User Manual
USV XANTO 3-PHASE
Models 10,000 – 40,000

State: 04/2026

DPT DYNAMIC POWER TECHNOLOGY

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CONTENT

1 INTRODUCTION 3

2 SAFETY WARNINGS 4

3 INSTALLATION 5

3.1 Checking the accessories 5
3.2 Single unit 5
3.3 Parallel operation 6

4 OPERATION 7

4.1 Control Panel 7
4.2 Display 7
4.3 Main Menu 9
4.4 Operating statuses 22

5 COMMUNICATION AND INTERFACES 25

5.1 RS 232 und USB interface 25
5.2 Slot for interface cards 25
5.3 Emergency Power Off (EPO) function 25
5.4 Potential-free contacts 26
5.5 DataWatch Software 29

6 MAINTENANCE 30

6.1 Care and maintenance 30
6.2 Storage 30
6.3 When to change the batteries 30
6.4 Changing batteries 30
6.5 Testing the new batteries 31
6.6 Disposing of the old batteries or UPS system 31

7 TROUBLESHOOTING 32

7.1 Error codes 32
7.2 Warnings 33
7.3 Troubleshooting 34
7.4 Muting the alarm 35

8 SUPPORT 36

9 TECHNICAL DATA 37

9.1 Specification 37
9.2 Rear views 38
9.3 CE confirmation 40

10 WARRANTY 43

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USER MANUAL
UPS XANTO 3-PHASE
Models 10,000 – 40,000

1 Introduction

ONLINE USV-Systeme AG (ONLINE) is one of the leading manufacturers of uninterruptible power supplies (UPS). Since 1988, the German company has focused on the development, production, sale and support of UPS systems. Based on unit numbers sold, ONLINE products are the German number one in the UPS market and internationally recognized because of their top quality and excellent support.

The power supply often fails when you least expect it. There can also be significant fluctuation in the quality of the power supply. Network problems can lead to the destruction of critical data, data which is not backed up can be lost and hardware damaged. This means expensive repairs and downtime.

With the 3-phase UPS XANTO systems from ONLINE USV-Systeme, you can protect large loads in buildings and data centres with a maximum power output of up to 40 kVA. These high-performance UPS systems protect all connected installations from even extreme voltage fluctuations, harmonics, and voltage spikes. This prevents damage to the loads on the voltage side, ensuring maximum reliability.

Warranty Terms – UPS Registration:
Register your UPS for the extended 3-year manufacturer's warranty at www.online-usv.de/form/usv-registrierung within 30 days of purchase!
Full warranty terms can be found at www.online-usv.de/form/garantiebedingungen

This warranty offer applies exclusively to business entities (as defined in Section 14 of the German Civil Code/BGB), legal entities under public law, and special funds under public law. Consumers (as defined in Section 13 of the German Civil Code/BGB) are excluded from this warranty. Valid for purchases within the EU and Switzerland, with the exception of Italy.
Your statutory rights regarding defects vis-à-vis the respective seller, as well as any contractual rights, remain unaffected by this manufacturer's warranty. Statutory warranty rights are not restricted by this warranty.

The models in the "USX XANTO 3-phase" series offer the following unique benefits:

- Four power classes: 10,000 VA to 40,000 VA
- Parallel operation of up to six UPS systems
- Highest level of safety thanks to double-conversion technology
- Energy-saving Eco Mode operation
- High efficiency thanks to efficient DPT technology
- Extended runtime with optional battery packs
- Backfeed protection
- 3-year manufacturer's warranty including battery
- Warranty can be extended at any time

2 Safety warnings

This manual contains important instructions that you must follow during the installation and maintenance of the UPS system and the batteries. Please read all the instructions in the manual before working with the device. Keep the manual in a safe place.

Caution

- The UPS system carries life-threatening voltages. All repair and maintenance work must be carried out by customer service personnel.
- The UPS system has its own energy source (batteries). The output of the UPS system can be live even when the UPS system is not connected to a wall outlet.
- In order to reduce the risk of fire or electric shock, the UPS system may only be installed in buildings with controlled temperature and air humidity in which there are no conductive contaminants. The ambient temperature must not exceed 40 °C. The UPS system must not be operated near water or in extremely high air humidity (>90 %).
- Before transporting the UPS system, make sure that it is disconnected from the power supply and switched off.
- Batteries can pose a risk of electric shock or catch fire as a result of high short circuit current. Please take the necessary precautionary measures. Maintenance must be carried out by qualified personnel who are trained in handling batteries and have good knowledge of the necessary precautionary measures, see Chapter 6 > Maintenance. Keep unauthorized personnel away from batteries.
- Batteries must be disposed of properly. Local regulations must be taken into consideration.
- Batteries must not be burnt. There is risk of explosion.

3 Installation

The models are powered by the following battery sets.

Model	Int. Batteries (12V/9Ah)	Battery set
XANTO 10.000 3/3	**20 (2 x 10)**	**BCX1000033**
XANTO 20.000 3/3	**32 (2 x 16)**	**BCX2000033**
XANTO 30.000 3/3	**64 (2 x 2 x 16)**	**BCX4000033**
XANTO 40.000 3/3	**64 (2 x 2 x 16)**	**BCX4000033**

We recommend using original battery sets available ONLINE when replacing the batteries.

The UPS system can be operated with up to five additional external battery packs to ensure an extended backup time.

The UPS system can be operated as **single-unit** or in **parallel operation**.

3.1 Checking the accessories

Description	XANTO 10.000 3/3	XANTO 20.000 3/3	XANTO 30.000 3/3	XANTO 40.000 3/3
Pallet with ramp	1	1	1	1
USB cable	1	1	1	1
Software CD	1	1	1	1
Battery cable	1	1	1	1
Internal battery wiring		1	1	1

3.2 Single unit

The batteries are installed on site and are supplied separately.

Separate, detailed commissioning instructions are available for installation (varying depending on the model due to different battery configurations), which can be downloaded from our website.

- Starting instructions for XANTO 10.000 3/3
- Starting instructions for XANTO 20.000 3/3
- Starting instructions for XANTO 30.000 3/3 und XANTO 40.000 3/3

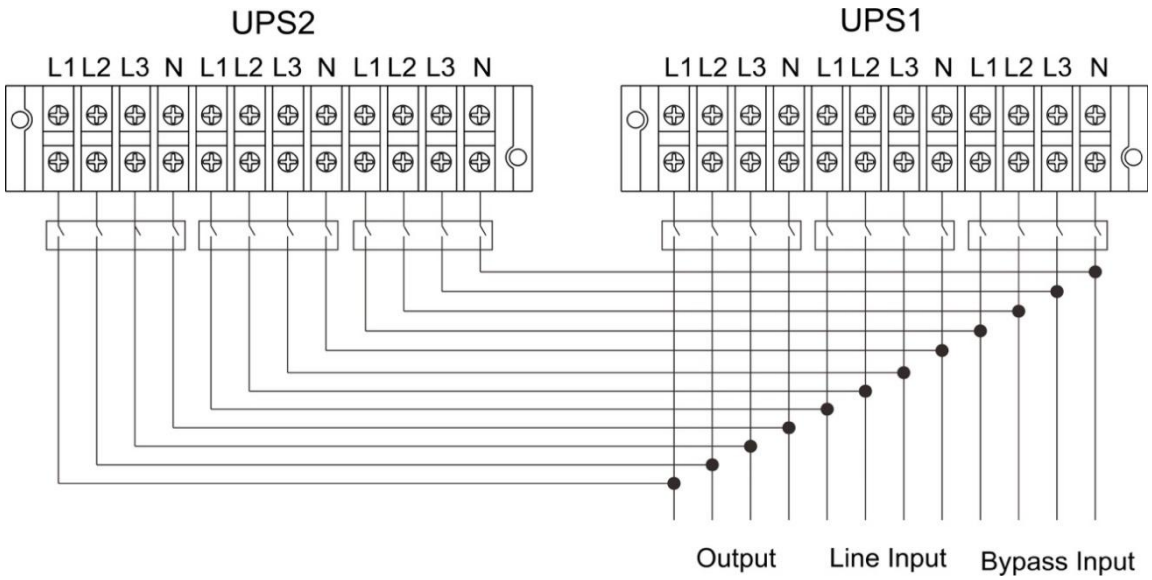
- Starting instructions for Battery Pack XANTO 10.000 3/3
- Starting instructions for Battery Pack XANTO 20.000 3/3
- Starting instructions for Battery Pack XANTO 30.000 3/3 und XANTO 40.000 3/3

3.3 Parallel operation

If parallel operating, ensure that all UPS systems are from the same production year to avoid compatibility problems due to different versions.

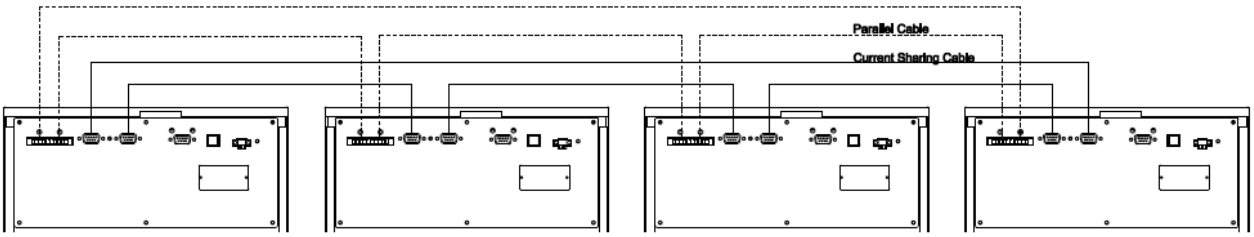
If necessary, check online first.

1. Perform installation according to individual operating instructions for each UPS system.
2. Output voltage calibration:
   Switch each UPS unit on Normal mode. Measure the output voltage of each phase for each UPS unit using a multimeter. Calibrate the output voltage via the inverter voltage adjustment configuration (Menu -> SETTING -> Advanced -> Maintainer -> VOL CALI -> Inverter CALI screen) until the output voltage difference of the inverters of each UPS unit is within 1 VAC or less.
3. Switch off each UPS system.
4. Connect the UPS power cables at the input and output.
   See the following example diagram for two UPS systems connected in parallel.
   If necessary, install additional disconnect switches for each UPS system; consult your electrician.



5. Establish a data connection between the UPS systems:
   For parallel operation, an additional data connection in the form of two ring circuits with the "Parallel Cable" and the "Current Sharing Cable" is required.

