IEI Integration Corp.

Model:

AUPS2-A20 Series

VESA Mount, Intelligent UPS Module 12 V ~ 24 V DC Input, Network Remote Management Support.

User Manual

Rev. 1.00 – December 2, 2025

RoHS Lead Free

Revision

Date	Version	Changes
December 2, 2025	1.00	Initial release

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WARNING / AVERTISSEMENT

Warnings appear where overlooked details may cause damage to the equipment or result in personal injury. Warnings should be taken seriously.

Des avertissements apparaissent lorsque des détails négligés peuvent endommager l'équipement ou entraîner des blessures. Les avertissements doivent être pris au sérieux.

CAUTION / ATTENTION

Cautionary messages should be heeded to help reduce the chance of losing data or damaging the product.

Les messages de mise en garde doivent être respectés afin de réduire les risques de perte de données ou d'endommagement du produit.

NOTE / REMARQUE

These messages inform the reader of essential but non-critical information. These messages should be read carefully as any directions or instructions contained therein can help avoid making mistakes.

Ces messages informent le lecteur d'informations essentielles mais non critiques. Ces messages doivent être lus attentivement car toutes les instructions ou instructions qu'ils contiennent peuvent aider à éviter de commettre des erreurs.

HOT SURFACE / SURFACE CHAUDE

This symbol indicates a hot surface that should not be touched without taking care.

Ce symbole indique une surface chaude qui ne doit pas être touchée sans précaution.

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Introduction

1.1 Introduction

Figure 1-1: AUPS2-A20 Series UPS Module

The AUPS2-A20 Series is a high-performance uninterruptible power supply (UPS) module equipped with a Li-ion battery to deliver a stable 12 V output for continuity of power supply to the IEI's AFOLUX series panel PCs. It supports a wide range of power input between 12 V and 24 V DC and features an intelligent design that ensures exceptional line and load regulation. The AUPS2-A20 Series provides extended power backup during outages.

Complemented by dedicated utility software, the AUPS2-A20 Series enables real-time monitoring of power sources and battery status. With the AUPS software installed and network connected, the module supports remote administration, allowing users to monitor system metrics and manage power status from a remote device.

1.2 Features

- Rugged metal enclosure for standard VESA 75 mounting
- Wide range of power input (12 V ~ 24 V) by DC jack
- Network management from a remote computer through web-based interfaces and no requirement for additional administration software installation
- Support PC-based utility for monitoring power and battery status
- Auto shut down in low battery status
- Provide stable power to AFOLUX PPCs during line sags and spikes

- Absorb power surges and transients

1.3 I/O Interface Panel

The I/O interface panel of the AUPS2-A20 Series (see **Figure 1-2** and **Figure 1-3**) has the following connectors:

- 1 x 12 V DC output jack
- 1 x 12 V ~ 24 V DC input jack
- 1 x USB Type-A connector
- 1 x Network remote management port (RJ-45)
- 1 x Remote power button (terminal block)
- 3 x Status indicator
- 1 x DC on/off button
- 1 x Shipping mode switch

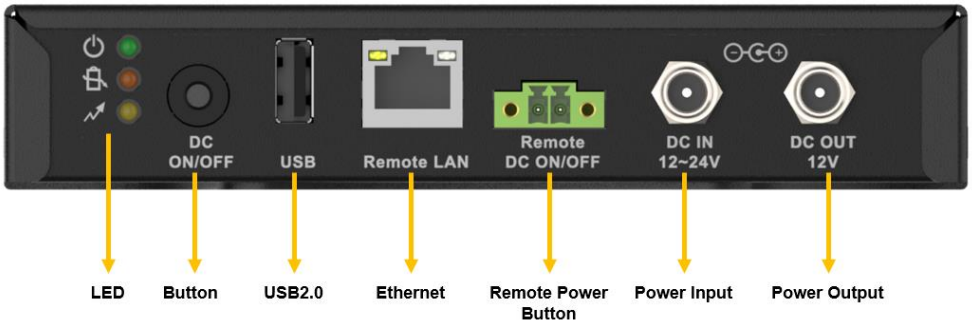


Figure 1-2: AUPS2-A20 Series I/O Interface Panel (1/2)

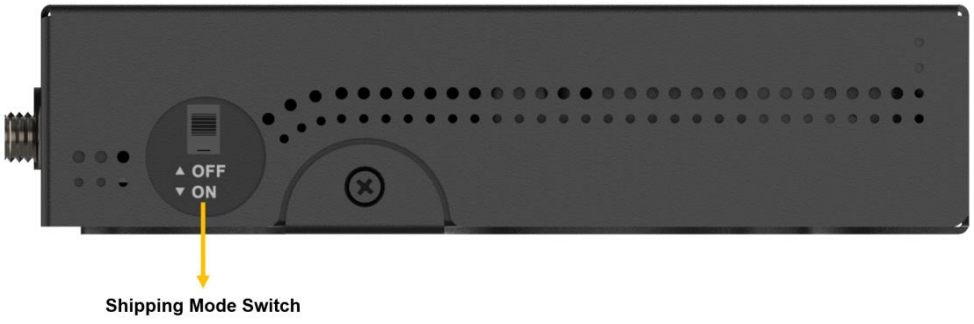


Figure 1-3: AUPS2-A20 Series I/O Interface Panel (2/2)

1.3.1 LED Indicators

The AUPS2-A20 Series has three LED indicators to indicate the power and battery status (**Figure 1-4**).

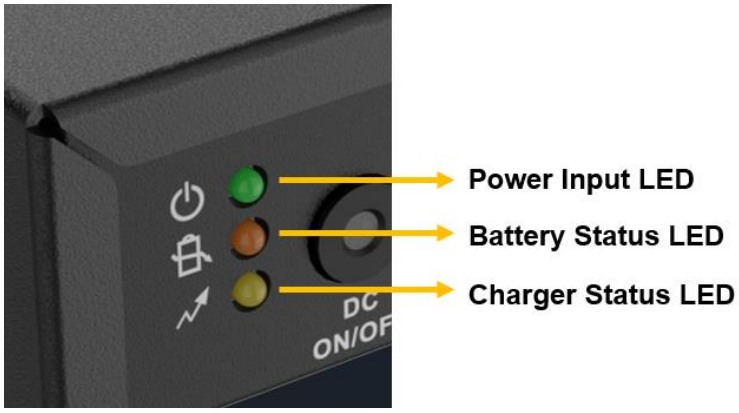


Figure 1-4: AUPS2-A20 Series LED Indicators

All the LED statuses are listed in **Table 1-1**.

	Power Input LED	Charger Status LED	Battery Status LED
Color	Green	Yellow	Orange
Off	DC power out	--	--
On	DC power in	Discharging (battery full)	Battery discharging
Blinking	--	Charging	Low battery

Table 1-1: LED Indicators

1.4 AUPS2-A20 Series Specifications

The technical specifications of the AUPS2-A20 Series UPS module are listed in **Table 1-2**.

Model		AUPS2-A20
Battery	Battery Pack Type	1 x 2S2P Li-ion cells
	Battery Pack Capacity	1 x 5000 mAh
	Normal Voltage	7.4 V
	Battery Life Time	300 cycles > 70%
	Charge Voltage	8.4 V
	Continuous Charge Current	2.5 A
	Continuous Discharge Current	7.5 A
	Maximum Discharge Current	9.36 A (duration < 5 sec)
Power	DC-out Power	Up to 50 W
	Input Voltage	DC jack: 12 V ~ 24 V
	Output Voltage	2-pin DC jack: 12 V
UPS IO	Ethernet Interface	1 x 10/100Mbps RJ-45 port
	USB Interface	1 x USB 2.0 Type-A
Switch	Switch	1 x Shipping mode switch 1 x DC output switch 1 x Remote DC output switch
LED Indicator	Green (Power Input)	On: DC power in Off: DC power out
	Yellow (Charging Status)	On: Discharging Blinking: Charging
	Orange (Battery Status)	On: Battery full Fast blinking: Battery level is below 10%, Slow blinking: Battery level is between 10% and 94%
Physical	Mounting	DIN-rail mount, VESA 75, wall mount, desktop mount

Model		AUPS2-A20
	Weight (Net/Gross)	0.75 kg /1.2 kg
	Dimensions (L x W x H) (mm)	151.7 x 101.35 x 29.2
Environment	Operating Temperature	0°C ~ 40°C
	Operating Humidity	Relative humidity: 10% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis
	Operation Vibration	MIL-STD-810G 514.6C-1
Certification	Battery Pack	UN38.3, UL2054, IEC62133
	EMC & Safety	CE, FCC, UL

Table 1-2: AUPS2-A20 Series Specifications

1.5 Battery Specifications

The AUPS2-A20 Series comes with a Li-ion smart battery (P/N: 31603-000112-RS). Some of the Li-ion battery specifications are listed in the following tables.

