

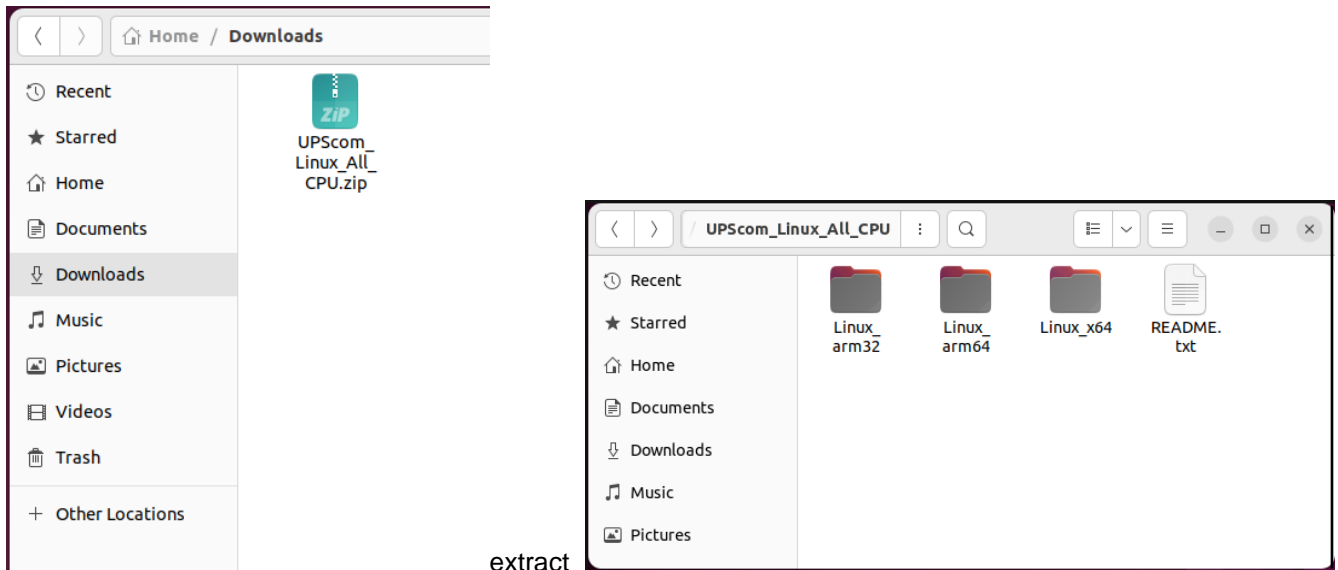
Quick installation guide for UPScom

[UPSI-2406DP1](#) in connection with UPScom V1.0.0.1 under **Ubuntu 22.04.3 LTS**

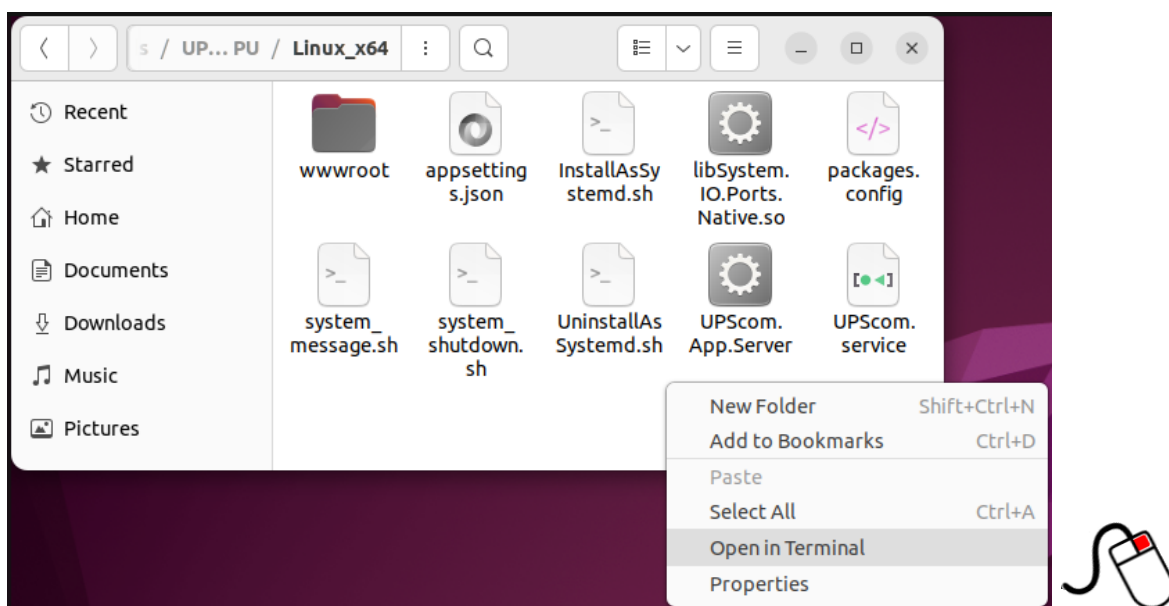
Linux knowledge is required. Please pay attention to upper- and lower-case letters.

Download UPScom software [here](#).

Extract the file and select the required processor architecture.



extract



Right-click on the folder and select '**Open in Terminal**' from the context menu.