   See the following example image for four UPS systems connected in parallel:



   The two cables are available as a kit under article number X33PAR-KIT (not included with the UPS system).

   For two UPS systems, two kits are required. For three UPS systems, three kits are required. For four UPS systems, four kits are required. And so on.

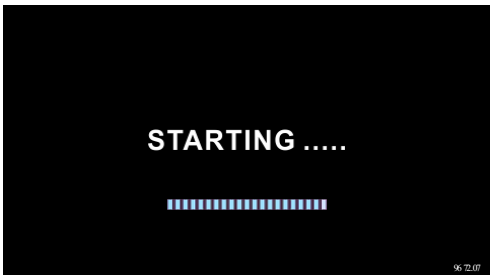
4 Operation

4.1 Control Panel

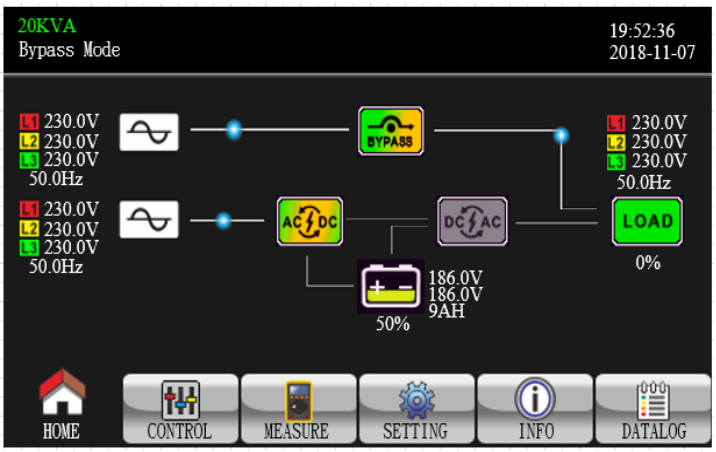
The UPS system has an additional mechanical button to the right of the display. This button is labelled "COLD START". It is only needed to start the UPS system without a power supply, for example, for battery operation (see Chap. 4.4 Operating statuses).
All other operating and setting options are available via the touch-sensitive display.

4.2 Display

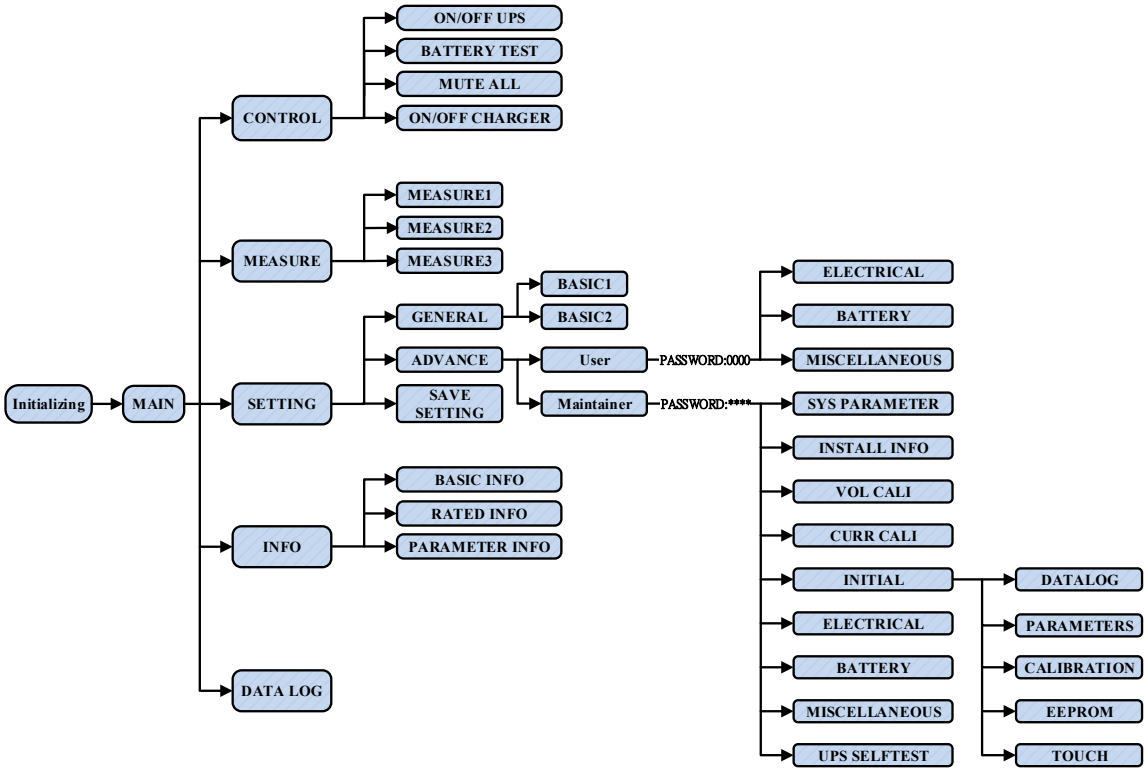
After switching on (Close input breaker and bypass breaker), the display begins initializing after a few seconds, as shown below.



After initialization, the main menu will be displayed as shown below.



There are five icons available for five menus: Control, Measure, Setting, Info, and Data Log.



Menu tree

Pressing any symbol will take you to the corresponding menu.

Pressing the

Home symbol automatically returns you to the main menu.

Pressing the Back symbol automatically goes back to one level.

Pressing the and Arrows symbols can scroll in the menu.

4.3 Main Menu

4.3.1 Control

Pressing the "Control" symbol takes you to the Control menu.
Functions of the UPS system can be switched on or off.

4.3.1.1 ON/OFF UPS

- If the UPS system is switched off, “Turn on UPS?” is displayed.
- If the UPS system is switched on, "Turn off UPS?" is displayed.
- Press "YES" to turn the UPS system on or off. Then main menu is displayed.
- Press "Back" or "NO" to cancel the operation and return to the Control Menu.

4.3.1.2 BATT TEST

- "BATT Test" is displayed when a battery test is not active.
- „Press "YES" to start the battery test.
  During the test, "BATT testing..." is displayed. After a few seconds, the result will appear.
- „Press "Back" or "NO" to cancel the operation and return to the Control Menu.
- „"Cancel BATT test" is displayed when a battery test is active.
- Press "YES" to cancel the battery test, or "NO" to continue the battery test.
- Press "Back" or "NO" to cancel the operation and return to the Control Menu.

4.3.1.3 MUTE ALL

- "Mute All" is displayed when the audio function is active.
- „Press “Yes” to activate mute.
  If "Mute all" is activated, this will be indicated by an icon in the top right corner of the main screen.
- „Press "Back" or "NO" to cancel the operation and return to the Control Menu.
- "Cancel Mute All" is displayed when the audio function is deactivated.
- Press “YES” to activate the audio function, or “NO” to keep it muted.
- Press "Back" or "NO" to cancel the operation and return to the Control Menu.

4.3.1.4 On/Off Charger

- "Turn on Charger?" is displayed when the charger is switched off.
- "Turn off Charger?" is displayed when the charger is switched on.
- Press "YES" to turn on or off.
- Press "Back" or "NO" to cancel the operation and return to the Control Menu.

4.3.1.5 EXIT PARALLEL

- "Exit Parallel?" is displayed when multiple UPS systems are operating in parallel.
- Press "YES" to remove the UPS system from parallel operation.
- Press "Back" or "NO" to cancel the operation and return to the Control Menu.

4.3.2 Measure

Pressing the "Measure" icon takes you to the Measure menu.
The measured values of the UPS system can be queried here.

The up and down arrow symbols can be used to scroll through the menu.

- OUTPUT W: L1, L2 and L3 output power in watts.
- OUTPUT VA: L1, L2 and L3 output power in VA.
- OUTPUT W (%): L1, L2 and L3 output power as a percentage in watts.
- OUTPUT VA (%): L1, L2 and L3 output power as a percentage in VA.
- Total Watt and VA: Total output load in watts and VA.
- BATT Voltage/Bus Voltage/Charging Current/Discharging Current: Real-time values for direct current.
- Backup Time: In minutes and seconds.
- Temperature: Temperature of the electronics in the different phases L1, L2 and L3.
- INPUT W: L1, L2 and L3 input power in watt.
- INPUT VA: L1, L2 and L3 input power in VA.
- INPUT W (%): L1, L2 and L3 input power as a percentage in watts.
- INPUT VA (%): L1, L2 and L3 input power as a percentage in VA.
- INPUT current: Real-time value of the input current in phases L1, L2 and L3
- OUTPUT current: Real-time value of the output current in phases L1, L2 and L3.

4.3.3 Setting

Pressing the "Setting" icon takes you to the settings menu.
This menu is used to set the parameters of the UPS system.

PLEASE NOTE

Not all settings are available in every operating mode. If a setting is not available in the current mode, the originally configured parameters will continue to be displayed instead of being changed.

4.3.3.1 General

For basic UPS system settings. **Functional parameters are not affected**.

- Language: Display language selection. There are three options: English, Simplified Chinese, and Traditional Chinese. The default setting is English.
- Input Source: Input source selection. There are two options: Mains (electricity) and Generator. Mains is the default setting. This setting is displayed on the main page. If "Generator" is selected, the permissible input frequency is set to a range of 40–75 Hz. This setting is displayed in the status bar.
- Contact: Define the name of a contact person, with a maximum of 18 characters.
- Phone: Define service telephone number. Only 0-9, + and - and a maximum of 14 characters are allowed.
- Mail: Define service email address. Maximum length is 18 characters.
- Audio Alarm: Two alarms ("All Mute" and "Mode Mute") can be muted.
  Enable: Selecting this option will mute the corresponding alarm.
  Disable: Selecting this option will sound the corresponding alarm.
    - All Mute: Enable/disable all faults/warnings. Enable = Display main menu.
    - Mode Mute: Enable/disable all status alerts. Enable = Display main menu
- VOL Control: Volume of speech output.

4.3.3.2 Advance

Access to the **advanced settings** requires a password.