Model	AUPS2-A20
Battery Pack	4 cells
Battery Type	Li-ion
Rated Capacity	5000 mAh
Nominal Voltage	7.4 V
End of Discharge Voltage	5.5 V
Charge Voltage	8.4 V
Rated Charge Current	2.5 A
Max. Continuous Discharge Power	50 W
Max. Continuous Discharge Current	7.5 A
Pack Operating Temperature	0°C ~ 40°C
Storage Temperature	1 year: -20°C ~ +25°C
	3 months: -20°C ~ +45°C

Model	AUPS2-A20
	1 month: -20°C ~ +60°C
Over Voltage Protection	Set: ≧4.24 ± 0.02 V / cell, delay time: 2~4 sec.
	Reset: <4.10 ± 0.02 V / cell
Under Voltage Protection	Set: ≧2.55 ± 0.02 V / cell, delay time: 2~4 sec.
	Reset:≧2.75 ± 0.02 V / cell
Over Discharge Current Protection	Set: ≧10.04 A, delay time 5~7 sec.
Over Charge Current Protection	Set: ≧5.2 A, delay time 2~4 sec.
Over Temperature Protection During Charging	Set: ≧60 ± 3ºC, delay time: 2~4 sec
	Reset: ＜45 ± 3ºC
Over Temperature Protection During Discharging	Set: ≧70 ± 3ºC, delay time: 2~4 sec
	Reset: ＜60 ± 3ºC

Table 1-3: Battery Specifications

1.6 AUPS2-A20 Series Dimensions

The AUPS2-A20's dimensions are shown in **Figure 1-5**.

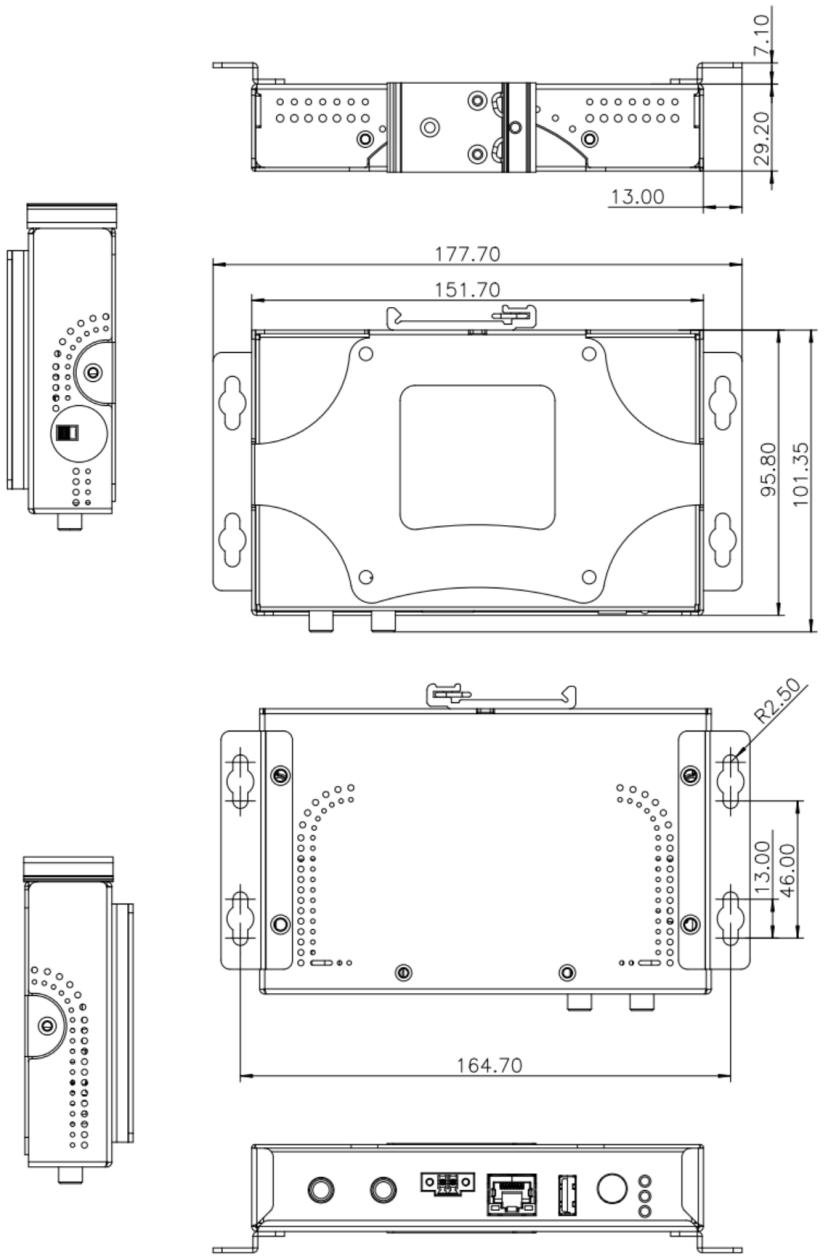


Figure 1-5: AUPS2-A20 Dimensions (mm)

Chapter

2

Unpacking

2.1 Unpacking Precautions

When the AUPS2-A20 Series is unpacked, please do the following:

- Follow the anti-static precautions outlined in **Section 3.1**.
- Make sure the packing box is facing upwards so the AUPS2-A20 Series does not fall out of the box.
- Make sure all the components shown in **Section 2.2** are present.

2.2 Unpacking Checklist

NOTE:

If some of the components listed in the checklist below are missing, please do not proceed with the installation. Contact the IEI reseller or vendor you purchased the AUPS2-A20 Series from or contact an IEI sales representative directly. To contact an IEI sales representative, please send an email to sales@ieiworld.com.tw.

The AUPS2-A20 Series is shipped with the following components:

Quantity	Item	Image
1	AUPS2-A20 Series UPS module	
1	DC output cable	
1	USB Type-A to USB Type-A cable	

1	Screw kit (2 x M3*7 for DIN-rail mount, 4 x M2*6 for wall mount)	
1	1 x 2-pin terminal block（3.5 mm）	
2	Wall mount bracket	
1	DIN-rail mount bracket	

Table 2-1: Unpacking Checklist

Chapter

3

Installation

3.1 Anti-static Precautions

WARNING / AVERTISSEMENT

Failure to take ESD precautions during the maintenance of the AUPS2-A20 Series may result in permanent damage to the AUPS2-A20 Series and severe injury to the users.

Le non-respect des précautions ESD lors de la maintenance de la série AUPS peut entraîner des dommages permanents à la série AUPS et des blessures graves à l'utilisateur.

Electrostatic discharge (ESD) can cause serious damage to electronic components, including the AUPS2-A20 Series. Dry climates are especially susceptible to ESD. It is therefore critical that whenever the AUPS2-A20 Series is accessed internally, or any other electrical component is handled, the following anti-static precautions are strictly adhered to.

- ***Wear an anti-static wristband***: Wearing a simple anti-static wristband can help to prevent ESD from damaging the product.
- ***Self-grounding***: Before handling the product touch any grounded conducting material. During the time the product is handled, frequently touch any conducting materials that are connected to the ground.
- ***Use an anti-static pad***: When configuring the AUPS2-A20 Series, place it on an antic-static pad. This reduces the possibility of ESD damaging the AUPS2-A20 Series.

3.2 Installation Precautions

WARNING / AVERTISSEMENT

Never open the equipment. For safety reasons, the equipment should be opened only by qualified skilled person.

Ne jamais ouvrir l'équipement. Pour des raisons de sécurité, l'équipement ne doit être ouvert que par une personne qualifiée.

When installing the power module, please follow the precautions listed below:

- **Power off**: When installing the power module, make sure the power is off. Failure to turn off the power may cause severe injury to the body and/or damage to the system.
- **Certified engineers**: Only certified engineers should install and modify onboard functionalities.
- **Anti-static discharge**: If users open the top cover of the power module to configure the jumpers or plug in added peripheral devices, ground themselves first and wear and anti-static wristband.

3.3 Installation and Configuration Steps

The following installation steps must be followed.

Step 1: Unpack the UPS module.

Step 2: Turn off the shipping mode switch.

Step 3: Mount the UPS module to the panel PC.

Step 4: Connect the UPS module to the panel PC.

3.4 Battery Pack Replacement

CAUTION / ATTENTION:

- Risk of explosion if the battery is replaced by an incorrect type;

  Risque d'explosion si la batterie est remplacée par un type incorrect;

- Replacement of a battery with an incorrect type can defeat a safeguard (for example, in the case of some lithium battery types);

  Remplacement d'une batterie par un type incorrect peut annuler une protection (par exemple, dans le cas de certains types de batteries au lithium);

- Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery can result in an explosion;

  L'élimination d'une batterie au feu ou dans un four chaud, ou l'écrasement ou le découpage mécanique d'une batterie, pouvant entraîner une explosion;

- Leaving a battery in an extremely high temperature environment can result in an explosion or the leakage of flammable liquid or gas;

  Laisser une batterie dans un environnement à température extrêmement élevée pouvant entraîner une explosion ou une fuite de liquide ou de gaz inflammable;

- A battery subjected to extremely low air pressure may result in an explosion or the leakage of flammable liquid or gas.

  Une batterie soumise à une pression d'air extrêmement basse pouvant entraîner une explosion ou une fuite de liquide ou de gaz inflammable.

The battery pack must be installed to enable the UPS module. To install the battery pack, follow the steps below.

Step 1: Remove the three VESA mount screws and four top cover retention screws (**Figure 3-1 and Figure 3-2**), and then lift the top cover off the AUPS2-A20 Series module.