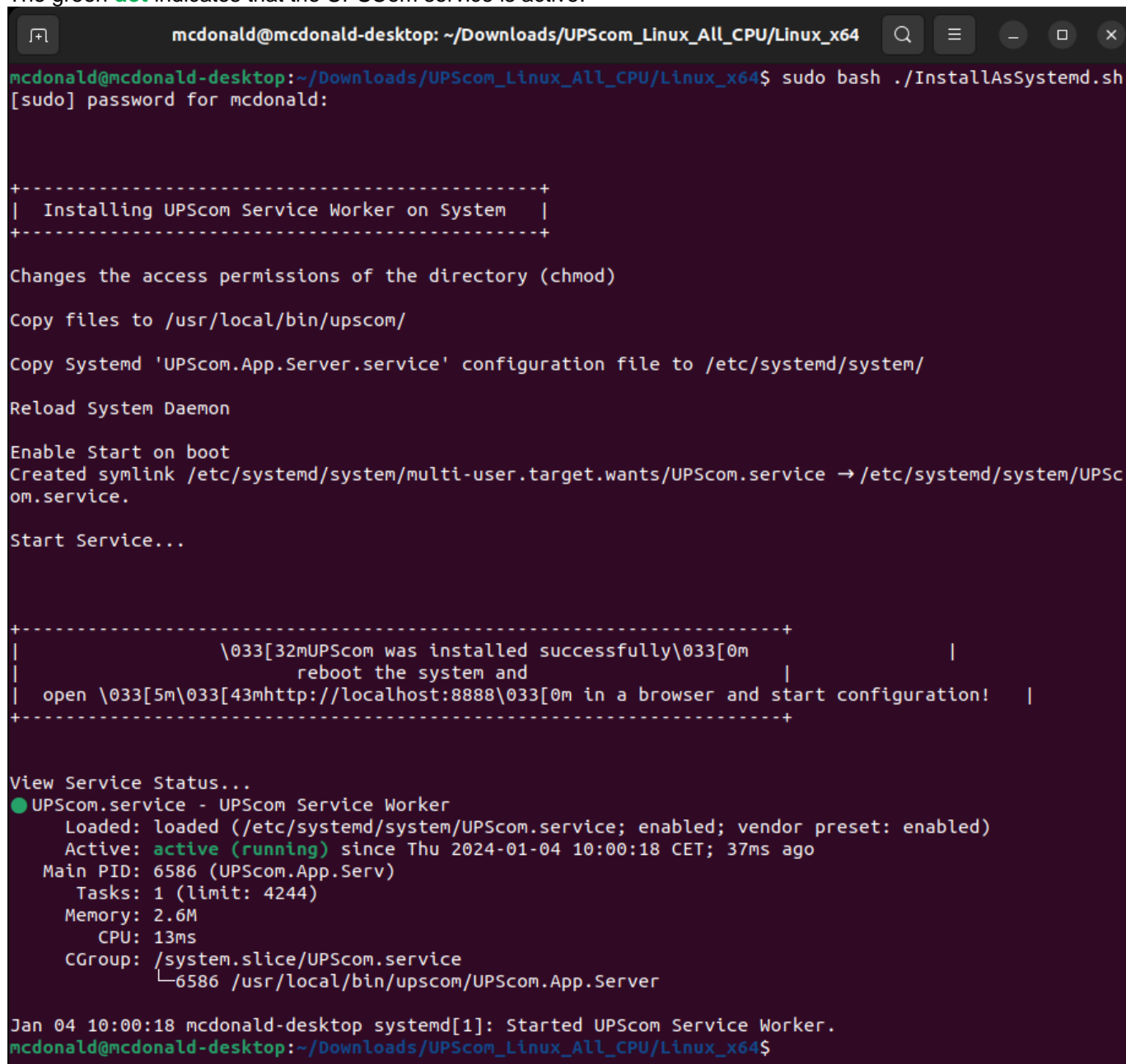
Installation: Bash script

Execute installation.

```
YourUsername@yourMachine:~your-directory/linux$ sudo bash ./InstallAsSystemd.sh  
[sudo] password for YourUsername: enter password
```

The script copies files to the '/usr/local/bin/upscom' folder and creates systemd entries to automatically start UPScom on every system boot.

The green **dot** indicates that the UPSCom service is active.



```
mcdonald@mcdonald-desktop: ~/Downloads/UPScom_Linux_All_CPU/Linux_x64
mcdonald@mcdonald-desktop:~/Downloads/UPScom_Linux_All_CPU/Linux_x64$ sudo bash ./InstallAsSystemd.sh
[sudo] password for mcdonald:

+-----+
| Installing UPScom Service Worker on System |
+-----+

Changes the access permissions of the directory (chmod)

Copy files to /usr/local/bin/upscom/

Copy Systemd 'UPScom.App.Server.service' configuration file to /etc/systemd/system/

Reload System Daemon

Enable Start on boot
Created symlink /etc/systemd/system/multi-user.target.wants/UPScom.service → /etc/systemd/system/UPScom.service.

Start Service...

+-----+
|                               \033[32mUPScom was installed successfully\033[0m                               |
|                               reboot the system and                                           |
| open \033[5m\033[43mhttp://localhost:8888\033[0m in a browser and start configuration! |
+-----+

View Service Status...
● UPScom.service - UPScom Service Worker
  Loaded: loaded (/etc/systemd/system/UPScom.service; enabled; vendor preset: enabled)
  Active: active (running) since Thu 2024-01-04 10:00:18 CET; 37ms ago
    Main PID: 6586 (UPScom.App.Serv)
      Tasks: 1 (limit: 4244)
     Memory: 2.6M
          CPU: 13ms
    CGroup: /system.slice/UPScom.service
            └─6586 /usr/local/bin/upscom/UPScom.App.Server

Jan 04 10:00:18 mcdonald-desktop systemd[1]: Started UPScom Service Worker.
mcdonald@mcdonald-desktop:~/Downloads/UPScom_Linux_All_CPU/Linux_x64$
```

The software can be started without 'root' rights. It must be ensured that the logged-in user has the necessary privileges to access the serial ports or is a member of the Linux 'dialout' group.

