SilverCloud 850VA

UPS



SILVERCLOUD

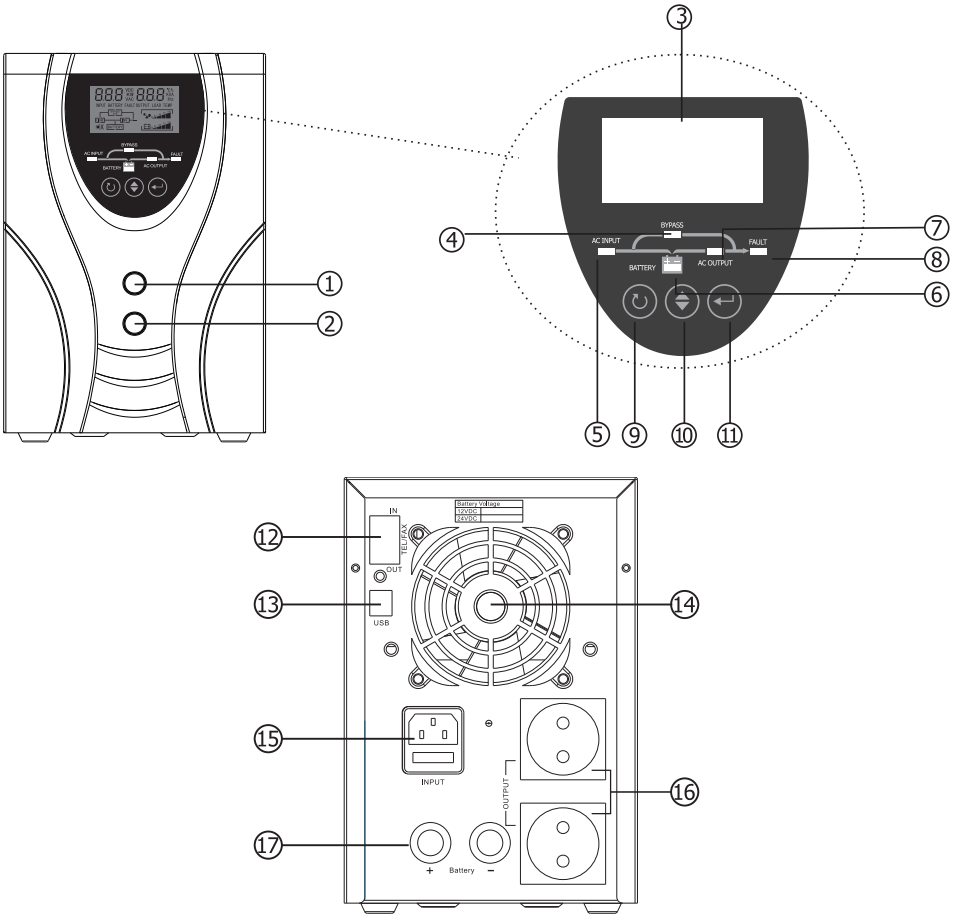
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Basic features

Pure sine wave inverter
3 steps charging algorithm
Overload and short-circuit protection
Reverse polarity protection
Over-discharge protection
Adjustable charging current
Communication interface with the computer
AVR function

Product overview



1. Power on	10. Information selection button
2. Power off	11. Confirmation button
3. LCD screen	12. Fax/Tel
4. Bypass LED	13. USB
5. AC input LED	14. Fan
6. Battery LED	15. AC input
7. AC output LED	16. AC output
8. Fault LED	17. Battery input
9. Back (exit)	

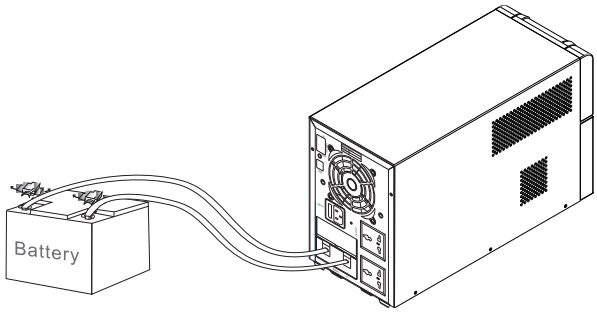
Battery connection

Remove the protective caps from the battery terminals.

Connect the UPS connection cables to the battery terminals: the red cable to the positive (+) terminal, the black cable to the negative (-) terminal.

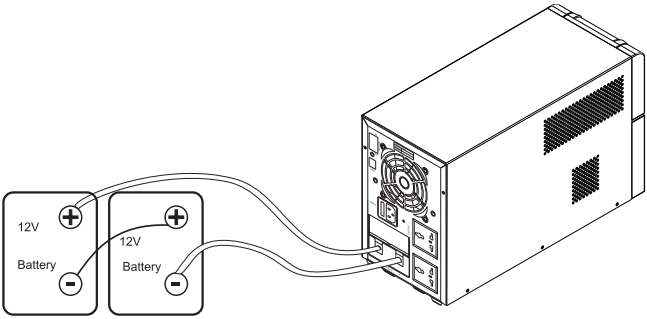
Recommendation: install a DC breaker to the positive terminal of the battery.

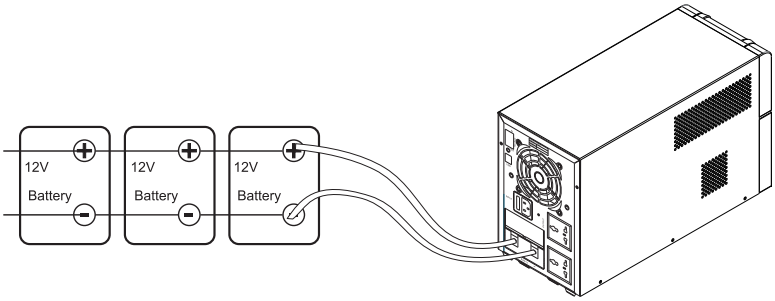
When using a single battery, the battery voltage must be equal to the rated DC voltage of the UPS.



If you use two or more batteries, they must have the same voltage and amperage (Ah). The sum of their voltage must be equal to the rated DC

voltage of the UPS.





Warnings:

Make sure you have connected the batteries correctly.

Make sure that you have correctly connected the cables between the UPS and the batteries.

Pay attention to the (+/-) polarity marked on the battery case.

The red cable must be connected to the positive (-) terminal and the black cable to the negative (-) terminal.

After you have made the connections, put the protective covers back.

Connections must be made by qualified personnel.

Power on/off the UPS

Warning: do not connect the input and the outputs of the UPS incorrectly.

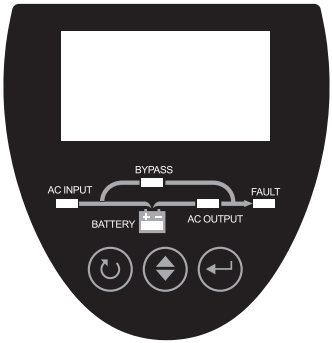
Connect the UPS power cable to the AC input of the UPS and to a 230V socket.

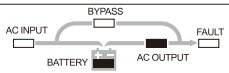
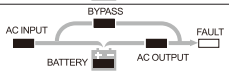
Warning: Even if the screen lights up when you connect the battery, the UPS is not turned on.

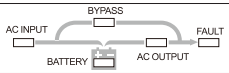
To turn on the UPS, press the ON button for 2-3 seconds. The UPS will confirm the start-up with a long beep. Different indicators will appear on the screen depending on the connections made. When the UPS is on, you can turn off the sound alert by briefly pressing the ON button. The icon appears on the screen. When the sound alert is active, the icon appears on the screen.

To turn off the UPS, press the OFF button for 2-3 seconds. The screen will turn off.

LED indicators

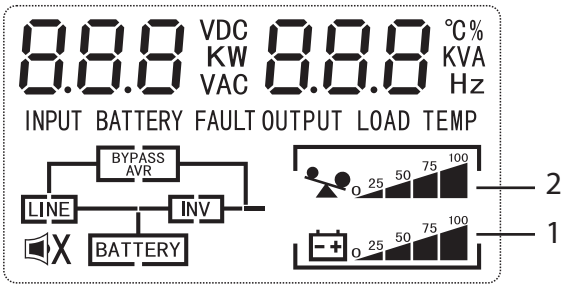


Operation mode	LED indicators
Backup mode	
Line mode	

Battery charging mode	

Warning	Description
Low battery voltage warning	Short beep every 2 seconds. The red LED blinks. On the screen, the icon blinks.
Overload warning	Short beep every 2 seconds. The red LED blinks. On the screen, the icon blinks.
Incorrect setting warning	Short beep every 2 seconds. The red LED blinks. On the screen, the icon BATTERY blinks.
Fault mode	Continuous sound. The red LED blinks.

The LCD screen



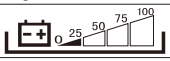
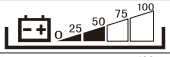
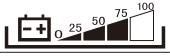
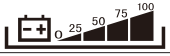
1. Battery level indicator

2. Load level indicator

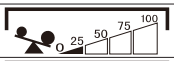
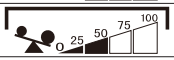
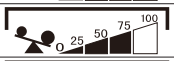
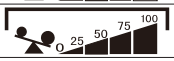
Battery information in AC mode. Battery charge status indicators

Mode	Battery charging	Battery level indicator
Constant current mode, constant voltage mode	0 - 25%	All bars will blink in turn.
	25 - 50%	The first bar will be lit. The rest of the bars will blink in turn.
	50 - 75%	The first two bars will be lit. The rest of the bars will blink in turn.
	75 - 100%	The first three bars will be lit. The fourth bar will blink.
Floating mode	Battery fully charged	All 4 bars of the will be lit.

Battery information in battery mode. Battery voltage level indicators

Battery voltage	Battery level indicator
0 - 25%	
25 - 50%	
50 - 75%	
75 - 100%	

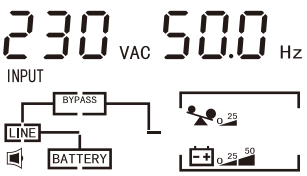
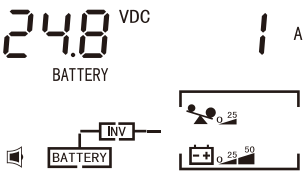
Load information

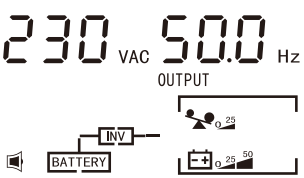
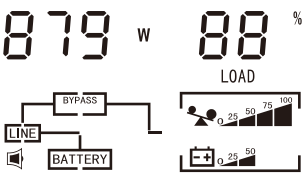
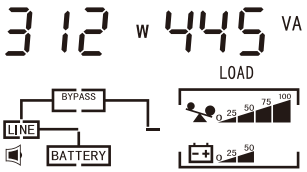
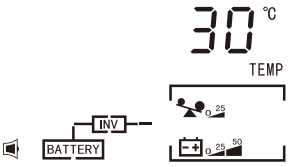
Load level	Load level indicator
0 - 25%	
25 - 50%	
50 - 75%	
75 - 100%	

When the icon blinks, it indicates overload.

Select information to be displayed on the screen

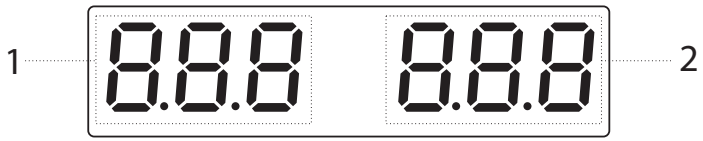
Press the key to display different information in turn.

Information	Display
Input	Input voltage = 230 V Input frequency = 50 Hz 
Battery	Battery voltage = 24.8 V Battery current = 1 A 

Output	Output voltage = 230 V Output frequency = 50 Hz 
Load	Power = 879 W Percentage = 88% 
Load	Power = 312 W Apparent power = 445 VA 
Temperature	Temperature = 30° 

Settings menu

Long press the key ↵ to access the settings menu. Briefly press the key again ↵ to access a specific menu and press the key ▲▼ to select an option. Long press the key ↻ to exit the menu. All settings will take effect after restarting the UPS.



1. Menu

2. Selectable option

Menu	Description	Options
03	Output voltage	220 V 03 220 V 230 V (default) 03 230 V
04	Output frequency	50 Hz (default) 04 50 Hz 60 Hz 04 60 Hz
07	Automatic restart when overload occurs	OFF (default) 07 Ltd ON 07 LtE
13	Maximum battery charging current from the mains	5 - 30 A (default 10 A) 13 10 A

14	Battery Type	Acid (default)  Lithium  If you have selected the Lithium option, in menus 17, 18 and 19 you can set the battery charging voltage and the low DC cut-off voltage
17	Charging voltage in the absorption phase*	12.0 - 14.5 V (default 14.1 V) 
18	Charging voltage in float phase*	12.0 - 14.5 V (default 13.6 V) 
19	Cut-off voltage	10.0 - 12.0 V (default 10.5 V) 
23	Screen backlight	OFF (default)  ON 
24	Buzzer	ON (default)  OFF 

29	AC charger	Enable grid charge (default)  Disable grid charge 
30	UPS function	ON (default)  OFF 

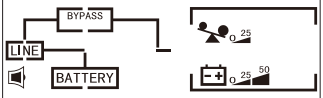
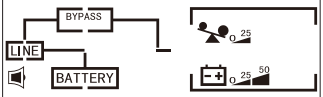
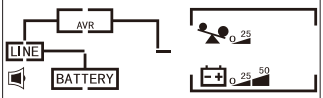
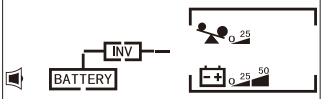
* If the float charge voltage is higher than the absorption voltage, a continuous alarm sound will be heard, the red LED will blink, and the icon BATTERY will blink.

Reset

If you want to reset all parameters, press and hold the key ⇕ and select the “DEF” option by pressing the key ⇕. Long press the key ↻ to exit. Restart the UPS.

Operating modes and indicators on the screen

Operating mode	Description	Display
Fault	The error code is displayed on the screen	

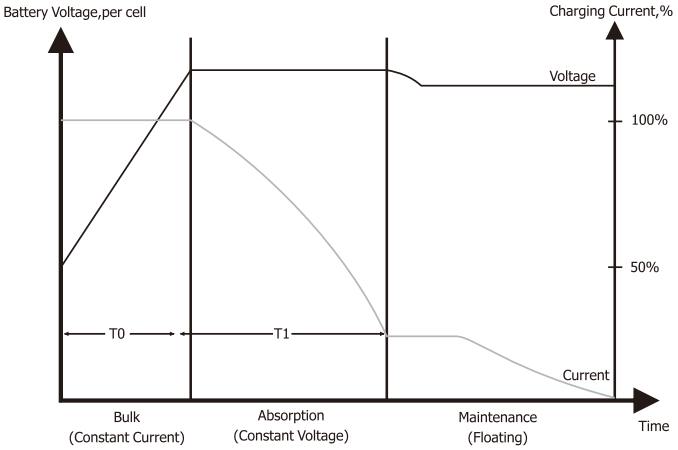
Charging mode	In this mode, the battery is charged from the mains. When the input voltage is abnormal, the UPS will shut down or go into error mode.	
Line mode	The input power will provide energy to the consumer and charge the battery at the same time. If the input voltage is different from 220V or 230V, the UPS will not work. If the input voltage is abnormal, the UPS will switch to battery mode.	 
Battery mode	The UPS will be powered from the battery and also the battery will provide power for the consumer.	

Charging mode

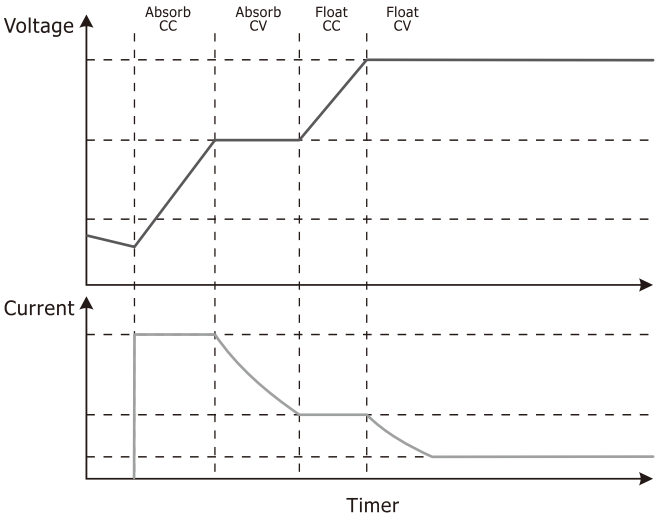
Battery voltage: 10 - 14.5 V DC

Charging steps: Boost CC - Boost CV - Boost FV

The charging algorithm of acid batteries



The charging algorithm of Lithium batteries



Fault codes

02	High temperature	41	Input voltage too low
03	Battery voltage too high	42	Input voltage too high
04	Battery voltage too low	43	Input frequency too low
05	Short-circuit on the output	44	Input frequency too high
06	High output voltage	45	AVR fault
07	Overload	51	Overcurrent
11	Main relay fault	58	Low output voltage

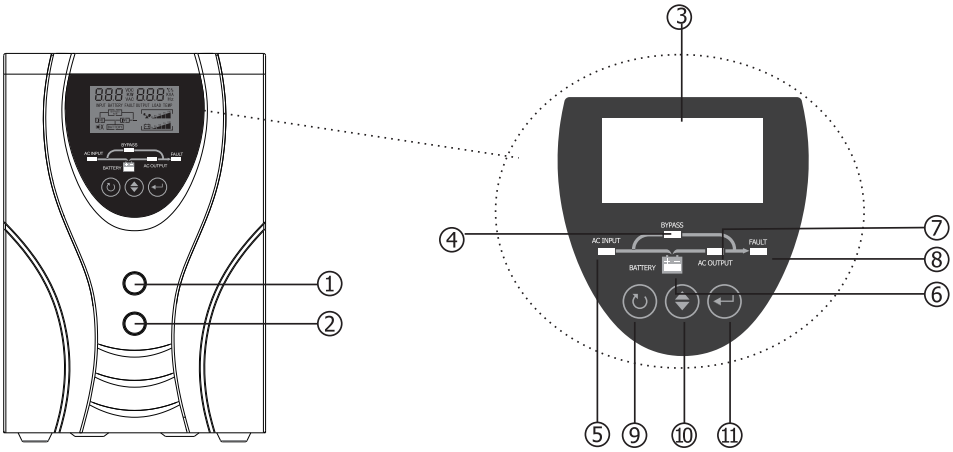
Troubleshooting

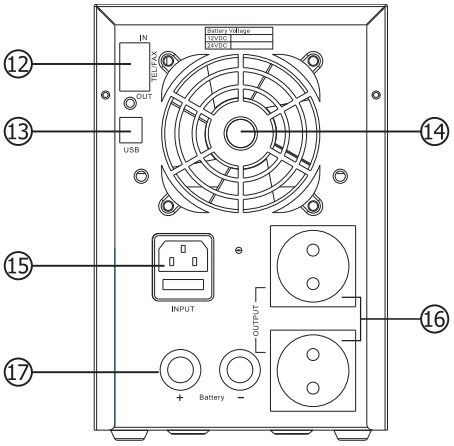
LED/Buzzer	Display	Possible cause	Solution
Buzzer	The icon BATTERY blinks	Battery discharged	Charge the battery
	The icon blinks	Overload	Remove one or more consumers
Buzzer and red LED on	02 - 58 fault code	Check the error code description in the table above	Remove the cause of the error according to the table above

Основни характеристики

Инвертор с чиста синусоида
Алгоритъм за зареждане в 3 стъпки
Защита от претоварване и късо съединение
Защита срещу обратна полярност
Защита от прекомерно разреждане
Регулируем ток на зареждане
Комуникационен интерфейс с компютъра
AVR функция

Преглед на продукта





1. Включете	10. Бутон за избор на информация
2. Изключете захранването	11. Бутон за потвърждение
3. LCD екран	12. Факс/тел
4. Байпас LED	13. USB
5. AC входен светодиод	14. Вентилатор
6. Светодиод на батерията	15. AC вход
7. AC изходен светодиод	16. AC изход
8. Светодиод за повреда	17. Вход за батерия
9. Назад (изход)	

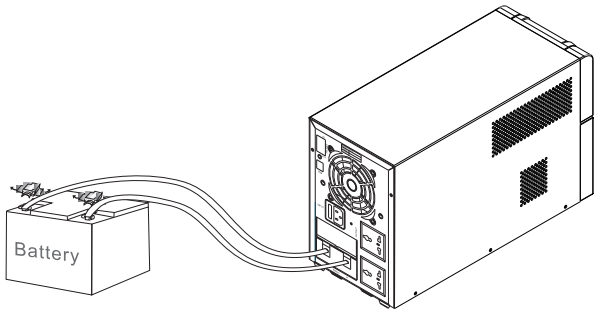
Свързване на батерията

Отстранете предпазните капачки от клемите на батерията.