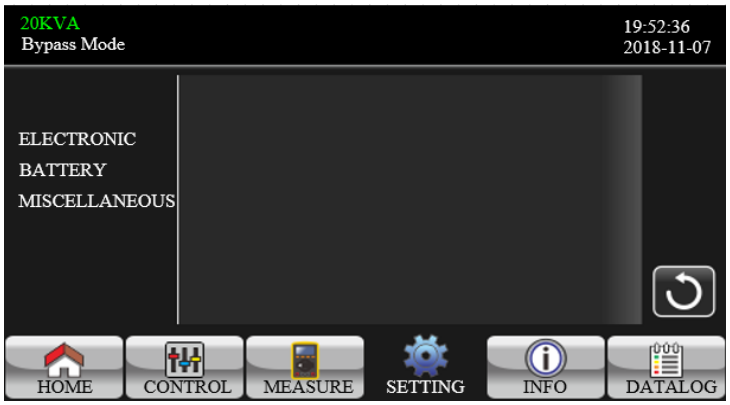
There are two types of permissions:

- **User**
- **Maintainer**

Entering the appropriate password grants access to the user or maintainer menu.

User

The default password for accessing the "Advanced User" settings menu is "0000".
If the correct password is entered, the page will jump to the Advanced User Settings menu.
If the password is entered incorrectly, you will be prompted again.



There are three submenus:

- ELECTRIC
- BATTERY
- MISCELLANEOUS

USER - ELECTRIC

- Output VOL: Selection of the output rated voltage.
  - For a high-voltage system, there are four options: 208V, 220V, 230V and 240V.
  - For a low-voltage system, there are two options: 120V and 127V.
- Output FRE: Selection of the output nominal frequency.
  - 50Hz: Setting the output frequency to 50Hz.
  - 60Hz: Setting the output frequency to 60Hz.
- CVCF Mode (Function for constant voltage and frequency)
  - Enable: The CVCF function is enabled.
    The output frequency is set to either 50 Hz or 60 Hz, depending on the "OP Freq." setting. The input frequency can be between 40 Hz and 70 Hz.
  - Disable: The CVCF function is disabled.
    The output frequency synchronizes with the bypass frequency within 45-55 Hz for a 50 Hz system or within 55-65 Hz for a 60 Hz system.
    The default setting is "Disable".
- Bypass Forbid:
  - Enable: Bypass is not allowed.
    When selected, it's not allowed to run in Bypass mode under any situation.
  - Disable: Bypass is allowed.
    When selected, the UPS system can be switched to bypass mode, depending on "Bypass at UPS off" setting.
    The default setting is „Disable".
- Neutral Line Check: Function to check the correct connection of the neutral wire.
  - Disable: Disables the neutral wire check function. UPS system will not detect a neutral wire failure.
  - Auto: The UPS system automatically detects neutral wire failure. An alarm is triggered. If the UPS system is turned on, it switches to battery operation. If the neutral wire is restored and detected, the alarm is automatically silenced, and the UPS system automatically returns to normal mode.
  - Check: The UPS system automatically detects a neutral wire failure. An alarm is triggered. If the UPS system is turned on, it will transfer to battery operation. If the neutral wire is restored and detected, the alarm will not automatically silence, and the UPS system will not automatically return to normal mode.
- ISO Compensation:
  If an inductive load (e.g., a transformer) is connected to the UPS system, it compensates for the output voltage. This ensures that the voltage accuracy at the output remains within approximately 1%, even under full load.
- Bypass UPS off: Select the bypass status when manually turning off the UPS system.
  This setting is only available when "Bypass forbid" is set to "Disable".
  - Enable: Bypass enabled. When selected, bypass mode is activated.
  - Disable: Bypass disabled. When selected, no output through bypass when manually turning off the UPS system.
- Bypass Voltage Range: Set the bypass voltage range.
  - L: Low voltage point for bypass.
    The setting range is 176V ~ 209V when UPS system is HV system.
    The setting range is 96V ~ 110V when UPS system is LV system.
  - H: High voltage point for bypass.
    The setting range is 231V ~ 264V when UPS system is HV system.
    The setting range is 130V ~ 146V when UPS system is LV system.
- Bypass FRE Range: Set the bypass frequency range.
  The acceptable bypass frequency range from 46Hz to 54Hz when UPS system is 50Hz system and from 56Hz to 64Hz when UPS system is 60Hz system.

- ECO mode: Enable/Disable ECO mode. Default setting is “Disable”.
- ECO VOL Range: Set the ECO voltage range.
    - L: Low voltage point for ECO mode. The setting range is from (Rated output voltage – 5V) to (Rated output voltage - 11V). “Rated output voltage – 5V” is default setting.
    - H: High voltage point for ECO mode. The setting range is from (Rated output voltage + 5V) to (Rated output voltage + 11V). “Rated output voltage + 5V” is default setting.
- ECO FRE Range: Set the ECO frequency range.
  The setting range is from 46Hz to 54Hz when the UPS system is 50Hz system
  and from 56Hz to 64Hz when the UPS system is 60Hz system.

USER - BATTERY

- BATT Warning VOL:
    - HIGH: High battery warning voltage. The setting range is 14.0V ~ 15.0V.
      14.4V is default setting.
    - LOW: Low battery warning voltage. The setting range is 10.1V ~ 14.0V.
      11.4V is default setting.
      This parameter setting is related to “Shutdown Voltage” setting. This setting value should be higher than “Shutdown VOL” setting.
- Shutdown VOL:
    - If battery voltage is lower than this point in battery mode, UPS system will automatically shut down. The setting range is 10V ~ 12V.
      10.7V is default setting.
- BATT Parameters:
    - Battery AH: Setting battery capacity.

USER - MISCELLANEOUS

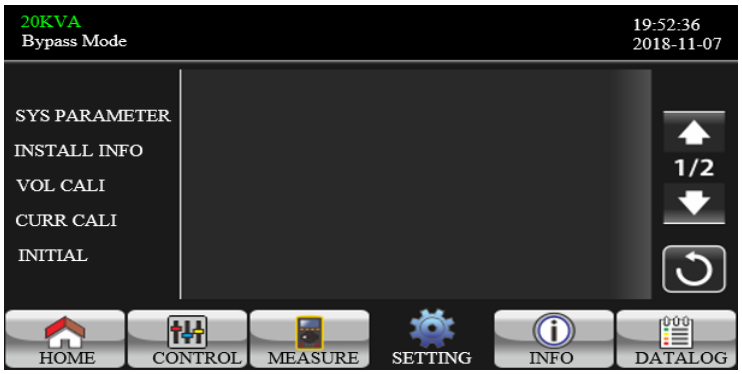
- Auto Restart:
    - Enable: After “Enable” is set, once UPS system shutdown occurs due to low battery and then utility restores, the UPS system will return to normal mode.
    - Disable: After “Disable” is set, once UPS system shutdown occurs due to low battery and the utility restores, the UPS system will not automatically to normal mode.
- Shutdown Delay: UPS system will shut down in setting minutes. The countdown will start after confirming the pop-up screen.
- Restore Delay: UPS system will automatically restart in setting minutes after the UPS shuts down.
- New Password: Set up new password to enter “ADVANCE User” menu.

Maintainer

The password for accessing the "Advance Maintainer" menu is only available via ONLINE.
If the correct password is entered, the page will jump to the Advance Maintainer Settings menu.
If the password is entered incorrectly, you will be prompted again.
The password can be set either to a current daily password (dynamic) or a fixed password (0729). The default password is a current daily password.

CAUTION

This settings menu is intended for qualified technicians only.
Incorrect operation may damage the UPS system.



There are nine submenus:

- SYS PARAMETER
- INSTALL INFO
- VOL CALI
- CURR CALI
- INITIAL
- ELECTRIC
- BATT
- MISCELLANEOUS
- UPS SELFTEST.

MAINTAINER - SYS PARAMETER

- Model Name: Set the UPS system model name.
- Serial Number: Set the serial number.
- Manufacturer: Set the UPS system manufacturer.
- Charger The number of charging boards installed in the UPS system.
  NOTE: It's required to restart the UPS system after setting.
- Max Charge CURR:
  - One Charger: 1A, 2A, 3A, 4A, 5A, 6A, 7A, 8A, 9A, 10A, 11A, 12A.
  - Two Chargers: 2A, 4A, 6A, 8A, 10A, 12A, 14A, 16A, 18A, 20A, 22A, 24A.
- BATT Number: The number of installed batteries in a battery group.
  NOTE: It's required to restart the UPS system after setting.
  The setting range is 10 ~ 20.
  16 is default setting.
- Float VOL: The setting point of battery float voltage.
  13.6V is default setting.
- UPS Type: There are two options, HV and LV. This change is only allowed for qualified technician.
  NOTE: It's required to restart the UPS system after setting.
- Power Setting: Set power factor in percentage.
- Output setting: Set UPS system output setting. There are two selections, 3-1 (single-phase output) and 3-3 (three-phase output).
  NOTE: It's required to restart the UPS system after setting.
- Customer Code: Set customer code. It's a necessary setting when using dynamic password function.
- DynamicPassword: Enable or disable dynamic password function.

MAINTAINER - INSTALL INFO

- SYS Install Date: Set the date of UPS system installation.
- BAT Install Date: Set the date of Battery installation.
- Date/Time: Set the date and time. The format is YYYY-MM-DD and HH:MM:SS.
  The calendar day will be automatically changed when the year, month and date are set.

MAINTAINER - VOL CALI

- Bus VOL: BUS voltage calibration. Each click corresponds to 0.1%, either up or down.
  Press "OK" key to confirm the modification.
- BATT VOL: Battery voltage calibration. Each click corresponds to 0.1%, either up or down.
  Press "OK" key to confirm the modification.
- Line VOL: Line voltage calibration. Each click corresponds to 0.1%, either up or down. Press
  Press "OK" key to confirm the modification.
- Output VOL: Output voltage calibration. Each click corresponds to 0.1%, either up or down.
  Press "OK" key to confirm the modification.
- Inverter VOL: Inverter voltage calibration. Each click corresponds to 0.1%, either up or down.
  „Press "OK" key to confirm the modification.
- Bypass VOL: Bypass voltage calibration. Each click corresponds to 0.1%, either up or down.
  „Press "OK" key to confirm the modification.

MAINTAINER - CURR CALI

- Output CURR: Output current calibration. Each click corresponds to 0.1%, either up or down
  „Press "OK" key to confirm the modification.

MAINTAINER – INITIAL

- DATA LOG: After press “DATA LOG”, it will pop up the message “Initial the Datalog?”.
  Press „YES“ to clear the DATA LOG page.
  Press "Back" or "NO" to cancel the operation and return to the Initial Menu.
- PARAMETER: After press “PARAMETERS”, it will pop up the message “Initial the Parameter?”.
  Press „YES“ to restore default value
  Press "Back" or "NO" to cancel the operation and return to the Initial Menu.
- CALI: After press “CALI”, it will pop up the message “Initial the CALI?”.
  Press „YES“ to restore default calibration value.
  Press "Back" or "NO" to cancel the operation and return to the Initial Menu.
- EEPROM: After press EEPROM, it will pop up the message „Initial the EEPROM?“.
  Presse „YES“ to clear all setting value in EEPROM.
  Press "Back" or "NO" to cancel the operation and return to the Initial Menu.
- TOUCH CALI: After press „TOUCH CALI“ it will pop up a blue screen.
  To recalibrate the touchscreen, tap the area with the cross with your finger.