To add a user to the 'dialout' group, type the following in a Linux terminal →
sudo adduser 'user_that_want_port_access' dialout

To start the program without installation, open a terminal and navigate to the folder where UPScom is copied. Launch the app with 'sudo ./UPScom.App.Server'. The terminal screen will display some log information.

UPSCom service

Navigate to the UPSCom folder by going via File explorer "Files" → Other Locations → Computer → (folder) usr/local/bin/**upscm** and open a terminal (Strg+Alt+T).

Check the status UPSCom.service → sudo systemctl status UPSCom

Stop the UPSCom.service → sudo systemctl stop UPSCom

Start the UPSCom.service → sudo systemctl start UPSCom

View journal log entries: → sudo journalctl -u UPSCom

COM port

To set a specific COM port in UPSCom.Config.json, go to the **UPSCom** folder via File explorer "Files" → Other Locations → Computer → (folder) usr/local/bin/**upscm** and open a terminal (Strg+Alt+T).
Open file via nano editor → sudo nano UPSCom.Service.Configuration.json

"DevicePort": "/dev/ttyS0" → S0 means COM Port 1

"DevicePort": "/Auto" → for USB connection

Save the file.

Communication problems

PC systems with ASRock mainboards may have problems with UPS communication via USB or COM port.

If you would like to use COM port under Linux OS, please boot into BIOS to set COM port IRQ Moder to [Linux].

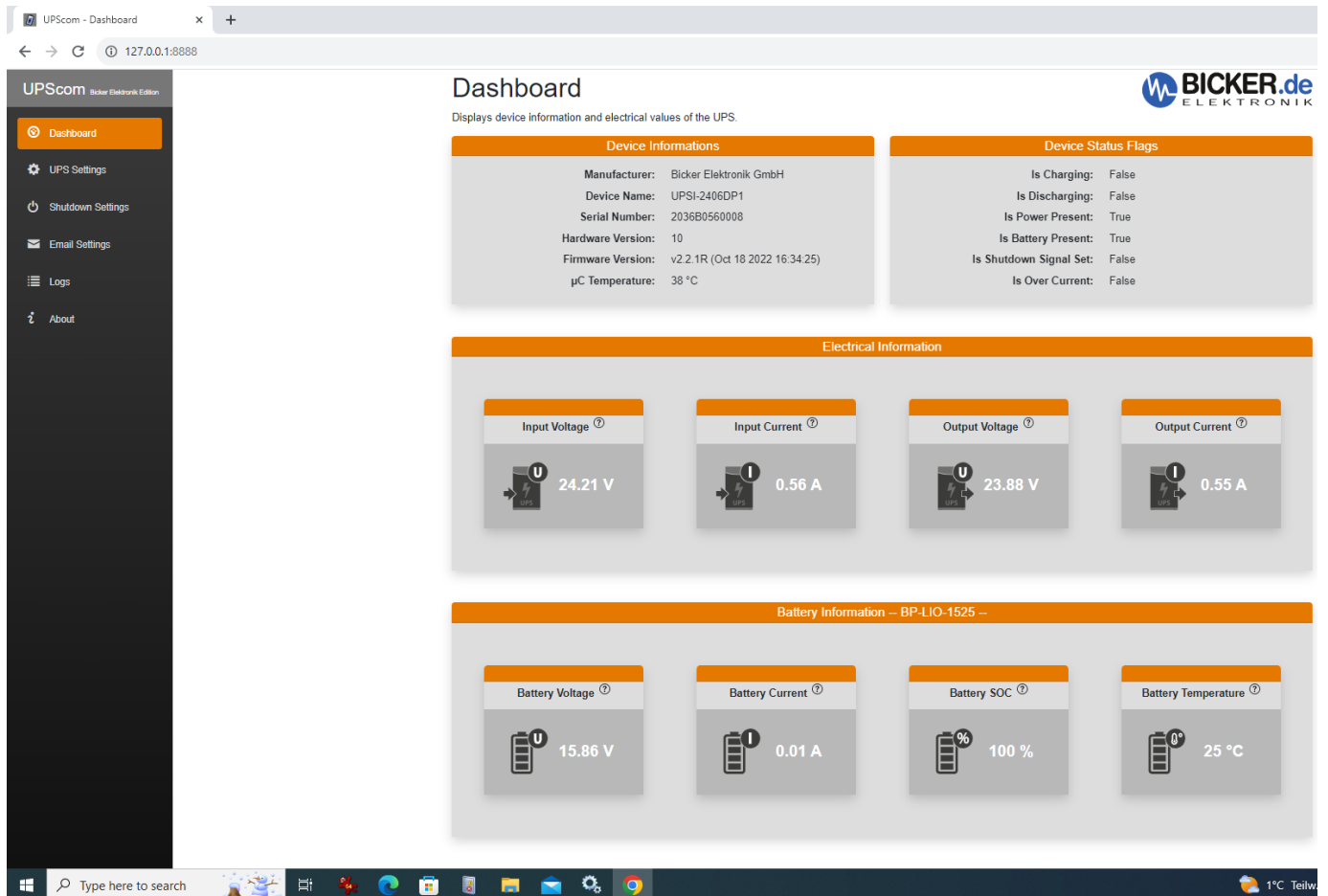
If you would like to use COM port under Win OS, please boot into BIOS to set COM port IRQ Moder to [Windows].

Path: BIOS >Advanced >Super IO configuration >COM Port IRQ Mode → [Linux] or [Windows].