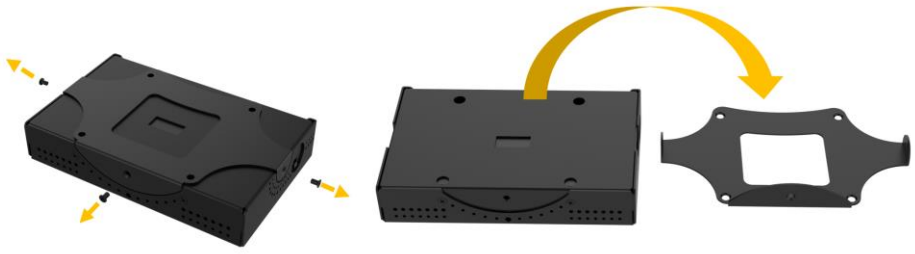


Figure 3-1: VESA bracket Removal

Figure 3-2: Remove the top cover

Step 2: To replace the battery pack, remove the two screws securing the battery pack. Carefully remove the old battery pack and replace it with the new one. Securely tighten the two fixing screws to lock the battery in place (**Figure 3-3**).

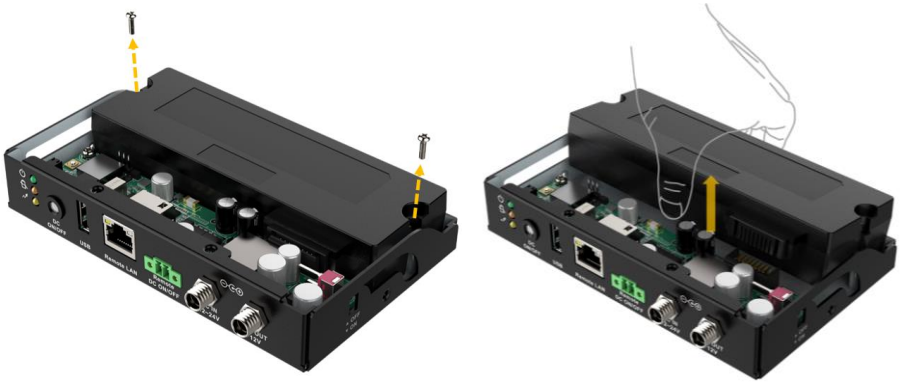


Figure 3-3: Battery Pack Installation

Step 3: Reinstall the top cover and VESA bracket.

3.5 Mounting the AUPS2-A20 Series

The AUPS2-A20 Series has three mounting options: DIN-RAIL, WALL MOUNT, and VESA 75x75.

3.5.1 DIN-Rail Bracket Installation

To mount the AUPS2-A20 Series to a DIN rail, follow the steps below.

Step 1: Secure the DIN-rail bracket to the AUPS2-A20 series with two screws (**Figure 3-4**).

Step 2: Mount the AUPS2-A20 series on DIN rails (**Figure 3-4**).

Figure 3-4: DIN-Rail Bracket Installation

3.5.2 Wall mount and VESA mount installation

The AUPS2-A20 Series can be mounted on a wall using a wall mount bracket, attached to the back of the machine via VESA, or fixed to the wall together with the panel PC. Installation methods are as follows:

Step 1: Follow the steps described in 3.4 to remove the VESA bracket.

Step 2: Secure the VESA mounting bracket to a panel PC or other surface using the four VESA 75x75 mounting screws. (**Figure 3-5**).

Figure 3-5: Mounting with Wall Mount Brackets

Step 3: Lock the AUPS2-A20 Series back into the VEAS mounting bracket to complete the VEAS installation (VEAS+WALL MOUNT installation, skip this step). (**Figure 3-6**).

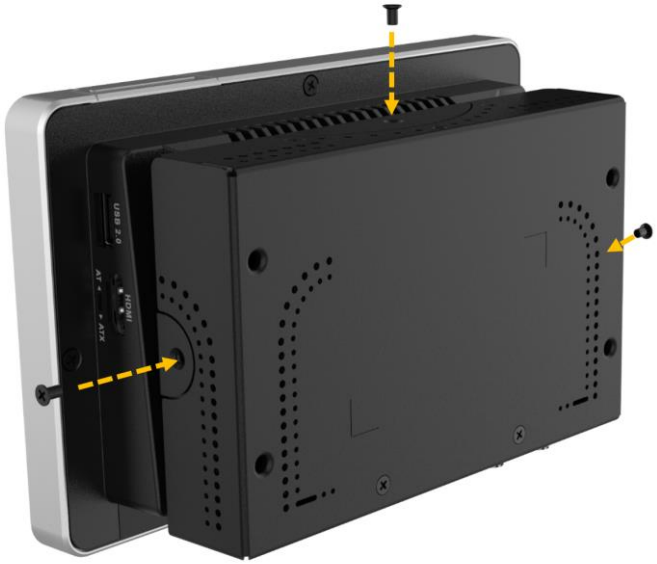


Figure 3-6: Mounting with Wall Mount Brackets

Step 4: Take the two wall mount brackets from the accessories, and use two screws to secure each to the AUPS2-A20 series. Then, use four screws to fix the entire set to the wall and other fixed positions to complete the wall mount installation. **The AUPS2-A20 Series supports a maximum load of 5 kg when installed with the wall mount brackets.** (**Figure 3-7**).

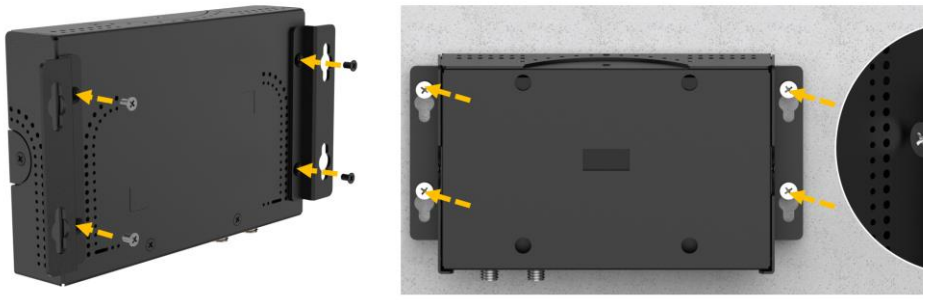


Figure 3-7: Mounting with Wall Mount Brackets

Step 5: Secure the panel PC with the VEAS mounting bracket installed to the AUPS2-A20 Series wall mount using three screws. (**Figure 3-8**).

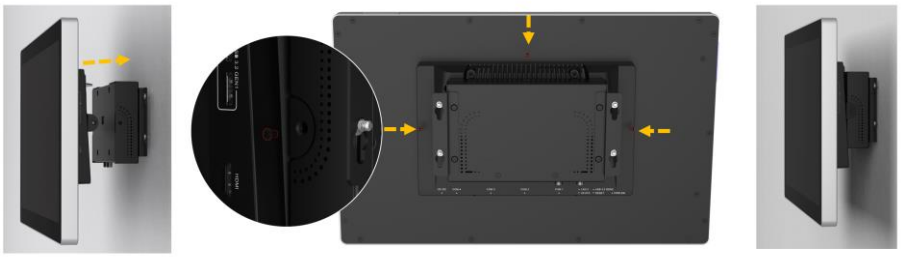


Figure 3-8: Wall Mount Brackets

3.6 Connecting the AUPS2-A20 Series

WARNING / AVERTISSEMENT

- The cord of equipment power supply shall be connected to a socket-outlet with earthing connection.

  Le cordon d'alimentation de l'équipement doit être connecté à une prise de courant avec mise à la terre.

- This product should be powered by a UL-listed power supply with a minimum output rating of 12V DC, 7A, a Tma of 40°C, and the highest acceptable altitude of 2000 m. For further assistance, please contact the manufacturer, UL File owner, or brand owner.

  Ce produit doit être alimenté par une alimentation certifiée UL avec une puissance de sortie minimale de 12V DC, 7A, une température ambiante maximale (Tma) de 40°C et une altitude maximale acceptable de 2000 m. Pour toute assistance supplémentaire, veuillez contacter le fabricant, le propriétaire du fichier UL ou le propriétaire de la marque.

To enable the UPS function for the panel PC, the AUPS2-A20 Series must be connected to both the power source and the panel PC. **Figure 3-9** shows the connections.

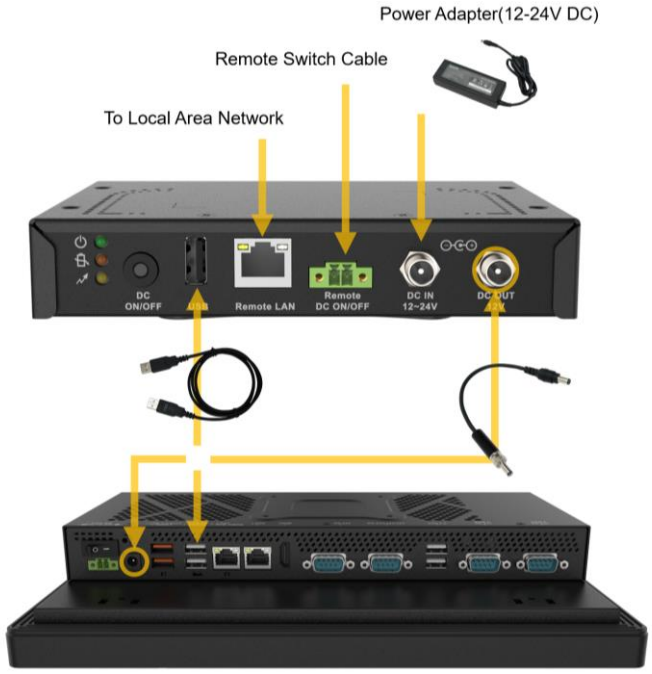


Figure 3-9: AUPS2-A20 Series and Panel PC Connection

3.7 External Peripheral Interface Connectors

The AUPS2-A20 Series has the following connectors. Detailed descriptions of the connectors can be found in the subsections below.

