes, the following ICONS are used in this document to provide you with more security information.

Icon	Description
	Warning: Indicates a potentially dangerous situation that, if not avoided, will result in death, serious injury, or major property damage
	Danger: indicates an imminent hazardous situation that, if not avoided, will result in death, serious injury, or significant property damage
	Info: Indicates important information

Chapter 2 Product Introduction

2.1 Product Overview

UPS6920C-24 is an online uninterruptible 24V DC power supply. All industrial computers can be equipped with UPS power supply. When the main power is abnormally shut down, the industrial computer equipped with UPS6920C-24 will allow the computer to work for a period of time, and during this period, the industrial computer will be notified to save the current status and data into the hard disk and other storage devices. The continuous power supply time of the UPS to the industrial computer after power failure can be set and controlled through the USB port connected to the industrial computer. The UPS DC power supply module based on supercapacitors effectively avoids the loss of important data after the system loses power and ensures stable operation throughout the process. UPS6920C-24 has the characteristics of secondary EMC protection and power filtering, small size, high reliability, low output ripple, strong anti-interference ability, voltage stabilization and safety protection. It also provides rich IO interfaces and standard communication protocols, which can be flexibly deployed in industrial environments.



2.2 Product Features

- Compact aluminium-magnesium alloy profile housing, dust-proof design
- Single side connection, DIN rail wall mount
- DC 24V power supply, industry standard design
- With USB control, set UPS parameters and extend shutdown time
- Max load is 120W
- UPS can supply power for more than 12 minutes at 120W load

2.3 Product Specifications

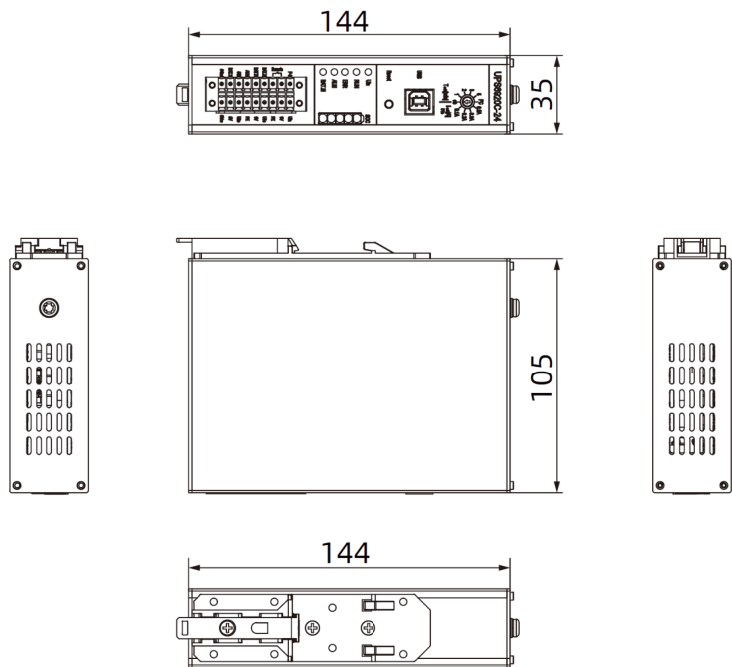
Description	UPS6920C-24		
Power DC input DC_IN	Voltage	DC24V(+15%~-20%) * Input voltage less than 19.2V will affect the charging effect	
	Electric current	Max (8A)	
	Defense	Reverse connection protection/Overvoltage protection/Pulse group 2KV/ Surge 2kV/ static contact 4kV, air 8kV/ClassA	
Power DC output DC_OUT	Voltage	DC24V(<UIN-1V)	
	Electric current	Max(5A),Pulse(7.5A)	
	Power	Max:120W@24V,Max Pulse:180W@24V	
	Defense	Overcurrent and overload protection	
Electrical parameter	UPS no-load power	<3W	
	Charge parameters	Maximum charging power is 30W	
	Output Specifications	Boost ON >10V, OFF <10V; Battery resume >10.5V	
	Full of time	Operating voltage	Full of time (h)
		DC24V(+15%~-20%)	2
	Discharge time	Load power (W)	On-load hold time (min)
		30	60
		60	25
		120	10
Supercapacitor	capacity	5200F(4 strings)	
	Service life	Charge and discharge 50,000 times	