User interface

To access the user interface, open your web browser and enter → 127.0.0.1:8888 or localhost:8888

Dashboard



The screenshot shows the UPScom Dashboard web interface. The dashboard is divided into several sections:

- Device Informations:**
 - Manufacturer: Bicker Elektronik GmbH
 - Device Name: UPSI-2406DP1
 - Serial Number: 203680560008
 - Hardware Version: 10
 - Firmware Version: v2.2.1R (Oct 18 2022 16:34:25)
 - µC Temperature: 38 °C
- Device Status Flags:**
 - Is Charging: False
 - Is Discharging: False
 - Is Power Present: True
 - Is Battery Present: True
 - Is Shutdown Signal Set: False
 - Is Over Current: False
- Electrical Information:**
 - Input Voltage: 24.21 V
 - Input Current: 0.56 A
 - Output Voltage: 23.88 V
 - Output Current: 0.55 A
- Battery Information – BP-LIO-1525 –:**
 - Battery Voltage: 15.86 V
 - Battery Current: 0.01 A
 - Battery SOC: 100 %
 - Battery Temperature: 25 °C

Device Information

Manufacturer: Bicker Elektronik GmbH

Device Name: The connected UPS → UPSI-2406DP1 or another model from Bicker Elektronik GmbH will be displayed. For DC2412-12UPSx or UPSIC-xxxx series → UPSIC Series will be shown.

Serial number/ Hardware Version/ Firmware Version/ µC Temperature from Device will be shown.

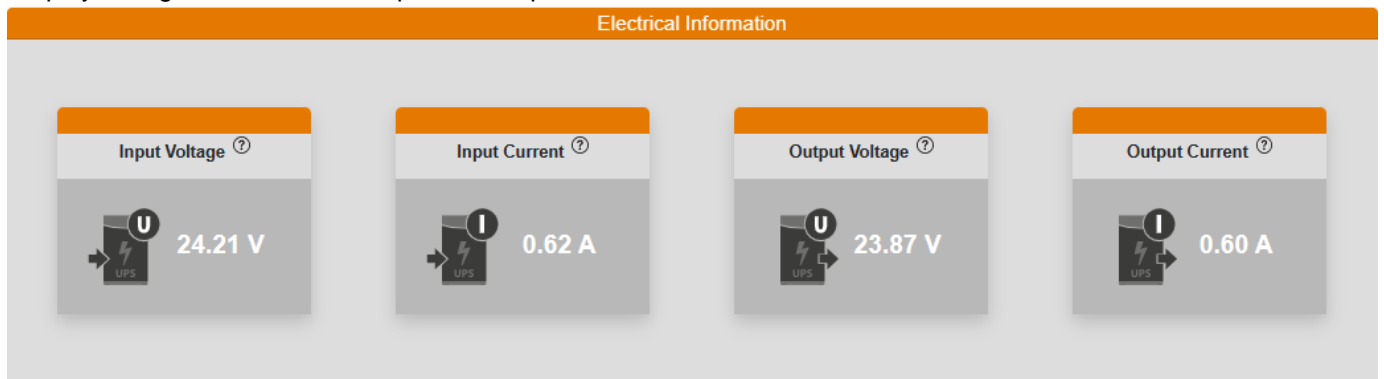
Device Status Flags

Show information via “False” and “True”

Is Charging	False: Energy storage will not be charged.	True: Energy storage will be charged.
Is Discharging	False: Energy storage will not be discharged.	True: Energy storage will be discharged.
Is Power present	True: UPS will be powered from source.	False: DC in or source fail.
Is Battery Present	True: Battery is connected.	False: Battery is disconnected.
Is Shutdown Signal set	True: Shutdown signal set.	False: Shutdown Signal not set.
Is Over Current	False: no over current at output.	True: Overcurrent at output.

Electrical information

Display voltage and current for input and output.



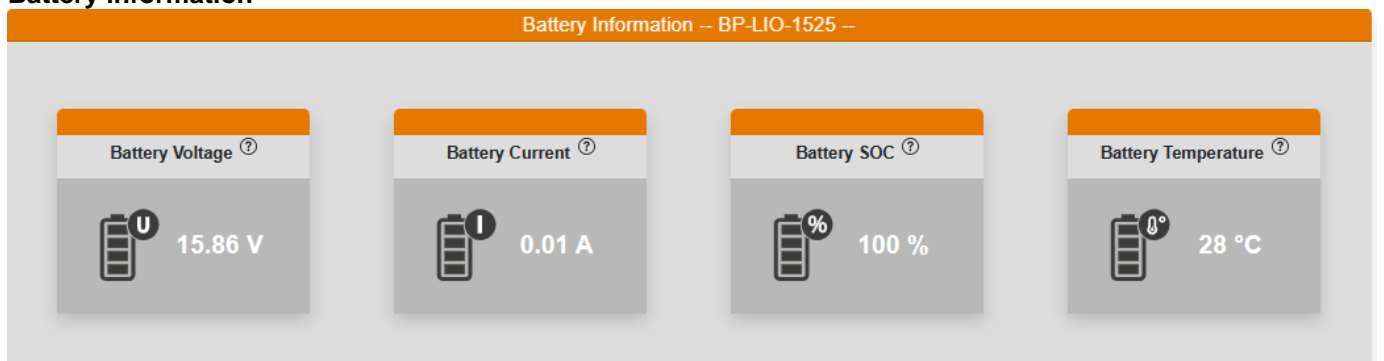
Input Voltage: Shows the actual input voltage of the UPS.

Input current: Shows the actual input current of the UPS.

Output voltage: Shows the actual output voltage of the UPS.

Output current: Shows the actual output current of the UPS.