- 1 x 12 V DC output jack
- 1 x 12 V ~ 24 V DC input jack
- 1 x Remote power button (terminal block)
- 1 x Network remote management port (RJ-45)
- 1 x USB Type-A connector
- 3 x Status indicator
- 1 x DC on/off button
- 1 x Shipping mode switch

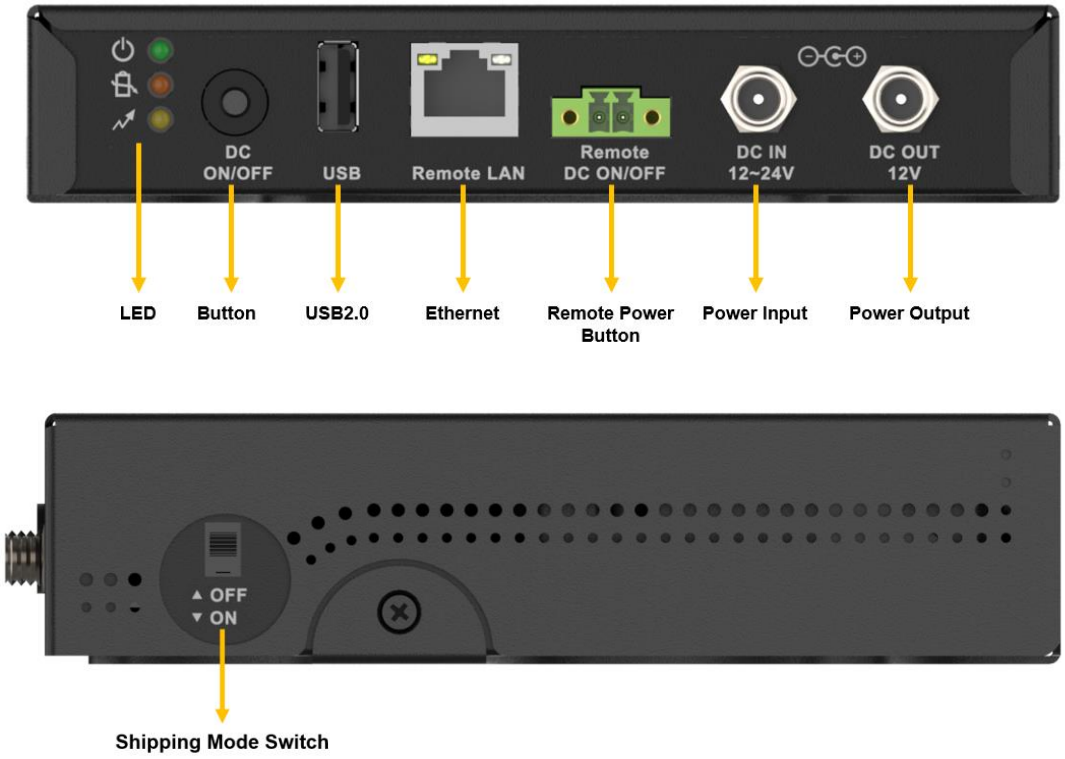


Figure 3-10: External Peripheral Interface Connectors

3.7.1 Power Output Connector

The power output connector is a 2-pin DC jack connector on the rear panel. The supported power output voltage is 12 V DC.

Pin	Description
1	12V
2	GND

Table 3-1: Power Output Connector Pinouts

Figure 3-11: Power Output Connector

3.7.2 Power Input Connector

The power input connector is a 2-pin DC jack connector on the rear panel that can directly connect to a power adapter. The supported power input voltage is 12-24 V DC.

Pin	Description
1	12-24V
2	GND

Table 3-2: Power Input Connector Pinouts

Figure 3-12: Power Input Connector

3.7.3 Remote Power Connector

This remote power switch connector can be connected to an external switch for remote power control.

Figure 3-13: Remote Power Connector

3.7.4 LAN Connectors

The LAN connectors allow connection to an external network.

Step 1: **Locate the RJ-45 connectors**. The locations of the RJ-45 connectors are shown in **Figure 3-14**.

Step 2: **Align the connectors.** Align the RJ-45 connector on the LAN cable with one of the RJ-45 connectors on the AUPS2-A20 Series. See **Figure 3-14**.

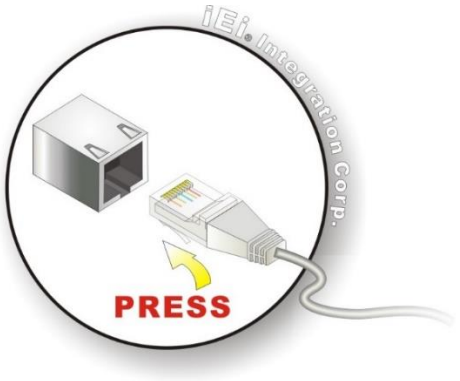


Figure 3-14: LAN Connection

Step 3: **Insert the LAN cable RJ-45 connector.** Once aligned, gently insert the LAN cable RJ-45 connector into the AUPS2-A20's RJ-45 connector.

Figure 3-15: RJ-45 Ethernet Connector

The RJ-45 Ethernet connector has two status LEDs. The green LED indicates activity on the port and the yellow LED indicates the port is linked. See **Table 3-3.**

LED Left		LED right	
STATUS	**DESCRIPTION**	**STATUS**	**DESCRIPTION**
Off	No link	Off	No link
Yellow	10 Mbps connection	Orange	100 Mbps connection
Blinking	TX/RX activity	Blinking	TX/RX activity

Table 3-3: RJ-45 Ethernet Connector LEDs

3.7.5 USB 2.0 Connectors

To connect the USB 2.0 connectors, follow the steps below.

Step 1: **Locate the USB 2.0 connectors.** The locations of the USB connectors are shown in **Figure 3-16**

Step 2: **Align the connectors.** Align the USB device connector with one of the connectors on the I/O panel. See **Figure 3-16**.

Step 3: **Insert the device connector.** Once aligned, gently insert the USB device connector into the onboard connector.

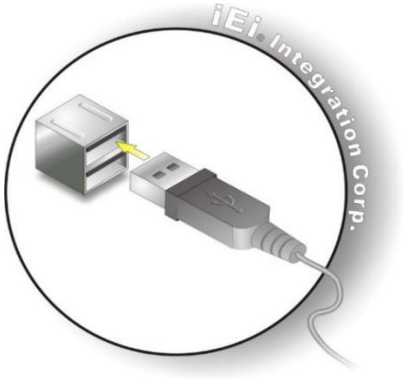


Figure 3-16: USB Connection

3.7.6 DC Power Button

WARNING:

Make sure a power supply with the correct input voltage is being fed into the system. Incorrect voltages applied to the system may cause damage to the internal electronic components and may also cause injury to users.

Assurez-vous qu'une alimentation avec la bonne tension d'entrée est fournie au système. Des tensions incorrectes appliquées au système peuvent endommager les composants électroniques internes et également causer des blessures aux utilisateurs.

- DC output on: Press and hold the power button once and then the light turns on.
- DC output off: Press and hold the power button once and then the light turns off.

Figure 3-17: DC Power Button

3.7.7 Shipping Mode Switch

Due to battery transportation, the shipping mode switch will be turned on before shipment. Please turn off the shipping mode switch before using the AUP2.

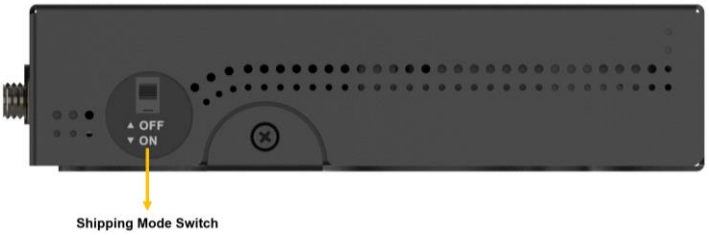


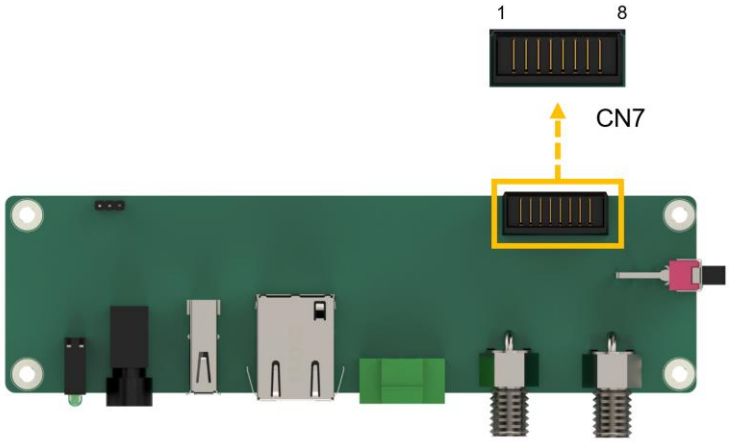
Figure 3-18: Shipping Mode Switch

3.8 Internal Interface Connector

3.8.1 Battery Connector (CN7)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	VBAT	2	VBAT
3	SMB1_CLK	4	SMB1_DATA
5	BAT_TH	6	BAT_ID
7	GND	8	GND

Table 3-4: Battery Connector (CN7)



Chapter

4

Software Application

4.1 Introduction

The IEI's AUPS2-A20 application detects the information of the smart battery and monitors the battery status. It is recommended to execute this AUPS2-A20 application in Windows 7 OS or above.