Свържете свързващите кабели на UPS към клемите на батерията: червения кабел към положителния (+) извод, черния кабел към отрицателния (-) извод.

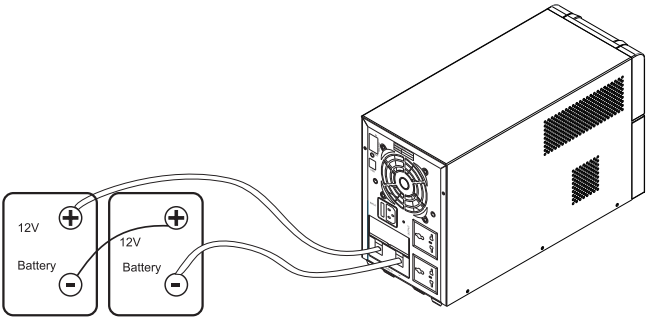
Препоръка: монтирайте DC прекъсвач към положителния полюс на акумулатора.

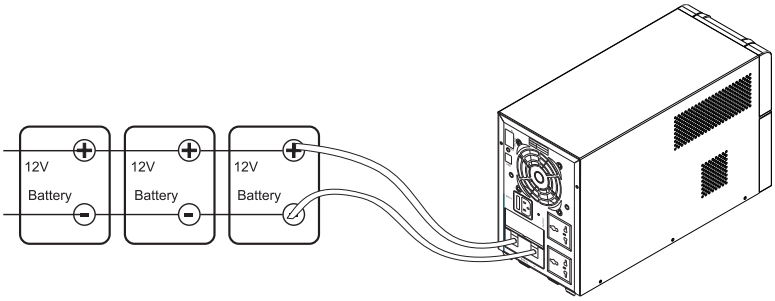
Когато използвате една батерия, напрежението на батерията трябва да бъде равно на номиналното постоянно напрежение на UPS.



Ако използвате две или повече батерии, те трябва да имат еднакъв

волтаж и ампераж (Ah). Сумата от тяхното напрежение трябва да бъде равна на номиналното постоянно напрежение на UPS.





Предупреждения:

Уверете се, че сте свързали правилно батериите.

Уверете се, че сте свързали правилно кабелите между UPS и батериите.

Обърнете внимание на полярността (+/-), отбелязана върху корпуса на батерията.

Червеният кабел трябва да бъде свързан към положителната (-) клема, а черният кабел към отрицателната (-) клема.

След като сте направили връзките, поставете обратно защитните капаци.

Връзките трябва да се извършват от квалифициран персонал.

Включете/изключете UPS

Предупреждение: не свързвайте неправилно входа и изхода на UPS.

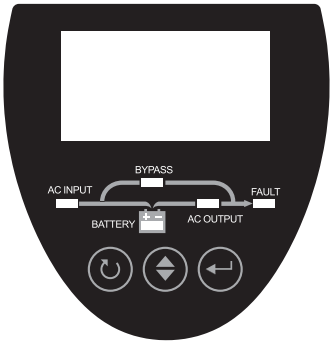
Свържете захранващия кабел на UPS към AC входа на UPS и към 230V контакт.

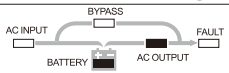
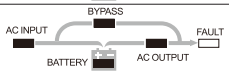
Предупреждение: Дори ако екранът светне, когато свържете батерията, UPS не е включен.

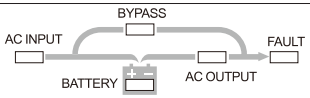
За да включите UPS, натиснете бутона ON за 2-3 секунди. UPS ще потвърди стартирането с дълъг звуков сигнал. На екрана ще се появят различни индикатори в зависимост от направените връзки. Когато UPS е включен, можете да изключите звуковия сигнал, като натиснете за кратко бутона ON. Иконата се появява на екрана. Когато звуковият сигнал е активен, иконата се появява на екрана.

За да изключите UPS, натиснете бутона OFF за 2-3 секунди. Екранът ще се изключи.

LED индикатори

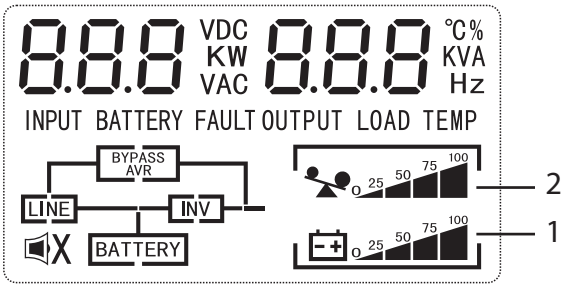


Режим на работа	LED индикатори
Резервен режим	
Линеен режим	

Режим на зареждане на батерията	

Предупреждение	**Описание**
Предупреждение за ниско напрежение на батерията	Кратък звуков сигнал на всеки 2 секунди. Червеният светодиод мига. На екрана иконата мига.
Предупреждение за претоварване	Кратък звуков сигнал на всеки 2 секунди. Червеният светодиод мига. На екрана иконата мига.
Предупреждение за неправилна настройка	Кратък звуков сигнал на всеки 2 секунди. Червеният светодиод мига. На екрана иконата BATTERY мига.
Режим на повреда	Непрекъснат звук. Червеният светодиод мига.

LCD екранът



1. Индикатор за нивото на батерията

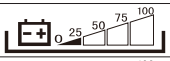
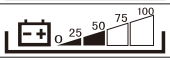
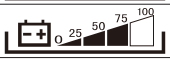
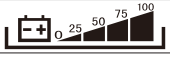
2. Индикатор за нивото на натоварване

Информация за батерията в AC режим. Индикатори за състоянието на заряд на батерията

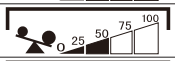
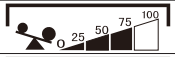
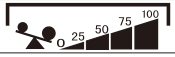
Mode	Battery charging	Индикатор за ниво на батерията
Режим на постоянен ток, режим на постоянно напрежение	0 - 25%	Всички ленти ще мигат последователно.
	25 - 50%	Първата лента ще светне. Останалите ленти ще мигат на свой ред.
	50 - 75%	Първите две ленти ще светят. Останалите ленти ще мигат на свой ред.
	75 - 100%	Първите три ленти ще светят. Четвъртата лента ще мига.
Floating режим	Батерията е напълно заредена	Всички 4 ленти на ще светят.

Информация за батерията в режим на батерия. Индикатори за нивото на напрежението на батерията

Напрежение на батерията	Индикатор за ниво на батерията

0 - 25%	
25 - 50%	
50 - 75%	
75 - 100%	

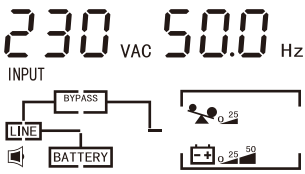
Заредете информация

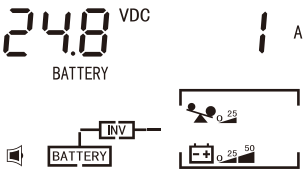
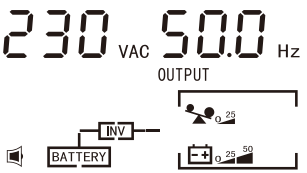
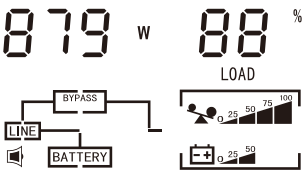
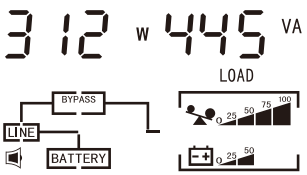
Ниво на натоварване	Индикатор за ниво на натоварване
0 - 25%	
25 - 50%	
50 - 75%	
75 - 100%	

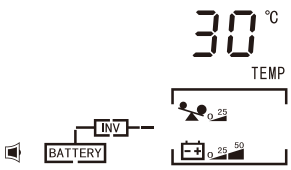
Когато иконата мига, показва претоварване.

Изберете информация, която да се показва на екрана

Натиснете клавиша за показване на различна информация на свой ред.

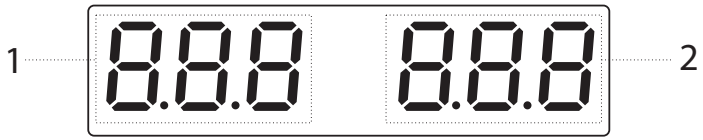
Информация	На дисплея
Вход	Входно напрежение = 230 V Входна честота = 50 Hz 

Батерия	Напрежение на батерията = 24,8V Ток на батерията = 1 A 
Изход	Изходно напрежение = 230 V Изходна честота = 50 Hz 
Заредете	Мощност = 879 W Процент = 88% 
Заредете	Мощност = 312 W Привидна мощност = 445 VA 

температура	температура = 30° 

Меню с настройки

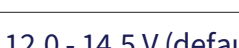
Натиснете продължително клавиша ↵ за достъп до менюто с настройки. Натиснете отново за кратко клавиша ↵ за достъп до конкретно меню и натиснете клавиша ▲▼ за да изберете опция. Натиснете продължително клавиша ↻ за да излезете от менюто. Всички настройки ще влязат в сила след рестартиране на UPS.



1. Меню

2. Опция за избор

Меню	**Описание**	**Опции**
03	Изходно напрежение	220 V  230 V (default) 
04	Изходна честота	50 Hz (default)  60 Hz 

07	Автоматично рестартиране при претоварване	OFF (default)  ON 
13	Максимален ток на зареждане на батерията от мрежата	5 - 30 A (default 10 A) 
14	Тип батерия	Киселина (default)  Lithium  Ако сте избрали опцията Lithium, в менюта 17, 18 и 19 можете да зададете напрежението за зареждане на батерията и ниското постоянно напрежение на прекъсване
17	Зарядно напрежение във фазата на абсорбция*	12.0 - 14.5 V (default 14.1 V) 
18	Зарядно напрежение в плаваща фаза*	12.0 - 14.5 V (default 13.6 V) 

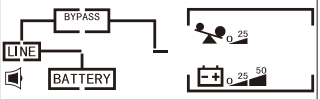
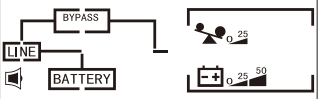
19	Напрежение на прекъсване	10.0 - 12.0 V (default 10.5 V) 
23	Подсветка на екрана	OFF (default)  ON 
24	зумер	ON (default)  OFF 
29	AC зарядно устройство	Enable grid charge (default)  Disable grid charge 
30	UPS функция	ON (default)  OFF 

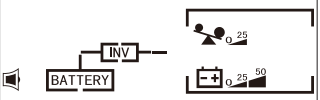
* Ако напрежението на плаващия заряд е по-високо от напрежението на абсорбция, ще се чуе непрекъснат алармен звук, червеният светодиод ще мига и иконата BATTERY ще мига.

Нулиране

Ако искате да нулирате всички параметри, натиснете и задръжте клавиша ⇕ и изберете опцията „DEF“, като натиснете клавиша ⇕. Натиснете продължително клавиша ↻ за излизане. Рестартирайте UPS.

Режими на работа и индикатори на екрана

Режим на работа	Описание	На дисплея
Грешка	Кодът за грешка се показва на екрана	
Режим на зареждане	В този режим батерията се зарежда от електрическата мрежа. Когато входното напрежение е необичайно, UPS ще се изключи или ще премине в режим на грешка.	
Линеен режим	Входящата мощност ще осигури енергия на потребителя и ще зареди батерията в същото време. Ако входното напрежение е различно от 220V или 230V, UPS няма да работи. Ако входното напрежение е необичайно, UPS ще превключи в режим на батерия.	 

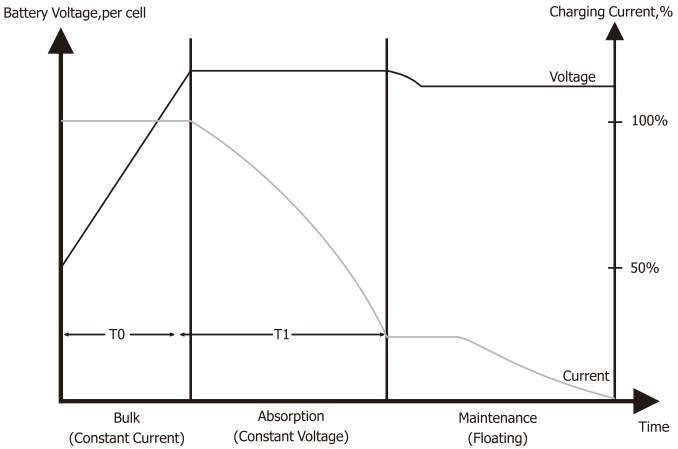
Режим на батерия	UPS ще се захранва от батерията, а освен това батерията ще осигурява захранване за потребителя.	

Режим на зареждане

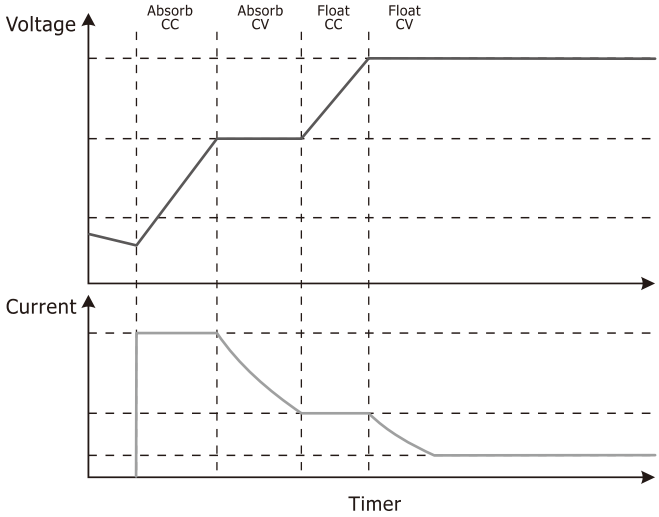
Напрежение на батерията: 10 - 14,5 V DC

Правило за зареждане: Boost CC - Boost CV - Boost FV

Алгоритъмът за зареждане на киселинни батерии



Алгоритъмът за зареждане на литиеви батерии



Кодове за грешки

02	Висока температура	41	Входното напрежение е твърде ниско
03	Напрежението на батерията е твърде високо	42	Входното напрежение е твърде високо
04	Напрежението на батерията е твърде ниско	43	Входящата честота е твърде ниска
05	Късо съединение на изхода	44	Входящата честота е твърде висока
06	Високо изходно напрежение	45	AVR грешка
07	Претоварване	51	Свръхток

11	Повреда на главното реле	58	Ниско изходно напрежение

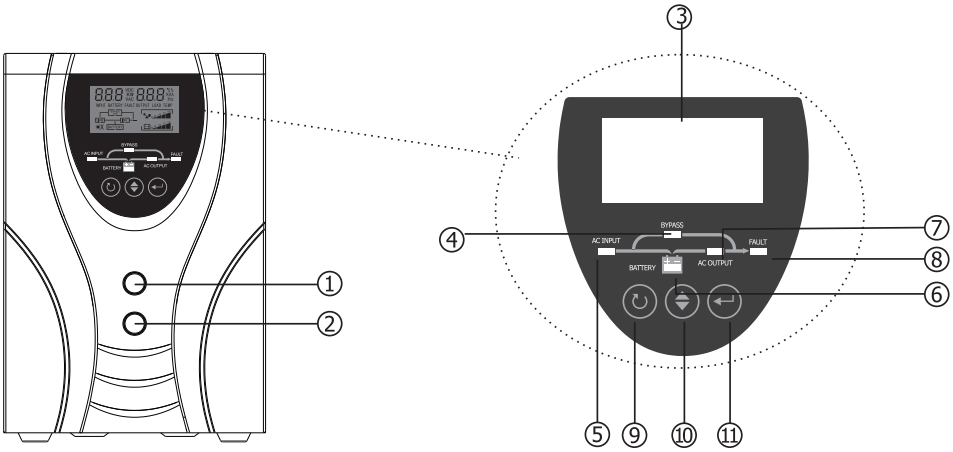
Отстраняване на неизправности

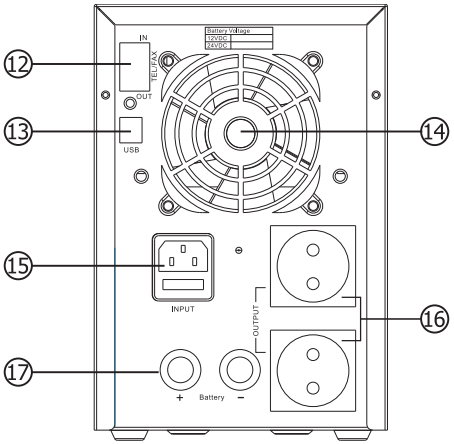
LED/Buzzer	**Display**	**Възможна причина**	**Решение**
Зумер	Иконата BATTERY мига	Батерията е разредена	Заредете батерията
	Иконата мига	Претоварване	Премахнете един или повече потребители
Зумер и червен светодиод светят	02 - 58 код за грешка	Проверете описанието на кода за грешка в таблицата по-горе	Отстранете причината за грешката според таблицата по-горе

Grundfunktionen

Wechselrichter mit reiner Sinuswelle
3-stufiger Ladealgorithmus
Überlast- und Kurzschlussschutz
Verpolungsschutz
Überentladungsschutz
Einstellbarer Ladestrom
Kommunikationsschnittstelle mit dem Computer
AVR-Funktion

Produktübersicht





1. Einschalten	10. Informationsauswahltaste
2. Ausschalten	11. Bestätigungstaste
3. LCD-Bildschirm	12. Fax/Tel
4. Bypass-LED	13. USB
5. AC-Eingangs-LED	14. Lüfter
6. Batterie-LED	15. AC-Eingang
7. AC-Ausgangs-LED	16. AC-Ausgang
8. Fehler-LED	17. Batterieeingang
9. Zurück (Beenden)	

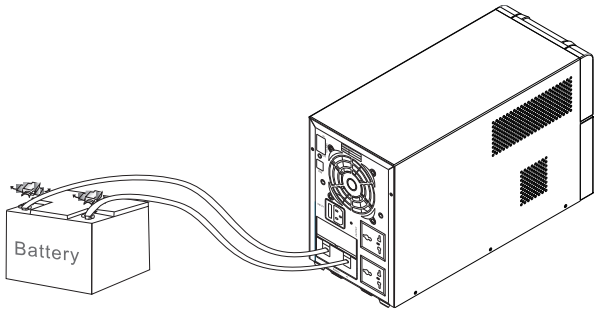
Batterieanschluss

Entfernen Sie die Schutzkappen von den Batterieklemmen.

Schließen Sie die USV-Anschlusskabel an die Batterieklemmen an: das rote Kabel an den Pluspol (+), das schwarze Kabel an den Minuspol (-).

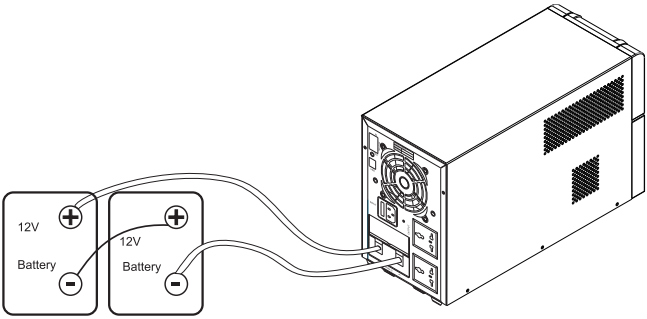
Empfehlung: Installieren Sie einen Gleichstromunterbrecher am Pluspol der Batterie.

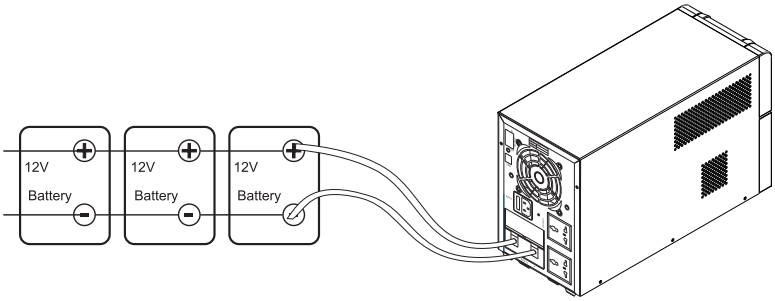
Bei Verwendung einer einzelnen Batterie muss die Batteriespannung der Nenngleichspannung der USV entsprechen.