Description	UPS6920C-24	
IO parameter	IO voltage	DC24V(+15%~-20%) (Uout)
	Isolation mode	optocoupler
	Environmental parameter	3.75kV
	Signal specification	DC24V/3mA
IO function	BAT.R(BatteryReady)	BattFULL (PNP-H)
	BAT.M(BatteryMode)	BatPWR_Mode (PNP-H)
	ALM(Alarm)	ALARM (PNP-H)
	P.S(PowerStatus)	LOAD_Status (PNP-IN)
	BAT.S(BatteryStart)	FORCE_BatPWR (PNP-IN)
	Remote	PWR_CTRL (RELAY)
	SW	PWR_CTRL (PNP-H)
Environmental parameter	Comm Interface	USB-COM
	Comm Interface	Modbus RTU
	Operating temperature	-20~60°C
	Storage temperature	-40~80°C
	Working humidity	5~95% (non-condensing)
	Installation mode	DIN-Rail Install
	Net product weight	1kg

*The weight is for reference only, and the actual weight shall prevail

2.4 Product Size

UPS6920C-24 Dimensions:



2.5 Product Interface Definition

The interface definition is shown in Figure 2-5-1:

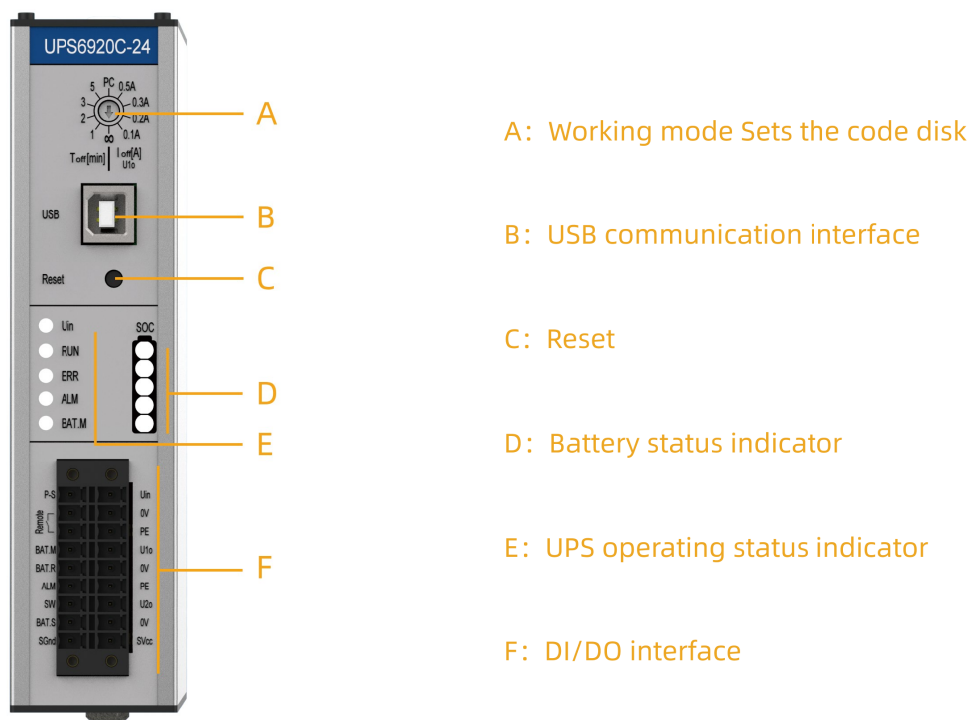
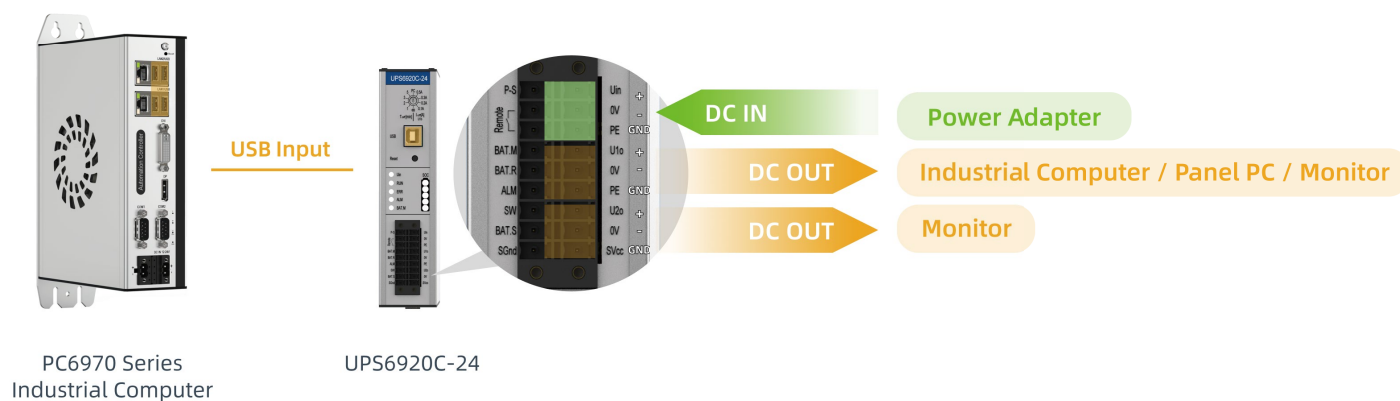