4.2 Driver Installation

Follow the steps below to install the necessary drivers.

Step 1: Download the AUPS2-A20 software from the IEI Resource Download Center (https://download.ieiworld.com). Type "AUPS2-A20" and press Enter to find all the relevant software, utilities, and documentation.

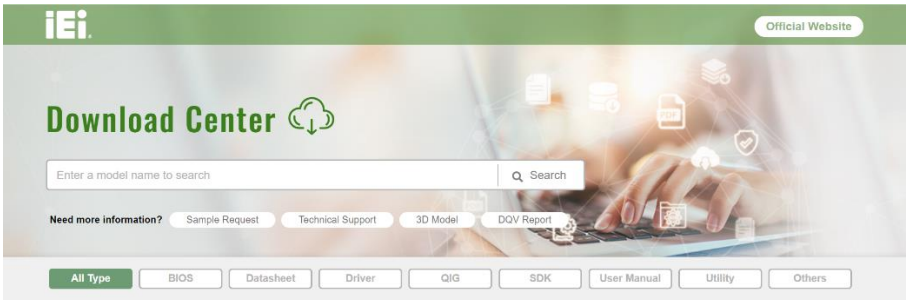


Figure 4-1: IEI Resource Download Center

Step 2: Download VC_redist.x64.exe from Microsoft Visual C++ Redistributable latest supported downloads (https://learn.microsoft.com/en-us/cpp/windows/latest-supported-vc-redist?view=msvc-170).

Step 3: Run the VC_redist.x64.exe file. The InstallShield Wizard prepares the setup as shown in **Figure 4-2**.

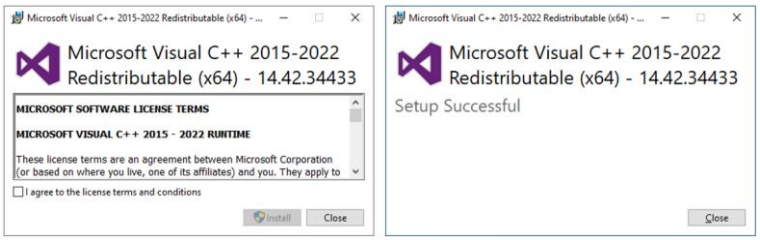


Figure 4-2: Installation Complete

4.3 Application Installation

Follow the steps below to install the AUPS2-A20 application.

Step 1: Download the AUPS2-A20 Management Software file from the IEI Resource Download Center (https://download.ieiworld.com).

Step 2: After unzipping the downloaded file, run the IEI_UPS_System_Management file to start the application (**Figure 4-3**).

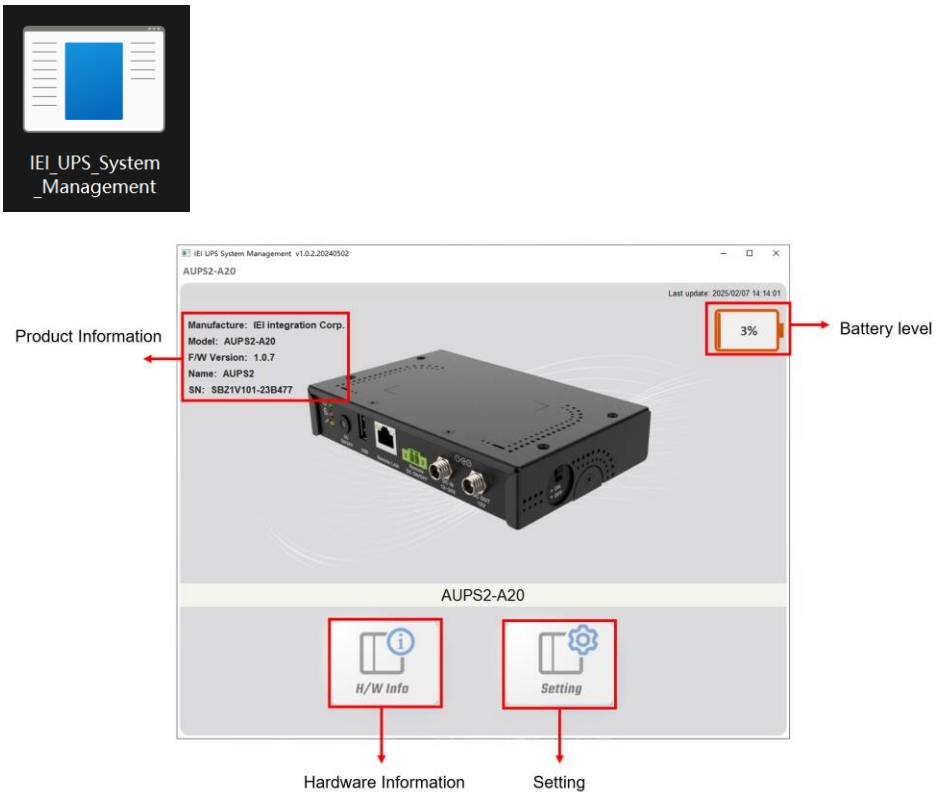


Figure 4-3: IEI AUPS2-A20 Application Overview

4.4 Monitoring DC Power and Smart Battery

4.4.1 Main Information

The home page of IEI's AUPS2-A20 application displays basic product information of AUPS2-A20 (**Figure 4-4**). The following sections describe the information in details.

Figure 4-4: Main Information

4.4.1.1 Manufacturer Information

Display the manufacturer information (**Figure 4-5**).

Figure 4-5: Manufacturer Information

4.4.1.2 Model Information

Display the product's model information（**Figure 4-6**）.

Figure 4-6: Model Information

4.4.1.3 F/W Version Information

Display the product's firmware version information（**Figure 4-7**）.

Figure 4-7: F/W Version Information

4.4.1.4 Name Information

Display the product's name information (**Figure 4-8**).

Figure 4-8: Name Information

4.4.1.5 SN Information

Display the product's serial number information (**Figure 4-9**).

Figure 4-9: SN Information

4.4.2 Hardware Information

Click on the **H/W Info** tab to view the information of hardware. Display information about battery capacity, temperature, fully charged time, remaining time and battery status (**Figure 4-10**).

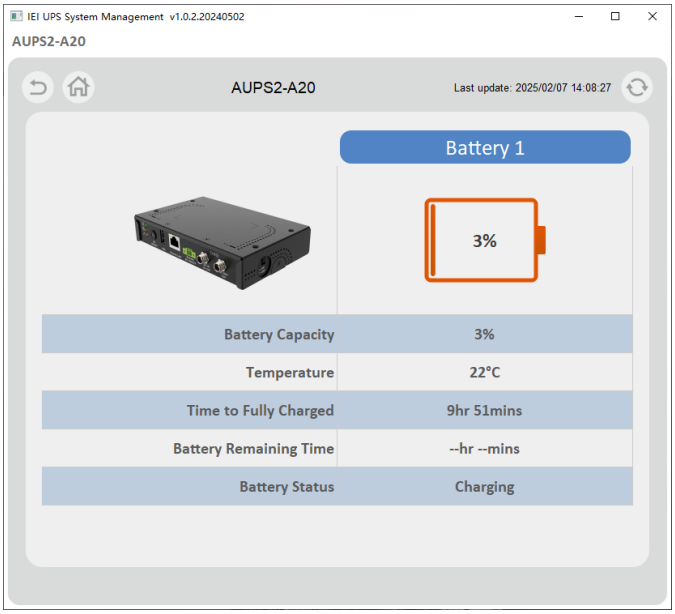


Figure 4-10: Hardware Information

4.4.3 Setting

The setting page of the IEI AUPS2-A20 application displays the configurable information of AUPS2-A20 (**Figure 4-11**). The following sections describe the information in details.

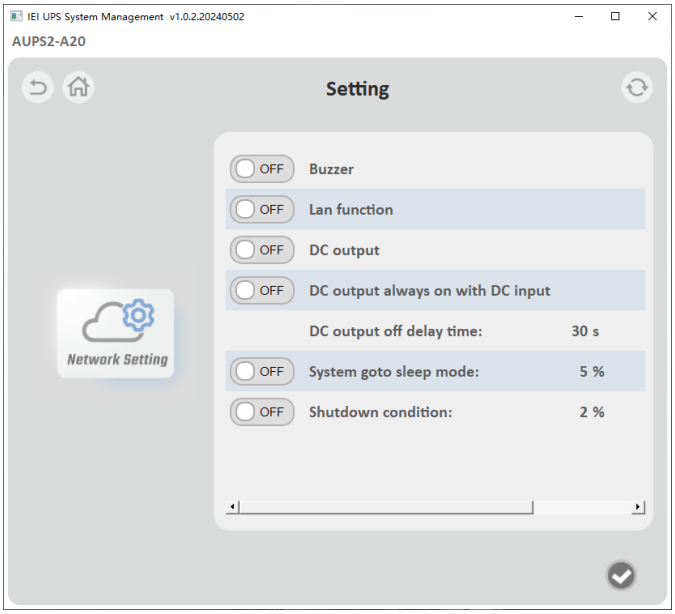


Figure 4-11: Setting

NOTE:

Once all settings are configured, click the confirmation button in the lower right corner to apply the changes.