Battery information



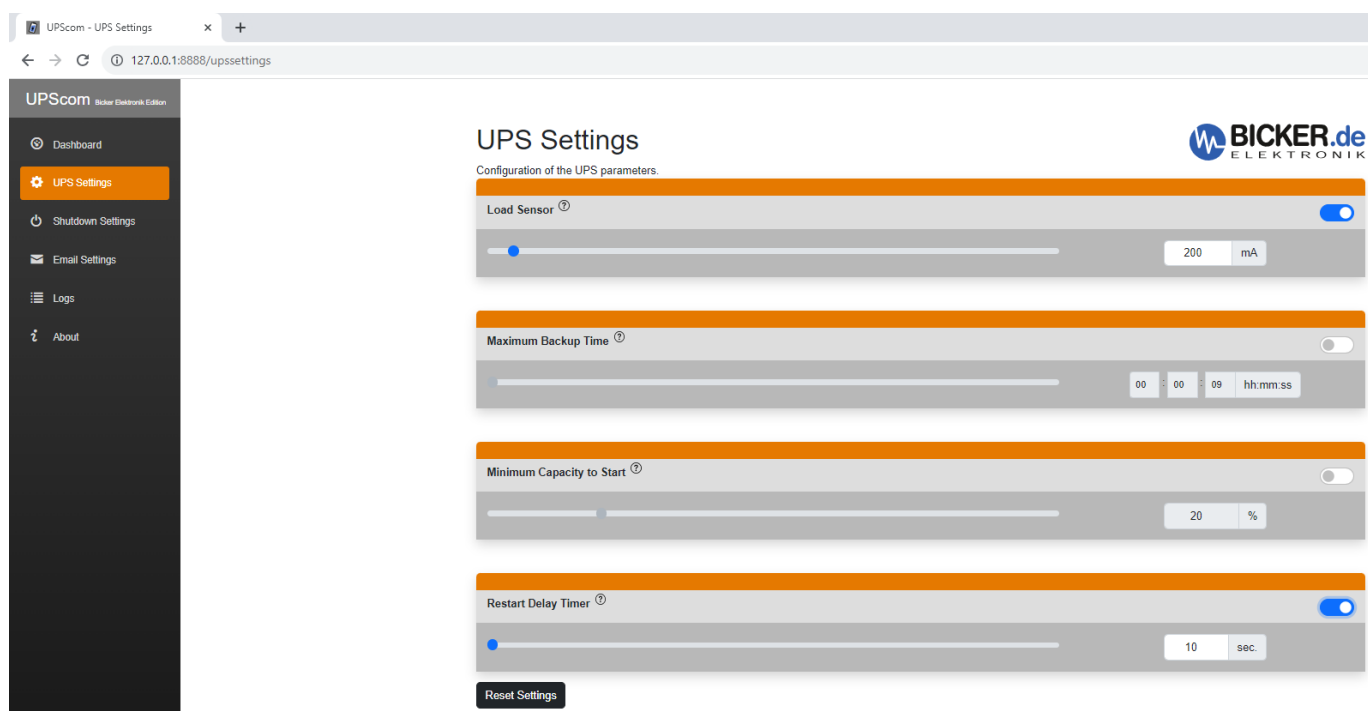
Battery Voltage: Shows the actual battery voltage of the battery or energy storage.

Battery Current: Shows the actual battery current of the battery or energy storage. A negative value indicates discharge.

Battery SOC: Shows the actual **State of Charge** of the battery or energy storage.

Battery Temperature: Shows the actual battery temperature.

UPS Settings



Load Sensor

When enabled, the load sensor will switch off the UPS when DC input fails, and the load falls below the set value from the load sensor.

Example:

If a PC is connected to the output of the UPS, the load sensor must be adjusted below the **IDLE power** and above the **Off-mode** power of the PC.

If your PC consumes 3A in **IDLE Mode** and 0.1A in **Off mode** the load sensor must be set higher than 0.1A.

If a USB or RS232 Interface is connected, additional settings under “Shutdown Settings” are required.

Maximum Backup Time

When enabled, it will switch of connected load after the set time. This is used for systems without an RS232 or USB interface.

Minimum Capacity to Start

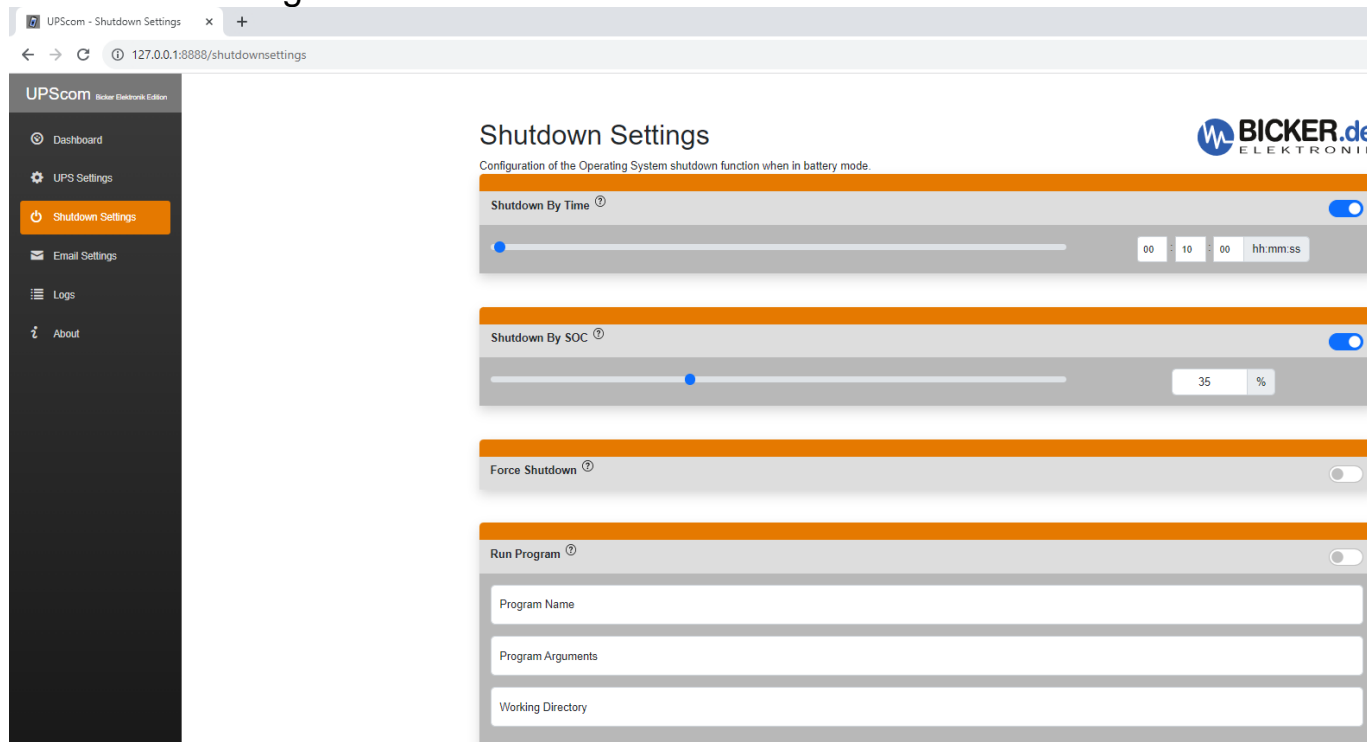
When enabled, it will enable the output of the UPS at x% SOC. It is recommended for use with UPS systems with ultra caps as energy storage. During the initial switch-on of the UPS, super caps must be charged first to supply energy in UPS mode.