Wenn Sie zwei oder mehr Batterien verwenden, müssen diese die gleiche Spannung und Stromstärke (Ah) haben. Die Summe ihrer Spannung muss

der Nenngleichspannung der USV entsprechen..





Warnungen:

Stellen Sie sicher, dass Sie die Batterien richtig angeschlossen haben.

Stellen Sie sicher, dass Sie die Kabel zwischen der USV und den Batterien richtig angeschlossen haben.

Achten Sie auf die (+/-) Polarität, die auf dem Batteriegehäuse markiert ist.

Das rote Kabel muss an den Pluspol (-) und das schwarze Kabel an den Minuspol (-) angeschlossen werden.

Nachdem Sie die Anschlüsse vorgenommen haben, setzen Sie die Schutzabdeckungen wieder auf.

Die Anschlüsse müssen von qualifiziertem Personal vorgenommen werden.

USV ein-/ausschalten

Warnung: Schließen Sie die Ein- und Ausgänge der USV nicht falsch an.

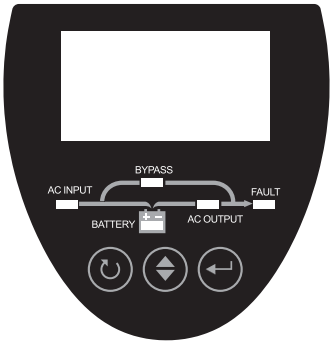
Schließen Sie das USV-Stromkabel an den AC-Eingang der USV und an eine 230-V-Steckdose an.

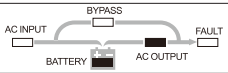
Warnung: Auch wenn der Bildschirm beim Anschließen der Batterie aufleuchtet, ist die USV nicht eingeschaltet.

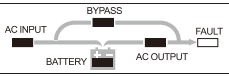
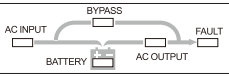
Um die USV einzuschalten, drücken Sie die ON-Taste 2-3 Sekunden lang. Die USV bestätigt den Start mit einem langen Piepton. Je nach den vorgenommenen Verbindungen werden auf dem Bildschirm unterschiedliche Anzeigen angezeigt. Wenn die USV eingeschaltet ist, können Sie den akustischen Alarm durch kurzes Drücken der ON-Taste ausschalten. Das Symbol erscheint auf dem Bildschirm. Wenn der Tonalarm aktiv ist, wird das Symbol erscheint auf dem Bildschirm.

Um die USV auszuschalten, drücken Sie die OFF-Taste 2-3 Sekunden lang. Der Bildschirm wird ausgeschaltet.

LED-Anzeigen

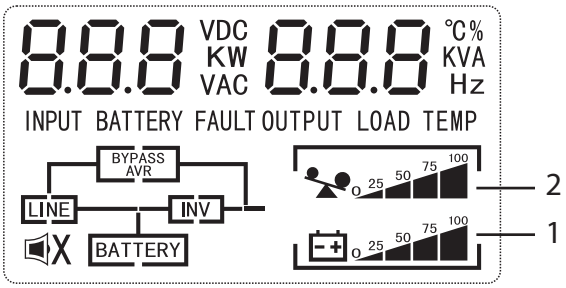


Betriebsmodus	**LED-Anzeigen**
Backup-Modus	

Line-Modus	
Batterielademodus	

Warnung	**Beschreibung**
Warnung vor niedriger Batteriespannung	Kurzer Piepton alle 2 Sekunden. Die rote LED blinkt. Auf dem Bildschirm erscheint das Symbol blinkt.
Warnung vor Überlastung	Kurzer Piepton alle 2 Sekunden. Die rote LED blinkt. Auf dem Bildschirm erscheint das Symbol blinkt.
Warnung vor falscher Einstellung	Kurzer Piepton alle 2 Sekunden. Die rote LED blinkt. Auf dem Bildschirm erscheint das Symbol BATTERY blinkt.
Fehlermodus	Dauerton. Die rote LED blinkt.

Der LCD-Bildschirm



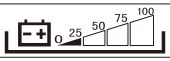
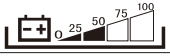
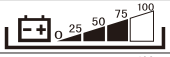
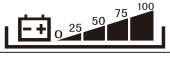
1. Batteriestandsanzeige

2. Ladezustandsanzeige

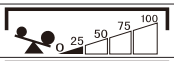
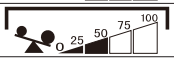
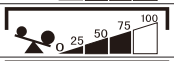
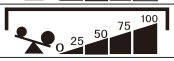
Batterieinformationen im AC-Modus. Batterieladestatusanzeigen

Modus	Batterie wird geladen	Batteriestandsanzeige
Konstantstrommodus, Konstantspannungs modus	0 - 25 %	Alle Balken blinken nacheinander.
	25 - 50 %	Der erste Balken leuchtet. Die restlichen Balken blinken nacheinander.
	50 - 75 %	Die ersten beiden Balken leuchten. Die restlichen Balken blinken nacheinander.
	75 - 100 %	Die ersten drei Balken leuchten. Der vierte Balken blinkt.
Floating-Modus	Batterie vollständig geladen	Alle 4 Balken leuchten.

Batterieinformationen im Batteriemodus. Batteriespannungspegelanzeigen

Batteriespannung	Batteriestandsanzeige
0 - 25%	
25 - 50%	
50 - 75%	
75 - 100%	

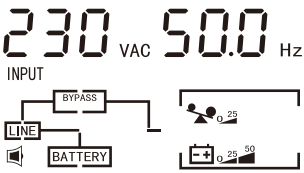
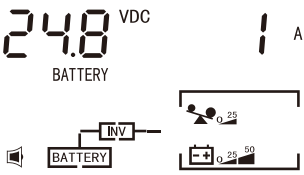
Informationen laden

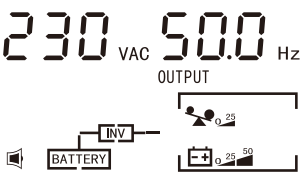
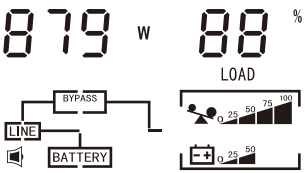
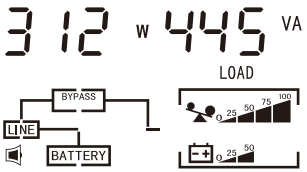
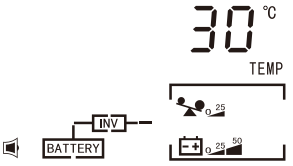
Belastungsstufe	Ladestandsanzeige
0 - 25%	
25 - 50%	
50 - 75%	
75 - 100%	

Wenn das Symbol blinkt, weist dies auf eine Überlastung hin.

Wählen Sie die auf dem Bildschirm anzuzeigenden Informationen aus

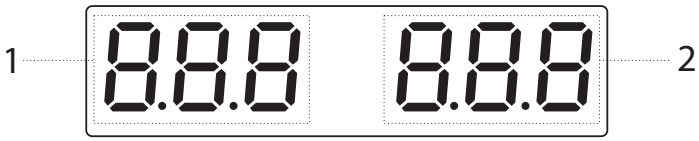
Drücken Sie die Taste um abwechselnd verschiedene Informationen anzuzeigen.

Informationen	Display
Eingang	Eingangsspannung = 230 V Eingangsfrequenz = 50 Hz 
Batterie	Batteriespannung = 24,8 V Batteriestrom = 1 A 

Ausgang	Ausgangsspannung = 230 V Ausgangsfrequenz = 50 Hz 
Last	Leistung = 879 W Prozentsatz = 88 % 
Last	Leistung = 312 W Scheinleistung = 445 VA 
Temperatur	Temperatur = 30° 

Einstellungsmenü

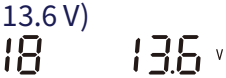
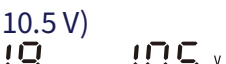
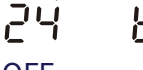
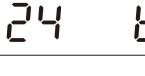
Drücken Sie lange die Taste ↵ um in das Einstellungsmenü zu gelangen. Drücken Sie die Taste erneut kurz ↵ um ein bestimmtes Menü aufzurufen und drücken Sie die Taste ⇕, um eine Option auszuwählen. Drücken Sie lange die Taste ↻, um das Menü zu verlassen. Alle Einstellungen werden nach einem Neustart der USV wirksam..



1. Menü

2. Auswählbare Option

Menü	Beschreibung	Optionen
03	Ausgangsspannung	220 V 03 220 V 230 V (default) 03 230 V
04	Ausgangsfrequenz	50 Hz (default) 04 50 Hz 60 Hz 04 60 Hz
07	Automatischer Neustart bei Überlastung	OFF (default) 07 LHd ON 07 LHE
13	Maximaler Batterieladestrom vom Netz	5 - 30 A (default 10 A) 13 10 A

14	Batterietyp	Acid (default)  Lithium  Wenn Sie die Option Lithium gewählt haben, können Sie in den Menüs 17, 18 und 19 die Ladespannung der Batterie und die niedrige DC-Abschaltspannung einstellen.
17	Ladespannung in der Konstantspannungs phase*	12.0 - 14.5 V (default 14.1 V) 
18	Ladespannung in der Erhaltungsphase*	12.0 - 14.5 V (default 13.6 V) 
19	Abschaltspannung	10.0 - 12.0 V (default 10.5 V) 
23	Bildschirmbele uchtung	OFF (default)  ON 
24	Summer	ON (default)  OFF 

29	AC-Ladegerät	Enable grid charge (default)  Disable grid charge 
30	USV-Funktion	ON (default)  OFF 

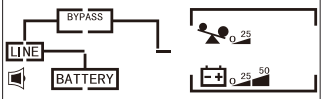
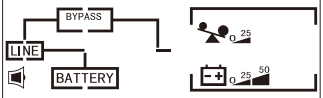
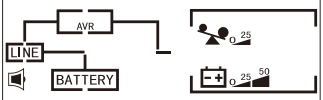
*Wenn die Erhaltungsladespannung höher ist als die Konstantspannung, ertönt ein kontinuierlicher Alarmton, die rote LED blinkt und das Symbol BATTERY blinkt.

Reset

Wenn Sie alle Parameter zurücksetzen möchten, halten Sie die Taste gedrückt ⏎ und wählen Sie die Option „DEF“ durch Drücken der Taste ⏎. Drücken Sie lange die Taste ↻ zum Beenden. Starten Sie die USV neu.

Betriebsarten und Anzeigen auf dem Bildschirm

Betriebsmodus	**Beschreibung**	**Display**
Fehler	Der Fehlercode wird auf dem Bildschirm angezeigt	

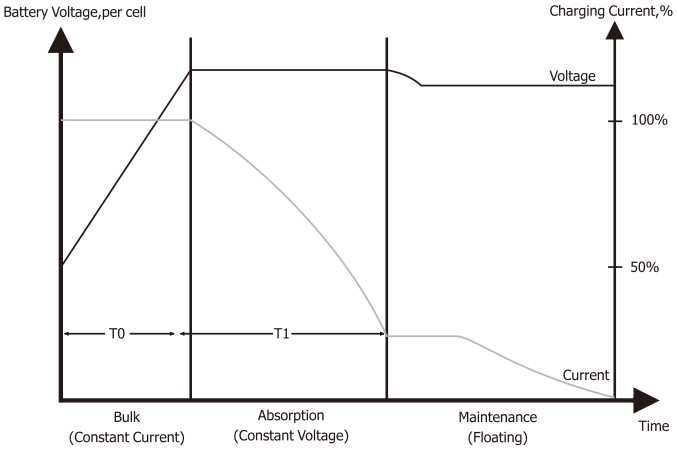
Lademodus	In diesem Modus wird die Batterie über das Stromnetz geladen. Wenn die Eingangsspannung anormal ist, schaltet sich die USV ab oder wechselt in den Fehlermodus.	
Netzmodus	Die Eingangsleistung versorgt den Verbraucher mit Energie und lädt gleichzeitig die Batterie auf. Wenn die Eingangsspannung von 220 V oder 230 V abweicht, funktioniert die USV nicht. Wenn die Eingangsspannung anormal ist, wechselt die USV in den Batteriemodus.	 
Batteriemodus	Die USV wird über die Batterie mit Strom versorgt und die Batterie versorgt auch den Verbraucher mit Strom.	

Lademodus

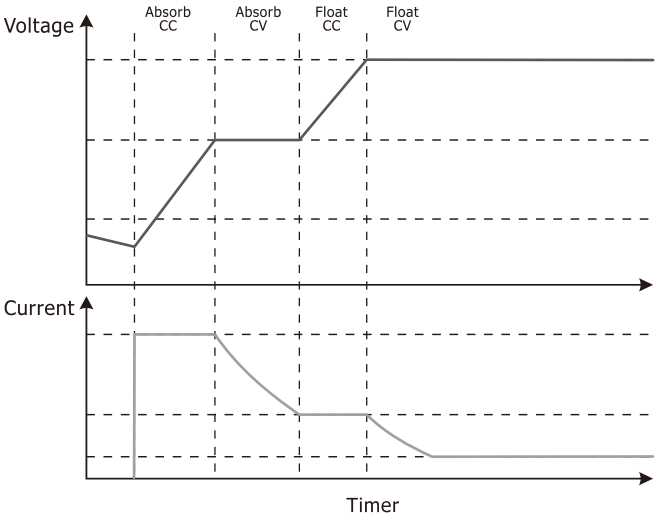
Batteriespannung: 10 - 14,5 V DC

Ladeschritte: Boost CC - Boost CV - Boost FV

Der Ladealgorithmus von Säurebatterien



Der Ladealgorithmus von Lithiumbatterien



Fehlercodes

02	Hohe Temperatur	41	Eingangsspannung zu niedrig
03	Batteriespannung zu hoch	42	Eingangsspannung zu hoch
04	Batteriespannung zu niedrig	43	Eingangsfrequenz zu niedrig
05	Kurzschluss am Ausgang	44	Eingangsfrequenz zu hoch
06	Hohe Ausgangsspannung	45	AVR-Fehler
07	Überlast	51	Überstrom
11	Hauptrelaisfehler	58	Niedrige Ausgangsspannung

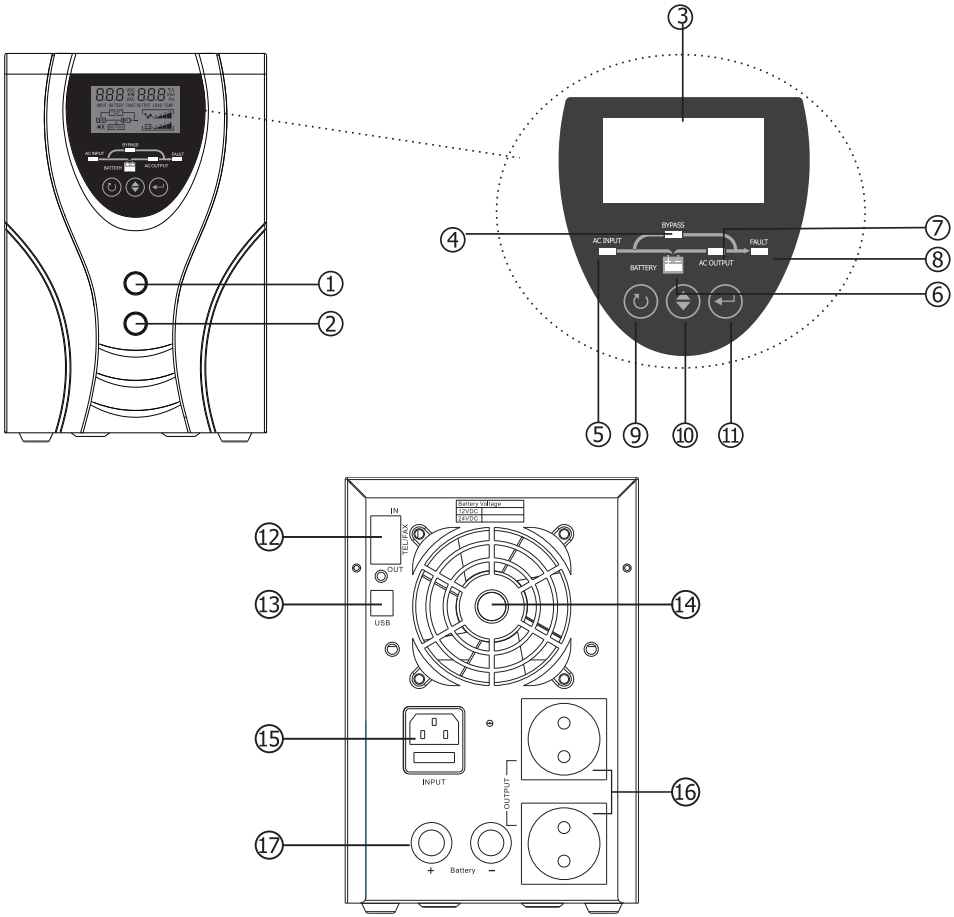
Fehlerbehebung

LED/Summer	Display	Mögliche Ursache	Lösung
Summer	Das Symbol BATTERY blinkt	Batterie entladen	Batterie laden
	Das Symbol blinkt	Überlastung	Einen oder mehrere Verbraucher entfernen
Summer und rote LED an	02 - 58 Fehlercode	Überprüfen Sie die Fehlercodebeschreibung in der Tabelle oben	Fehlerursache gemäß obiger Tabelle beheben

Características básicas

Inversor de onda sinusoidal pura
Algoritmo de carga de 3 pasos
Protección contra sobrecarga y cortocircuito
Protección contra polaridad inversa
Protección contra sobredescarga
Corriente de carga ajustable
Interfaz de comunicación con el ordenador
Función AVR

Descripción general del producto



1. Encendido	10. Botón de selección de información
2. Apagado	11. Botón de confirmación
3. Pantalla LCD	12. Fax/Tel
4. LED de bypass	13. USB
5. LED de entrada de CA	14. Ventilador
6. LED de batería	15. Entrada de CA
7. LED de salida de CA	16. Salida de CA
8. LED de falla	17. Entrada de batería
9. Atrás (salir)	

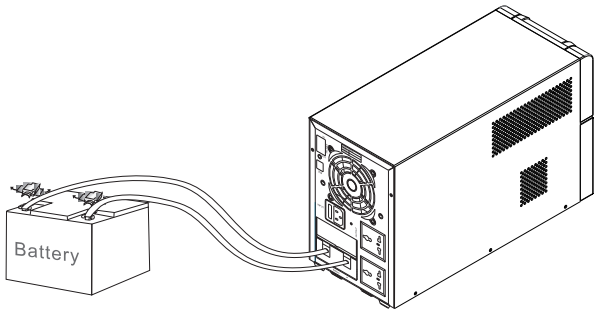
Conexión de la batería

Retire las tapas protectoras de los terminales de la batería.

Conecte los cables de conexión del SAI a los terminales de la batería: el cable rojo al terminal positivo (+), el cable negro al terminal negativo (-).

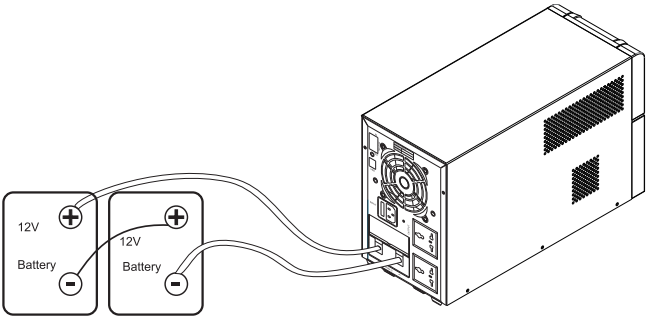
Recomendación: instale un disyuntor de CC en el terminal positivo de la batería.

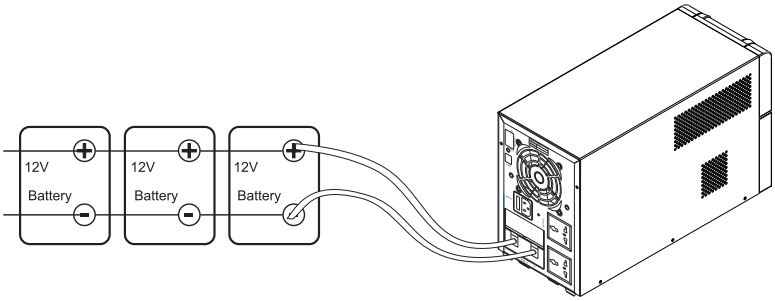
Si se utiliza una sola batería, el voltaje de la batería debe ser igual al voltaje de CC nominal del SAI.



Si utiliza dos o más baterías, deben tener el mismo voltaje y amperaje (Ah).

La suma de sus voltajes debe ser igual al voltaje de CC nominal del SAI..