4.4.3.1 Buzzer

Enable or disable the buzzer function (**Figure 4-12**). It is enabled by default.

Figure 4-12: Buzzer

4.4.3.2 LAN Function

Enable or disable the LAN function (**Figure 4-13**). It is enabled by default.

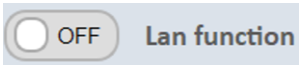


Figure 4-13: LAN Funcion

4.4.3.3 DC Output

Enable or disable the DC output function (**Figure 4-14**). It is enabled by default.

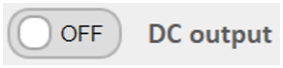


Figure 4-14: DC Output

4.4.3.4 DC Output Always On with DC Input

If enabled, the device will automatically keep the DC output on when DC input is present (**Figure 4-15**). It is enabled by default.

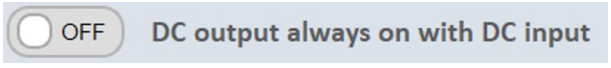


Figure 4-15: DC Output Always On with DC Input

4.4.3.5 DC Output Off Delay Time

Configure the amount of time the system waits before turning off the DC output (**Figure 4-16**).

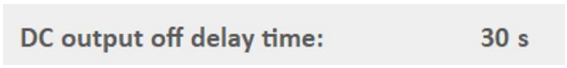


Figure 4-16: DC Output Off Delay Time

4.4.3.6 System Go to Sleep Mode

If enabled, the system will automatically enter sleep mode when the battery level reaches 5% (**Figure 4-17**).

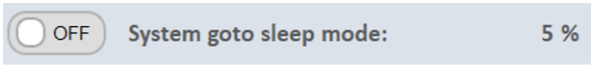


Figure 4-17: System Go to Sleep Mode

4.4.3.7 Shutdown Condition

If enabled, the system will be automatically shut down when the battery level reaches 2% (**Figure 4-18**).

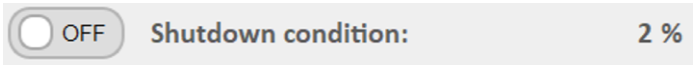


Figure 4-18: Shutdown Condition

4.4.4 Network Setting

The **Network Setting** page is used to configure remote LAN settings for remote power control and battery monitoring. To save the changed Host Name, click the **SET** button (**Figure 4-19**).

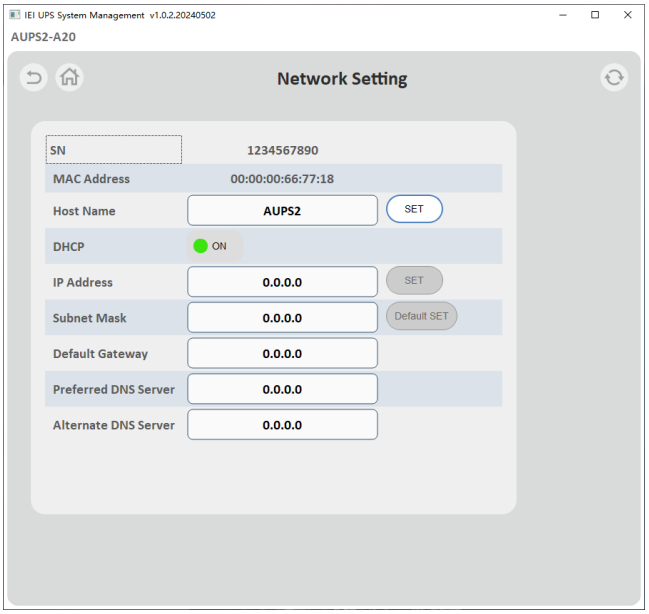


Figure 4-19: Network Setting

4.4.4.1 Using Static IP

DHCP is enabled by default in the application. To use static IP, disable the DHCP option and fill in the network information. To save the changed parameters of this page, click the **SET** 

button (**Figure 4-20**).

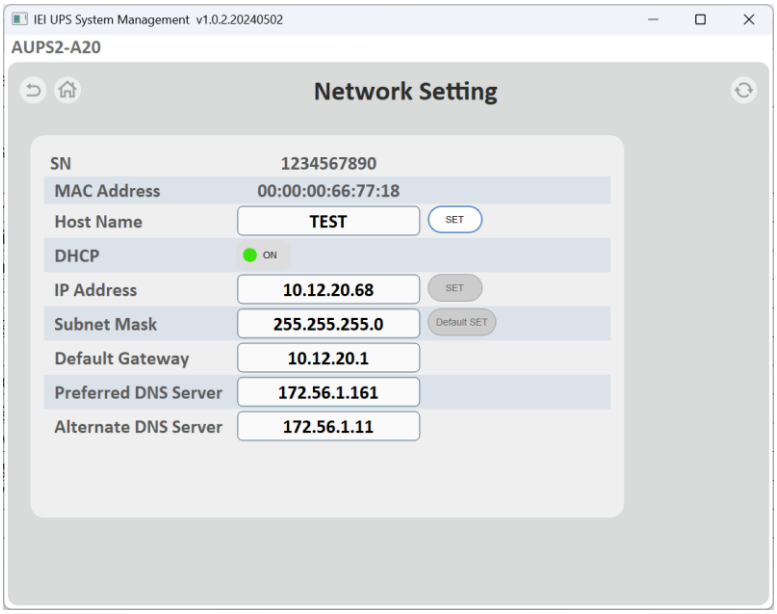


Figure 4-20: Network Setting – Disable DHCP

4.5 Remote Control and Monitoring

The AUPS2-A20 Series is equipped with a built-in Ethernet interface, allowing network monitoring and management through a local area network (LAN).

Users can access the device's operating status and monitoring data via SNMP (Simple Network Management Protocol) for remote supervision of the auxiliary power module.

The device provides read-only (Read-Only) SNMP access for remote monitoring of operating status, temperature, power parameters, and manufacturer information.

To ensure system security and stability, the device does not support configuration changes or remote-control operations via SNMP.

Protocol Support：

- Protocol Standard: Complies with SNMP RFC1628 (UPS-MIB) specification
- Supported Versions: SNMP v1 / v2c
- Communication Port: UDP 161
- Access Control: Community-based authentication

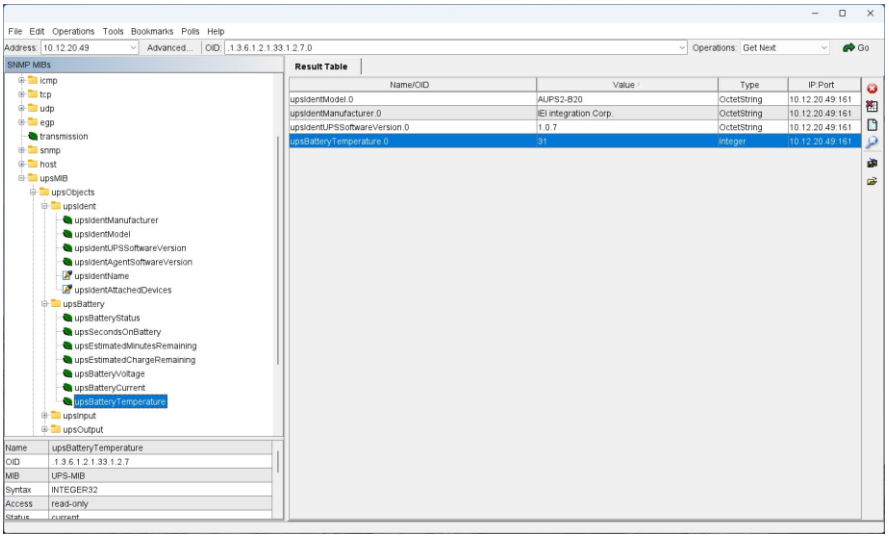


Figure 4-21: Remote Monitoring screen diagram

Appendix

A

Safety Precautions

Safety Precautions

DANGER

Disassemble and Reconstruction

"Do not disassemble or reconstruct battery"

The battery pack has safety functions and protection circuit to avoid the danger. If they have serious damage, it will cause the generating heat, smoke, rupture or flame.

Short-circuit

"Do not short-circuit battery"

Do not connect the + and – terminals with metals (such as wire). Do not carry or store the battery with metal objects (such as wire, necklace or hairpins). If the battery is short-circuited, excessive large current will flow and then the generating heat, smoke, rupture of flame will occur. And also, it causes generating heat at metals.

Incineration and Heating

"Do not incinerate or heat the battery"

These occur the melting of insulator, damage of gas release vent or safety function, or ignition on electrolyte. Above mentioned matters cause the generating heat, smoke, rupture or flame.