MAINTAINER - ELECTRIC

- Output VOL: Selection of the output rated voltage.
  - For a high-voltage system, there are four options: 208V, 220V, 230V and 240V.
  - For a low-voltage system, there are two options: 120V and 127V.
- Output FRE: Selection of the output nominal frequency.
  - 50Hz: Setting the output frequency to 50Hz.
  - 60Hz: Setting the output frequency to 60Hz.
- CVCF Mode (Function for constant voltage and frequency)
  - Enable: The CVCF function is enabled.
    The output frequency is set to either 50 Hz or 60 Hz, depending on the "OP Freq." setting. The input frequency can be between 40 Hz and 70 Hz.
  - Disable: The CVCF function is disabled.
    The output frequency synchronizes with the bypass frequency within 45-55 Hz for a 50 Hz system or within 55-65 Hz for a 60 Hz system.
    The default setting is "Disable".
- Bypass Forbid:
  - Enable: Bypass is not allowed.
    When selected, it’s not allowed to run in Bypass mode under any situation.
  - Disable: Bypass is allowed.
    When selected, the UPS system can be switched to bypass mode, depending on “Bypass at UPS off” setting.
    The default setting is „Disable“.
- Neutral Line Check: Function to check the correct connection of the neutral wire.
  - Disable: Disables the neutral wire check function. UPS system will not detect a neutral wire failure.
  - Auto: The UPS system automatically detects neutral wire failure. An alarm is triggered. If the UPS system is turned on, it switches to battery operation. If the neutral wire is restored and detected, the alarm is automatically silenced, and the UPS system automatically returns to normal mode.
  - Check: The UPS system automatically detects a neutral wire failure. An alarm is triggered. If the UPS system is turned on, it will transfer to battery operation. If the neutral wire is restored and detected, the alarm will not automatically silence, and the UPS system will not automatically return to normal mode.
- ISO Compensation:
  If an inductive load (e.g., a transformer) is connected to the UPS system, it compensates for the output voltage. This ensures that the voltage accuracy at the output remains within approximately 1%, even under full load.

- Bypass UPS off: Select the bypass status when manually turning off the UPS system.
  This setting is only available when “Bypass forbid” is set to “Disable”.
  - Enable: Bypass enabled. When selected, bypass mode is activated.
  - Disable: Bypass disabled. When selected, no output through bypass when manually turning off the UPS system.
- Bypass Voltage Range: Set the bypass voltage range.
  - L: Low voltage point for bypass.
    The setting range is 176V ~ 209V when UPS system is HV system.
    The setting range is 96V ~ 110V when UPS system is LV system.
  - H: High voltage point for bypass.
    The setting range is 231V ~ 264V when UPS system is HV system.
    The setting range is 130V ~ 146V when UPS system is LV system.
- Bypass FRE Range: Set the bypass frequency range.
  The acceptable bypass frequency range from 46Hz to 54Hz when UPS system is 50Hz system and from 56Hz to 64Hz when UPS system is 60Hz system.
- ECO mode: Enable/Disable ECO mode. Default setting is “Disable”.
- ECO VOL Range: Set the ECO voltage range.
  - L: Low voltage point for ECO mode. The setting range is from (Rated output voltage – 5V) to (Rated output voltage - 11V). “Rated output voltage – 5V” is default setting.
  - H: High voltage point for ECO mode. The setting range is from (Rated output voltage + 5V) to (Rated output voltage + 11V). “Rated output voltage + 5V” is default setting.
- ECO FRE Range: Set the ECO frequency range.
  The setting range is from 46Hz to 54Hz when the UPS system is 50Hz system and from 56Hz to 64Hz when the UPS system is 60Hz system.

MAINTAINER - BATTERY

- BATT Warning VOL:
  - HIGH: High battery warning voltage. The setting range is 14.0V ~ 15.0V.
    The default setting is 14.4V.
  - LOW: Low battery warning voltage. The setting range is 10.1V ~ 14.0V.
    The default setting is 11,4V.
    This parameter setting is related to “Shutdown Voltage” setting. The setting value should be higher than “Shutdown Voltage” setting.
- Shutdown VOL:
  - If battery voltage is lower than this point in battery mode, UPS will automatically shut down. The setting range is 10.0V ~ 12.0V.
    The default setting is 10,7V.
- BATT Age: Battery age setting.
- BATT Parameters:
  - BATT AH: Setting the battery capacity of a battery.
  - BATT Groups: Setting the number of battery groups.
- BATT Study: This function is used to calibrate the backup time for aging batteries.
  This is a self-learning feature. This feature is not currently available.
  - Enable: If enabled, the backup time is updated during a charging and discharging process..
  - Disable: If disabled, the backup time will not be updated during the loading and unloading process.

- Battery Initial:
    - Yes: If selected, the battery's virtual capacity is initialized to 100%. Since this is a self-learning function, the battery's virtual capacity will continuously update after extended use, based on each full charge cycle. The battery's virtual capacity must be initialized after battery replacement.
    - No: If selected, the virtual battery capacity will not be initialized.
- BATT Cali Value: Calibration of the backup time.
- BATT TEMP Compensation: Charging voltage compensation according to battery temperature.

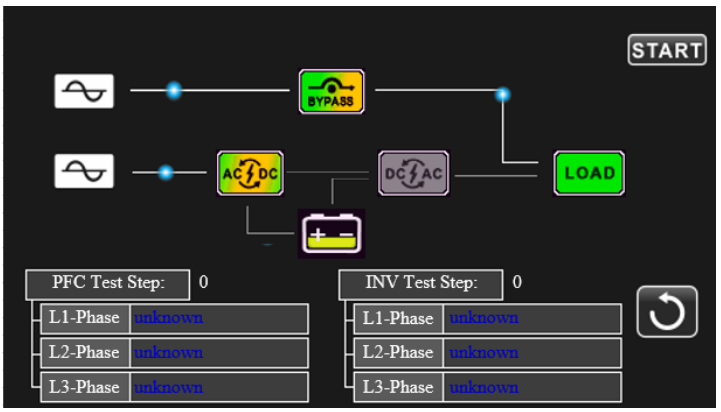
MAINTAINER - MISCELLANEOUS

- Auto Restart:
    - Enable: If "Enable" is selected, the UPS system automatically switches to normal mode after power is restored, regardless of its previous status.
    - Disable: If "Disabled" is selected, the UPS system operates normally. If it shuts down due to low battery voltage, the UPS system returns to normal mode after power is restored. If the UPS system was manually switched off and power is restored, it switches to standby or bypass mode, depending on the configuration.
- Shutdown Delay: UPS system will shut down in setting minutes. The countdown will start after confirming the pop-up screen.
- Restore Delay: UPS system will automatically restart in setting minutes after the UPS shuts down.
- DefaultUserPassword:
    - YES: If “YES” is selected, User password will restore default setting value.
    - NO: If “NO” is selected, the UPS system will cancel this operation.
- BatteryLock: This setting is currently unavailable.

MAINTAINER - UPS SELFTEST

This function is only active if the UPS system is set to "HV". Detailed information can be found under MAINTAINER - SYS PARAMETERS.

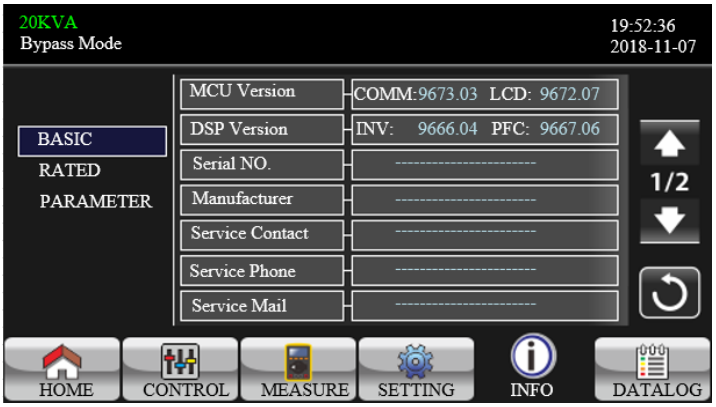
Press "UPS SELFTEST" to start the self-test. If the UPS system is working normally, "Normal" will be displayed in all columns. Otherwise, "Unknown" will be displayed.



After the UPS SELFTEST is complete, the screen automatically goes black. An error screen will appear if there are any errors.

4.3.4 Info

Pressing the "Info" icon takes you to the Info menu.
Various information about the UPS system can be accessed here.

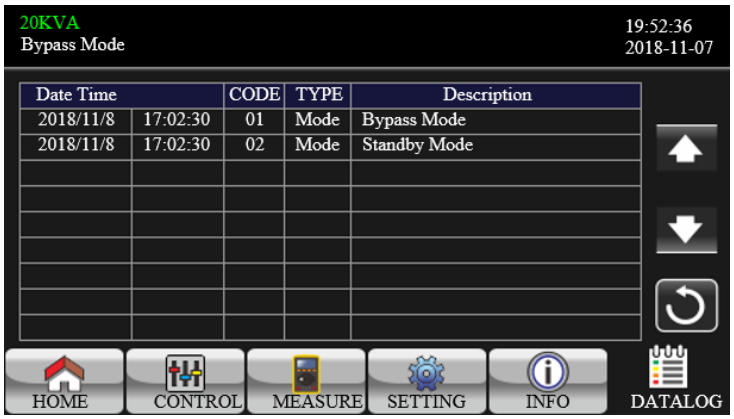


- Basic Information
  - MCU Version: MCU-Version.
  - DSP Version: DSP-Version.
  - Serial NO.: UPS system serial number.
  - Manufacturer: Manufacturer information.
  - Service Contact: The name of the contact person is defined in "Basic Setting".
  - Service Phone: The listed phone number is set in "Basic Setting".
  - Service Mail: The service email address is set in "Basic Setting".
  - PAR State: Information on parallel status.
  - PAR ID: UPS system ID number in parallel status.
  - Customer Code:
  - DynamicPassword: Enable/disable dynamic password.
- Rated Information
  - Output VOL: Display of the nominal output voltage.
  - Output FRE: Display of the output nominal frequency.
  - CVCF Mode: Enable/Disable.
  - Bypass Forbid: Enable/Disable Bypass Function.
  - Bypass UPS Off: Automatic bypass function when UPS system is switched off: Enable/Disable.
  - ECO Mode: Activate/Deactivate.
  - Auto Restart: Activate/Deactivate.
- Parameter Information
  - Line VOL Range: Permissible range of mains input voltage.
  - Line FRE Range: Permissible range of mains input frequency.
  - Bypass VOL Range: Permissible input voltage range in bypass mode.
  - Bypass FRE Range: Permissible input frequency range in bypass mode.
  - ECO VOL Range: Permissible input voltage range in ECO mode.
  - ECO FRE Range: Permissible input frequency range in ECO mode.
  - BATT Work Time: The maximum discharge time in battery operation.
  - BATT Warning VOL:
    - HIGH: High battery voltage warning.
    - LOW: Low battery warning.

