

UPS Control

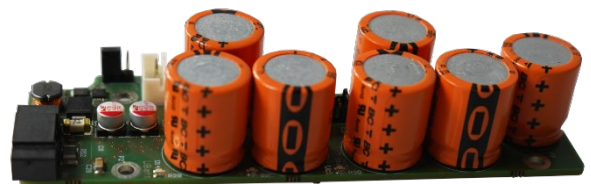
User manual

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1 UPS Control

UPS means **U**ninterruptible **P**ower **S**upply. In case of a power failure the UPS assures the controlled shut down event of the device



This settings can be adjusted:

- Time until system shutdown
- Time until display darkening
- Display brightness
- Power save mode
- Start any programme

If the mains returns before the PC shuts down, the adjusted times will be resetted. Therefore the shutdown wont be performed and the display returns to the default settings.

If the mains returns, during the shutdown process, the device will be automatically restarted. If the device is meant to remain switched off, the following setting can be adjusted:

usv.merker.set=1 in the file <C:\Program Files\Christ\USV Control\External References\config.properties>

If the mains returns, after the shutdown process, the device will be automatically restarted, even if the described settings has been made.

2 Rest Service

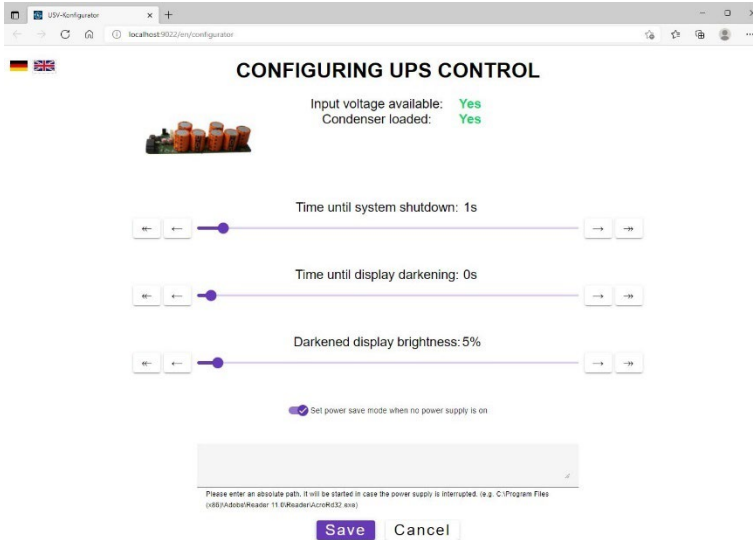
UPS Control settings can be made in the browser via the address <http://localhost:9022>.

Note: Port 9022 can be chaged in the appsettings.json file if required.

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The view shows the current status of the UPS Control. The desired settings can also be made. By pressing the „Save“ button, the settings are accepted and take effect immediately. The default values are as follows:



3 Status information

3.1 JSON

The current status information can be called up in the root directory of partition C under "UsvControl.json".

Name	Date modified	Type	Size
Drivers	29.06.2023 07:48	File folder	
Intel	25.09.2024 13:35	File folder	
iperf-3.1.3-win64	13.11.2023 08:02	File folder	
PerfLogs	07.12.2019 10:14	File folder	
Program Files	11.09.2024 23:44	File folder	
Program Files (x86)	09.11.2023 07:54	File folder	
TwinCAT	10.08.2023 07:38	File folder	
Users	15.03.2022 19:34	File folder	
Windows	07.11.2024 11:30	File folder	
UpsControl	07.11.2024 11:30	JSON File	1 KB

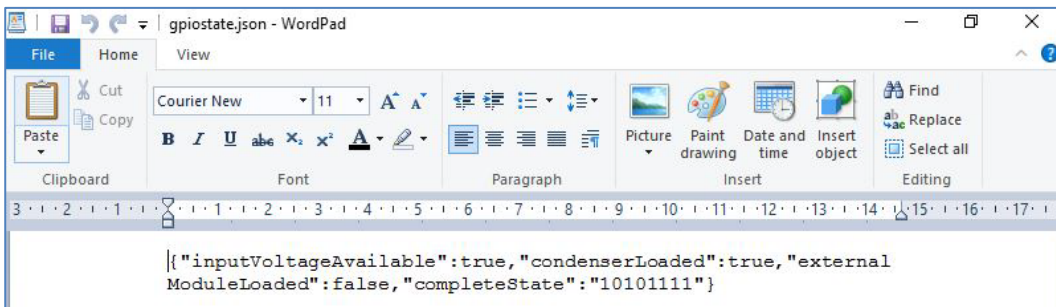
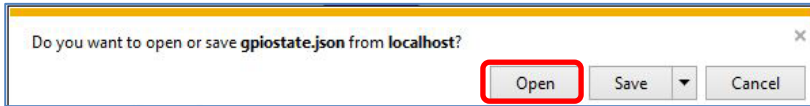
```
{ "InputVoltageAvailable": true, "CondenserLoaded": true, "Complete State": "11100000" }
```

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3.2 HTTP-Rest

The current status information can also be called up via the HTTP-Rest interface <http://localhost9022/api/gpiostate>.



4 Installation of application

Note: This is only necessary if a customer-specific image is installed.

The „UPS Control“ application can be downloaded from this link: <https://dataserv.christ-ag.com/s/gcA3KxEcCEX7Cfn>



4.1 Settings in „UPS Control“

Standard settings:

- Time until system shutdown 1s
- Time until display darkening 0s
- Display brightness 5%
- Power save mode: active

In the event of a PowerFail, a different energy option can be selected. This throttles the CPU so that the buffer duration can be optimised.

5 UPS status LED

The UPS status LED has the following states:

- Lights up when UPS is fully charged
- Flashes while discharging
- Turns off when residual energy under 30 %, CPU is off or in charging process

Note: After shutdown, the UPS status LED should continue to flash for approx. 5 seconds. There is then enough buffer time for stable long-term operation.

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6 Buffer time

It must be ensured that the customer application is ended quickly enough for the panel to shut down properly. Otherwise, no protection against data loss or any other disfunction can be guaranteed. The buffer time can be significantly shorter depending on the CPU load, display and peripherals.
Due to aging of the UPS during operation, the required buffer time should not exceed 70 % of the available discharge duration at the beginning.

Note: Information on charging and discharging duration can be found in the specific data sheet.

7 Residual capacity

A residual capacity of 70% remains under the following conditions:

- At 20 °C ambient temperature in continuous operation after 8.5 years
- At 30 °C ambient temperature in continuous operation after 4.3 years
- At 40 °C ambient temperature in continuous operation after 2.1 years
- At 50 °C ambient temperature in continuous operation after 1.1 years

8 Notes

- If the shutdown is realised in the customer application and the power supply is restored, the shutdown process must be cancelled or the device must be shut down within 15 seconds. Otherwise the CPU will no longer start automatically. The time can be extended on request.
- It must be ensured that the customer application is closed quickly enough for the panel to be shut down properly. Otherwise, no protection against data loss can be guaranteed. The buffer time may vary depending on the system, CPU utilisation, display and peripherals. Information on this can be found in the device-specific data sheet. The exact buffer duration must be determined for each application.

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