Advertencias:

Asegúrese de haber conectado correctamente las baterías.

Asegúrese de haber conectado correctamente los cables entre el SAI y las baterías.

Preste atención a la polaridad (+/-) marcada en la carcasa de la batería.

El cable rojo debe estar conectado al terminal positivo (-) y el cable negro al terminal negativo (-).

Después de haber realizado las conexiones, vuelva a colocar las tapas protectoras.

Las conexiones deben ser realizadas por personal cualificado.

Encendido/apagado del SAI

Atención: no conecte incorrectamente la entrada y las salidas del SAI.

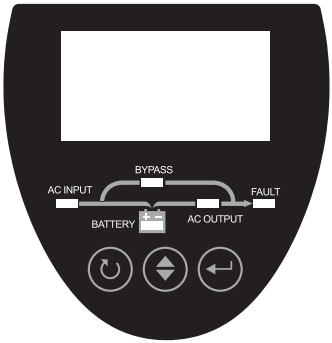
Conecte el cable de alimentación del SAI a la entrada CA del SAI y a una toma de 230 V.

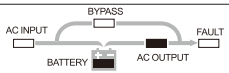
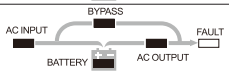
Atención: Aunque la pantalla se ilumine al conectar la batería, el SAI no se enciende.

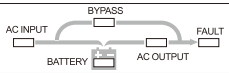
Para encender el SAI, pulse el botón ON durante 2-3 segundos. El SAI confirmará el encendido con un pitido largo. En la pantalla aparecerán diferentes indicadores en función de las conexiones realizadas. Cuando el SAI esté encendido, puede desactivar la alerta sonora pulsando brevemente el botón ON. El icono aparece en la pantalla. Cuando la alerta sonora está activa, el icono aparece en la pantalla.

Para apagar el SAI, pulse el botón OFF durante 2-3 segundos. La pantalla se apagará.

Indicadores LED

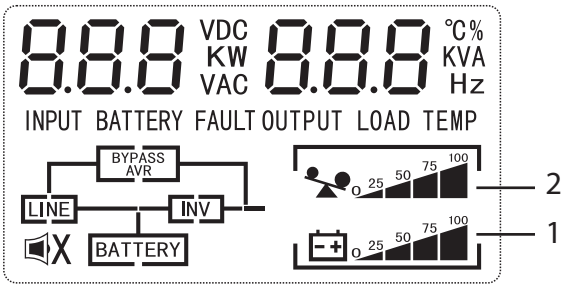


Modo de funcionamiento	Indicadores LED
Modo de respaldo	
Modo de línea	

Modo de carga de batería	

Advertencia	**Descripción**
Advertencia de bajo voltaje de batería	Pitido corto cada 2 segundos. El LED rojo parpadea. En la pantalla, el icono parpadea.
Advertencia de sobrecarga	Pitido corto cada 2 segundos. El LED rojo parpadea. En la pantalla, el icono parpadea.
Advertencia de configuración incorrecta	Pitido corto cada 2 segundos. El LED rojo parpadea. En la pantalla, el icono BATTERY parpadea.
Modo de falla	Sonido continuo. El LED rojo parpadea..

La pantalla LCD



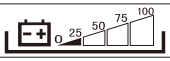
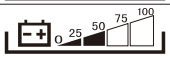
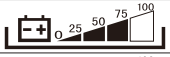
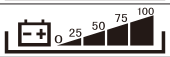
1. Indicador de nivel de batería

2. Indicador de nivel de carga

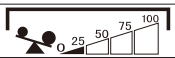
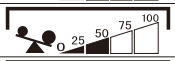
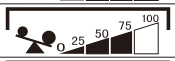
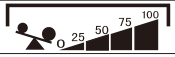
Información de la batería en modo CA. Indicadores del estado de carga de la batería

Modo	Carga de la batería	Indicador de nivel de batería
Modo de corriente constante, modo de voltaje constante	0 - 25%	Todas las barras parpadearán una a una.
	25 - 50%	La primera barra se encenderá. El resto de las barras parpadearán una a una.
	50 - 75%	Las dos primeras barras se encenderán. El resto de las barras parpadearán una a una.
	75 - 100%	Las tres primeras barras se encenderán. La cuarta barra parpadeará.
Modo flotante	Batería completamente cargada	Las 4 barras del estarán encendidas.

Información de la batería en modo batería. Indicadores del nivel de voltaje de la batería

Voltaje de la batería	Indicador de nivel de batería
0 - 25%	
25 - 50%	
50 - 75%	
75 - 100%	

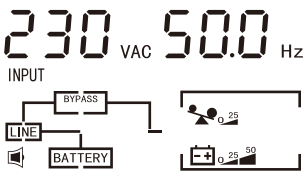
Información de carga

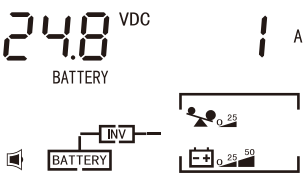
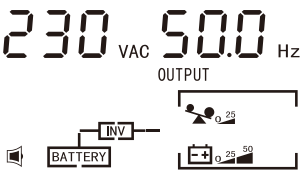
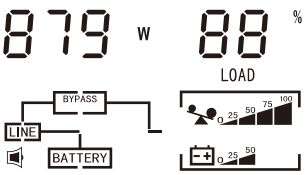
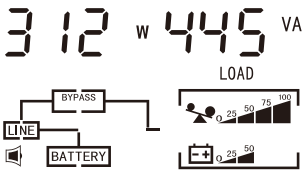
Nivel de carga	Indicador de nivel de carga
0 - 25%	
25 - 50%	
50 - 75%	
75 - 100%	

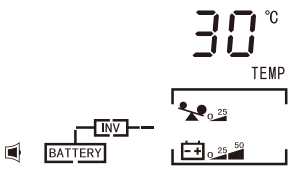
Cuando el icono parpadea, indica sobrecarga.

Seleccione la información que se mostrará en la pantalla

Presione la tecla para mostrar información diferente a su vez.

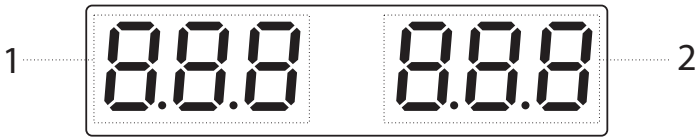
Información	Display
Entrada	Tensión de entrada = 230 V Frecuencia de entrada = 50 Hz 

Batería	Voltaje de la batería = 24,8 V Corriente de la batería = 1 A 
Salida	Tensión de salida = 230 V Frecuencia de salida = 50 Hz 
Carga	Potencia = 879 W Porcentaje = 88% 
Carga	Potencia = 312 W Potencia aparente = 445 VA 

Temperatura	Temperatura = 30° 

Menú de configuración

Mantenga pulsada la tecla ↵ Para acceder al menú de ajustes, pulsar brevemente la tecla de nuevo ↵ para acceder a un menú específico y pulsar la tecla ↕ Para seleccionar una opción, mantenga pulsada la tecla ↻ para salir del menú. Todos los ajustes tendrán efecto después de reiniciar el SAI..



1. Menú

2. Opción seleccionable

Menú	Descripción	Opciones
03	Voltaje de salida	220 V 03 220 V 230 V (default) 03 230 V
04	Frecuencia de salida	50 Hz (default) 04 50 Hz 60 Hz 04 60 Hz

07	Reinicio automático en caso de sobrecarga	OFF (default)  ON 
13	Corriente máxima de carga de la batería desde la red eléctrica	5 - 30 A (default 10 A) 
14	Tipo de batería	Acid (default)  Lithium  Si ha seleccionado la opción Litio, en los menús 17, 18 y 19 puede configurar el voltaje de carga de la batería y el voltaje de corte de CC bajo.
17	Voltaje de carga en fase de absorción*	12.0 - 14.5 V (default 14.1 V) 
18	Voltaje de carga en fase de flotación*	12.0 - 14.5 V (default 13.6 V) 
19	Voltaje de corte	10.0 - 12.0 V (default 10.5 V) 

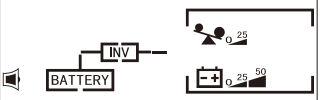
23	Retroiluminación de la pantalla	OFF (default)  ON 
24	Zumbador	ON (default)  OFF 
29	Cargador de CA	Habilitar la carga de red (default)  Habilitar la carga de red 
30	Función SAI	ON (default)  OFF 

* Si el voltaje de carga de flotación es mayor que el voltaje de absorción, se escuchará un sonido de alarma continuo, el LED rojo parpadeará y el ícono BATTERY parpadeará.

Reset

Si desea restablecer todos los parámetros, mantenga presionada la tecla ⇕ y seleccione la opción “DEF” presionando la tecla ⇕ . Mantenga pulsada la tecla ↻ Para salir, reinicie el SAI..

Modos de funcionamiento e indicadores en pantalla

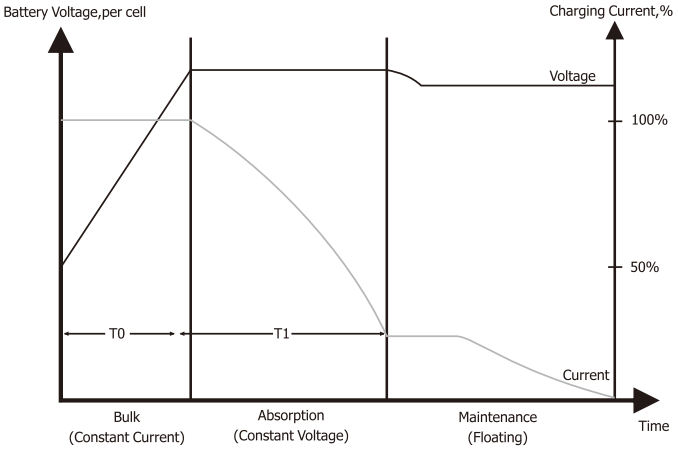
Modo de funcionamiento	**Descripción**	**Display**
Avería	El código de error se muestra en la pantalla	
Modo de carga	En este modo, la batería se carga desde la red eléctrica. Cuando el voltaje de entrada es anormal, el SAI se apagará o entrará en modo de error.	
Modo de línea	La potencia de entrada proporcionará energía al consumidor y cargará la batería al mismo tiempo. Si el voltaje de entrada es diferente de 220 V o 230 V, el SAI no funcionará. Si el voltaje de entrada es anormal, el SAI cambiará al modo de batería.	 
Modo de batería	El UPS se alimentará de la batería y también la batería proporcionará energía al consumidor..	

Modo de carga

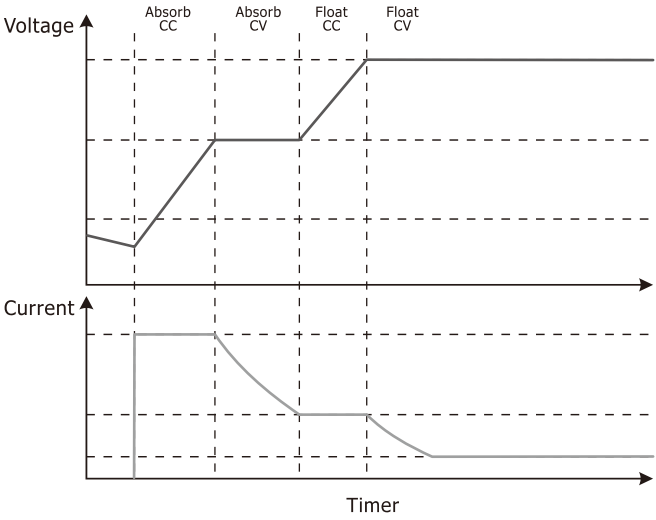
Voltaje de la batería: 10 - 14,5 V CC

Pasos de carga: Boost CC - Boost CV - Boost FV

Algoritmo de carga de baterías ácidas



Algoritmo de carga de las baterías de litio



Códigos de avería

02	Alta temperatura	41	Voltaje de entrada demasiado bajo
03	Tensión de la batería demasiado alta	42	Voltaje de entrada demasiado alto
04	Tensión de la batería demasiado baja	43	Frecuencia de entrada demasiado baja
05	Cortocircuito en la salida	44	Frecuencia de entrada demasiado alta
06	Tensión de salida alta	45	Falla del AVR
07	Sobrecarga	51	Sobrecorriente
11	Falla del relé principal	58	Voltaje de salida bajo

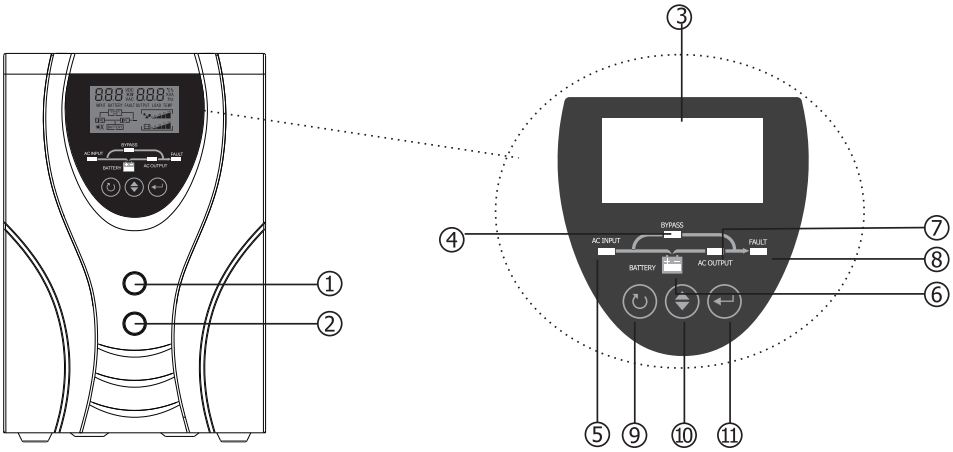
Solución de problemas

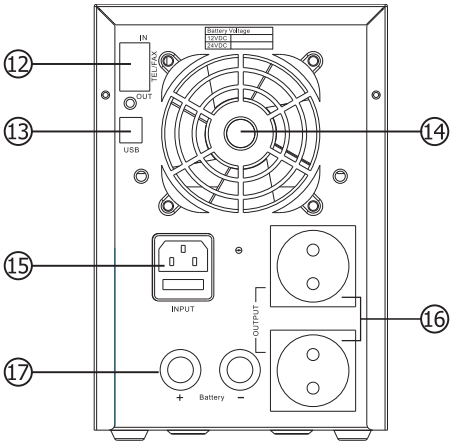
LED/Zumbador	Display	Posible causa	Solución
Zumbador	El icono BATTERY parpadea	Batería descargada	Cargar la batería
	El icono parpadea	Sobrecarga	Retirar uno o más consumidores
Zumbador y LED rojo encendidos	Código de avería 02 - 58	Consulte la descripción del código de error en la tabla anterior	Eliminar la causa del error según la tabla anterior

Caractéristiques de base

Onduleur à onde sinusoïdale pure
Algorithme de charge en 3 étapes
Protection contre les surcharges et les courts-circuits
Protection contre l'inversion de polarité
Protection contre les décharges excessives
Courant de charge réglable
Interface de communication avec l'ordinateur
Fonction AVR

Présentation du produit





1. Mise sous tension	10. Bouton de sélection des informations
2. Mise hors tension	11. Bouton de confirmation
3. Écran LCD	12. Fax/Tél
4. LED de dérivation	13. USB
5. LED d'entrée CA	14. Ventilateur
6. LED de batterie	15. Entrée secteur
7. LED de sortie CA	16. Sortie secteur
8. LED de panne	17. Entrée batterie
9. Retour (sortie)	

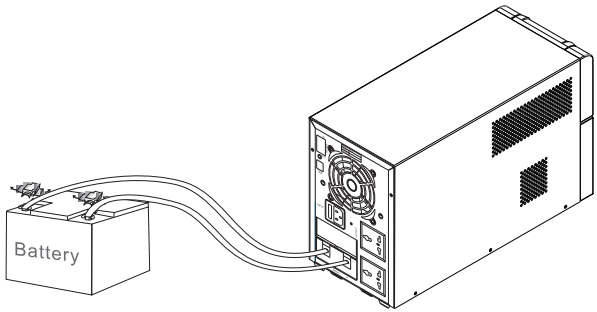
Connexion de la batterie

Retirez les capuchons de protection des bornes de la batterie.

Connectez les câbles de connexion de l'onduleur aux bornes de la batterie : le câble rouge à la borne positive (+), le câble noir à la borne négative (-).

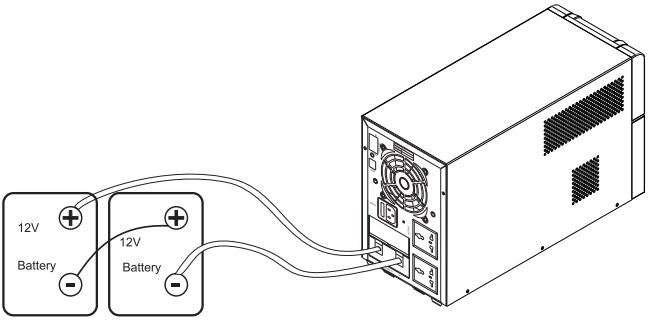
Recommandation : installez un disjoncteur CC sur la borne positive de la batterie.

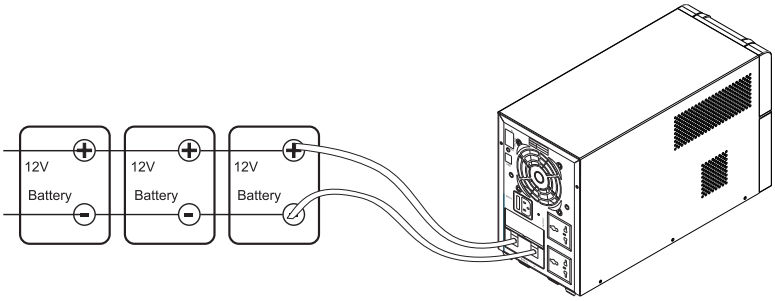
En cas d'utilisation d'une seule batterie, la tension de la batterie doit être égale à la tension CC nominale de l'onduleur.



Si vous utilisez deux batteries ou plus, elles doivent avoir la même tension

et le même ampérage (Ah). La somme de leur tension doit être égale à la tension CC nominale de l'onduleur.





Avertissements :

Assurez-vous d'avoir correctement connecté les batteries.

Assurez-vous d'avoir correctement connecté les câbles entre l'onduleur et les batteries.

Faites attention à la polarité (+/-) indiquée sur le boîtier de la batterie.

Le câble rouge doit être connecté à la borne positive (-) et le câble noir à la borne négative (-).

Après avoir effectué les connexions, remettez les couvercles de protection.

Les connexions doivent être effectuées par du personnel qualifié.

Allumer/éteindre l'onduleur

Attention : ne pas connecter l'entrée et les sorties de l'onduleur de manière incorrecte.

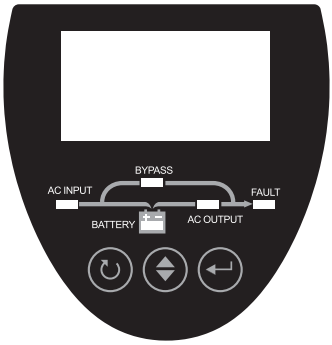
Connecter le câble d'alimentation de l'onduleur à l'entrée AC de l'onduleur et à une prise 230V.

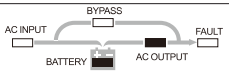
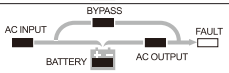
Attention : Même si l'écran s'allume lorsque vous connectez la batterie, l'onduleur n'est pas allumé.

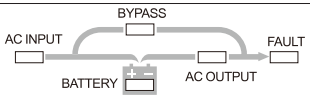
Pour allumer l'onduleur, appuyez sur le bouton ON pendant 2-3 secondes. L'onduleur confirmera le démarrage par un long bip. Différents indicateurs apparaîtront sur l'écran en fonction des connexions effectuées. Lorsque l'onduleur est allumé, vous pouvez désactiver l'alerte sonore en appuyant brièvement sur le bouton ON. L'icône apparaît sur l'écran. Lorsque l'alerte sonore est active, l'icône apparaît sur l'écran.

Pour éteindre l'onduleur, appuyez sur le bouton OFF pendant 2 à 3 secondes. L'écran s'éteint.