- Shutdown VOL: If the battery voltage falls below this value, the UPS system switches off automatically.
- Shutdown Delay: The UPS system will shut down after the set number of minutes. The countdown begins after confirmation of the pop-up screen.
- Restore Delay: The UPS system restarts automatically after the set number of minutes following shutdown.
- BATT Number: Total number of installed batteries.

4.3.5 Data Log

Pressing the "Data Log" icon takes you to the Data Log menu.
The data log is used to record warning and error data from the UPS system. The log includes the date and time, code, type, and description.



4.4 Operating statuses

4.4.1 Single Operation

1. Switching on in normal mode:
    a. Switch the input disconnect switch and the bypass input disconnect switch of the UPS system to "ON". The UPS system will now enter bypass mode, and the fans will start running.
    b. Switch the UPS system's output disconnect switch to "ON".
    The UPS system is now supplying power to the consumers in bypass mode, **but this does not protect the consumers in the event of a power outage.**
    c. Switching the UPS system to normal mode: Press "Control" and then select "UPS on/off". If you select "Turn on UPS?", the UPS system will switch to normal operation in just a few seconds. In the event of a power outage, it will switch to battery mode.
2. Switching on in battery mode:
    a. Switch the UPS system's output disconnect switch to "ON".
    b. Press the "COLD START" button to turn it on. Now press "CONTROL" and then select "UPS on/off". If you select "Turn on UPS?", the UPS will switch to battery operation in just a few seconds.
3. Additional consumers:
    a. First switch on the UPS system, then switch on the connected devices one after the other. The total load will be displayed on the UPS system's screen.
    b. When connecting inductive loads, such as a printer, the inrush current should be factored in to ensure the UPS system's overload capacity is not exceeded. For loads exceeding the rated capacity by more than 150%, the runtime is less than 60 ms.
    c. If the UPS system is overloaded, a beep will sound twice per second.
    d. If the UPS system becomes overloaded, please immediately disconnect some connected devices. It is recommended that the total power consumption of all connected devices to the UPS system be less than 80% of its rated power to prevent overload and ensure system safety.
    e. If the overload time during normal mode exceeds the permissible duration specified in the specification, the UPS system automatically switches to bypass mode. After the overload ends, it returns to normal mode. If the overload time during battery mode exceeds the permissible duration specified in the specification, the UPS system enters a fault state. If bypass mode is activated, the UPS system supplies power to the load via the bypass at that time. If the bypass is deactivated or the input power is not within the permissible bypass range, the output, and therefore the connected devices, are completely switched off.
4. Charging the batteries:
    a. Once the UPS system is connected to the mains power supply and switched on for normal operation, the charger automatically charges the batteries (except during battery operation, during battery self-testing, in case of overload, charger switched off or when battery voltage is sufficient).
    b. It is recommended to charge the batteries for at least 10 hours before use. Otherwise, the backup time may be shorter than expected.

5. Battery mode:
    a. When the UPS is running on battery mode, the buzzer sounds according to the remaining battery capacity. If the battery capacity is above 25%, it sounds once every 4 seconds. If the battery capacity falls below this, it sounds once per second. This serves as a reminder that the UPS will soon shut down. The user can switch off some non-critical loads to extend the backup time. If no more loads can be switched off, a shutdown procedure must be initiated. Otherwise, there is a risk of data loss or power outages.
    b. On battery mode, the buzzer can be switched off via "SETTING" "Basic" "Audio Mute".
    c. The bridging time can be extended by using external battery packs.
    d. The bridging time can vary depending on the operating temperature and type of consumer.
    e. If the discharge time is set to 16.5 hours (default value), the UPS system will automatically switch off after 16.5 hours of discharge to protect the batteries.
6. Testing the batteries:
    a. To test the batteries, the UPS system must be running in normal operation. To do this, press "CONTROL" and select "Battery Test".
    b. Alternatively, battery testing can also be performed using the DataWatch software (available as a free download) or via an optional network management card.
7. Switching off the UPS system during normal mode:
    a. Press "Control" and then select "UPS on/off". If you select "Turn off UPS?", the UPS will switch to bypass mode or standby mode within a few seconds.
    b. In bypass mode, the UPS output voltage remains present, and the connected devices continue to receive power. To completely shut down the UPS, switch off the input disconnect switch. The menu will then disappear, and the UPS will be completely powered off.
8. Switching off the UPS system in battery mode:
    a. Press "Control" and then select "UPS on/off". If you select "Turn off UPS?", the UPS will switch to bypass mode or standby mode within a few seconds.
    b. Consumers are no longer being supplied with electricity.
9. Muting the buzzer:
    a. The buzzer can be switched off for some messages via "SETTING" "Basic" "Audio Mute".
    b. Some messages cannot be muted until the error is resolved. See Chap. 7 Troubleshooting 7.4 Muting the alarm.
10. Operation during warning message:
    a. If a warning code flashes and a beep sounds once per second, a warning event has occurred in the UPS system. The user can read the warning message in the "DATA LOG" menu. See Chap. 7 Troubleshooting 7.3 Troubleshooting.
    b. Some notifications cannot be muted until the error is fixed. See Chap. 7 Troubleshooting 7.3 Troubleshooting.

11. Operation with error message:
    a. If an error code appears on the menu and a continuous beep sound, there is a serious fault in the UPS system. The user can retrieve the error code in the "DATA LOG" menu.
    b. In the event of a fault, check the connected devices, wiring, ventilation, mains power, battery, etc. Do not restart the UPS system until the fault has been resolved. If the fault persists, contact ONLINE or service personnel.
    c. In an emergency, immediately disconnect all connections to the power grid, external battery packs, and the output. This is to prevent potential damage to the UPS system or connected devices.
12. Maintenance breaker:

    If the UPS system requires repair or maintenance and the load cannot be disconnected, the UPS system must be put into maintenance mode using the maintenance breaker. **This procedure may only be performed by maintenance personnel or qualified technicians.**

    a. Switch the UPS system to bypass mode (so that consumers do not lose power).
    b. Remove the cover on the back of the UPS unit at the "Maintenance Breaker".
    c. Switch the “Maintenance Breaker” to the “ON” position.

> **HINWEIS**
>
> The maintenance breaker does not completely disconnect the UPS system from the power supply. To completely disconnect the UPS system from the power supply, an additional external manual bypass is required. e.g. HU10-60KVA-3/3-WG

4.4.2 Parallel Operation

1. Switching on in normal mode:
    a. Turn on the input disconnect switch, and each bypass input disconnect switch of each UPS unit. After all UPS units have switched to bypass operation and the fans have started running, measure the output voltage between any two UPS units on the same phase to ensure the phase sequence is correct. If these two voltage differences approach zero, all connections are correct. Otherwise, it is necessary to check the correct cable connections.
    b. Turn on the output disconnect switch of each UPS system.
    The UPS systems are now supplying power to consumers in bypass mode, **but this does not protect consumers in the event of a power outage**.
    c. Switch each UPS unit to normal operation one after the other. To do this, press "Control" and then select "UPS on/off". Selecting "Turn on UPS?" will switch the UPS unit to normal operation (provided there are no faults).
    After a short time, the UPS units should switch to AC mode synchronously. Parallel operation is now complete.
2. Switching on in battery mode:
    a. Turn on the output disconnect switch of each UPS system.
    b. To switch on any UPS system, press the "COLD START" button and then select "UPS on/off". Selecting "Turn on UPS?" will switch the UPS to battery operation in just a few seconds.
    c. Switch on each UPS unit sequentially as described in point b until all UPS units switch to battery operation. Parallel operation is then complete.

5 Communication and interfaces

5.1 RS 232 und USB interface

In order to establish communication between the UPS system and a computer, connect the computer using a suitable data cable (cable provided) to the RS-232 or USB interface on the UPS system (see Chap. 9.2 > Rear view). After that, the UPS system can exchange data via the DataWatch software (see chapter 5.5).

PLEASE NOTE

The RS-232 and USB communication interfaces cannot be used at the same time:

5.2 Slot for interface cards

The UPS system features a slot (see Chap. 9.2 > Rear view) for the following interface cards:

Product no.	Description
DW7SNMP30	**SNMP-Adapter Basic:** The SNMP adapter communicates with connected devices on the network via TCP/IP.
DW5SNMP30	**SNMP-Adapter Professional:** Functionality is the same as Basic, but with an additional interface for temperature sensors and building management.

PLEASE NOTE

The interface cards installed in the slot can be used in parallel with the RS-232 or USB communication.

5.3 Emergency Power Off (EPO) function

The Emergency Power Off (EPO) function is used to remotely shut down the UPS system and connected loads immediately. This means removing the bridge on the emergency power off connector (back of UPS system, see Fig. 15) and connecting an external emergency power off switch.

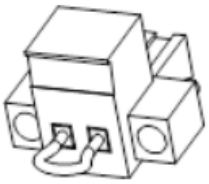
Cross section of connecting cable = 0.5 – 2.5 mm2 (AWG 13 – 20)
Recommended cross-section of connecting cable = 1.5 mm2 (AWG 15)

CAUTION

- The emergency power off switch must not be connected to circuits which are connected to the supply network. Reinforced insulation from the network is required. The emergency power off switch must be designed for at least 60 V DC / 30 V AC and 20 mA.
- Depending on the programming via the UPS menu (see Chapter 4.3 > Settings), either an opener or a closer can be used. The emergency power off function must be active for at least 250 ms for proper operation.
- If the emergency power off function is activated, the input voltage of the UPS system also needs to be interrupted.
- The emergency power off function is only used to shut down the UPS voltage on an electronic basis.