Figure 2-5-1

2.5.1 Port Function Description



Pin	Signal	Name	Function
1	Uin+	Power Input	DC24V(+15%~-20%)
3	Uin-(0V)	Power Ground	
5	PE	Protected Area	
7	U1o+	Output 1 Positive	Output 1 Positive(<Uin-1V)
9	U1o-	Output 1 Negative	Output 1 Negative
11	PE	Protected Area	
13	U2o+	Output 2 Positive	Output The Positive Terminal Of Power Supply 2 (<Uin-1V), And Output U2O After A 5-Second Delay Of U1O
15	U2o-	Output 2 Negative	Output 2 Negative
17	SVCC	IO Signal Power	Reserve Isolated IO Power Supply, Internally Connected To Uout By Default, No Connection Required

Pin	Signal	Name	Function
2	P.S	Load_Staus (PNP-IN)	① Register 40008=0: Falling Edge Is Valid (From On To Off, Indicating That The Device Is Turned Off). After Uin Is Disconnected, If The Falling Edge Of PWR.S Is Triggered, The UPS Will Turn Off The Uout Output After The Delay Time Set In Register 40011, And Then Delay 5 Seconds To Shut Down The UPS. ② Register 40008=1: Rising Edge Is Valid (From Off To On, Indicating That The Device Is Turned Off). After Uin Is Disconnected, If The Falling Edge Of PWR.S Is Triggered, The UPS Will Turn Off The Uout Output After The Delay Time Set In Register 40011, And Then Delay 5 Seconds To Shut Down The UPS.

4	Remote	Power Off Output Pulse Signal (Signal Relay)	According To The Settings Of Registers 40012 And 40013, A Shutdown Signal Pulse Is Output After Uin Is Powered Off.
6			
8	BAT.M	Battery Mode Signal Output (PNP)	When Uin Is Disconnected, The Signal Is Turned On And The Output Is High Level.
10	BAT.R	Battery Full Signal Output (PNP)	When The Power Reaches Ready (40010), The Signal Is Turned On And The Output Is High Level.
12	ALM	Battery Warning Signal Output (PNP)	When Uin Is Disconnected, The Signal Is Turned On And The Output Is High Level.
14	SW	Power-Off Output Pulse Signal (PNP)	According To The Settings Of Registers 40012 And 40013, A Shutdown Signal Pulse Is Output After Uin Is Powered Off.
16	BAT.S	Forced Battery Power Status Input (PNP)	When Uin Is Supplying Power, BAT.S Inputs A High Level, Forcing The UPS To Operate In Forever Mode
18	SGND	IO Signal Reference Ground	Reserved Isolated IO Signal Ground, Internally Connected To GND By Default, No Connection Required

2.6 Indicator Function Description

2.6.1 Startup indication

2 seconds after power-on, all lights will light up in green, blue, yellow, and red for 1 second respectively, and then go out.

2.6.2 Function Indicators

	lead	signal	name
● UIN	1	UIN	Power output state
● RUN	2	RUN	UPS operating status indicator
● ERR	3	ERR	UPS error status indicator
● ALM	4	ALM	Alarm status light
● BAT.M	5	BAT.M	Battery power status indicator

UIN

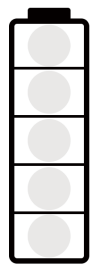
- ① Blue light on: input voltage is out of range;
- ② Green light on: input voltage is normal
- ③ Light off: input voltage is disconnected

RUN

- ① Red light: battery output is not started/faulty
- ② Yellow light: charging is turned off when the temperature is above 75 degrees (charging resumes when it is below 70 degrees)
- ③ Blue light: battery powered and shutting down
- ④ Green light: normal operation