Indicateurs LED

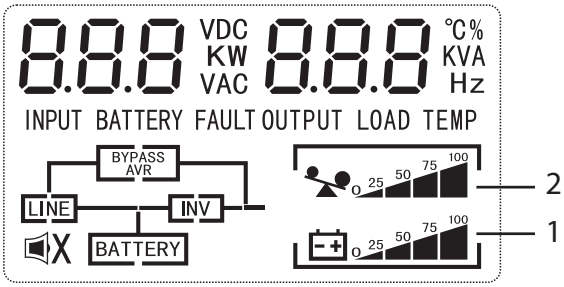


Mode de fonctionnement	Indicateurs LED
Mode de secours	
Mode ligne	

Mode de charge de la batterie	

Avertissement	Description
Avertissement de tension de batterie faible	Un bip court toutes les 2 secondes. La LED rouge clignote. Sur l'écran, l'icône clignote.
Avertissement de surcharge	Un bip court toutes les 2 secondes. La LED rouge clignote. Sur l'écran, l'icône clignote.
Avertissement de réglage incorrect	Un bip court toutes les 2 secondes. La LED rouge clignote. Sur l'écran, l'icône BATTERY clignote.
Mode d'erreur	Son continu. La LED rouge clignote.

L'écran LCD



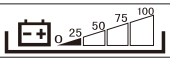
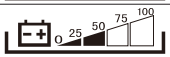
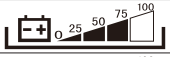
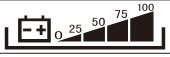
1. Indicateur de niveau de batterie

2. Indicateur de niveau de charge

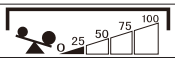
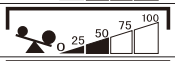
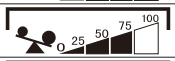
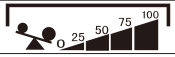
Informations sur la batterie en mode secteur. Indicateurs d'état de charge de la batterie

Mode	Chargement de la batterie	Indicateur de niveau de batterie
Mode courant constant, mode tension constante	0 - 25%	Toutes les barres clignoteront à tour de rôle.
	25 - 50%	La première barre sera allumée. Les autres barres clignoteront à tour de rôle.
	Mode flottant	Les deux premières barres seront allumées. Les autres barres clignoteront à tour de rôle.
	75 - 100%	Les trois premières barres seront allumées. La quatrième barre clignotera.
Floating mode	Batterie entièrement chargée	Les 4 barres seront allumées.

Informations sur la batterie en mode batterie. Indicateurs de niveau de tension de la batterie

Tension de la batterie	Indicateur de niveau de batterie
0 - 25%	
25 - 50%	
50 - 75%	
75 - 100%	

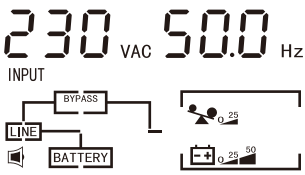
Charger les informations

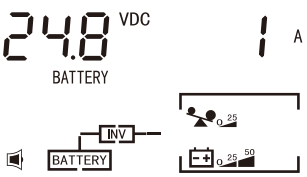
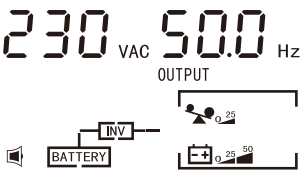
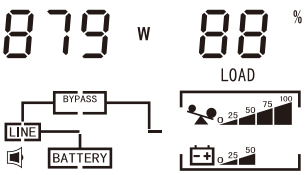
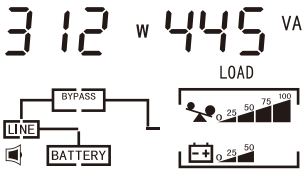
Niveau de charge	Indicateur de niveau de charge
0 - 25%	
25 - 50%	
50 - 75%	
75 - 100%	

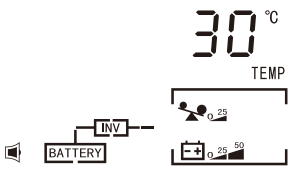
Lorsque l'icône clignote, cela indique une surcharge.

Sélectionner les informations à afficher à l'écran

Appuyer sur la touche pour afficher différentes informations à tour de rôle.

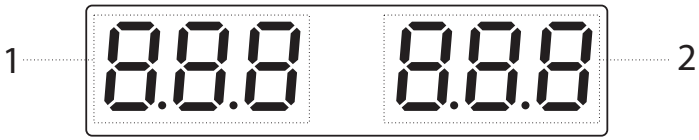
Informations	Display
Entrée	Tension d'entrée = 230 V Fréquence d'entrée = 50 Hz 

Batterie	Tension de la batterie = 24,8 V Courant de la batterie = 1 A 
Sortie	Tension de sortie = 230 V Fréquence de sortie = 50 Hz 
Charge	Puissance = 879 W Pourcentage = 88 % 
Charge	Puissance = 312 W Puissance apparente = 445 VA 

Température	Température = 30° 

Menu des paramètres

Appuyez longuement sur la touche ↵ pour accéder au menu des paramètres. Appuyez à nouveau brièvement sur la touche ↵ pour accéder à un menu spécifique et appuyez sur la touche ▲▼ pour sélectionner une option. Appuyez longuement sur la touche ↻ pour quitter le menu. Tous les paramètres prendront effet après le redémarrage de l'onduleur.



1. Menu

2. Option sélectionnable

Menu	Description	Options
03	Tension de sortie	220 V  230 V (default) 
04	Fréquence de sortie	50 Hz (default)  60 Hz 

07	Redémarrage automatique en cas de surcharge	OFF (default)  ON 
13	Courant de charge maximal de la batterie sur le secteur	5 - 30 A (default 10 A) 
14	Type de batterie	Acid (default)  Lithium  Si vous avez sélectionné l'option Lithium, dans les menus 17, 18 et 19, vous pouvez régler la tension de charge de la batterie et la tension de coupure CC basse
17	Tension de charge en phase d'absorption*	12.0 - 14.5 V (default 14.1 V) 
18	Tension de charge en phase float*	12.0 - 14.5 V (default 13.6 V) 
19	Tension de coupure	10.0 - 12.0 V (default 10.5 V) 

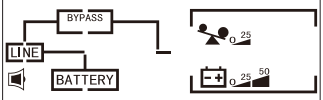
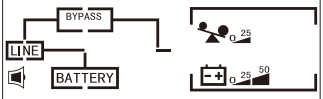
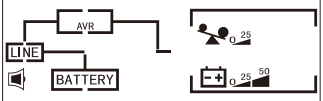
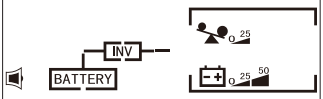
23	Rétroéclairage de l'écran	OFF (default)  ON 
24	Buzzer	ON (default)  OFF 
29	Chargeur secteur	Enable grid charge (default)  Disable grid charge 
30	Fonction UPS	ON (default)  OFF 

* Si la tension de charge flottante est supérieure à la tension d'absorption, une alarme sonore continue retentit, la LED rouge clignote et l'icône BATTERY clignotera.

Réinitialiser

Si vous souhaitez réinitialiser tous les paramètres, maintenez la touche enfoncée ⏎ et sélectionnez l'option « DEF » en appuyant sur la touche ⏎ . Appuyez longuement sur la touche ↻ pour quitter. Redémarrez l'onduleur.

Modes de fonctionnement et indicateurs sur l'écran

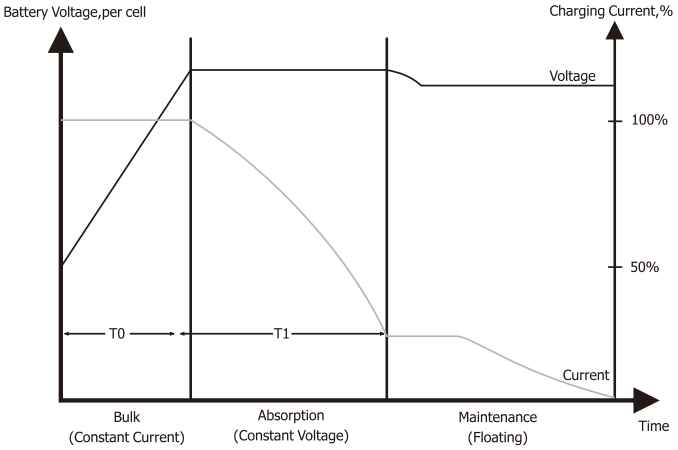
Mode de fonctionnement	Description	Display
Défaut	Le code d'erreur s'affiche à l'écran	
Mode de charge	Dans ce mode, la batterie est chargée à partir du secteur. Lorsque la tension d'entrée est anormale, l'onduleur s'arrête ou passe en mode erreur.	
Mode secteur	La puissance d'entrée fournira de l'énergie au consommateur et chargera la batterie en même temps. Si la tension d'entrée est différente de 220 V ou 230 V, l'onduleur ne fonctionnera pas. Si la tension d'entrée est anormale, l'onduleur passera en mode batterie.	 
Mode batterie	L'onduleur sera alimenté par la batterie et la batterie fournira également de l'énergie au consommateur..	

Mode de charge

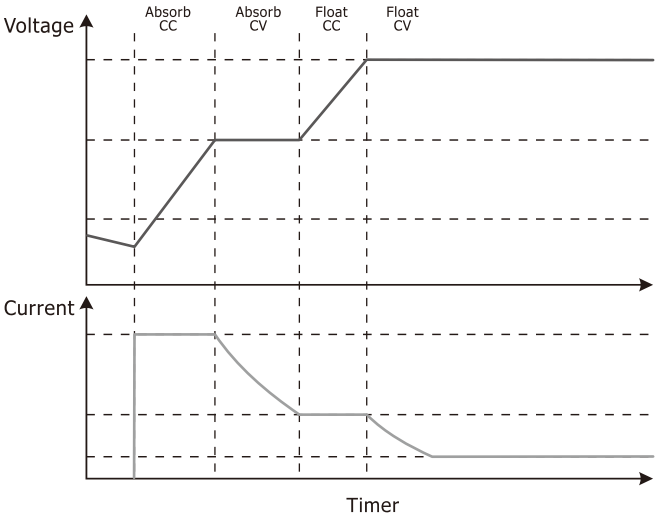
Tension de la batterie : 10 - 14,5 V DC

Étapes de charge : Boost CC - Boost CV - Boost FV

L'algorithme de charge des batteries acides



L'algorithme de charge des batteries au lithium



Codes d’erreur

02	Température élevée	41	Tension d'entrée trop faible
03	Tension de batterie trop élevée	42	Tension d'entrée trop élevée
04	Tension de batterie trop faible	43	Fréquence d'entrée trop faible
05	Court-circuit sur la sortie	44	Fréquence d'entrée trop élevée
06	Tension de sortie élevée	45	Défaut AVR
07	Surcharge	51	Surintensité
11	Défaut du relais principal	58	Tension de sortie faible

Dépannage

LED/Buzzer	Display	Cause possible	Solution
Buzzer	L’icône BATTERY clignote	Batterie déchargée	Chargez la batterie
	L’icône clignote	Surcharge	Retirez un ou plusieurs consommateurs
Buzzer et LED rouge allumés	Code d’erreur 02 - 58	Vérifiez la description du code d'erreur dans le tableau ci-dessus	Supprimez la cause de l'erreur selon le tableau ci-dessus

Alapvető jellemzők

Tiszta szinuszos inverter

3 lépéses töltési algoritmus

Túlterhelés és rövidzárlat elleni védelem

Fordított polaritás elleni védelem

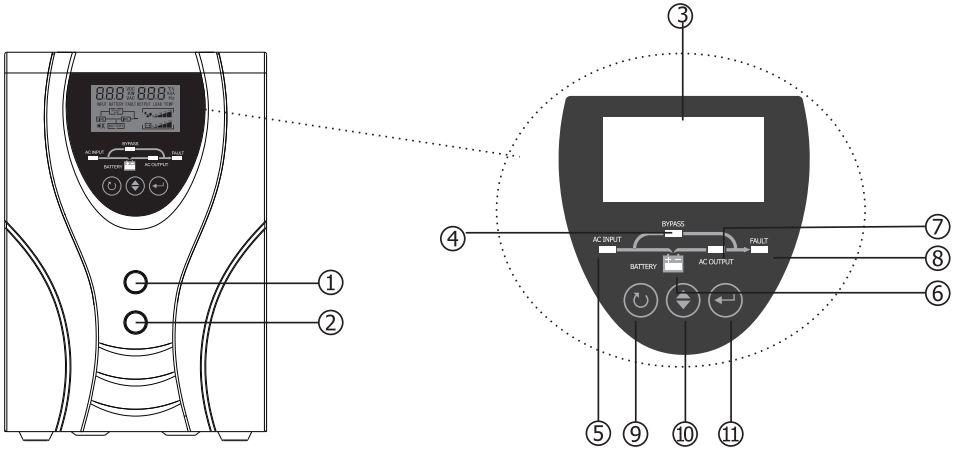
Túlkisülés elleni védelem

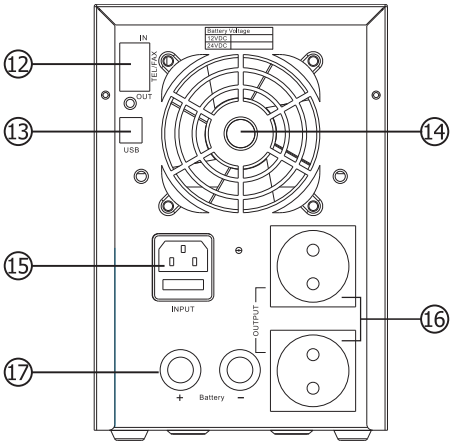
Állítható töltőáram

Kommunikációs interfész a számítógéppel

AVR funkció

Termék áttekintése





1. Kapcsolja be	10. Információválasztó gomb
2. Kapcsolja ki	11. Megerősítő gomb
3. LCD képernyő	12. Fax/Tel
4. Bypass LED	13. USB
5. AC bemenet LED	14. Legyező
6. Akkumulátor LED	15. AC bemenet
7. AC kimenet LED	16. AC kimenet
8. Hiba LED	17. Akkumulátor bemenet
9. Vissza (kilépés)	

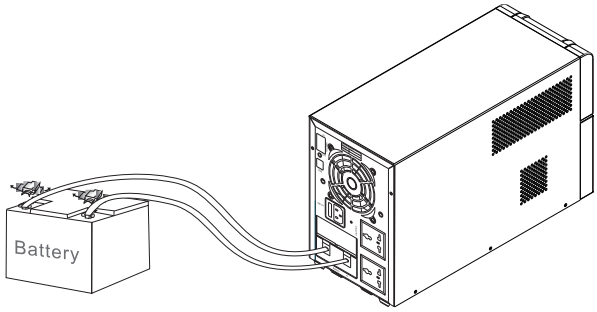
Akkumulátor csatlakozás

Távolítsa el a védőkupakokat az akkumulátor érintkezőiről.

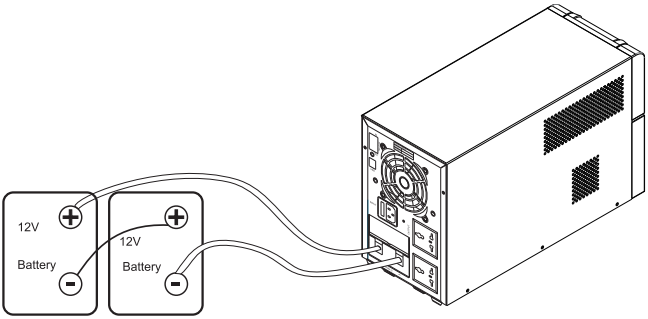
Csatlakoztassa az UPS csatlakozókábeleit az akkumulátor kapcsaihoz: a piros kábelt a pozitív (+), a fekete kábelt a negatív (-) pólushoz.

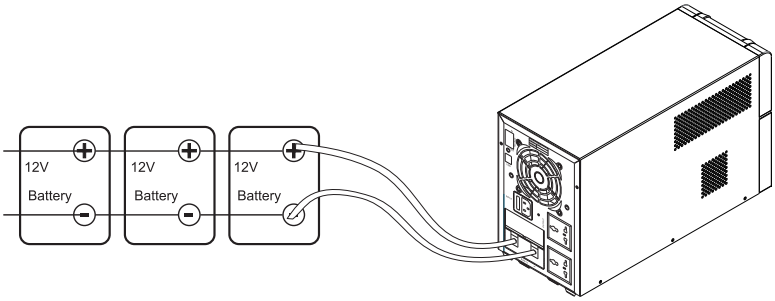
Javaslat: szereljen fel egy DC megszakítót az akkumulátor pozitív pólusára.

Egyetlen akkumulátor használata esetén az akkumulátor feszültségének meg kell egyeznie az UPS névleges egyenfeszültségével.



Ha kettő vagy több akkumulátort használ, akkor azoknak azonos feszültségűnek és áramerősségűnek (Ah) kell lenniük. Feszültségük összegének meg kell egyeznie az UPS névleges egyenfeszültségével.





Figyelmeztetések:

Győződjön meg arról, hogy megfelelően csatlakoztatta az akkumulátorokat.

Győződjön meg arról, hogy megfelelően csatlakoztatta az UPS és az

akkumulátorok közötti kábeleket.

Ügyeljen az elemtartón jelzett (+/-) polaritásra.

A piros kábelt a pozitív (-), a fekete kábelt a negatív (-) kivezetésre kell csatlakoztatni.

A csatlakozások elvégzése után helyezze vissza a védőburkolatokat.

A csatlakoztatást szakképzett személyzetnek kell elvégeznie.

Kapcsolja be/ki az UPS-t

Figyelmeztetés: ne csatlakoztassa helytelenül az UPS bemenetét és kimenetét.

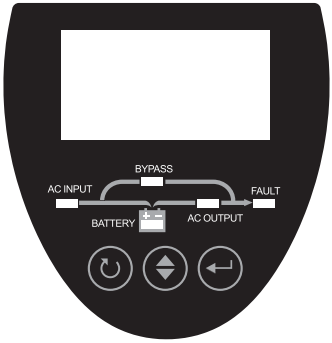
Csatlakoztassa az UPS tápkábelét az UPS AC bemenetéhez és egy 230 V-os aljzathoz.

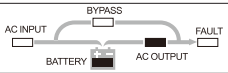
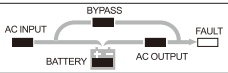
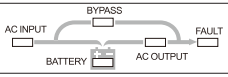
Figyelmeztetés: Még ha a képernyő világít is, amikor csatlakoztatja az akkumulátort, az UPS nincs bekapcsolva.

Az UPS bekapcsolásához nyomja meg az ON gombot 2-3 másodpercig. Az UPS hosszú hangjelzéssel nyugtázza az indítást. Különböző jelzések jelennek meg a képernyőn a csatlakoztatott csatlakozásoktól függően. Amikor az UPS be van kapcsolva, kikapcsolhatja a hangjelzést az ON gomb rövid megnyomásával. Az ikon megjelenik a képernyőn. Ha a hangjelzés aktív, a ikont megjelenik a képernyőn.

Az UPS kikapcsolásához nyomja meg az OFF gombot 2-3 másodpercig. A képernyő kikapcsol.

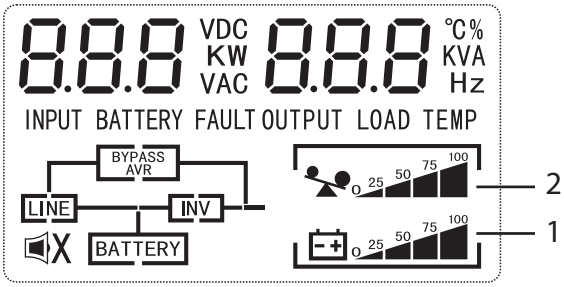
LED kijelzők



Üzemmód	LED kijelzők
Biztonsági mentés mód	
Vonal mód	
Akkumulátor töltési mód	

Figyelmeztetés	Leírás
Alacsony akkumulátorfeszültség figyelmeztetés	Rövid sípolás 2 másodpercenként. A piros LED villog. A képernyőn az ikon villog.
Túlterhelési figyelmeztetés	Rövid sípolás 2 másodpercenként. A piros LED villog. A képernyőn az ikon villog.
Figyelmeztetés a helytelen beállításra	Rövid sípolás 2 másodpercenként. A piros LED villog. A képernyőn az ikon BATTERY villog.
Hiba mód	Folyamatos hangzás. A piros LED villog.

