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UPS6910C-24

Shanghai Panelmate Electronics Co., Ltd.

24V DC UPS

PANELMATE
Creative HMI Solution

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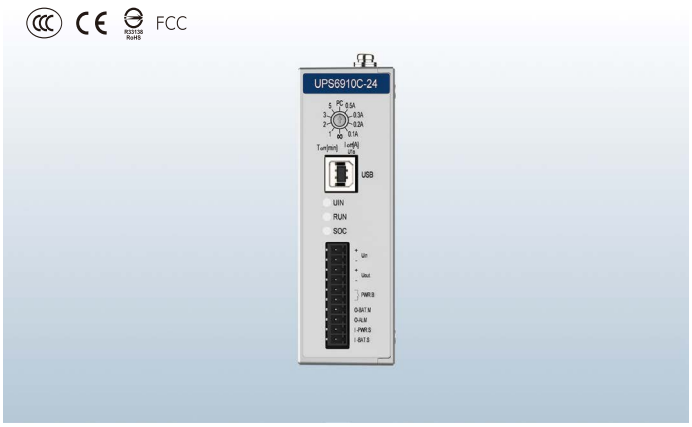


Features

· 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 80W

· UPS can supply power for more than 10 minutes at 60W load

· The voltage range can be customized from 12 to 24V

Product Overview

The UPS6910C-24 is an online, uninterrupted 24V DC power supply designed for industrial computers. This device ensures continuous operation of the connected system during main power anomalies by providing a temporary power source. During this period, it facilitates the orderly shutdown of the industrial computer, allowing for the safe saving of current status and data to storage devices. The duration of backup power supplied by the UPS can be configured and controlled via a USB connection between the UPS and the industrial computer. Leveraging a supercapacitor-based DC power module, the UPS6910C-24 effectively mitigates data loss following a power failure and maintains system stability. Additionally, it features secondary EMC protection, power filtering, compact design, high reliability, low output ripple, strong interference resistance, voltage regulation, and safety protections. The unit also supports a variety of I/O interfaces and standard communication protocols, enabling flexible deployment in industrial settings.

Specifications

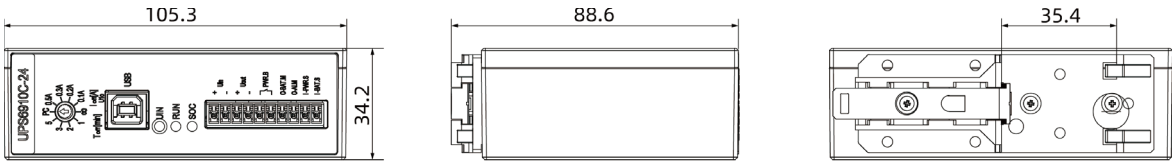
Model		UPS6910C-24	
DC_IN	Voltage	DC24V(+15%~-20%) *If the input voltage is less than 19.2V, the charging effect will be affected	
	Electricity	4A	
	Protection	Anti-reverse connection, over-voltage protection，EFT±1500V，surge 2000V	
DC_OUT	Voltage	24V（The voltage range can be customized from 12 to 24V）	
	Electricity	3.5A	
	Protection	Overcurrent and overload protection	
Electrical Parameter	No-load power	<3W	
	Max power	10W	
	Max Electricity	1.2A	
	Full time	Work voltage	Full of time（H）
		DC24V(+15%~-20%)	4
	Discharge time(Greater than)	Load power（W）	On-load hold time（s）
		30	25
		60	10
		80	2
Supercapacitor	capacity	5200F	
	Service life	Charge and discharge 50,000 times	
IO	IO Voltage	DC 24V	
	Isolation mode	Optocoupler	
	Isolation voltage	3.75kV	
Signal Type	Signal specification	DC24V/3mA	
	PWR.B(PowerButton)	Force power button, passive switch signal input	
	BAT.M(BatteryMode)	Battery operated mode, PNP output	
	ALM(Alarm)	Alarm status, PNP output	
	PWR.S(PowerStatus)	Power receiving equipment operating status, PNP type input	
	BAT.S(BatteryStart)	Forced battery powered,PNP type input	
	Remote	Remote switch signal, signal relay output (custom function, default without this interface)	
	Communication interface	USB	
	Communication protocol	Modbus-RTU	
Environment	Operating Temperature	-20~60℃	
	Storage Temperature	-40~80℃	
	Operating Humidity	5~95%(non-condensing)	
	Mount	DIN-Rail Install	
	Net weight	0.5kg	