Use Nearby Heated Place

"Do not use or leave battery nearby the fire, stove or heated place (more than 80℃)"

In case that separator made of polymer is melted by high temperature, the internal short-circuit occurs in individual cells and then it causes the generating heat, smoke, rupture or flame. In addition, do not use the battery under the heated place (more than 80℃) for same reason.

Immersion

"Do not immerse the battery in water or sea water, or get it wet"

If the protection circuit included in the battery is broken, the battery will be charged at extreme current or voltage and the abnormal chemical reaction occurs in it. And then it causes the generating heat, smoke, rupture or flame.

Charge Nearby Heated Place

"Do not charge battery nearby the fire or under the blazing sun"

If the protection circuit to avoid the danger works under high temperature or it is broken, the battery will be charged at abnormal current (or voltage) and abnormal

chemical reaction will occur. It caused the generating heat, smoke, rupture or flame.

Charger and Charge Condition

"Do use the specified charger and observe charging requirement"

If the battery is charged with unspecified condition (under high temperature over the regulated value, excessive high voltage or current over regulated value, or remodeled charger), there are cases that it will be overcharged or the abnormal chemical reaction will occur in cells. It caused the generating heat, smoke, rupture or flame.

Penetration

"Do not drive a nail into the battery, strike it by hammer, or tread it"

As the battery might be broken or deformed and then it will be short-circuited, it caused the generating heat, smoke, rupture or flame.

Impact

"Do not give battery impact or throw it"

The impact might cause leakage, heat, smoke, rupture, and/or fire of cell in the battery. And also if the protection circuit in the battery is broken, the battery will be charged at abnormal voltage or current, and abnormal chemical reaction might occur. It might cause leakage, heat, smoke rupture, and/or fire.

Deformation

"Do not use the battery with conspicuous damage or deformation"

It causes the generating heat, smoke, rupture or flame.

Soldering

"Do not make the direct soldering on battery"

As the insulator is melted by heat or the gas release vent (or safety function) is broken, it caused the generating heat, smoke, rupture or flame.

Reverse Charge and Overdies charge

"Do not reverse polarity (and terminals)"

On charging, the battery is reverse-charged and abnormal chemical reaction occurs. And also, there may be case that unexpected large current flows on discharging. These cause the generating heat, smoke, rupture or flame.

Reversed Polarity Use

"Do not reverse-charge or reverse-connect"

The battery has polarity. In case the battery is not connected with charger or equipment smoothly, do not force them to connect and do check polarity of battery. If the battery is connected to opposite polarity with charger, it will be reverse-charged

and abnormal chemical reaction will occur. It causes the generating heat, smoke, rupture or flame.

Connect Battery to the Plug

"Do not connect battery to the plug socket or car-cigarette-plug"

Added high voltage to the battery, the excessive current will flow in it and then it will cause the generating heat, smoke, rupture or flame.

Inappropriate Use for Other Equipment

"Do not use battery for other equipment"

If the battery is used for unspecified equipment, it will deteriorate its performance and cycle-life. At worst, abnormal current will flow or battery may generate heat, smoke, rupture or flame.

Leakage

"Do not touch a leaked battery directly"

in case the leaked electrolyte gets into eyes, wash them with fresh water as soon as possible without rubbing eyes. And then, see a doctor immediately.

If leave damaged eyes undone, it will cause eye-trouble.

WARNING

Mixed Use

"Do not use Lithium ion battery in mixture"

Do not use Lithium ion battery with the primary batteries or secondary batteries whose capacity kind or maker is different, if do that, the battery will be discharged or charged excessively in use. And it may cause the generating, smoke, rupture or flaming because of the abnormal chemical reaction in cells.

Ingestion

"Keep the battery away from babies"

Keep the little battery out of the reach of babies in order to avoid troubles by swallowing. In case of swallowing the battery, see a doctor immediately.

Charging Time

"Do not continue to charge battery over specified time"

If the battery is not finished charging over regulated time, let it stop charging. There is possibility that the battery might generate, smoke, rupture or flame.

Store

"Do not get into a microwave or a high pressure container"

It causes the generating, smoke, rapture or flaming because of a sudden heat or damage of sealing condition of battery.

Leakage

"Do not use a leaked battery nearby fire"

If the liquid leaks from the battery (or the battery gives out bad smell), let the battery leave from flammable objects immediately. Unless do that, the electrolyte leaked from battery will catch fire and it will cause the smoke, flaming or rupture of it.

Rust, Changing Color and Deformation

"Do not use an abnormal battery"

In case the battery has bad smell or is generated its changing color or deformation or causes something wrong in using (includes charging and storage), let it take out from equipment or charger and do not use it. If an abnormal battery is used, it will generate, smoke, rupture or flame.

CAUTION

Use Under Strong Sunshine

Do not use or leave the battery under the blazing sun (or heated car by sunshine). The battery may generate heat, smoke or flame. And also, it might cause the deterioration of battery's characteristics or cycle life.

Static Electricity

The battery has the protection circuit to avoid the danger. Do not use nearby the place where generates static electricity (more than 100 V) which gives damage to the protection circuit. If protection circuit were broken, the battery would generate, smoke, rupture or flame.

Charging Temperature Range

Charging temperature rage is regulated 0℃ and 40℃. Do not charge the battery out of recommended temperature range. Charging out of recommended range might cause the generating heat or serious damage of battery. And also, it might cause the deterioration of battery's characteristics and cycle life.

Manual

Please read the manual before using the battery and keep it after reading.

Charging Method

Please read the manual of specified charger about charging method.

First Time Use

When the battery has rust, bad smell or something abnormal at first-time-using, do not use the equipment and bring the battery to the shop from which it was purchased.

Used by Children

In case younger children use the battery, their parents teach how to use batteries according to the manual with care. And also, when children are using the batteries, pay attention to use it according to that or not.

Keep Battery Away from Children

Keep the battery out of the reach of younger children. And also, pay attention when the battery is taken out from the charger or equipment by little children.

Leakage

If the skin or cloth is smeared with liquid from the battery, wash with fresh water. It may cause the skin inflammation.

Précautions de sécurité

DANGER

Démonter et reconstruire

"Ne pas démonter ou reconstruire la batterie"

La batterie a une fonction de sécurité et un circuit de protection pour éviter le danger. S'ils sont gravement endommagés, cela provoquera la génération de chaleur, de fumée, de rupture ou de flamme.

Court-circuit

"Ne pas court-circuiter la batterie"

Ne connectez pas les bornes + et - avec des métaux (tels que des fils). Ne transportez pas et ne stockez pas la batterie avec des objets métalliques (tels que des fils, des colliers ou des épingles à cheveux). Si la batterie est court-circuitée, un courant excessif et important circulera, puis la génération de chaleur, de fumée, de rupture de flamme se produira. Et aussi, cela provoque la génération de chaleur au niveau des métaux.

Incinération et chauffage

"Ne pas incinérer ou chauffer la batterie"

Ceux-ci se produisent lors de la fonte de l'isolant, de l'endommagement de l'évent de dégagement de gaz ou de la fonction de sécurité, ou de l'inflammation de l'électrolyte. Les matières mentionnées ci-dessus provoquent la génération de chaleur, de fumée, de rupture ou de flamme.

Utilisez un endroit chauffé à proximité

"Ne pas utiliser ou laisser la batterie à proximité du feu, du poêle ou d'un endroit chauffé (plus de 80℃)"

Dans le cas où ce séparateur en polymère est fondu à haute température, le court-circuit interne se produit dans les cellules individuelles, puis il provoque la génération de chaleur, de fumée, de rupture ou de flamme. De plus, n'utilisez pas la batterie sous l'endroit chauffé (plus de 80℃) pour la même raison.

Immersion

"Ne plongez pas la batterie dans l'eau ou l'eau de mer, et ne la mouillez pas"

Si le circuit de protection inclus dans la batterie est cassé, la batterie sera chargée à un courant ou à une tension extrême et la réaction chimique anormale se produira dans celle-ci. Et puis cela provoque la génération de chaleur, de fumée, de rupture ou

de flamme.

Chargez un endroit chauffé à proximité

"Ne chargez pas la batterie à proximité du feu ou sous le soleil de plomb"

Si le circuit de protection pour éviter le danger fonctionne à haute température ou s'il est cassé, la batterie sera chargée à un courant (ou une tension) anormal et une réaction chimique anormale se produira. Il a provoqué la génération de chaleur, de fumée, de rupture ou de flamme.

Chargeur et condition de charge

"Utilisez le chargeur spécifié et respectez les exigences de charge"

Si la batterie est chargée dans des conditions non spécifiées (température élevée supérieure à la valeur régulée, haute tension excessive ou courant supérieur à la valeur régulée, ou chargeur remodelé), il y a des cas où elle sera surchargée ou une réaction chimique anormale se produira dans les cellules. Il a provoqué la génération de chaleur, de fumée, de rupture ou de flamme.

Pénétration

"N'enfoncez pas de clou dans la batterie, ne la frappez pas avec un marteau ou ne la marchez pas"

Comme la batterie peut être cassée ou déformée et ensuite elle sera court-circuitée, cela a provoqué la génération de chaleur, de fumée, de rupture ou de flamme.