Az LCD képernyő



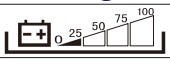
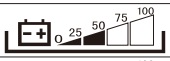
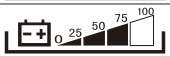
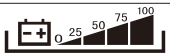
1. Akkumulátor töltöttségi szintjelzője

2. Terhelési szint jelző

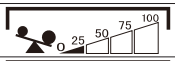
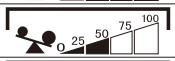
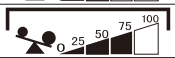
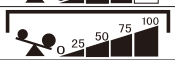
Akkumulátor információ AC módban. Akkumulátor töltöttségi állapotjelzők

Mód	Akkumulátor töltés	Elem töltöttségi szint jelző
Állandó áramú üzemmód, állandó feszültségű üzemmód	0 - 25%	Minden sáv felváltva villog.
	25 - 50%	Kigyullad az első sáv. A többi sáv felváltva villog.
	50 - 75%	Az első két sáv világít. A többi sáv felváltva villog.
	75 - 100%	Az első három sáv világít. A negyedik sáv villogni fog.
Floating mód	Az akkumulátor teljesen feltöltve	Az akarat mind a 4 sávja világít

Az akkumulátorra vonatkozó információk akkumulátor üzemmódban. Akkumulátor feszültségszintjelzők

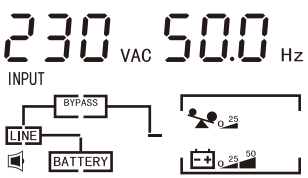
Akkumulátor feszültség	Elem töltöttségi szint jelző
0 - 25%	
25 - 50%	
50 - 75%	
75 - 100%	

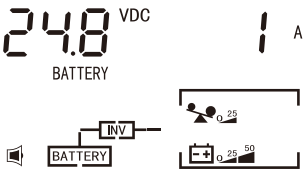
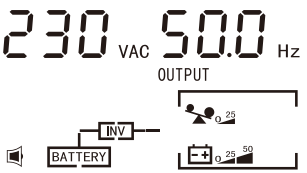
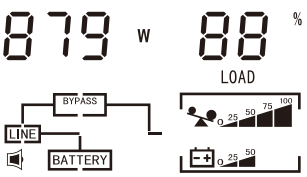
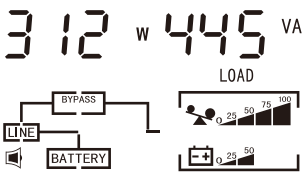
Információk betöltése

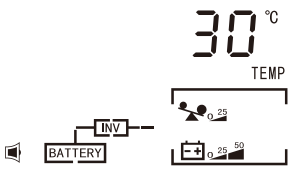
Terhelési szint	Terhelési szint jelző
0 - 25%	
25 - 50%	
50 - 75%	
75 - 100%	

Válassza ki a képernyőn megjelenítendő információkat

Nyomja meg a gombot ⇕ hogy sorra jelenítse meg a különböző információkat.

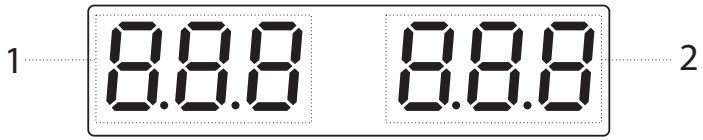
Információ	Display
Bemenet	Bemeneti feszültség = 230 V Bemeneti frekvencia = 50 Hz 

Akkumulátor	Az akkumulátor feszültsége = 24,8V Akkumulátor áram = 1 A 
Kimenet	Kimeneti feszültség = 230 V Kimeneti frekvencia = 50 Hz 
Terhelés	Teljesítmény = 879 W Százalék = 88% 
Terhelés	Teljesítmény = 312 W Látszólagos hatalom = 445 VA 

Hőmérséklet	Hőmérséklet = 30° 

Beállítások menü

Nyomja meg hosszan a gombot ↵ a beállítások menü eléréséhez. Nyomja meg ismét röviden a gombot ↵ egy adott menü eléréséhez, és nyomja meg a gombot ▲▼ opció kiválasztásához. Nyomja meg hosszan a gombot ↻ a menüből való kilépéshez. Minden beállítás az UPS újraindítása után lép életbe.

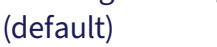


1. Menü

2. Választható opció

Menü	**Leírás**	**Opciók**
03	Kimeneti feszültség	220 V 03 220 V 230 V (default) 03 230 V
04	Kimeneti frekvencia	50 Hz (default) 04 50 Hz 60 Hz 04 60 Hz

07	Automatikus újraindítás túlterhelés esetén	OFF (default)  ON 
13	Maximális akkumulátortöltő áram a hálózatról	5 - 30 A (default 10 A) 
14	Akkumulátor típusa	Acid (default)  Lithium  Ha a lítium opciót választotta, a 17, 18 és 19 menüben beállíthatja az akkumulátor töltési feszültségét és az alacsony egyenáramú lekapcsolási feszültséget
17	Töltőfeszültség az abszorpciós fázisban*	12.0 - 14.5 V (default 14.1 V) 
18	Töltőfeszültség úszó fázisban*	12.0 - 14.5 V (default 13.6 V) 
19	Lezárási feszültség	10.0 - 12.0 V (default 10.5 V) 

23	Képernyő háttérvilágítása	OFF (default)  ON 
24	Berregő	ON (default)  OFF 
29	AC töltő	Enable grid charge (default)  Disable grid charge 
30	UPS funkció	ON (default)  OFF 

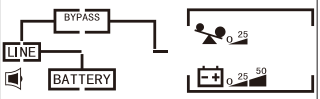
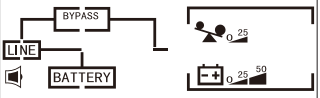
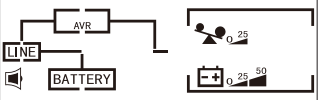
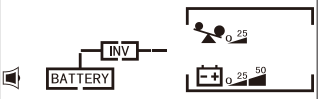
* Ha az úszó töltési feszültség magasabb, mint az abszorpciós feszültség, folyamatos riasztási hang hallható, a piros LED villogni kezd, és az ikon BATTERY villogni fog.

Reset

Ha az összes paramétert vissza akarja állítani, nyomja meg és tartsa lenyomva a gombot ⇕ és a gomb megnyomásával válassza ki a „DEF” opciót ⇕. Nyomja meg hosszan a gombot ↻ kilépni. Indítsa újra az UPS-t.

Üzemmódok és kijelzők a képernyőn

Üzemmód	**Leírás**	**Display**

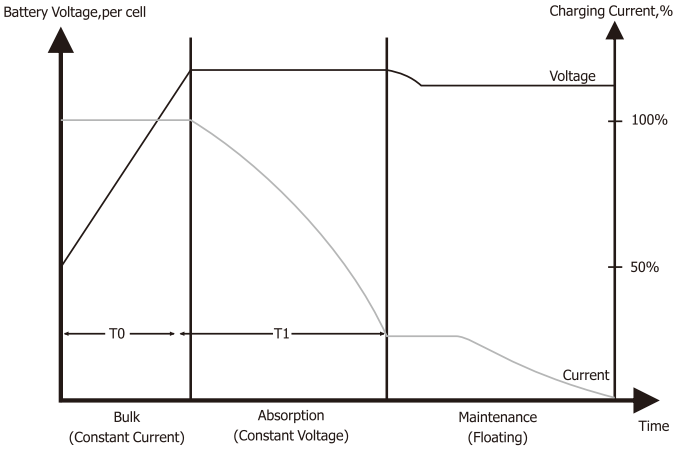
Hiba	A hibakód megjelenik a képernyőn	
Töltési mód	Ebben az üzemmódban az akkumulátort a hálózatról töltik. Ha a bemeneti feszültség rendellenes, az UPS leáll, vagy hibaüzemmódba lép.	
Vonal mód	A bemeneti teljesítmény energiával látja el a fogyasztót, és egyidejűleg tölti az akkumulátort. Ha a bemeneti feszültség eltér a 220 V-tól vagy a 230 V-tól, az UPS nem fog működni. Ha a bemeneti feszültség rendellenes, az UPS akkumulátoros üzemmódba kapcsol.	 
Akkumulátor üzemmód	A szünetmentes tápegység az akkumulátorról fog táplálkozni, és az akkumulátor biztosítja az áramellátást a fogyasztó számára.	

Töltési mód

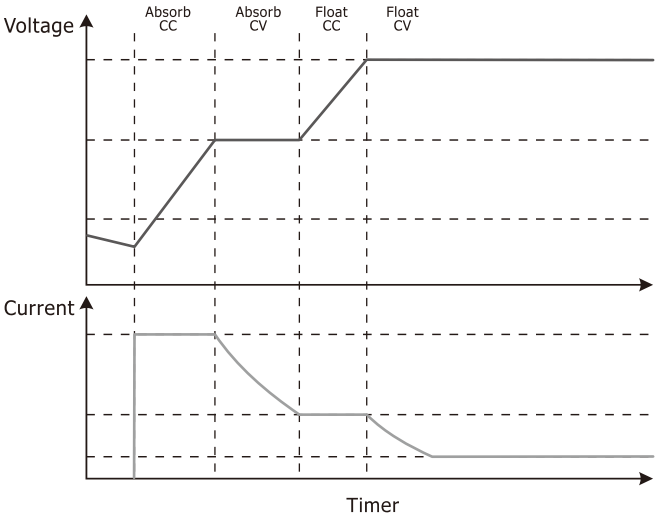
Akkumulátor feszültség: 10 - 14,5 V DC

Töltési lépések: Boost CC - Boost CV - Boost FV

A savas akkumulátorok töltési algoritmusa



A lítium akkumulátorok töltési algoritmusa



Hibakódok

02	Magas hőmérséklet	41	A bemeneti feszültség túl alacsony
03	Az akkumulátor feszültsége túl magas	42	A bemeneti feszültség túl magas
04	Az akkumulátor feszültsége túl alacsony	43	A bemeneti frekvencia túl alacsony
05	Rövidzárlat a kimeneten	44	A bemeneti frekvencia túl magas
06	Magas kimeneti feszültség	45	AVR hiba
07	Túlterhelés	51	Túláram
11	Fő relé hiba	58	Alacsony kimeneti feszültség

Hibaelhárítás

LED/Buzzer	Display	Lehetséges ok	Megoldás
Csengő	Az ikon BATTERY villog	Az akkumulátor lemerült	Töltse fel az akkumulátort
	Az ikon villog	Túlterhelés	Távolítson el egy vagy több fogyasztót
Csengő és piros LED világít	02-58 hibakód	Ellenőrizze a hibakód leírását a fenti táblázatban	Távolítsa el a hiba okát a fenti táblázat szerint

Caratteristiche di base

Inverter a onda sinusoidale pura

Algoritmo di carica in 3 fasi

Protezione da sovraccarico e cortocircuito

Protezione da inversione di polarità

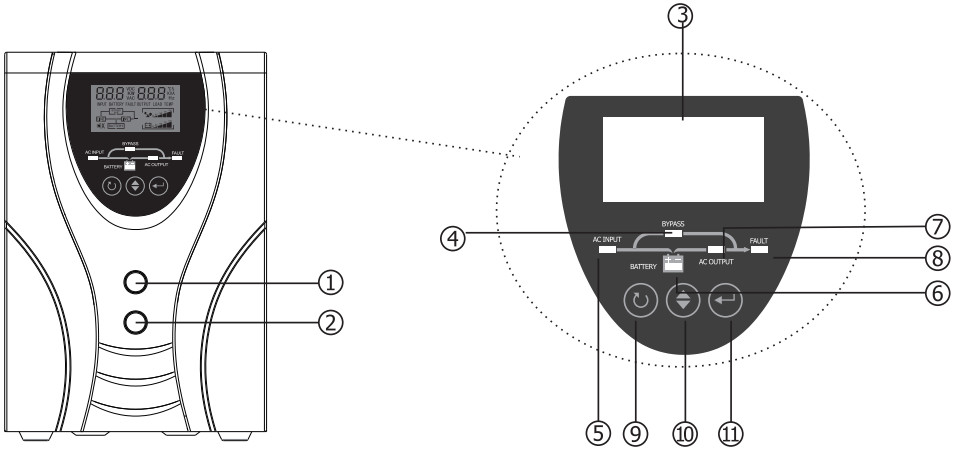
Protezione da scarica eccessiva

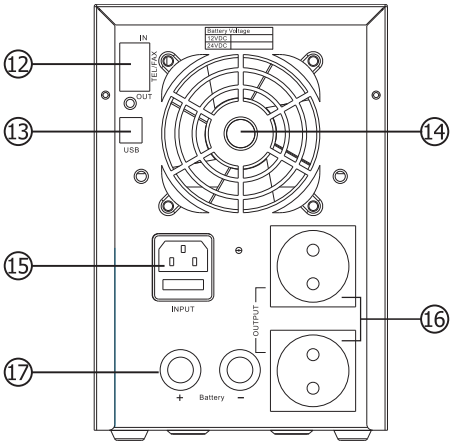
Corrente di carica regolabile

Interfaccia di comunicazione con il computer

Funzione AVR

Panoramica del prodotto





1. Accensione	10. Pulsante di selezione delle informazioni
2. Spegnimento	11. Pulsante di conferma
3. Schermo LCD	12. Fax/Tel
4. LED bypass	13. USB
5. LED ingresso CA	14. Ventola
6. LED batteria	15. Ingresso CA
7. LED uscita CA	16. Uscita CA
8. LED guasto	17. Ingresso batteria
9. Indietro (uscita)	

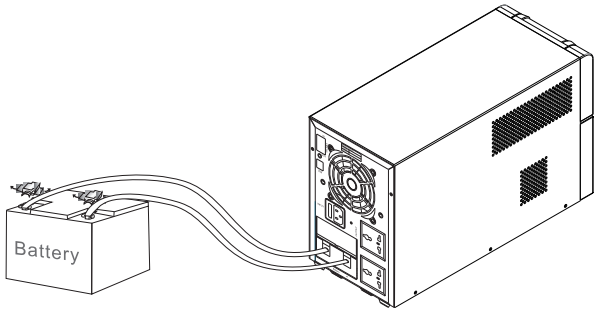
Collegamento della batteria

Rimuovere i cappucci protettivi dai terminali della batteria.

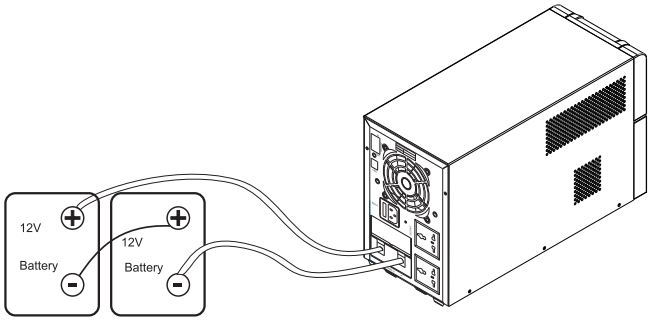
Collegare i cavi di collegamento dell'UPS ai terminali della batteria: il cavo rosso al terminale positivo (+), il cavo nero al terminale negativo (-).

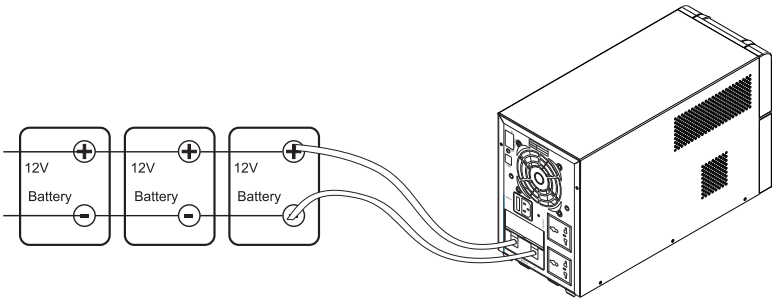
Raccomandazione: installare un interruttore CC sul terminale positivo della batteria.

Quando si utilizza una singola batteria, la tensione della batteria deve essere uguale alla tensione CC nominale dell'UPS.



Se si utilizzano due o più batterie, queste devono avere la stessa tensione e lo stesso amperaggio (Ah). La somma delle loro tensioni deve essere uguale alla tensione CC nominale dell'UPS..





Warnings:

Assicurati di aver collegato correttamente le batterie.

Assicurati di aver collegato correttamente i cavi tra l'UPS e le batterie.

Fai attenzione alla polarità (+/-) indicata sulla custodia della batteria.

Il cavo rosso deve essere collegato al terminale positivo (-) e il cavo nero al terminale negativo (-).

Dopo aver effettuato i collegamenti, rimetti le coperture protettive.

I collegamenti devono essere effettuati da personale qualificato.

Accensione/spegnimento dell'UPS

Attenzione: non collegare in modo errato l'ingresso e le uscite dell'UPS.

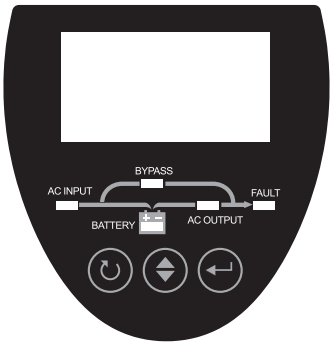
Collega il cavo di alimentazione dell'UPS all'ingresso CA dell'UPS e a una presa da 230 V.

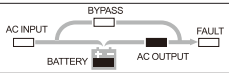
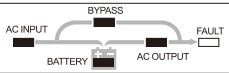
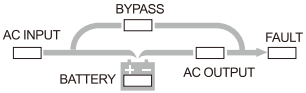
Attenzione: anche se lo schermo si illumina quando si collega la batteria, l'UPS non è acceso.

Per accendere l'UPS, premere il pulsante ON per 2-3 secondi. L'UPS confermerà l'avvio con un lungo segnale acustico. Sullo schermo appariranno diversi indicatori a seconda dei collegamenti effettuati. Quando l'UPS è acceso, puoi disattivare l'avviso sonoro premendo brevemente il pulsante ON. L'icona appare sullo schermo. Quando l'avviso sonoro è attivo, l'icona appare sullo schermo.

Per spegnere l'UPS, premere il pulsante OFF per 2-3 secondi. Lo schermo si spegnerà.

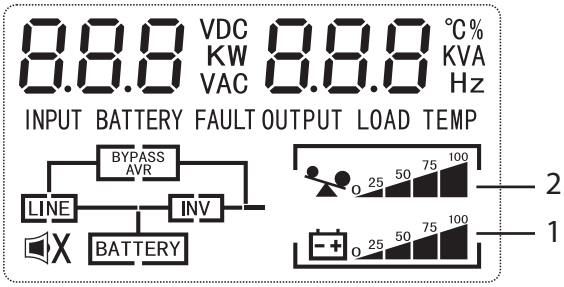
Indicatori LED



Modalità operativa	Indicatori LED
Modalità di backup	
Modalità di linea	
Modalità di ricarica della batteria	

Avviso	Descrizione
Avviso di bassa tensione della batteria	Un breve segnale acustico ogni 2 secondi. Il LED rosso lampeggia. Sullo schermo, l'icona lampeggia.
Avviso di sovraccarico	Un breve segnale acustico ogni 2 secondi. Il LED rosso lampeggia. Sullo schermo, l'icona lampeggia.
Avviso di impostazione errata	Un breve segnale acustico ogni 2 secondi. Il LED rosso lampeggia. Sullo schermo, l'icona BATTERY lampeggia.
Modalità di errore	Suono continuo. Il LED rosso lampeggia.

Lo schermo LCD



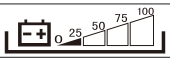
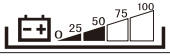
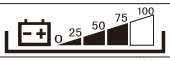
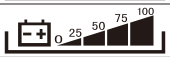
1. Indicatore del livello della batteria

2. Indicatore del livello di carica

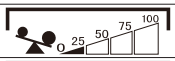
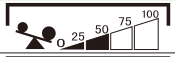
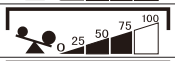
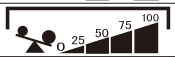
Informazioni sulla batteria in modalità AC. Indicatori dello stato di carica della batteria

Modalità	Ricarica della batteria	Indicatore del livello della batteria
Modalità corrente costante, modalità tensione costante	0 - 25%	Tutte le barre lampeggeranno a turno.
	25 - 50%	La prima barra sarà accesa. Le altre barre lampeggeranno a turno.
	50 - 75%	Le prime due barre saranno accese. Le altre barre lampeggeranno a turno.
	75 - 100%	Le prime tre barre saranno accese. La quarta barra lampeggerà
Modalità Floating	Batteria carica	Tutte e 4 le barre saranno accese.