For the [PSZ-1063](#) module, which is installed in the UPSIC-xxxx and DC2412-UPSxx, as well as in their DIN rail variants, DIP3 must be set to off (all others DIP on) if the setting is to be used via UPScom.

Restart Delay Timer

When enabled, it will reboot a PC system if power comes back during the shutdown of the OS, such as Windows. The “Restart Delay Timer” switches off the output of the UPS for the set time. After this time, the output of the UPS will be switched on again, and the PC will restart (maybe BIOS settings needed).

Shutdown Settings



Shutdown By Time



When enabled and the UPS is in battery mode, the operating system shuts down when the set time has elapsed. An interface connection via USB or RS232 is needed.

Shutdown By SOC



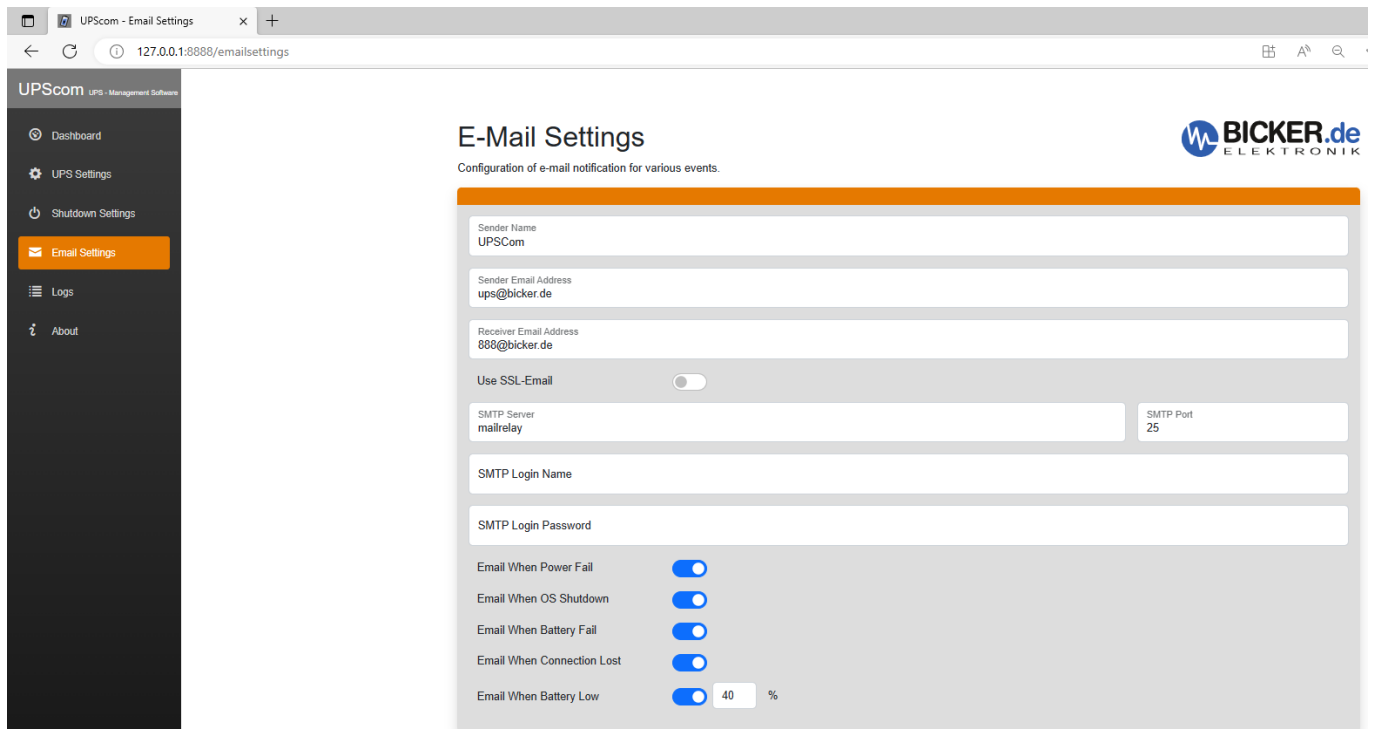
When enabled and the UPS is in battery mode, the operating system shuts down when the set SOC (State of Charge) of energy storage has elapsed. An interface connection via USB or RS232 is needed.

Force Shutdown



When enabled, open programs that do not close themselves during shutdown will be hard terminated.