PLEASE NOTE

- Leave the plug of the UPS system connected if you do not need the emergency power off function.
- Always test the emergency power off function before connecting a critical load. This avoids the load
- being switched off accidentally.

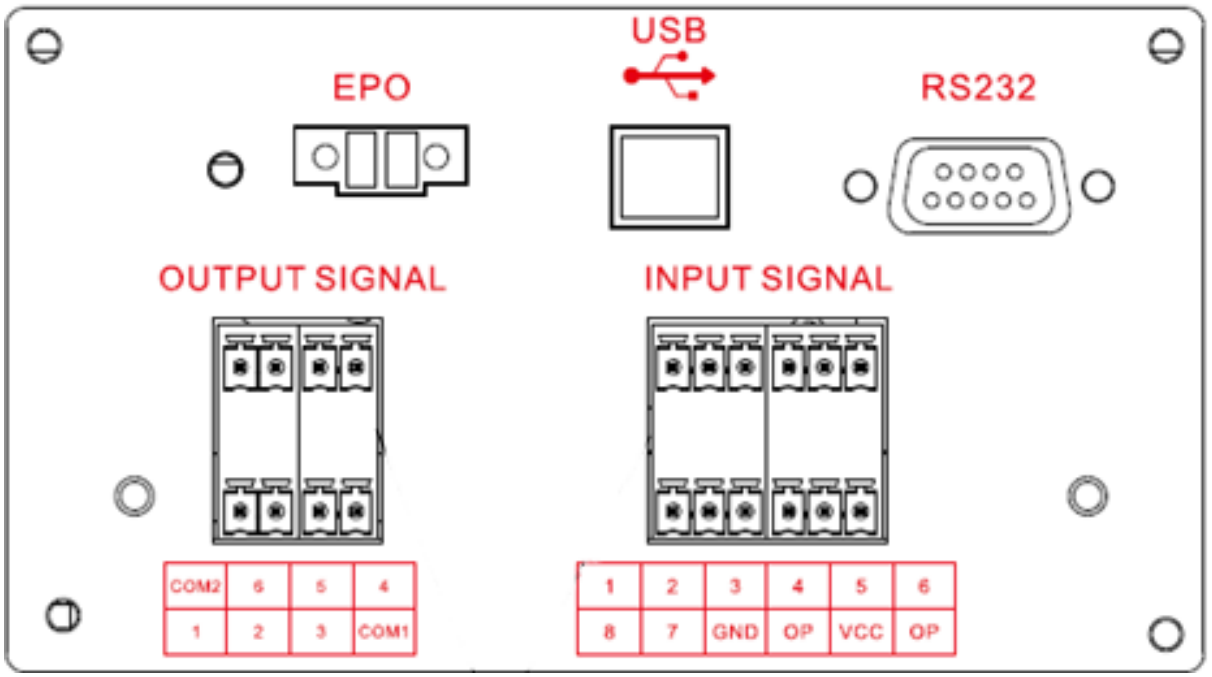


Emergency power off connector

For the position of the emergency power off connector (See Chap. 9.2 > Rear view).

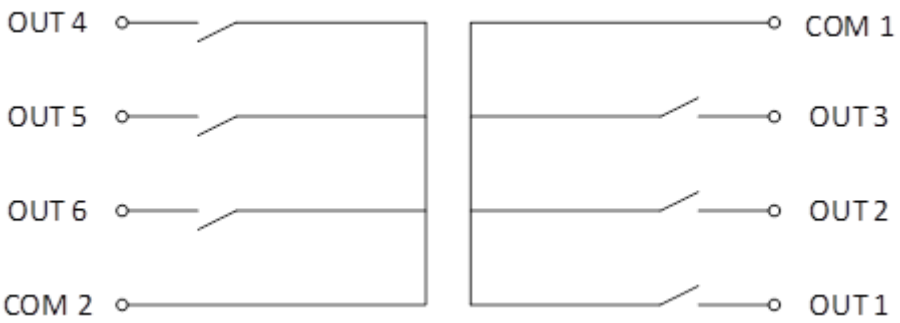
5.4 Potential-free contacts

The UPS system has a communication port with potential-free contacts.
6 output contacts and 8 input contacts.



5.4.1 Output contacts

The six output contacts are configured as normally open contacts. Their configuration can be set using the "Extra Com Config" software included with the UPS.



The factory setting for the contacts is:

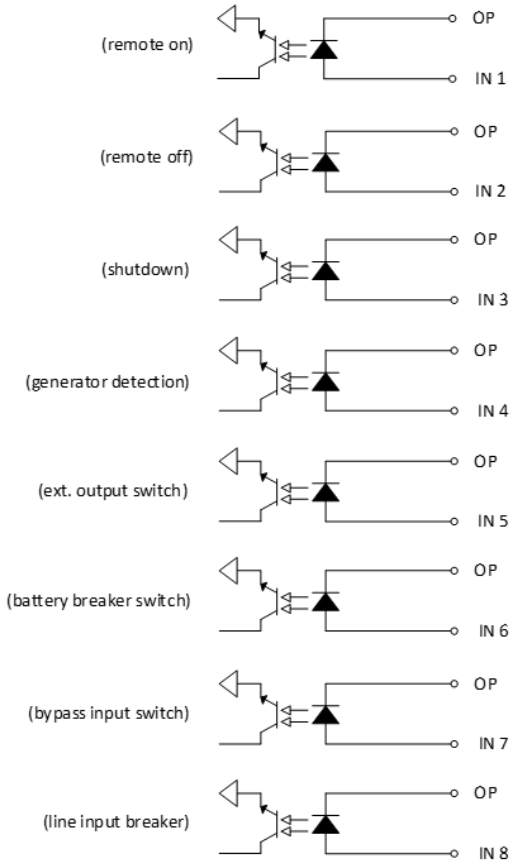
- OUT 1: Load on Inverter
- OUT 2: Load on Bypass
- OUT 3: Load on Battery
- OUT 4: Battery Low
- OUT 5: Bypass Input Abnormal
- OUT 6: Battery Test Fail

The following messages for the outgoing contacts can be configured using the "Extra Com Config" software.

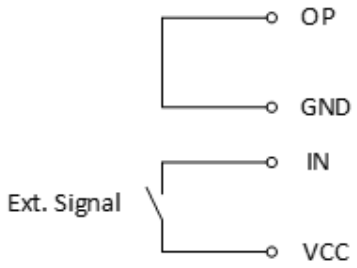
- Load On Inverter
- Load On Bypass
- Load On Battery
- Battery Low
- Bypass Input Abnormal
- Battery Test Fail
- Internal Communication Failure
- External Parallel Communication Failure
- Output Overload Warning Shutdown
- Power Module Warning
- Power Module Fault Shutdown
- EPO Active
- Maintain Bypass
- Module Over Temperature
- Battery Need Replace
- Bypass Over Temperature
- Bypass Static Switch Fault
- Line AC Fail
- Bypass Fail
- Redundancy Fail

5.4.2 Input contacts

The following contact assignment of the 8 input contacts cannot be changed.



The voltage from VCC can be used as a voltage source for the contacts.
Therefore, OP and GND must be connected according to the following diagram.



5.5 DataWatch Software

The XANTO range is supplied as standard with DataWatch, a comprehensive software solution for shutting down and managing the PC or server system and for monitoring the XANTO and the power supply network. To ensure you are always working with the latest version of DataWatch, please download it from the download area of > www.online-ups.com/software-download.

DataWatch works in the background and is in constant communication with the XANTO via the RS-232, USB or network protocol. The most famous of all functions: Automatic data backup including the shutdown of running applications and the proper shutdown of the whole system by means of a freely configurable shutdown routine. At the same time, DataWatch has a comprehensive messaging system, time-controlled test routines and event logging.

DataWatch supports all current operating systems.

As a client/server application, DataWatch works in networks and on local workstations. Based on optional RCCMD agent (Remote Console Command), multiple servers connected to a UPS system can be addressed and controlled across the network without additional hardware.

6 Maintenance

6.1 Care and maintenance

To ensure a long service life of the system, the area around the UPS system should be kept clean and free of dust. If the area around the system is very dusty, clean the external surfaces of the system with a vacuum cleaner.

To ensure a long service life for the batteries, the ambient temperature should not exceed 25 °C.

PLEASE NOTE

- Before transporting the UPS system, make sure that it is disconnected from the supply network and switched off.
- The service life of a battery varies as a function of how often it is used, intensity of use and ambient temperature. Batteries which are used beyond their expected service life often have reduced autonomy times. Replace the batteries in good time to ensure the system always runs at optimum performance.

6.2 Storage

If you intend to store the UPS system for an extended period, charge the battery every three months by connecting the UPS system to the supply network for five hours. The system should be stored in a cool, dry place.

6.3 When to change the batteries

If the display shows "Warning! Battery Age Alert," the batteries must be replaced as soon as possible. Additionally, the DataWatch software or the network management card will issue a battery replacement notification after a maximum of 5 years.
Contact your reseller or ONLINE (> www.usvshop24.de) to order new batteries.

6.4 Changing batteries

PLEASE NOTE

Do not remove batteries while the UPS system is running on battery power.

To replace the batteries, the UPS system must be switched off, disconnected from the supply network and opened. Batteries cannot be hot swapped. An external manual bypass (also called a maintenance bypass or external bypass) allows the UPS system to be disconnected from the mains power supply during operation without interrupting the power supply to the connected devices. The external manual bypass is available as an optional accessory from ONLINE.

CAUTION

- Maintenance work must be carried out by a qualified technician who is familiar with batteries and the necessary safety measures. Do not allow unauthorised personnel to handle the batteries.
- Batteries pose the risk of an electric shock or injury due to high short circuit current. Take the following safety measure:
    - remove watches, jewellery and other metal items
    - only use tools with insulated handles
    - do not place tools or metal components on the batteries.
- The batteries must only be replaced with the same number of batteries of the same type.
- Batteries must be properly disposed of. When disposing of batteries, comply with the statutory regulations applicable in your location.
- Batteries must not be burnt. There is risk of explosion.
- Do not open or damage the battery or batteries. Battery acid can damage the eyes and skin and cause poisoning.
- DANGER OF ELECTRIC SHOCK. Never make changes to the battery cabling or connections. Attempting to change the battery cabling yourself could lead to serious injury.
- The batteries of the UPS system are very heavy. Be careful when handling heavy batteries.

6.5 Testing the new batteries

1. To charge the batteries, connect the UPS to the supply network for 48 hours.
2. In normal operation, go to the Control menu -> BATT TEST and press "YES".
3. The result appears after a few seconds.