Informazioni sulla batteria in modalità batteria. Indicatori del livello di tensione della batteria

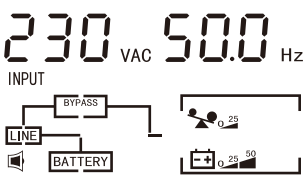
Tensione della batteria	Indicatore del livello della batteria
0 - 25%	
25 - 50%	
50 - 75%	
75 - 100%	

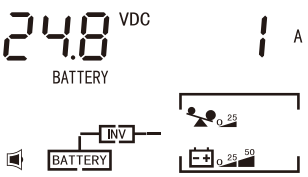
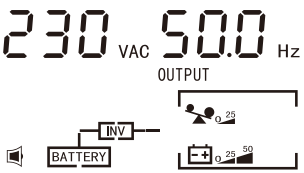
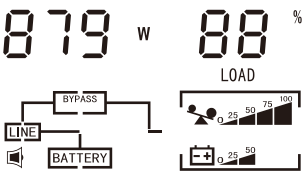
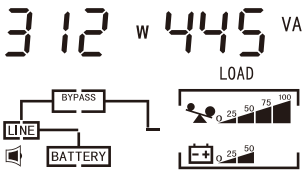
Informazioni sulla carica

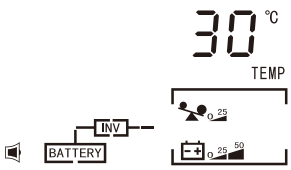
Livello di carico	Indicatore del livello di carico
0 - 25%	
25 - 50%	
50 - 75%	
75 - 100%	

Seleziona le informazioni da visualizzare sullo schermo

Premere il tasto ⇕ per visualizzare informazioni diverse a turno.

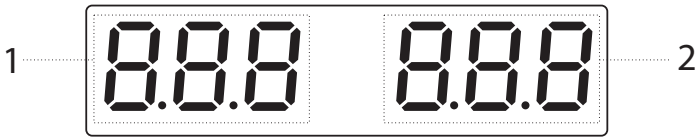
Informazioni	Display
Ingresso	Tensione di ingresso = 230 V Frequenza di ingresso = 50 Hz 

Batteria	Tensione della batteria = 24,8 V Corrente della batteria = 1 A 
Uscita	Tensione di uscita = 230 V Frequenza di uscita = 50 Hz 
Carico	Potenza = 879 W Percentuale = 88% 
Carico	Potenza = 312 W Potenza apparente = 445 VA 

Temperatura	Temperatura = 30° 

Menu impostazioni

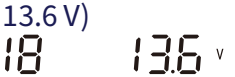
Premere a lungo il tasto ↵ per accedere al menu delle impostazioni. Premere brevemente di nuovo il tasto ↵ per accedere ad un menù specifico e premere il tasto ▲▼ per selezionare un'opzione. Premere a lungo il tasto ↻ per uscire dal menu. Tutte le impostazioni avranno effetto dopo il riavvio dell'UPS.

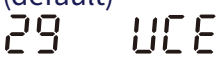


1. Menu

2. Opzione selezionabile

Menu	**Descrizione**	**Opzioni**
03	Tensione di uscita	220 V  230 V (default) 
04	Frequenza di uscita	50 Hz (default)  60 Hz 

07	Riavvio automatico in caso di sovraccarico	OFF (default)  ON 
13	Corrente massima di carica della batteria dalla rete elettrica	5 - 30 A (default 10 A) 
14	Tipo di batteria	Acid (default)  Lithium  Se è stata selezionata l'opzione Litio, nei menu 17, 18 e 19 è possibile impostare la tensione di carica della batteria e la tensione di interruzione CC bassa
17	Tensione di carica in fase di assorbimento*	12.0 - 14.5 V (default 14.1 V) 
18	Tensione di carica in fase di mantenimento*	12.0 - 14.5 V (default 13.6 V) 
19	Tensione di interruzione	10.0 - 12.0 V (default 10.5 V) 

23	Retroilluminazione dello schermo	OFF (default)  ON 
24	Cicalino	ON (default)  OFF 
29	Caricabatterie CA	Enable grid charge (default)  Disable grid charge 
30	Funzione UPS	ON (default)  OFF 

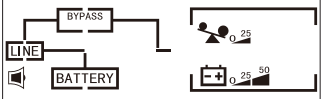
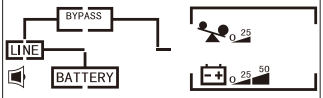
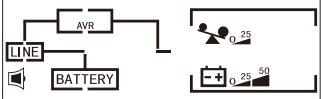
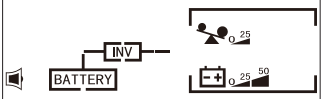
* Se la tensione di carica di mantenimento è superiore alla tensione di assorbimento, verrà emesso un suono di allarme continuo, il LED rosso lampeggerà e l'icona BATTERY lampeggerà.

Reset

Se si desidera reimpostare tutti i parametri, tenere premuto il tasto ⇕ e selezionare l'opzione "DEF" premendo il tasto ⇕ .Premere a lungo il tasto ↻ per uscire. Riavviare l'UPS.

Modalità operative e indicatori sullo schermo

Modalità operativa	**Descrizione**	**Display**

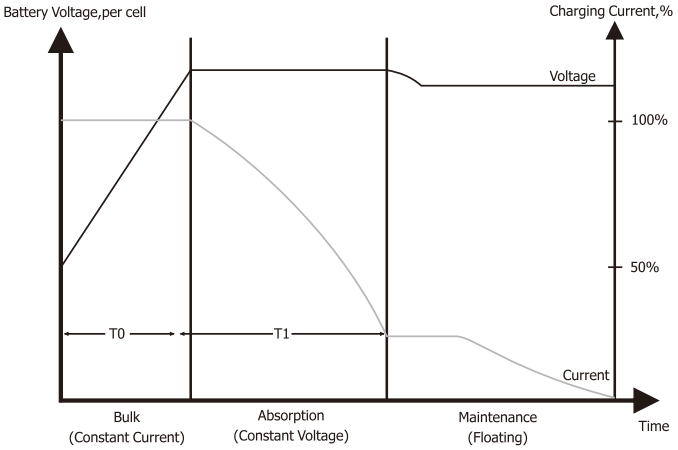
Guasto	The error code is displayed on the screen	
Modalità di carica	In this mode, the battery is charged from the mains. When the input voltage is abnormal, the UPS will shut down or go into error mode.	
Modalità linea	La potenza in ingresso fornirà energia al consumatore e caricherà la batteria allo stesso tempo. Se la tensione in ingresso è diversa da 220 V o 230 V, l'UPS non funzionerà. Se la tensione in ingresso è anomala, l'UPS passerà alla modalità batteria.	 
Modalità batteria	L'UPS sarà alimentato dalla batteria e la batteria fornirà energia al consumatore.	

Modalità di carica

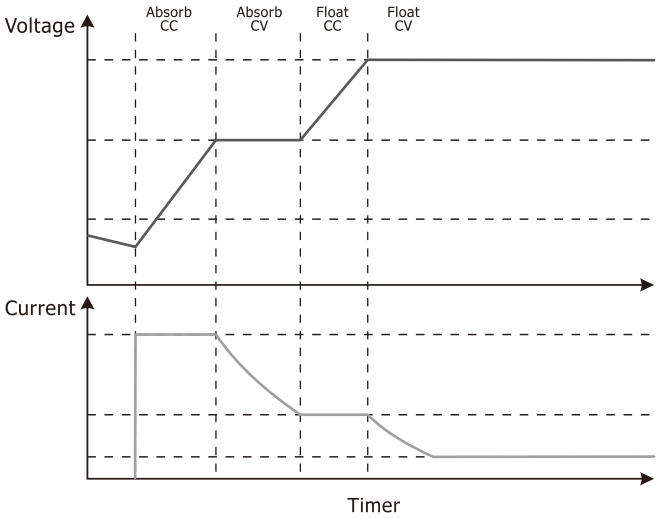
Tensione della batteria: 10 - 14,5 V CC

Passaggi di carica: Boost CC - Boost CV - Boost FV

L’algoritmo di carica delle batterie all’acido



L’algoritmo di carica delle batterie al litio



Codici di errore

02	Temperatura elevata	41	Tensione di ingresso troppo bassa
03	Tensione della batteria troppo alta	42	Tensione di ingresso troppo alta
04	Tensione della batteria troppo bassa	43	Frequenza di ingresso troppo bassa
05	Cortocircuito in uscita	44	Frequenza di ingresso troppo alta
06	Tensione di uscita elevata	45	Guasto AVR
07	Sovraccarico	51	Sovracorrente
11	Guasto relè principale	58	Bassa tensione di uscita

Risoluzione dei problemi

LED/Buzzer	Display	Possibile causa	Soluzione
Cicalino	L'icona BATTERY lampeggia	Batteria scarica	Caricare la batteria
	L'icona lampeggia	Sovraccarico	Rimuovere uno o più consumatori
Cicalino e LED rosso accesi	02 - 58 codice di errore	Controllare la descrizione del codice di errore nella tabella sopra	Rimuovere la causa dell'errore secondo la tabella sopra

Basisfuncties

Zuivere sinusomvormer

3-stappen laadalgoritme

Overbelastings- en kortsluitbeveiliging

Beveiliging tegen omgekeerde polariteit

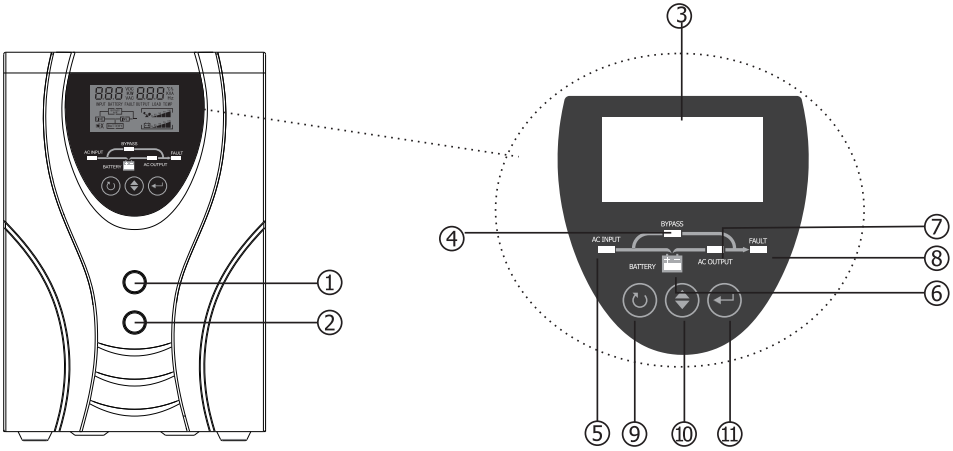
Overontladingsbeveiliging

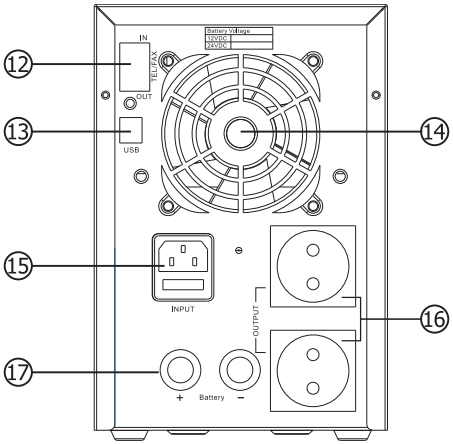
Instelbare laadstroom

Communicatie-interface met de computer

AVR-functie

Productoverzicht





1. Inschakelen	10. Informatie selectieknop
2. Uitschakelen	11. Bevestigingsknop
3. LCD-scherm	12. Fax/Tel
4. Bypass-LED	13. USB
5. AC-ingangs-LED	14. Ventilator
6. Batterij-LED	15. AC-ingang
7. AC-uitgangs-LED	16. AC-uitgang
8. Storings-LED	17. Batterij-ingang
9. Terug (afsluiten)	

Batterijverbinding

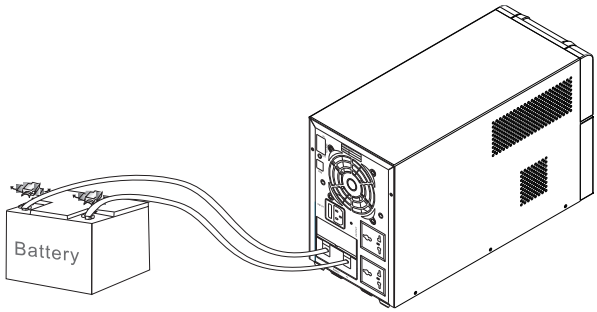
Verwijder de beschermkappen van de batterijpolen.

Sluit de UPS-aansluitkabels aan op de batterijpolen: de rode kabel op de positieve (+) pool, de zwarte kabel op de negatieve (-) pool.

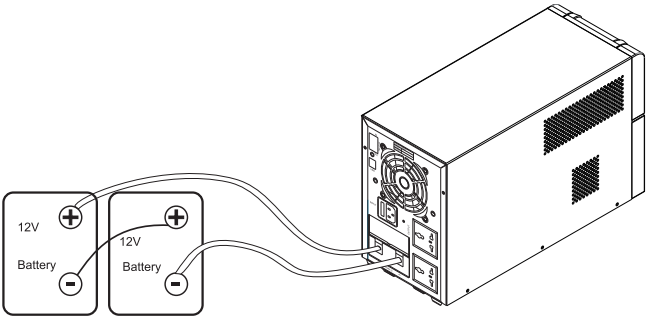
Aanbeveling: installeer een DC-onderbreker op de positieve pool van de batterij.

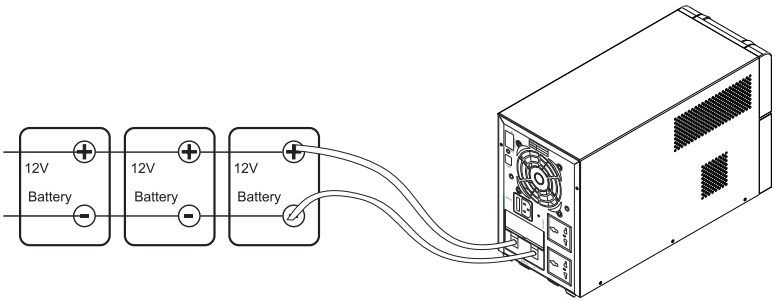
Bij gebruik van één batterij moet de batterijspanning gelijk zijn aan de

nominale DC-spanning van de UPS.



Als u twee of meer batterijen gebruikt, moeten ze dezelfde spanning en ampèrage (Ah) hebben. De som van hun spanning moet gelijk zijn aan de nominale DC-spanning van de UPS..





Waarschuwingen:

Zorg ervoor dat u de batterijen correct hebt aangesloten.

Zorg ervoor dat u de kabels tussen de UPS en de batterijen correct hebt aangesloten.

Let op de (+/-) polariteit die op de batterijbehuizing is aangegeven.

De rode kabel moet worden aangesloten op de positieve (-) pool en de zwarte kabel op de negatieve (-) pool.

Nadat u de aansluitingen hebt gemaakt, plaatst u de beschermkappen terug.

De aansluitingen moeten worden gemaakt door gekwalificeerd personeel.

De UPS in-/uitschakelen

Waarschuwing: sluit de ingang en uitgangen van de UPS niet verkeerd aan.

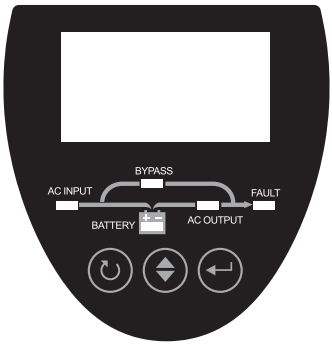
Sluit de UPS-voedingskabel aan op de AC-ingang van de UPS en op een 230V-stopcontact.

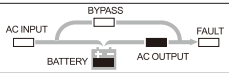
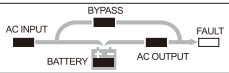
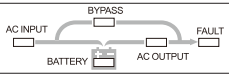
Waarschuwing: Zelfs als het scherm oplicht wanneer u de batterij aansluit, is de UPS niet ingeschakeld.

Om de UPS in te schakelen, drukt u 2-3 seconden op de AAN-knop. De UPS bevestigt het opstarten met een lange pieptoon. Afhankelijk van de gemaakte aansluitingen verschijnen er verschillende indicatoren op het scherm. Wanneer de UPS is ingeschakeld, kunt u het geluidssignaal uitschakelen door kort op de AAN-knop te drukken. Het pictogram verschijnt op het scherm. Wanneer de geluidswaarschuwing actief is, verschijnt het pictogram verschijnt op het scherm.

Om de UPS uit te schakelen, drukt u 2-3 seconden op de UIT-knop. Het scherm wordt uitgeschakeld.

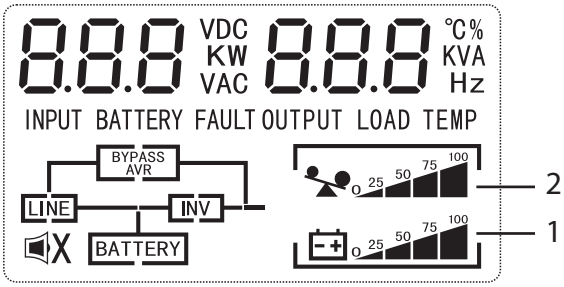
LED-indicatoren



Bedrijfsmodus	LED-indicatoren
Back-upmodus	
Lijnmodus	
Batterijlaadmodus	

Waarschuwing	Beschrijving
Waarschuwing lage batterijspanning	Korte pieptoon elke 2 seconden. De rode LED knippert. Op het scherm, het pictogram knippert.
Waarschuwing overbelasting	Korte pieptoon elke 2 seconden. De rode LED knippert. Op het scherm, het pictogram knippert.
Waarschuwing onjuiste instelling	Korte pieptoon elke 2 seconden. De rode LED knippert. Op het scherm, het pictogram BATTERY knippert.
Foutmodus	Continue geluid. De rode LED knippert.

Het LCD-scherm



1. Batterijniveau-indicator

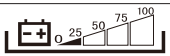
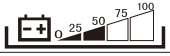
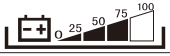
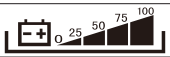
2. Laadniveau-indicator

Batterij-informatie in AC-modus. Batterijlaadstatusindicatoren

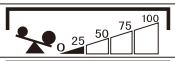
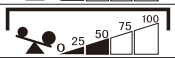
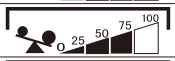
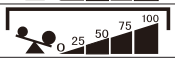
Modus	Batterij opladen	Batterijniveau-indicator
Constante stroommodus, constante spanningsmodus	0 - 25%	Alle balken knipperen om de beurt.
	25 - 50%	De eerste balk brandt. De rest van de balken knippert om de beurt.
	50 - 75%	De eerste twee balken branden. De rest van de balken knipperen om de beurt.
	75 - 100%	De eerste drie balken branden. De vierde balk knippert.

Floating modus	Batterij volledig opgeladen	Alle 4 balken van de branden

Batterij-informatie in batterijmodus. Batterijspanningsniveau-indicatoren

Batterijspanning	Batterijniveau-indicator
0 - 25%	
25 - 50%	
50 - 75%	
75 - 100%	

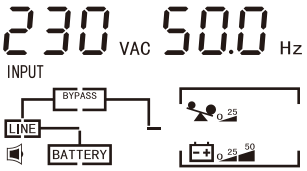
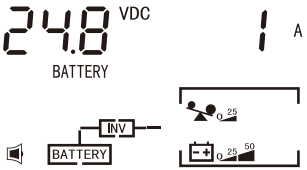
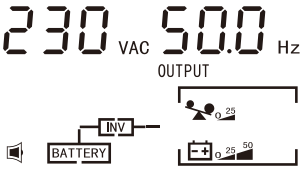
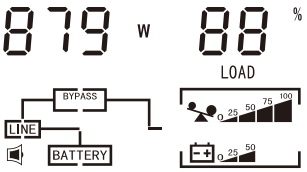
Laad informatie

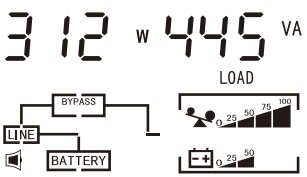
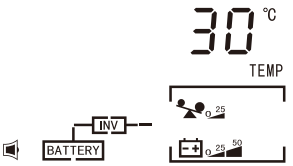
Laadniveau	Laadniveau-indicator
0 - 25%	
25 - 50%	
50 - 75%	
75 - 100%	

Wanneer het pictogram  knippert, geeft overbelasting aan.

Selecteer informatie die op het scherm moet worden weergegeven

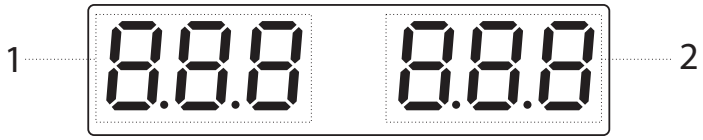
Druk op de toets  om verschillende informatie op hun beurt weer te geven.