ERR

- ① Red light on: input and output voltage and current sampling hardware failure;
- ② Yellow light on: charging failure or battery imbalance
- ③ Off: no failure

**ALM**

- ① Yellow light on: ALM output alarm (low battery alarm, no battery, battery output not turned on)
- ② Off light: no fault

BAT.M

- ① Green light on: battery powered
- ② Off: UIN powered

SOC

5 power LEDs, from top to bottom, represent 100%, 80%, 60%, 40%, 20% dividing lines respectively

- ① When no battery is installed, all lights flash red
- ② When the battery is discharged, the corresponding critical indicator flashes blue, and other lights are green
- ③ When external power is supplied, the corresponding critical indicator flashes green, and other lights are green
- ④ When the power level is $\geq 100\%$, all indicators are green

2.7 Control Logic Description

2.7.1 Knob Position

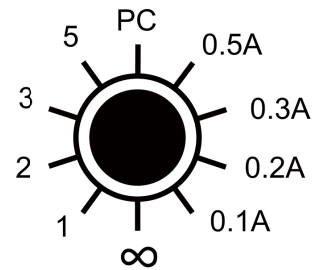
2.7.1.1 Forever Gear (∞)

When the knob is in the Forever position, after U_{in} is powered off, the UPS will keep outputting until the power is exhausted.

2.7.1.2 Current Gear

The knob can select 4 gears of $I_{off}=0.1A/0.2A/0.3A/0.5A$. After U_{in} is powered off, UPS has the following 2 operation strategies according to parameter configuration:

- 1) If register 40009 is set to 0: UPS maintains output until the power is lower than the Ready value, then outputs SW pulse signal, the industrial computer executes shutdown, waits for U_{out} output current to be lower than the shutdown current setting value, then disconnects U_{out} output after the delay time set by register 40011, and UPS shuts down after 5 seconds.
- 2) If register 40009 is set to 1: UPS immediately outputs SW pulse signal, the industrial computer executes shutdown, waits for U_{out} output current to be lower than the shutdown current setting value, then disconnects U_{out} output after the delay time set by register 40011, and UPS shuts down after 5 seconds.



$T_{max}[min] \mid I_{min}[A]$
 U_{10}

2.7.1.3 Time Gear

The knob can select 4 gears of $T_{off}=1min/2min/3min/5min$. After U_{in} is powered off, the UPS keeps outputting until the set time gear delay, and then outputs SW pulse signal. The industrial computer executes shutdown, and then waits for the delay time set by register 40011 to disconnect U_{out} output. The UPS shuts down after 5 seconds.

2.7.1.4 PC Gear

UPS executes Forever/current/time strategies according to the setting value of register 40005. In time mode, T_{off} is executed according to register 40006, and current gear I_{off} is executed according to register 40007. The execution process is consistent with the above Forever/current/time gear.

2.7.2 SW Pulse Signal

※ Note: This signal is a custom optional signal, and the default version does not have this function. If this function is available, the SW pulse signal output logic is executed according to the following parameter settings:

- 1) When the 40012 register is set to 0: SW outputs a positive pulse. When U_{in} is input normally, SW is disconnected (low level). After U_{in} is disconnected, SW outputs conduction (high level). After the output time of the 40013 register is completed, the disconnected state is restored
- 2) When the 40012 register is set to 1: SW outputs a negative pulse. When U_{in} is input normally, SW is conduction (high level). After U_{in} is disconnected, SW outputs disconnection (low level). After the output time of the 40013 register is completed, the conduction state is restored

2.7.3 Uin resumes power supply during UPS shutdown

1) Time control strategy:

① If Uin resumes power supply before the countdown of register 40006 Toff ends, the countdown is automatically canceled, Uout is kept in normal output, and UPS operates normally. ② If Uin resumes power supply after the countdown of register 40006 Toff ends, UPS continues to execute the subsequent shutdown process until Uout is disconnected, and then executes the subsequent strategy according to the value of register 40014. If it is 0, Uout resumes power supply after 5 seconds, and the PC industrial computer is powered on again; if it is 1, UPS keeps Uout disconnected until Uin is disconnected and UPS is powered on again.

2) Current control strategy:

① If register 40009 is 0: Uin resumes power supply when the battery power is higher than register 40010, the shutdown is automatically canceled, Uout is kept normally output, and the UPS operates normally; if Uin resumes power supply after the power is lower than register 40010, the UPS continues to execute the subsequent shutdown process until Uout is disconnected, and the subsequent strategy is executed according to register 40014 value. If it is 0, Uout resumes power supply after 5 seconds, and the PC industrial computer is powered on again; if it is 1, UPS keeps Uout disconnected until Uin is disconnected and the UPS is powered on again.