E Mail Settings



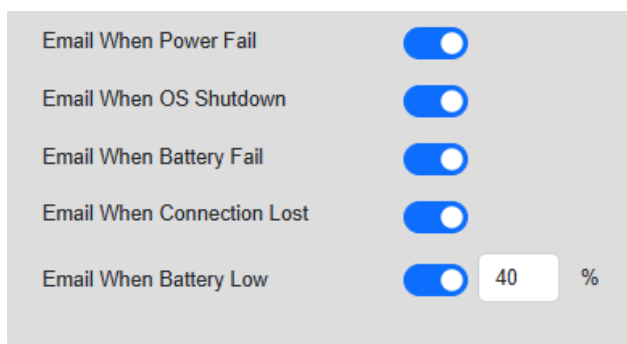
Please contact your admin for the Email settings.

The settings can differ based on whether you have your own PC with an Email server program or an email server in the cloud.

If you have an Email server in the cloud, the "Sender Email Address", "Recipient Email Address" and "SMTP Login Name" could be the same.

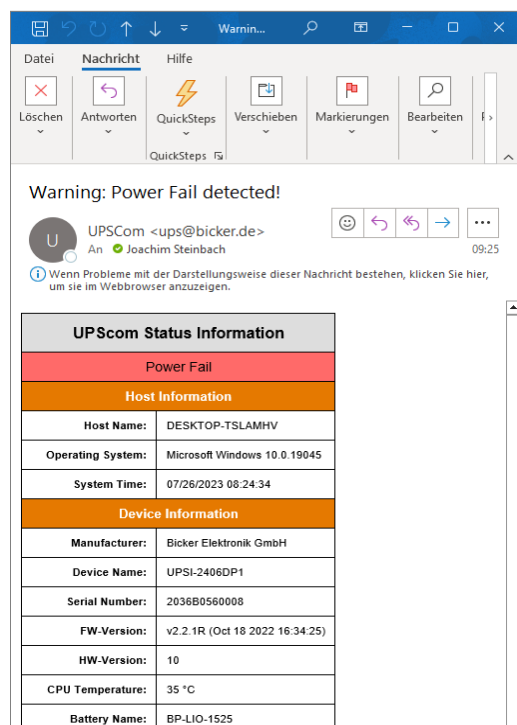
Email message

A warning message will be sent when enabled in UPSCom Email settings.

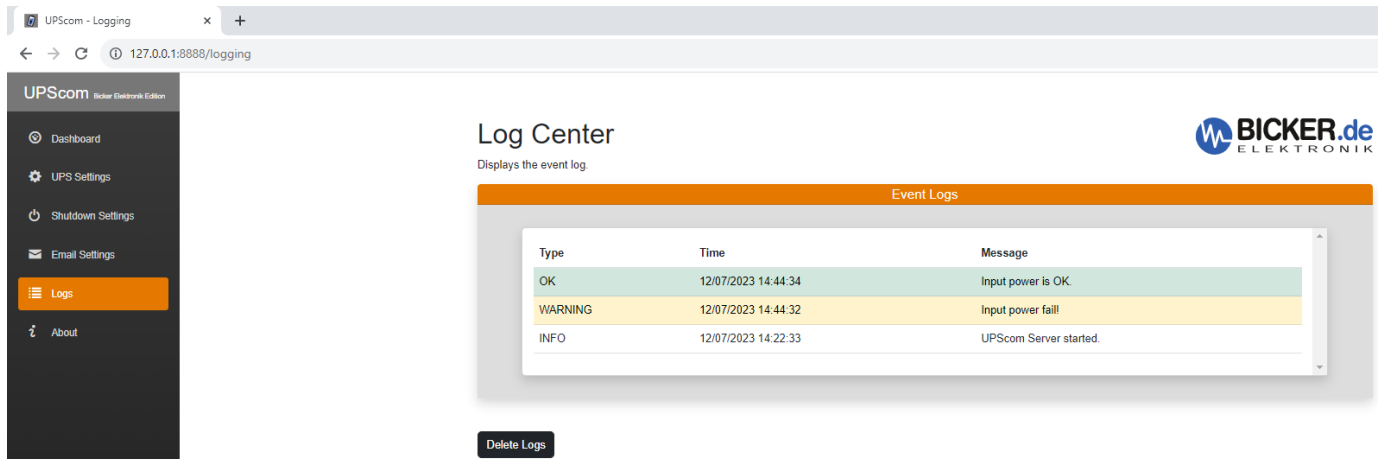


If DC input fails, you will receive a warning message via email: "Warning: Power failure detected."

Emails regarding battery failure will be sent only for UPS units with external batteries!