Incidence

"Ne donnez pas d'impact à la batterie ou ne la jetez pas"

L'impact peut provoquer une fuite, de la chaleur, de la fumée, une rupture et/ou un incendie de la cellule de la batterie. Et aussi si le circuit de protection de la batterie est cassé, la batterie sera chargée à une tension ou à un courant anormal, et une réaction chimique anormale pourrait se produire. Cela pourrait provoquer des fuites, de la chaleur, une rupture de fumée et/ou un incendie.

Déformation

"N'utilisez pas la batterie avec des dommages ou des déformations visibles"

Il provoque la génération de chaleur, de fumée, de rupture ou de flamme.

Soudure

“Ne pas faire de soudure directe sur batterie”

Lorsque l'isolant est fondu par la chaleur ou que l'évent de dégagement de gaz (ou la fonction de sécurité) est cassé, cela a provoqué la génération de chaleur, de fumée, de rupture ou de flamme.

Charge inversée et décharge excessive

"Ne pas inverser la polarité (et les bornes)"

Lors de la charge, la batterie est chargée en sens inverse et une réaction chimique anormale se produit. Et aussi, il peut y avoir des cas où un courant important inattendu circule lors de la décharge. Ceux-ci provoquent la génération de chaleur, de fumée, de rupture ou de flamme.

Utilisation de polarité inverse

"Ne pas inverser la charge ou inverser la connexion"

La batterie a une polarité. Si la batterie n'est pas correctement connectée au chargeur ou à l'équipement, ne les forcez pas à se connecter et vérifiez la polarité de la batterie. Si la batterie est connectée à la polarité opposée avec le chargeur, elle sera chargée en sens inverse et une réaction chimique anormale se produira. Il provoque la génération de chaleur, de fumée, de rupture ou de flamme.

Connectez la batterie à la prise

"Ne connectez pas la batterie à la prise de courant ou à la prise de voiture-cigarette"

En ajoutant de la haute tension à la batterie, le courant excessif circulera dans celle-ci et provoquera alors la génération de chaleur, de fumée, de rupture ou de flamme.

Utilisation inappropriée pour d'autres équipements

"Ne pas utiliser la batterie pour d'autres équipements"

Si la batterie est utilisée pour un équipement non spécifié, cela détériorera ses performances et sa durée de vie. Au pire, un courant anormal circulera ou la batterie peut générer de la chaleur, de la fumée, une rupture ou une flamme.

Fuite

"Ne touchez pas directement une batterie qui fuit"

au cas où l'électrolyte qui fuit pénètre dans les yeux, rincez-les à l'eau douce dès que possible sans vous frotter les yeux. Et puis, consultez immédiatement un médecin.

Si vous laissez les yeux endommagés défaits, cela causera des troubles oculaires.

AVERTISSEMENT

Usage mixte

"Ne pas utiliser de batterie lithium-ion dans le mélange"

N'utilisez pas de batterie au lithium-ion avec des batteries primaires ou des batteries secondaires dont le type de capacité ou le fabricant est différent, si vous le faites, la batterie sera déchargée ou chargée de manière excessive en cours d'utilisation. Et cela peut provoquer la génération, la fumée, la rupture ou l'inflammation en raison de

la réaction chimique anormale dans les cellules.

Ingestion

"Gardez la batterie hors de portée des bébés"

Conservez la petite pile hors de portée des bébés afin d'éviter les troubles de la déglutition. En cas d'ingestion de la batterie, consultez immédiatement un médecin.

Temps de charge

"Ne continuez pas à charger la batterie pendant le temps spécifié"

Si la batterie n'a pas fini de se charger pendant le temps régulé, laissez-la s'arrêter de se charger. Il est possible que la batterie génère, dégage de la fumée, se rompe ou s'enflamme.

Magasin

"Ne pas entrer dans un micro-ondes ou un récipient à haute pression"

Il provoque la génération, la fumée, le ravissement ou l'inflammation en raison d'une chaleur soudaine ou d'un endommagement de l'état d'étanchéité de la batterie.

Fuite

"N'utilisez pas une batterie qui fuit à proximité d'un feu"

Si le liquide fuit de la batterie (ou si la batterie dégage une mauvaise odeur), laissez immédiatement la batterie s'éloigner des objets inflammables. À moins de le faire, l'électrolyte qui fuit de la batterie prendra feu et provoquera de la fumée, des flammes ou sa rupture.

Rouille, changement de couleur et deformation

"N'utilisez pas une batterie anormale"

Dans le cas où la batterie a une mauvaise odeur ou génère un changement de couleur ou une déformation ou provoque quelque chose de mal lors de l'utilisation (y compris le chargement et le stockage), laissez-la sortir de l'équipement ou du chargeur et ne l'utilisez pas. Si une batterie anormale est utilisée, elle générera de la fumée, une rupture ou une flamme.

ATTENTION

Utiliser sous un fort soleil

N'utilisez pas ou ne laissez pas la batterie sous le soleil de plomb (ou la voiture chauffée par le soleil). La batterie peut générer de la chaleur, de la fumée ou des flammes. Et aussi, cela pourrait entraîner la détérioration des caractéristiques ou de la durée de vie de la batterie.

Électricité statique

La batterie a le circuit de protection pour éviter le danger. Ne pas utiliser à proximité d'endroits où se génère de l'électricité statique (plus de 100 V) qui endommage le circuit de protection. Si le circuit de protection était rompu, la batterie générerait de la fumée, se romprait ou s'enflammerait.

Plage de température de charge

La température de charge est régulée entre 0℃ et 40℃. Ne chargez pas la batterie en dehors de la plage de température recommandée. Une charge hors de la plage recommandée peut provoquer une génération de chaleur ou de graves dommages à la batterie. Et aussi, cela pourrait entraîner la détérioration des caractéristiques et de la durée de vie de la batterie.

Manuel

Veuillez lire le manuel avant d'utiliser la batterie et conservez-le après l'avoir lu.

Méthode de charge

Veuillez lire le manuel du chargeur spécifié concernant la méthode de charge.

Première utilization

Lorsque la batterie présente de la rouille, une mauvaise odeur ou quelque chose d'anormal lors de la première utilisation, n'utilisez pas l'équipement et apportez la batterie au magasin où elle a été achetée.

Utilisé par les enfants

Si des enfants plus jeunes utilisent la batterie, leurs parents enseignent avec soin comment utiliser les batteries conformément au manuel. Et aussi, lorsque les enfants utilisent les piles, faites attention à l'utiliser en fonction de cela ou non.

Gardez la batterie hors de portée des enfants

Gardez la batterie hors de portée des jeunes enfants. Et aussi, faites attention lorsque la batterie est retirée du chargeur ou de l'équipement par de jeunes enfants.

Fuite

Si la peau ou le tissu est taché de liquide provenant de la batterie, lavez-le à l'eau douce. Cela peut provoquer une inflammation de la peau.

Appendix

B

Hazardous Materials Disclosure

B.1 RoHS Directive (2015/863/EU)

The details provided in this appendix are to ensure that the product is compliant with the RoHS Directive (2015/863/EU). The table below acknowledges the presences of small quantities of certain substances in the product, and is applicable to RoHS Directive (2015/863/EU).

Please refer to the following table.

Part Name	Toxic or Hazardous Substances and Elements									
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (CR(VI))	Polybromina ted Biphenyls	Polybromina ted Diphenyl Ethers	Bis(2-ethylhexyl) phthalate	Butyl benzyl phthalate (BBP)	Dibutyl phthalate (DBP)	Diisobutyl phthalate (DIBP)
Housing	O	O	O	O	O	O	O	O	O	O
Printed Circuit Board	O	O	O	O	O	O	O	O	O	O
Metal Fasteners	O	O	O	O	O	O	O	O	O	O
Cable Assembly	O	O	O	O	O	O	O	O	O	O
Fan Assembly	O	O	O	O	O	O	O	O	O	O
Power Supply Assemblies	O	O	O	O	O	O	O	O	O	O
Battery	O	O	O	O	O	O	O	O	O	O

O: This toxic or hazardous substance is contained in all of the homogeneous materials for the part is below the limit requirement in Directive (EU) 2015/863.

X: This toxic or hazardous substance is contained in at least one of the homogeneous materials for this part is above the limit requirement in Directive (EU) 2015/863.

B.2 China RoHS

此附件旨在确保本产品符合中国 RoHS 标准。以下表格标示此产品中某有毒物质的含量符合中国 RoHS 标准规定的限量要求。

本产品上会附有"环境友好使用期限"的标签，此期限是估算这些物质"不会有泄漏或突变"的年限。本产品可能包含有较短的环境友好使用期限的可替换元件，像是电池或灯管，这些元件将会单独标示出来。

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (CR(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
壳体	O	O	O	O	O	O
印刷电路板	O	O	O	O	O	O
金属螺帽	O	O	O	O	O	O
电缆组装	O	O	O	O	O	O
风扇组装	O	O	O	O	O	O
电力供应组装	O	O	O	O	O	O
电池	O	O	O	O	O	O

O: 表示该有毒有害物质在该部件所有物质材料中的含量均在 SJ/T11364-2014 與 GB/T26572-2011 标准规定的限量要求以下。

X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T11364-2014 與 GB/T26572-2011 标准规定的限量要求。