② When register 40009 is 1: Uin resumes power supply, the UPS continues to execute the subsequent shutdown process until Uout is disconnected, and the subsequent strategy is executed according to register 40014 value. If it is 0, Uout resumes power supply after 5 seconds, and the PC industrial computer is powered on again; if it is 1, the UPS keeps Uout disconnected until Uin is disconnected and the UPS is powered on again.

2.7.4 Battery output control

1) When the UPS is powered on, the battery output is enabled by default.

2) When Uin is powered, if the battery voltage is detected to be lower than 10V, the battery output is turned off and the Alarm alarm is reported. At this time, the Uin power-off and Uout function cannot be provided; when the battery output is turned off, the battery voltage recovers to above 6.5V and the output is enabled again.

3) When Uin is powered off, the battery voltage is not judged and the UPS function is kept running. If the UPS is not shut down, it will be shut down by hardware protection until the battery is exhausted.

4) When the battery output is enabled, if the error between the output voltage and the set voltage exceeds 10%, the Alarm fault is reported.

2.7.5 Battery Charging Control

1) When charging is enabled, if the UPS temperature is detected to be higher than 75°C, charging will be turned off until the temperature drops below 70°C and charging is resumed. 2) When the hardware charging is detected to be complete, the software turns off charging and re-enables charging when the power is lower than 95%. 3) Since trickle charging is slow when the battery voltage is lower than 10V, in order to ensure normal charging, the battery output is turned off when the battery voltage is lower than 10V until the charging battery voltage is higher than 6.5V to restore the battery output function.

2.7.6 Battery imbalance judgment

The hardware has automatic battery balancing, but the balancing current is limited. It should be ensured that the voltage error of each installed battery does not exceed 0.1V. If a battery balancing failure is reported or the battery is not fully charged, the battery should be replaced in time.

2.7.7 Input voltage identification

When powered on for the first time, the system automatically determines whether the power supply type is a 12V or 24V system based on the UIN input voltage (software version ≥ 1.03). When UIN is between 8-18V, the system identifies it as a 12V system. When UIN is disconnected, UOUT outputs 12V; when UIN is greater than 18V, the system identifies it as a 24V system. When UIN is disconnected, UOUT outputs 24V.

During UIN power supply, if the UIN voltage changes from less than 18V to more than 18V, it will automatically switch to a 24V system; but it will not automatically switch from a 24V system to a 12V system (to avoid misjudgment of the 24V system due to short-term high-load voltage fluctuations). Since the device is powered by an online UPS, during UIN power supply, in order to prevent UIN from being lower than the rated voltage (24V or 12V) and causing loss of internal battery power, the system will maintain the internal voltage output lower than UIN within the UIN allowable range (+15%~-20%), but the minimum voltage will not be lower than -20%. After recognizing that UIN is disconnected, the output voltage will remain at the rated output (24V or 12V).