Last updated：Feb. 2025

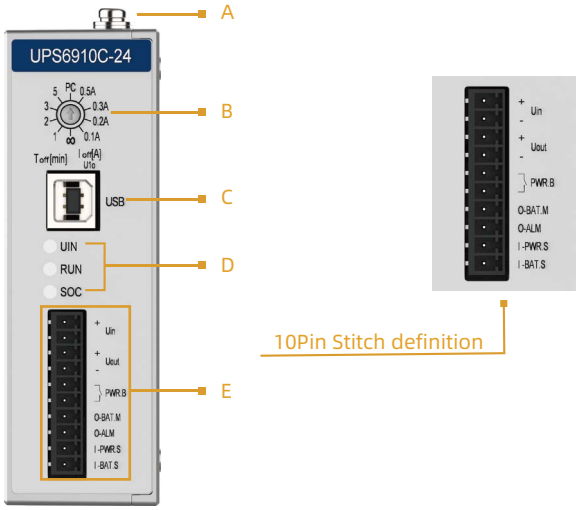
UPS6910C-24

Technical Drawings

unit: mm



External I/O View



Interface definition:

A: GND

B: Working mode Sets the code disk

C: USB communication interface

D: UPS Operating status light

E: DI/DO interface

Pin	Signal	Name	Function
1	Uin+	Input the positive terminal of the power supply	DC24V(+15%~-20%)
2	Uin-	Input the negative electrode of the power supply	
3	Uout+	Output power positive	UPS The external power output is positive (<Uin-1V)
4	Uout-	Output power negative electrode	The UPS provides external power to the negative terminal
5	PWR.B	Force the power button to enter	① When the Uin is powering on: short switch for 1 second. If the PC is powered off, disconnect the Uout output for 5 seconds and then power it on again. ② UPS shutdown: short switch for 3 seconds, forcing UPS to start output, And set to Forever mode until Uin input is normal or When the battery is lower than the Alarm, the output stops and the current mode is executed Type shutdown, after normal startup, if there is no power alarm, at least Run the command for 1 minute.
6	BAT.M	Battery mode signal output (PNP)	① When the Uin is powered, the signal is disconnected and the output level is low. ② When the Uin is disconnected, the signal is on and the output level is high.
7	ALM	The battery alarm signal is generated (PNP)	① Battery is lower than 40015 register value ② No battery is installed ③ Battery output is not turned on When the above faults occur, the Alarm is on and outputs a high level. Otherwise, the alarm is disconnected and outputs a low level
8	PWR.S	Input the working status of the power receiving device (PNP)	① Register 40008=0: The falling edge is valid (it changes from on-on to off, indicating that the device is powered off). After the Uin is disconnected, if the PWR.S falling edge is triggered, the UPS will turn off the Uout output after delaying the set time of register 40011, and then delay the UPS to shut down for 5 seconds ② Register 40008=1: The rising edge is valid (from off to on, indicating that the device is powered off). After the Uin is disconnected, if the PWR.S falling edge is triggered, the UPS will turn off the Uout output after delaying the set time of register 40011, and then delay the UPS to shut down for 5 seconds
9	BAT.S	Force battery status input (PNP)	When the Uin is powered, BAT.S inputs a high level to force the UPS to work Forever

* We provide Windows Smartups control software and protocols to support secondary development

LED Instruction

Power-on indication

① After 2 seconds of power-on, turn on the green, blue, yellow, and red indicators for 1 second respectively, and then turn off all the indicators

Functional indication

- UIN indicator:

① Bright blue light: Input voltage out of range;

② Green on: The input voltage is normal.

③ Steady yellow: The input voltage is off and the battery is powered on.

- RUN indicator:

① Red: Operation failure, 1) Input, output voltage and current sampling failure; 2) Battery output is not started/faulty;

② On yellow: Alarm alarm, 1) low power, 2) battery is not installed, 3) battery output is not enabled.

③ Bright blue light: charging failure, 1) the temperature is higher than 75 degrees to turn off the charge (lower than 70 degrees to restore the charge), 2) charging failure (undervoltage or hardware failure), 3) battery voltage imbalance;

④ Green on: The system is running properly.

- SOC indicator:

① Red on: No battery is installed or the battery is in poor contact.

② Steady yellow: The battery is lower than the Alarm value;

③ On blue: Power level is between Alarm and Ready;

④ Green on: The battery is higher than the Ready value.

Packing list

USB	1m USB Square extension cord

Note: Package contents are subject to change without prior notice