PLEASE NOTE

The UPS system only starts a battery test if the batteries are fully charged and the UPS system is operating normally without any active warning messages.

6.6 Disposing of the old batteries or UPS system

Find out from a local recycling centre how the old batteries or the UPS system should properly be disposed of. Old batteries can also be returned to ONLINE for disposal free of charge. Please contact > Support (see > Chap. 8).

CAUTION

- Batteries must not be burnt. There is risk of explosion.
- Batteries must be disposed of properly. Find out about the local disposal regulations.
- Do not open or damage the battery or batteries. Battery acid can damage the eyes and skin and cause poisoning.

7 Troubleshooting

The UPS system is designed for autonomous operation and automatically reports and problems in the display.

7.1 Error codes

Error code	Event	Error code	Event
01	Bus start failure	45	Charger fault
02	Bus over	46	Incorrect UPS setting
03	Bus under	47	MCU communication failure
04	Bus unbalance	49	Phase error on input and output
06	Converter over current	61	Bypass SCR short circuited
11	Inverter soft start failure	62	Bypass SCR open circuited
12	High inverter voltage	63	Voltage waveform abnormal in L1 phase
13	Low inverter voltage	64	Voltage waveform abnormal in L2 phase
14	Inverter L1 output (line to neutral) short circuited	65	Voltage waveform abnormal in L3 phase
15	Inverter L2 output (line to neutral) short circuited	67	Bypass O/P short circuited
16	Inverter L3 output (line to neutral) short circuited	68	Bypass O/P line to line short circuited
17	Inverter L1-L2 output (line to line) short circuited	69	Inverter SCR short circuited
18	Inverter L2-L3 output (line to line) short circuited	6C	BUS voltage drops too fast
19	Inverter L3-L1 output (line to line) short circuited	6D	Current sampling error value
1A	Inverter L1 negative power fault	6E	SPS power error
1B	Inverter L2 negative power fault	6F	Battery polarity reverse
1C	Inverter L3 negative power fault	71	PFC IGBT over-current in L1 phase
21	Battery SCR short circuited	72	PFC IGBT over-current in L2 phase
23	Inverter relay open circuited	73	PFC IGBT over-current in L3 phase
25	Line wiring fault	74	INV IGBT over-current in L1 phase
31	Parallel communication failure	75	INV IGBT over-current in L2 phase
41	Over temperature	76	INV IGBT over-current in L3 phase
42	DSP communication failure	77	ISO Over temperature fault
43	Overload	78	LCD & MCU communication failure

7.2 Warnings

Warning Code	Event	Warning Code	Event
01	Battery unconnected	22	Bypass situations are different in parallel system
02	IP Neutral loss	24	Unbalanced load in parallel system
04	IP phase abnormal	33	Locked in bypass after overload 3 times in 30 minutes
05	Bypass phase abnormal	34	Unbalanced converter current
07	Over charge	36	Unbalanced inverter current
08	Low battery	3A	Cover of maintain switch is open
09	Overload	3C	Utility extremely unbalanced
0A	Fan failure	3D	Bypass is unstable
0B	EPO enable	3E	Battery voltage too high
0D	Over temperature	3F	Unbalanced battery voltage
0E	Charger failure	40	Charger short circuited
42	ISO over temperature	41	Bypass loss
21	Line situations are different in parallel system	43	Bus soft start error

7.3 Troubleshooting

Operating status	Possible cause	Measure
Power supply available, No display or alarm	The input cable is not connected correctly.	Check that the input cable is correctly connected to the power supply.
Warning code 0B	The EPO function is activated. The EPO switch is "OFF" or the jumper is open.	Close the circuit to disable the EPO function.
Warning code 01	The external or internal battery is connected incorrectly.	Check the connection of all batteries.
Warning Code 09	UPS system is overloaded.	Disconnecting unnecessary consumers at the UPS system output.
	The UPS system is overloaded. The connected devices are being powered directly from the mains via the bypass.	Disconnecting unnecessary consumers at the UPS system output.
	After multiple overloads, the UPS system remains in bypass mode. Connected devices are powered directly from the mains.	Disconnecting unnecessary consumers at the UPS system output and restart ups system.
Error Code 43	The UPS system has been overloaded for too long and a fault occurs. The UPS system shuts down automatically.	Disconnecting unnecessary consumers at the UPS system output and restart ups system.
Error code 14, 15, 16, 17, 18 or 19	The UPS system automatically shuts down due to a short circuit at the output.	Check the wiring at the output and whether connected devices have a short circuit.
Other error codes are displayed, and the alarm sounds continuously.	An internal error has occurred.	Contact reseller.
The bridging time is shorter than stated.	The batteries are not fully charged.	Charge the batteries for at least 7 hours and check the capacity. If the problem persists, contact the reseller.
	The batteries are defective.	Contact reseller.
Warning code 0A	The fan is blocked or not working, or the temperature is too high.	Check fan. Contact reseller.
Warning code 02	The neutral conductor at the input is not connected.	Check and correct the neutral wire connection at the input. If the connection is correct and the warning continues to appear, go to SETTING ➔ ADVANCE ➔ User ➔ Electronic. Select "CHE" under "Neutral Line Check" and restart the UPS system.

7.4 Muting the alarm

In the menu “SETTING” ➔ “GENERAL” ➔ “Audio Alarm”, two different types of audible messages (“Mode Mute” and “All Mute”) can be muted. “Mode Mute” affects all status messages, and “All Mute” affects all faults and warnings.

PLEASE NOTE

However, some alarm messages cannot be silenced; see the table below

Description	Buzzer-status	Mute
Bypass mode	Beep every 2 minutes	Yes
Battery mode	Beep every 4 seconds	Yes
Error mode	Continuous beeping	Yes
Miscellaneous	One beep per second	No
Overload	two beeps per second	No

8 Support

ONLINE USV-Systeme AG (ONLINE) is one of the leading manufacturers of uninterruptible power supplies (UPS). Since 1988, the German company has focused on the development, production, sale and support of UPS systems. Based on unit numbers sold, ONLINE products are the German number one in the UPS market and internationally recognised because of their top quality and excellent support.

As a German provider, ONLINE guarantees direct approachability, simple processing and short response times. Comprehensive support is a matter of course – before and after purchase.

ONLINE sets great store by reliable support and service.

- Free direct advice and support on:
    - E-Mail: support@online-USV-Anlage.de
    - Phone: +49 (0)89 242 39 90-17
- Free 24 h advance exchange
- Interactive UPS configurator online or as app
- Optional extended warranty
- Unbureaucratic 14-day money-back guarantee
- Excellent product availability and wide network of distributors

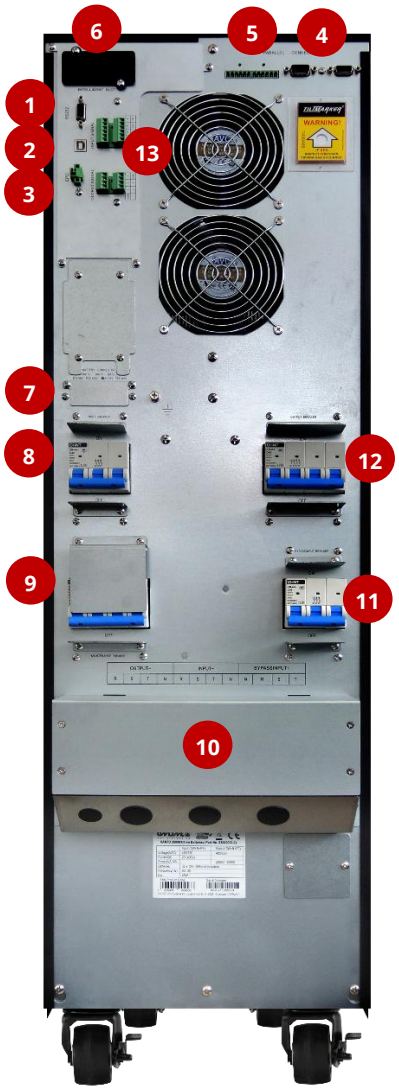
Further Information: > www.online-ups.com

9 Technical data

9.1 Specification

Model	XANTO 10,000 3/3	XANTO 20,000 3/3	XANTO 30,000 3/3	XANTO 40,000 3/3
Item no. UPS	X1000033	X2000033	X3000033	X4000033
Item no. battery pack	X1000033BP	X2000033BP	X4000033BP	X4000033BP
Phases	3-phase input / 3-phase output			
Power	10 KVA / 10 KW	20 KVA / 20 KW	30 KVA / 30 KW	40 KVA / 40 KW
Parallel connection capability	up to 6 devices in parallel			
Input				
Input voltage	3 x 380 / 400 / 415 VAC (3 phases + N)			
Input voltage range	-30 % ~ +20 %			
Input frequency	40 ~ 70 Hz			
Power factor	> = 0.99 at 100 % load			
Harmonics (THDi)	< 3 % at linear full load			
Output				
Output voltage	3 x 380 / 400 / 415 VAC (3 phases + N)			
Voltage regulation (battery operation)	± 1 %			
Frequency range (synchronized range)	46 – 54 Hz or 56 – 64 Hz			
Frequency range (battery operation)	50/60 Hz ± 1 %			
Current harmonic distortion	3:1 (max)			
Harmonic distortion	≤ 1 % THD (linear load); ≤ 3 % THD (non-linear load)			
Switching time between normal operation – battery operation	0			
Switching time between normal operation – bypass	0			
Waveform battery operation	pure sine wave			
Overload capability	100 – 110 % for 60 min, 111 – 125 % for 10 min, 126 – 150 % for 1 min, > 150 % for 400 ms			
Bypass				
Bypass voltage	3 x 380 / 400 / 415 VAC (3 phases + N)			
Bypass voltage range	-30 % ~ +20 %			
Bypass frequency (synchronous range)	46 – 54 Hz or 56 – 64 Hz			
Overload capability	> 130 % 1 min, permanent until fuse trip (optional)			
Efficiency				
Normal operation	96 %			
ECO operating mode	99 %			
Battery operated	96 %			
Battery				
Battery type	12 V / 9 Ah			
Number of batteries (standard)	20 (10 +10)	32 (16 +16)	64 (2 x 16 + 16)	64 (2 x 16 + 16)
Typical recharge time	9 hours to 90 % capacity			
Charging current (adjustable)	1 A – 12 A			
Charging voltage	± 136.5 VDC ± 10 %	± 218.5 VDC ± 10 %	± 218.5 VDC ± 10 %	± 218.5 VDC ± 10 %
Typ. bridging times at 50 or 100 % load and pf = 0.7				
Standard (UPS internal battery)	10 / 3.2	7.3 / -	12 / 3.7	7.3 / -
Plus 1 battery pack	44 / 19	34 / 14	29 / 12	20 / 7.3
Plus 2 battery pack	82 / 35	63 / 27	48 / 20	34 / 14
Plus 3 battery pack	123 / 53	94 / 41	68 / 29	48 / 20
Plus 4 battery pack	167 / 72	124 / 54	89 / 38	63 / 27
Plus 5 battery pack	211 / 92	163 / 70	111 / 48	78 / 34
Displays				
LCD display	multi-color, animated LCD			
Dimensions / Weight				
UPS: Length x width x heigh (in mm)	860 x 300 x 860	860 x 300 x 1000	860 x 300 x 1000	860 x 300 x 1000
UPS: Weight (without batteries)	–	43k g	60 kg	67 kg
UPS: Weight (with batteries)	79 kg	–	–	–
Battery pack: Length x width x heigh (in mm)	580 x 250 x 580	860 x 250 x 830	860 x 250 x 830	860 x 250 x 830
Battery pack: Weight (without batteries)	23 kg	48 kg	48 kg	48 kg
Environmental conditions				
Permissible temperature	0 – 40 °C			
Permissible air humidity	< 95 % non-condensing			
Max. installation height	0 – 1500 m at full load			
Noise development (@ 1 meter)	less than 60 dB	less than 60 dB	less than 63 dB	less than 63 dB
Interfaces				
Serial interfaces	USB / RS232			
Contact interfaces	6 output contacts / 8 input contacts / EPO contact			
Optional interfaces	Network management card slot			
Scope of delivery				
UPS	1	1	1	1
Pallet with ramp	1	1	1	1
USB cable	1	1	1	1
Software CD	1	1	1	1
Battery cable	1	1	1	1
Internal battery wiring	–	1	1	1
Certification, warranty				
Classification	VFI-SS-111 (EN62040-3)			
Safety	EN62040-1			
EMC, Performance	EN62040-2			
Approval	CE			
Protection class	IP21			
Warranty	3 years incl. battery			