2.8 PC Control Software

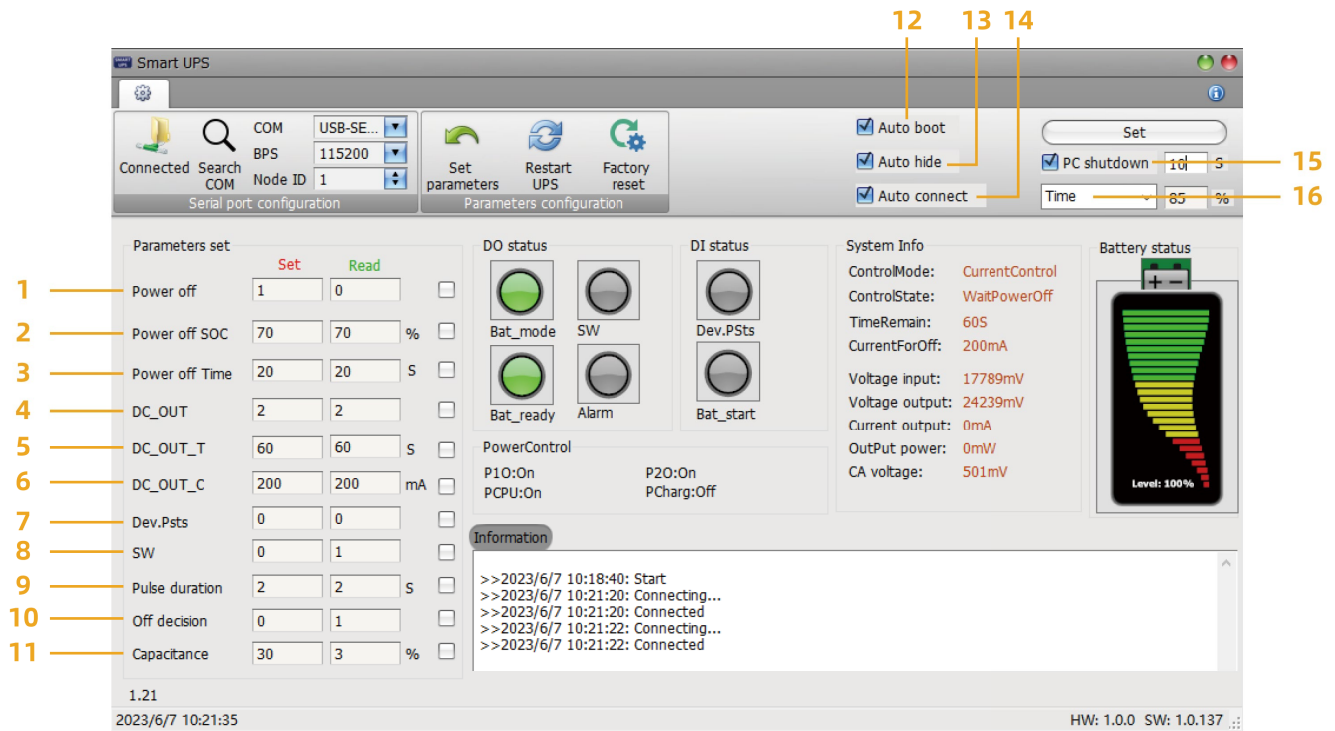


Figure 2-8-1

When using a Windows industrial computer, you can use our Smart UPS host computer software to update and view UPS device data in real time and configure parameters, and you can also use the Uin power-off automatic shutdown function (please use the "LinkAge mode" by default).

※Note: Microsoft .NET Framework 4.8 and above are required to run this software; after starting the software, if the "Warning" prompt is displayed in the lower left corner, you need to run this software as an administrator, and the first run requires "Install" to install the driver and "Start" to start the background service, so that you can connect and communicate with the device, the software starts automatically when it is turned on, and the Uin power-off shutdown function can be realized.



At the same time, users can customize the running script, and the software will execute this script before the Uin is powered off and shut down.



Number	Disposition	Function description	Remark
1	Power Off (40009)	Shutdown strategy after Uin power failure in current mode 0: Shutdown based on Ready power (40010) 1: Shutdown immediately after Uin power failure	UPS internal logical parameters
2	Power Off SOC (40010)	Ready power threshold % for shutdown strategy 0 (40009) When the value is lower than this, the PC will be shut down (SW signal)	UPS internal logical parameters
3	Power Off Time (40011)	After triggering PC shutdown (SW signal), Uout power-off delay time	UPS internal logical parameters
4	DC_OUT(40005)	Device shutdown judgment strategy 0: Forever mode, continuous output until the battery is exhausted 1: Time mode, function is the same as Toff gear 2: Current mode, function is the same as Ioff gear	UPS internal logical parameters
5	DC_OUT_T(40006)	(40005) Time value Toff (seconds) of time mode	UPS internal logical parameters
6	DC_OUT_C(40007)	(40005) Current value of current mode Ioff (mA)	UPS internal logical parameters
7	Dev.Psts(PWR.S) (40008)	0: From high to low, it means the powered device is turned off. 1: From low to high, it means the powered device is turned off.	UPS internal logical parameters
8	SW (40012)	SW pulse signal: 0: disconnected by default, on when in action 1: on by default, disconnected when in action	UPS internal logical parameters
9	Pulse duration(40013)	SW pulse duration configuration (seconds)	UPS internal logical parameters
10	Off decision (40014)	Shutdown process call policy: 0: After shutdown is completed, delay 5 seconds for Uout to re-output 1: After shutdown is completed, Uout remains disconnected	UPS internal logical parameters