Logs



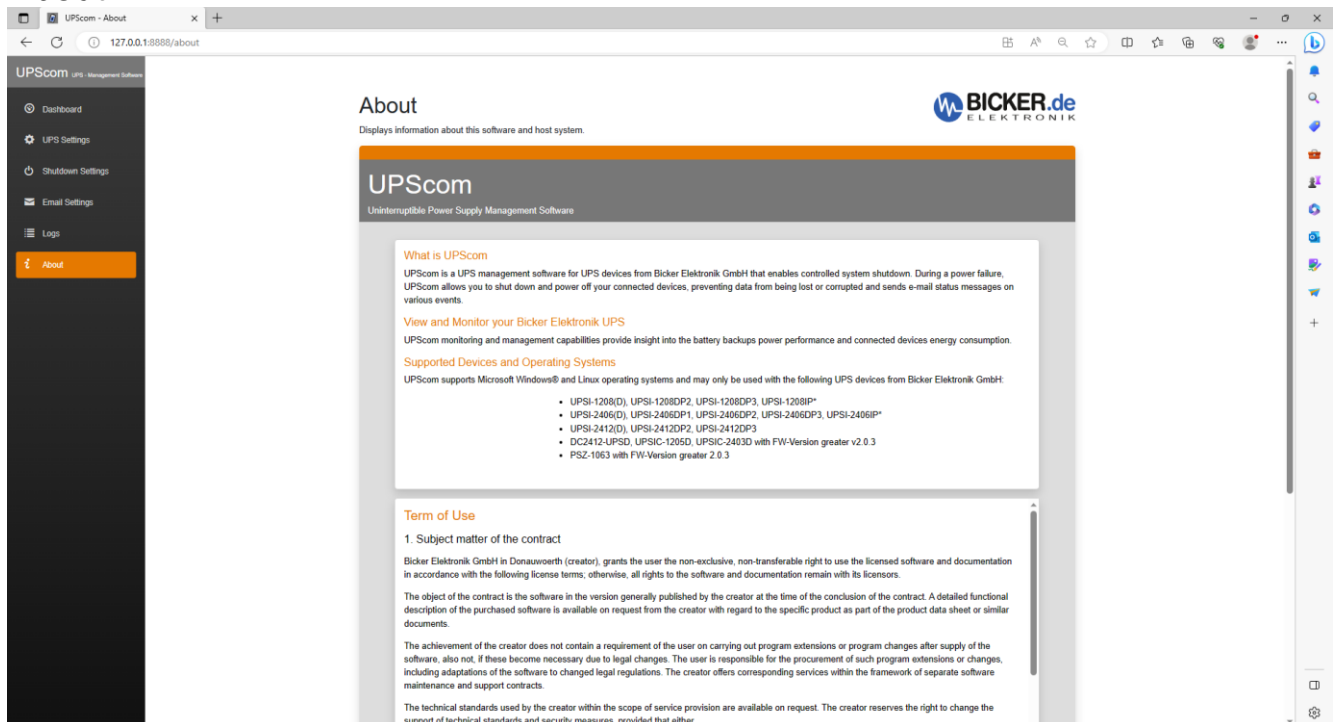
The screenshot shows the UPScom Logging interface. On the left is a navigation menu with options: Dashboard, UPS Settings, Shutdown Settings, Email Settings, Logs (highlighted), and About. The main content area is titled "Log Center" and "Displays the event log". Below this is a table of "Event Logs":

Type	Time	Message
OK	12/07/2023 14:44:34	Input power is OK.
WARNING	12/07/2023 14:44:32	Input power fail!
INFO	12/07/2023 14:22:33	UPScom Server started.

Below the table is a "Delete Logs" button.

Events will be displayed in the Log Center.

About



The screenshot shows the UPScom About page. The navigation menu on the left includes: Dashboard, UPS Settings, Shutdown Settings, Email Settings, Logs, and About (highlighted). The main content area is titled "About" and "Displays information about this software and host system." Below this is a section for "UPScom" (Uninterruptible Power Supply Management Software) with the following text:

What is UPScom
 UPScom is a UPS management software for UPS devices from Bicker Elektronik GmbH that enables controlled system shutdown. During a power failure, UPScom allows you to shut down and power off your connected devices, preventing data from being lost or corrupted and sends e-mail status messages on various events.

View and Monitor your Bicker Elektronik UPS
 UPScom monitoring and management capabilities provide insight into the battery backups power performance and connected devices energy consumption.

Supported Devices and Operating Systems
 UPScom supports Microsoft Windows® and Linux operating systems and may only be used with the following UPS devices from Bicker Elektronik GmbH:

- UPSI-1208(D), UPSI-1208DP2, UPSI-1208DP3, UPSI-1208IP*
- UPSI-2406(D), UPSI-2406DP1, UPSI-2406DP2, UPSI-2406DP3, UPSI-2406IP*
- UPSI-2412(D), UPSI-2412DP2, UPSI-2412DP3
- DC2412-UPS0, UPSIC-1205D, UPSIC-2403D with FW-Version greater v2.0.3
- PSZ-1063 with FW-Version greater 2.0.3

Term of Use

1. Subject matter of the contract
 Bicker Elektronik GmbH in Donauwoerth (creator) grants the user the non-exclusive, non-transferable right to use the licensed software and documentation in accordance with the following license terms; otherwise, all rights to the software and documentation remain with its licensors.

The object of the contract is the software in the version generally published by the creator at the time of the conclusion of the contract. A detailed functional description of the purchased software is available on request from the creator with regard to the specific product as part of the product data sheet or similar documents.

The achievement of the creator does not contain a requirement of the user on carrying out program extensions or program changes after supply of the software, also not, if these become necessary due to legal changes. The user is responsible for the procurement of such program extensions or changes, including adaptations of the software to changed legal regulations. The creator offers corresponding services within the framework of separate software maintenance and support contracts.

The technical standards used by the creator within the scope of service provision are available on request. The creator reserves the right to change the support of technical standards and security measures, provided that either

Information about term of use, etc...

Tips and tricks, knows problems.

Communication problems

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If you would like to use COM port under Win OS, please boot into BIOS to set COM port IRQ Moder to [Windows].

Path: BIOS >Advanced >Super IO configuration >COM Port IRQ Mode → [Linux] or [Windows].

RS232 connection

A DSUB9 1:1 cable without twist between UPS and PC is required.

USB to serial adapter

If no RS232 (COM) port is available, a [USB to serial adapter](#) can also be used.

Please take a USB to serial adapter with an [FTDI](#) chip. A converter with a CH340 Chinese chip could potentially cause problems.

Change IP address and port for Remote Access via WEB browser

Open UPScom.Config.json at UPScom folder with an editor. Write down "IP address and port" behind "TCPPort": and click save.

```
{  
  .."ServerSettings":..{  
    ...."TCPPort":.."AllowAllIncomingIp:8888"
```