9.2 Rear views



1. RS-232 communication port
2. USB communication port
3. Emergency Stop Port (EPO port)
4. Current cable port (for parallel operation only)
5. Parallel cable port (for parallel operation only)
6. Smart slot
(for optional network management card)
7. External battery port
8. Input disconnect switch
9. Maintenance bypass switch
10. Input/output terminals
11. Bypass input disconnect switch
12. Output switch
13. Potential-free contacts

Rear view XANTO 1000033 und XANTO 2000033

Rear view XANTO 3000033

Rear view XANTO 4000033

9.3 CE confirmation

CE

DECLARATION OF CONFORMITY

PREMIUM PRODUCT

Herewith we confirm,
ONLINE USV-Systeme AG,
that

Product:
Uninterruptible Power Supply

YUNTO Smile 400 (Art.-Nr. YS400)
YUNTO Smile 600 (Art.-Nr. YS600)
YUNTO Smile 800 (Art.-Nr. YS800)

YUNTO 500 (Art.-Nr. Y500)
YUNTO 800 (Art.-Nr. Y800)
YUNTO 1200 (Art.-Nr. Y1200)
YUNTO 1500 (Art.-Nr. Y1500)

ZINTO 800 (Art.-Nr. Z800)
ZINTO 1000 (Art.-Nr. Z1000)
ZINTO 1500 (Art.-Nr. Z1500)
ZINTO 2000 (Art.-Nr. Z2000)
ZINTO 3000 (Art.-Nr. Z3000)
ZINTO 800T (Art.-Nr. Z800T)

XANTO 700 (Art.-Nr. X700)
XANTO 1000 (Art.-Nr. X1000)
XANTO 1500 (Art.-Nr. X1500)
XANTO 2000 (Art.-Nr. X2000)

XANTO 3000 (Art.-Nr. X3000)
XANTO 6000 (Art.-Nr. X6000)
XANTO 10000 (Art.-Nr. X10000)
XANTO 10000 3/1 (Art.-Nr. X1000031)
XANTO 20000 3/1 (Art.-Nr. X2000031)

XANTO 700R (Art.-Nr. X700R)
XANTO 1000R (Art.-Nr. X1000R)
XANTO 1000R LI (Art.-Nr. X1000RLI)
XANTO 1500R (Art.-Nr. X1500R)
XANTO 2000R (Art.-Nr. X2000R)
XANTO 3000R (Art.-Nr. X3000R)
XANTO 3000R LI (Art.-Nr. X3000RLI)
XANTO 10000 3/3 (Art.-Nr. X1000033-0)
XANTO 20000 3/3 (Art.-Nr. X2000033-0)
XANTO 30000 3/3 (Art.-Nr. X3000033-0)
XANTO 40000 3/3 (Art.-Nr. X4000033-0)

Product:
Battery Pack for Uninterruptible Power Supply

Battery Pack XANTO 1000 (Art.-Nr. X1000BP)
Battery Pack XANTO 2000 (Art.-Nr. X2000BP)
Battery Pack XANTO 3000 (Art.-Nr. X3000BP)
Battery Pack XANTO 1000R (Art.-Nr. X1000RBP)
Battery Pack XANTO 2000R (Art.-Nr. X2000RBP)
Battery Pack XANTO 3000R (Art.-Nr. X3000RBP)
Battery Pack XANTO 6000 (Art.-Nr. X6000BP)
Battery Pack XANTO 10000 (Art.-Nr. X10000BP)
Battery Pack XANTO 10000 3/1 (Art.-Nr. X1000031BP)
Battery Pack XANTO 10000 3/3 (Art.-Nr. X1000033BP-0)
Battery Pack XANTO 20000 3/3 (Art.-Nr. X2000033BP-0)
Battery Pack XANTO 40000 3/3 (Art.-Nr. X4000033BP-0)

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corresponds to the provisions of following directives:

- 2014 / 35 / EU (Low voltage directive)
- 2014 / 30 / EU (EMC directive)
- 2011 / 65 / EU (RoHS directives)
- 2015 / 863 / EU (RoHS directives)
- 2023/1542/EU (Battery directive)

For the evaluation of the compliance with these directives,
the following standards and specifications were applied:

Uninterruptible Power Supply YUNTO Smile, Uninterruptible Power Supply YUNTO

Low voltage directive:
EN IEC 62040-1: 2019
EN 60950-1: 2006 + A11: 2009 + A1: 2010 + A12: 2011 + A2: 2013 just YUNTO 500, YUNTO 800

EMC directive:
EN IEC 62040-2: 2018, EN 61000-4-2: 2009, EN IEC 61000-4-3: 2020, EN 61000-4-4: 2012, EN 61000-4-5: 2014,
EN 61000-2-2: 2002 + A1: 2017 + A2: 2019, EN 62321: 2009

RoHS directive:
EN IEC 63000: 2018

Uninterruptible Power Supply ZINTO, ZINTO Tower

Low voltage directive:
EN IEC 62040-1: 2019

EMC directive:
EN IEC 62040-2: 2018, EN IEC 61000-3-2: 2019 + A1: 2021, EN 61000-4-2: 2009, EN IEC 61000-4-3: 2020,
EN 61000-4-4: 2012, EN 61000-4-5: 2014 + A1: 2017, EN 61000-4-6: 2014, EN 61000-4-8: 2010,
EN 61000-2-2: 2002, EN 62321: 2009

RoHS directive:
EN IEC 63000: 2018

Uninterruptible Power Supply XANTO, XANTO LI, XANTO 3/3

Low voltage directive:
EN IEC 62040-1: 2019, EN62040-1: 2008 + A1: 2013

EMC directive:
EN IEC 62040-2: 2018, EN IEC 61000-3-2: 2019 + A1: 2021, EN 61000-4-2: 2009, EN IEC 61000-4-3: 2020,
EN 61000-4-4: 2012, EN 61000-4-5: 2016, EN 61000-4-6: 2014, EN 61000-4-8: 2010, EN 61000-2-2: 2012,
EN 62321: 2009, EN62040-2: 2006 + AC: 2006, EN61000-3-2: 2014 (EN61000-4-4: 2009, EN61000-4-3: 2006,
+ A2: 2010, EN61000-4-4: 2012, EN61000-4-5: 2006, EN61000-4-6: 2014, EN61000-4-8: 2010, EN61000-2-2: 2002)

RoHS directive:
EN IEC 63000: 2018

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Battery Pack for Uninterruptible Power Supply XANTO

Low voltage directive:
EN IEC 62040-1: 2019

EMC directive:
EN IEC 62040-2: 2018, EN IEC 61000-3-2: 2019 + A1: 2021, EN 61000-4-4: 2012, EN IEC 61000-4-3: 2020, EN 61000-4-5: 2014 + A1: 2017, EN 61000-4-6: 2014, EN 61000-4-8: 2010, EN 61000-2-2: 2002 + A1: 2017 + A2: 2019, EN 62321: 2009, EN IEC 62040-2: 2016, EN IEC 61000-3-2: 2019 + A1: 2021, EN 61000-3-3: 2013 + A2: 2021, EN IEC 62040-1: 2019

RoHS directive:
EN IEC 63000:2018

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10 Warranty

ONLINE USV-Syteme AG (ONLINE) guarantees that this product will be free of material and production faults for a period of three years from the purchase date. ONLINE's obligation in accordance with this guarantee is restricted to the repair or replacement (at ONLINE's discretion) of any faulty products. Before warranty claims can be asserted, a Returned Material Authorization (RMA) number must be obtained from customer services. Products must be returned with the postage paid by the sender, a brief description of the problem and evidence of the place and date of purchase. This warranty does not apply to devices damaged by accidents, negligence or misuse or those which have otherwise been altered or modified.

Apart from the above exceptions, ONLINE accepts no explicit or tacit warranty, including a guarantee of conventional quality or suitability for a specific purpose. In some jurisdictions, the restriction or exclusion of tacit guarantees is prohibited, which means that the restrictions or exclusions above may not apply to the purchaser.

Irrespective of the above exclusions, ONLINE shall under no circumstances for direct, indirect, specific, auxiliary or subsequent damage caused as a result of the use of this product, even if ONLINE was informed about the possibility of such damage. In particular, ONLINE shall not be liable for costs of whatsoever nature, such as lost profit or revenue, loss of equipment, loss of the use of device, loss of software or data, replacement costs, third-party claims or other costs.

Imprint

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