11	Capacitance (40015)	Alarm power threshold	UPS internal logical parameters
12	Auto Boot	Selecting this option means that the host computer will be started together with the computer.	Host computer parameters
13	Auto Hide	Selected means the host computer is in hidden state after startup	Host computer parameters
14	Auto Connect	Selecting this option means that the host computer will automatically and repeatedly connect to the device after startup until it succeeds.	Host computer parameters
15	PC ShutDown	Select to start the host shutdown function through the host computer	Host computer parameters
16	Time	If selected, it means that the host computer will issue a shutdown command after a specified delay of seconds after determining that the power is off.	Host computer parameters
17	SOC	If selected, it means that the host computer will issue a shutdown command after judging that the power is lower than the set value.	Host computer parameters
18	LinkAge	Selecting this option means that the host computer will execute the shutdown command based on the current UPS mode and status (default)	Host computer parameters

2.9 Communication Protocols

2.9.1 Basic parameters

2.9.2 Register list

Register address	Instructions
40000	Device type, xx.xx (hexadecimal)
40001	Hardware version number x.x.xx (hexadecimal)
40002	Software version number x.x.xx (hexadecimal)
40003	Communication parameters OxPMRB:P:01 NoCheck 02 ODD 03 EVEN M:O RTU R:Rev B:01-69600/19200/38400/57600/76800/115200, default value: 1 start bit, 1 stop bit, 8 data bits, no check bit, 115200 baud rate
40004	Device address, default value: 1
40005	PC gear mode: 00: Forever 01: Time mode, 02: Current control (default)
40006	PC gear, time mode Time length unit: s Default value: 60
40007	PC gear, current mode Current value unit: mA Default value: 200
40008	PWR.S signal monitoring mode: 0: falling edge 1: rising edge Default value: 0
40009	Current mode trigger SW output dependent condition: 0: Ready power 1: Delay Default value: 0
40010	Ready power threshold 0-100% Default value: 90%
40011	Uout power off delay time after SW output Default value: 5
40012	SW pulse type: 0: disconnected by default, on when output; 1: on by default, disconnected when output, default: 0
40013	SW pulse length: s Default value: 1s

40014	Incoming call policy during shutdown: 0: Delay 5 seconds after shutdown to re-output Uout; 1: Keep Uout disconnected after shutdown, default 0
40015	Alarm power alarm value: 0-100% default value 30%
40016	Uin input voltage mv
40017	Uin input current ma
40018	Uout output voltage mv
40019	U1o output current ma
40020	U1o output power, x10mw
40021	Total battery voltage mv
40022	UPS current working mode 0: Forever 1: Time mode 2: Current mode
40023	The current UPS power-off shutdown delay configuration in time mode is the configuration value during normal output, and the shutdown countdown is displayed after the shutdown process
40024	UPS current power-off current value configuration, mA, default 200
40025	UPS current working status 0: Start 1: Normal 2: Waiting to send SW signal 3: Send SW signal 4: Waiting for the device to shut down 5: The device is shut down 6: Waiting for an external call to start again
40026	Energy storage unit power%
40027	Charge and discharge status: 1 charging 2 discharging (0 not charged, 3 charging failure, 4 equalization failure, 5 no battery)
40028	Converter unit status: 0: Off 1: On (2 Fault), 3: Alarm
40029	Power supply mode: 0: External power supply 1: Battery power supply
40030	Battery status: 0: Fully charged (higher than Ready) 1: Partially charged (lower than Ready)
40031	SW signal status: 0: valid 1: invalid (default status)

40032	Reserve 0
40033	BAT.S input status, 0 is invalid, 1 is valid
40034	P.S input status, 0 is invalid, 1 is valid
40035	UPS internal temperature, T°C+1000
40036	Fault code (reserved)

Chapter 3 Installation Instructions

Follow the following installation instructions when installing and using the network and software.

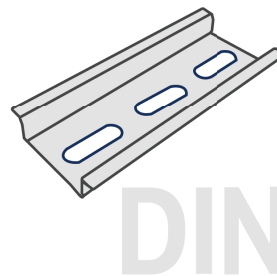
3.1 Product Overview

This product is UPS 24V DC power supply, installation mode is Din-Rail rail installation, please note before installation:

- Comply with the relevant accident prevention regulations for your machine (e.g. BGVA3, electrical systems and equipment).
- Ensure that connections meet standards to avoid risks to personnel. Ensure that data and power cables are laid in a standard manner and ensure correct pin allocation.
- Follow the relevant EMC guidelines for your application.
- Avoid polarity reversal of data and power cables, which may damage the device.
- Devices, including electronic components, may be damaged by electrostatic discharge upon contact. Comply with DINEN61340-5-1/-3 Safety measures against electrostatic discharge.

Installation mode

Din-Rail rail mounting



Matters needing attention

- Strictly follow the steps above to install the product!

3.2 Transportation And Storage

Transport

Despite the robust design of this product, these components are sensitive to strong vibrations and shocks. During transportation, the product must be protected from excessive mechanical stress and should be in its original packaging.

Store

This product needs to be stored in a dry environment in its original packaging at a temperature between -40°C and 80°C.

Package

Follow these steps to deploy the device:

1. Remove the package.
2. Keep the original packaging for future relocation.
3. Compare with your order to check that the delivery is complete.
4. Keep relevant documents. It contains important information used to process the product.
5. Inspect the product for visible transportation damage.

* If you notice any shipping damage or inconsistencies between the contents and your order, please notify Shanghai Panelmate Electronics Co., Ltd. for after-sales service.

Chapter 4 Safety Prevention And Maintenance

4.1 Safety Precautions

Please follow the following safety precautions.

4.1.1 General Safety Precautions

- Always follow the electrostatic precautions outlined below with UPS6920C-24 turned on.
 - Whenever it is necessary to install, move or modify the IPC42270-72-8G-256G-VESA, ensure that the power supply is turned off and the power cord is disconnected.
 - Do not apply voltage levels that exceed the specified voltage range. Failure to do so may result in fire or electric shock.
 - UPS6920C-24 is in the running state, and once the UPS6920C-24 chassis is opened, an electric shock may occur.
 - Do not drop or insert any object into the ventilation opening of UPS6920C-24.
 - Once a large amount of dust, water or liquid enters the UPS6920C-24, the power should be turned off immediately, unplug the power cord, and then contact Panelmate.
 - The following activities are prohibited:
 - Do not drop the device onto hard ground.
 - Do not tap or exert excessive force on the LCD panel.
 - Do not touch any part of the LCD panel with sharp objects.
- It is prohibited to use UPS6920C-24 in places where the ambient temperature exceeds the rated temperature.

4.1.2 ESD Preventive Measures

Warning:

Failure to take ESD precautions during installation of UPS6920C-24 may result in permanent damage to this product and serious injury to the user.

Electrostatic discharge (ESD) may cause serious damage to the electrical components of this product. Dry climates are more likely to produce ESD. Therefore, once this product is opened and any electrical parts need to be handled, the following anti-static precautions must be strictly followed:

- Wear an ESD wrist strap: Wear a simple ESD wrist strap to prevent ESD damage to electrical components.
- Self-grounding: Any grounding conductive material should be touched before handling any electrical parts. During handling of electrical parts, any conductive substance that is grounded should always be touched.
- Use an ESD mat: When you configure electrical components or perform related operations, place them on an ESD mat. This reduces the likelihood of ESD damage.
- Only touch the edge of the electrical parts: In the case of handling electrical parts, hold the electrical parts by holding the edge.

4.2 Maintenance And Cleaning

Please maintain and clean the product as follows.

4.2.1 Maintenance And Cleaning

Please read the following details before cleaning any parts or components of the product. Do not spray or spray the liquid directly on any other parts.

- No internal cleaning required. Avoid liquid entering the interior.
- Care must be taken to avoid damaging the small, detachable components inside.
- Please turn off the power before cleaning.
- Do not drop any object or allow any liquid to enter the product through the opening.
- When cleaning, be careful of any allergic reactions your body may have to solvents or chemicals.
- Avoid eating, drinking and smoking near work areas.

4.2.2 Cleaning Tool

Only special products of special design can be used to clean certain parts. In such cases, such products are clearly noted in the cleaning instructions. Here is a list of items that can be used for cleaning:

- Cloth - Although paper towels or kleenex can be used, soft, clean cloths are recommended.
- Water or rubbing alcohol - A cloth dampened with water or rubbing alcohol should be used.
- Use solvents - It is recommended not to use solvents as they may cause damage to plastic parts.
- Vacuum cleaners - Using vacuum cleaners designed for computers is one of the best cleaning methods. Dust and dirt can restrict airflow and cause corrosion of the circuit.
- Cotton swabs - Cotton swabs dipped in rubbing alcohol or water are an excellent tool for wiping hard-to-reach product areas.
- Foam labels - Where possible, it is best to use foam labels and other non-lint labels for cleaning.

Chapter 5 FAQ

5.1 Technical Support And Service

Please visit the official website of Shanghai Panelmate Electronics www.panelmate.cn and wechat official account Panelmate Electronics to download the documents and related driver software, or contact the company directly for support and service.