Informatie	Display
Invoer	Ingangsspanning = 230 V Ingangsfrequentie= 50 Hz 
Batterij	Accuspanning = 24,8 V Accustroom = 1 A 
Uitvoer	Uitgangsspanning = 230 V Uitgangsfrequentie = 50 Hz 
Belasting	Vermogen = 879 W Percentage = 88% 

Laden	Vermogen = 312 W Schijnbaar vermogen = 445 VA 
Temperatuur	Temperatuur = 30° 

Instellingenmenu

Houd de toets lang ingedrukt ↵ om het instellingenmenu te openen. Druk nogmaals kort op de toets ↵ om toegang te krijgen tot een specifiek menu en druk op de toets ▲▼ om een optie te selecteren. Druk lang op de toets ↻ om het menu te verlaten. Alle instellingen worden van kracht na het opnieuw opstarten van de UPS.



1. Menu

2. Selecteerbare optie

Menu	Beschrijving	Options
03	Uitgangsspanning	220 V  230 V (default) 
04	Uitgangsfrequentie	50 Hz (default)  60 Hz 
07	Automatische herstart bij overbelasting	OFF (default)  ON 
13	Maximale batterijlaadstroom van het lichtnet	5 - 30 A (default 10 A) 
14	Batterijtype	Acid (default)  Lithium  Als u de optie Lithium hebt geselecteerd, kunt u in menu's 17, 18 en 19 de laadspanning van de batterij en de lage DC-uitschakelspanning instellen

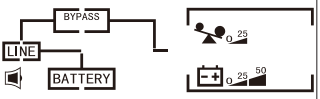
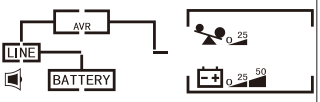
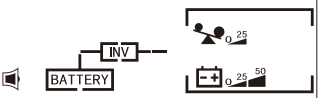
17	Laadspanning in de absorptiefase*	12.0 - 14.5 V (default 14.1 V) 
18	Laadspanning in de floatfase*	12.0 - 14.5 V (default 13.6 V) 
19	Afsluitspanning	10.0 - 12.0 V (default 10.5 V) 
23	Achtergrondverlichting van het scherm	OFF (default)  ON 
24	Zoemer	ON (default)  OFF 
29	AC-lader	Enable grid charge (default)  Disable grid charge 
30	UPS-functie	ON (default)  OFF 

* Als de float-laadspanning hoger is dan de absorptiespanning, klinkt er een continu alarmsignaal, knippert de rode LED en verdwijnt het pictogram BATTERY zal knipperen.

Reset

Als u alle parameters wilt resetten, houdt u de toets ingedrukt ⏏ en selecteer de optie “DEF” door op de toets te drukken ⏏. Houd de toets lang ingedrukt ↻ om af te sluiten. Start de UPS opnieuw op.

Bedrijfsmodi en indicatoren op het scherm

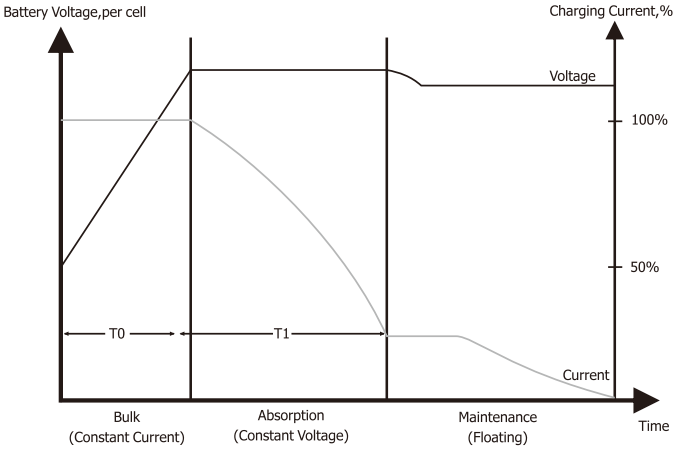
Bedrijfsmodus	Beschrijving	Display
Fout	De foutcode wordt weergegeven op het scherm	
Laadmodus	In deze modus wordt de batterij opgeladen via het lichtnet. Wanneer de ingangsspanning abnormaal is, wordt de UPS uitgeschakeld of gaat deze in de foutmodus	
Lijnmodus	Het ingangsvermogen levert energie aan de consument en laadt tegelijkertijd de batterij op. Als de ingangsspanning anders is dan 220V of 230V, werkt de UPS niet. Als de ingangsspanning abnormaal is, schakelt de UPS over naar de batterijmodus.	 
Batterijmodus	De UPS wordt gevoed door de accu en de accu levert ook stroom aan de consument..	

Oplaadmodus

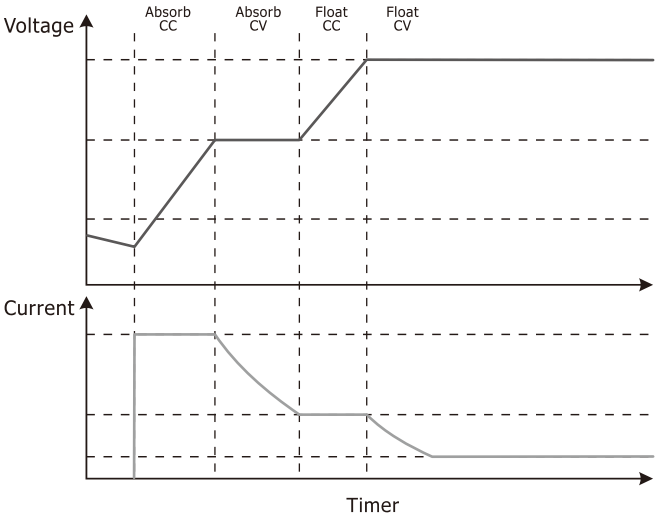
Accuspanning: 10 - 14,5 V DC

Oplaadstappen: Boost CC - Boost CV - Boost FV

Het laadalgoritme van zuurbatterijen



Het laadalgoritme van lithiumbatterijen



Foutcodes

02	Hoge temperatuur	41	Ingangsspanning te laag
03	Batterijspanning te hoog	42	Ingangsspanning te hoog
04	Batterijspanning te laag	43	Ingangsfrequentie te laag
05	Kortsluiting op de uitgang	44	Ingangsfrequentie te hoog
06	Hoge uitgangsspanning	45	AVR-storing
07	Overbelasting	51	Overstroom
11	Hoofdrelaisstoring	58	Lage uitgangsspanning

Problemen oplossen

LED/Zoemer	Display	Mogelijke oorzaak	Oplossing
Zoemer	Het icoon BATTERY knippert	Batterij ontladen	Laad de batterij op
	Het icoon knippert	Overbelasting	Verwijder een of meer verbruikers
Zoemer en rode LED aan	02 - 58 foutcode	Controleer de foutcodebe schrijving in de bovenstaande tabel	Verwijder de oorzaak van de fout volgens de bovenstaande tabel

Podstawowe funkcje

Inwerter sinusoidalny

Algorytm ładowania 3-stopniowy

Zabezpieczenie przed przeciążeniem i zwarciem

Zabezpieczenie przed odwrotną polaryzacją

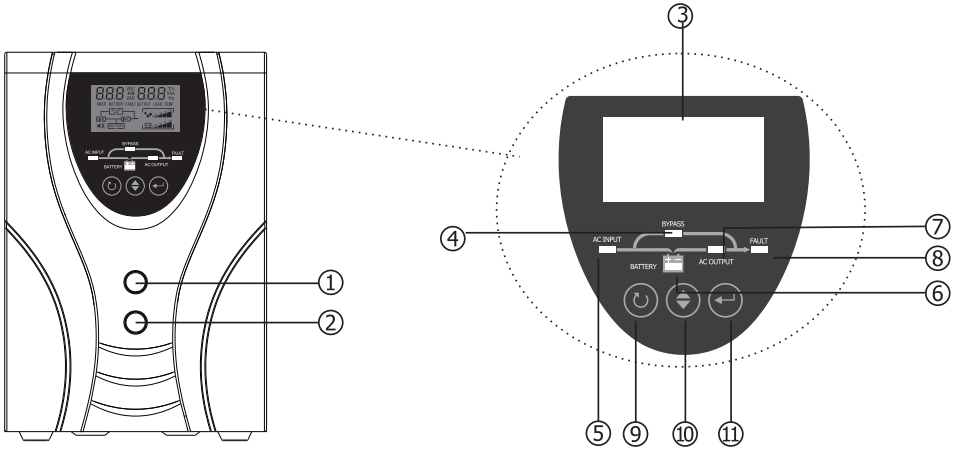
Zabezpieczenie przed nadmiernym rozładowaniem

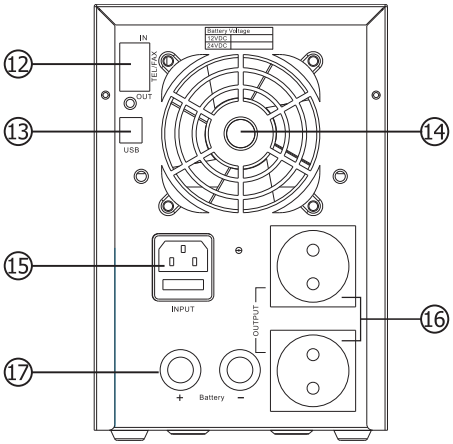
Regulowany prąd ładowania

Interfejs komunikacyjny z komputerem

Funkcja AVR

Przegląd produktu

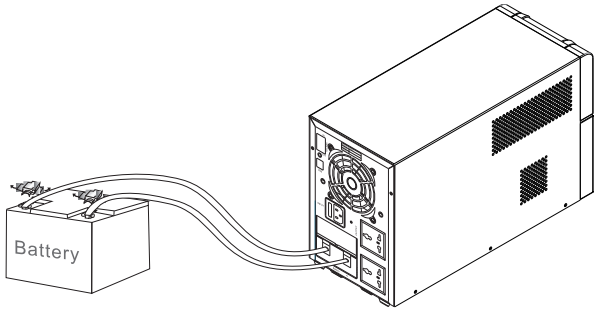




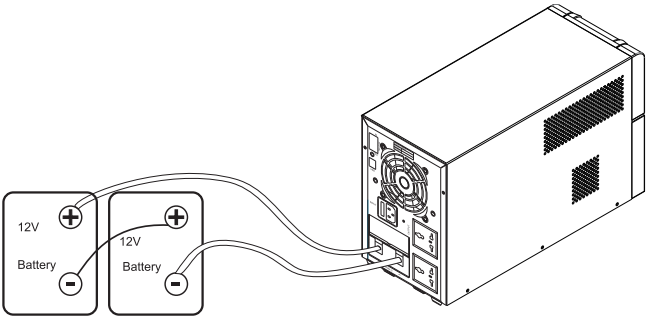
1. Włączanie	10. Przycisk wyboru informacji
2. Wyłączanie	11. Przycisk potwierdzenia
3. Ekran LCD	12. Faks/Tel.
4. Dioda LED obejścia	13. USB
5. Dioda LED wejścia AC	14. Wentylator
6. Dioda LED baterii	15. Wejście AC
7. Dioda LED wyjścia AC	16. Wyjście AC
8. Dioda LED usterki	17. Wejście baterii
9. Powrót (wyjście)	

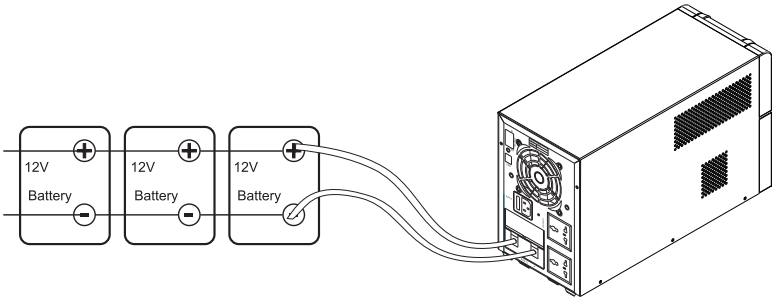
Podłączenie akumulatora

Zdejmij zaślepki ochronne z zacisków akumulatora.
Podłącz kable połączeniowe UPS do zacisków akumulatora: czerwony kabel do zacisku dodatniego (+), czarny kabel do zacisku ujemnego (-).
Zalecenie: zainstaluj wyłącznik prądu stałego na zacisku dodatnim akumulatora.
W przypadku korzystania z pojedynczego akumulatora napięcie akumulatora musi być równe znamionowemu napięciu prądu stałego UPS.



Jeśli używasz dwóch lub więcej baterii, muszą one mieć takie samo napięcie i natężenie prądu (Ah). Suma ich napięć musi być równa znamionowemu napięciu DC UPS-a..





Ostrzeżenia:

Upewnij się, że prawidłowo podłączyłeś baterie.

Upewnij się, że prawidłowo podłączyłeś kable między UPS-em a bateriami.

Zwróć uwagę na biegunowość (+/-) zaznaczoną na obudowie baterii.

Czerwony kabel musi być podłączony do zacisku dodatniego (-), a czarny kabel do zacisku ujemnego (-).

Po wykonaniu połączeń załóż z powrotem osłony ochronne.

Połączenia muszą być wykonywane przez wykwalifikowany personel.

Włączanie/wyłączanie UPS

Ostrzeżenie: nie podłączaj nieprawidłowo wejścia i wyjść UPS.

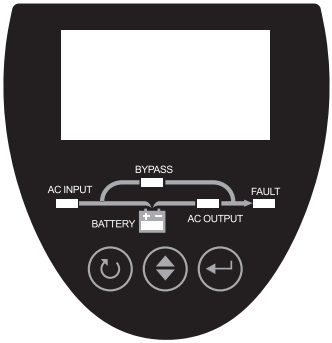
Podłącz kabel zasilający UPS do wejścia AC UPS i do gniazdka 230 V.

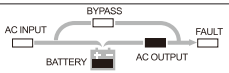
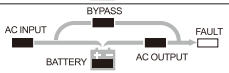
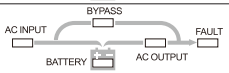
Ostrzeżenie: Nawet jeśli ekran zaświeci się po podłączeniu akumulatora, UPS nie zostanie włączony.

Aby włączyć UPS, naciśnij przycisk ON przez 2-3 sekundy. UPS potwierdzi uruchomienie długim sygnałem dźwiękowym. Na ekranie pojawią się różne wskaźniki w zależności od wykonanych połączeń. Gdy UPS jest włączony, możesz wyłączyć dźwięk ostrzegawczy, krótko naciskając przycisk ON. Ikona pojawia się na ekranie. Gdy alarm dźwiękowy jest aktywny, ikona pojawia się na ekranie.

Aby wyłączyć UPS, naciśnij przycisk OFF na 2-3 sekundy. Ekran wyłączy się..

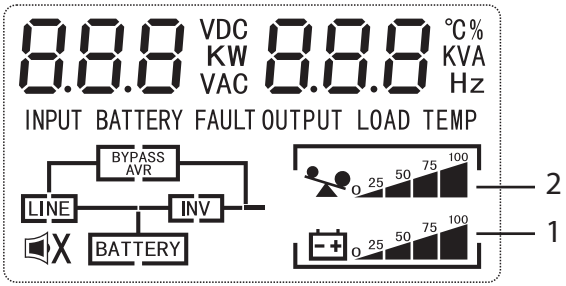
Wskaźniki LED



Tryb pracy	Wskaźniki LED
Tryb zapasowy	
Tryb sieciowy	
Tryb ładowania akumulatora	

Ostrzeżenie	Opis
Ostrzeżenie o niskim napięciu akumulatora	Krótki sygnał dźwiękowy co 2 sekundy. Czerwona dioda LED miga. Na ekranie ikona mruga.
Ostrzeżenie o przeciążeniu	Krótki sygnał dźwiękowy co 2 sekundy. Czerwona dioda LED miga. Na ekranie ikona mruga.
Ostrzeżenie o nieprawidłowym ustawieniu	Krótki sygnał dźwiękowy co 2 sekundy. Czerwona dioda LED miga. Na ekranie ikona BATTERY mruga.
Tryb błędu	Ciągły dźwięk. Czerwona dioda LED miga.

Ekran LCD



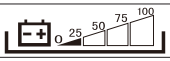
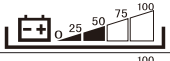
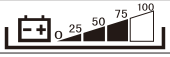
1. Wskaźnik poziomu naładowania baterii

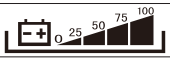
2. Wskaźnik poziomu naładowania

Informacje o baterii w trybie AC. Wskaźniki stanu naładowania baterii

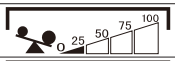
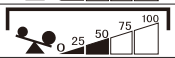
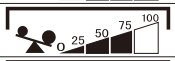
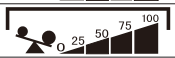
Tryb	Ładowanie akumulatora	Wskaźnik poziomu naładowania baterii
Tryb stałego prądu, tryb stałego napięcia	0 - 25%	Wszystkie paski będą migać po kolei.
	25 - 50%	Pierwszy pasek będzie się świecił. Pozostałe paski będą migać po kolei.
	50 - 75%	Pierwsze dwa paski będą się świecić. Pozostałe paski będą migać po kolei.
	75 - 100%	Pierwsze trzy paski będą się świecić. Czwarty pasek będzie migać.
Floating tryb	Akumulator w pełni naładowany	Wszystkie 4 paski będą się świecić.

Informacje o baterii w trybie baterii. Wskaźniki poziomu napięcia baterii

Napięcie akumulatora	Wskaźnik poziomu naładowania baterii
0 - 25%	
25 - 50%	
50 - 75%	

75 - 100%	

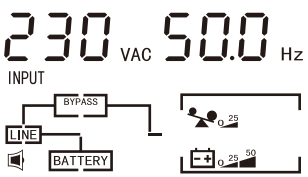
Załaduj informacje

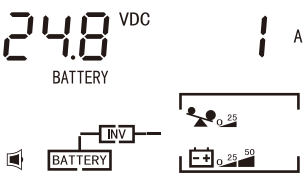
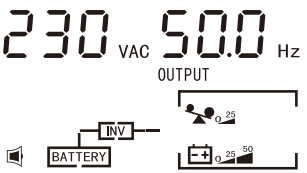
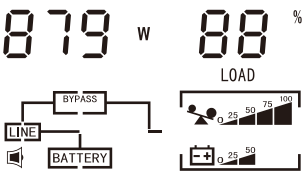
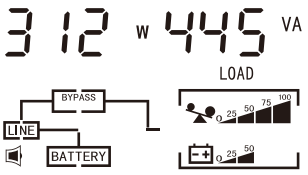
Poziom obciążenia	Wskaźnik poziomu obciążenia
0 - 25%	
25 - 50%	
50 - 75%	
75 - 100%	

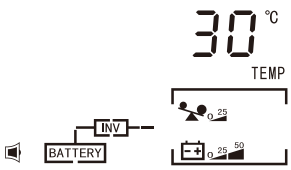
Kiedy ikona miga, oznacza przeciążenie.

Wybierz informacje, które mają być wyświetlane na ekranie

Naciśnij klawisz wyświetlać różne informacje po kolei.

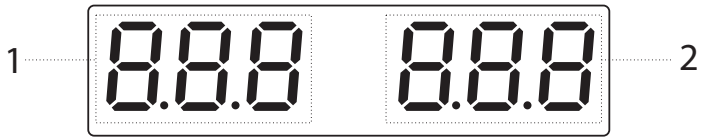
Informacje	Display
Wejście	Napięcie wejściowe = 230 V Częstotliwość wejściowa= 50 Hz 

Bateria	Napięcie akumulatora = 24,8 V Prąd akumulatora = 1 A 
Wyjście	Napięcie wyjściowe = 230 V Częstotliwość wyjściowa = 50 Hz 
Obciążenie	Moc = 879 W Procent = 88% 
Obciążenie	Moc = 312 W Moc pozorna = 445 VA 

Temperatura	Temperature = 30° 

Menu ustawień

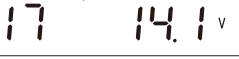
Naciśnij i przytrzymaj klawisz ↵ aby uzyskać dostęp do menu ustawień. Naciśnij krótko klawisz ponownie ↵ aby uzyskać dostęp do określonego menu i nacisnąć klawisz ▲▼ aby wybrać opcję. Naciśnij i przytrzymaj klawisz ↻ aby wyjść z menu. Wszystkie ustawienia zostaną zastosowane po ponownym uruchomieniu UPS.



1. Menu

2. Opcja do wyboru

Menu	**Opis**	**Opcje**
03	Napięcie wyjściowe	220 V 03 220 V 230 V (default) 03 230 V
04	Częstotliwość wyjściowa	50 Hz (default) 04 50 Hz 60 Hz 04 60 Hz

07	Automatyczne ponowne uruchomienie w przypadku przeciążenia	OFF (default)  ON 
13	Maksymalny prąd ładowania akumulatora z sieci	5 - 30 A (default 10 A) 
14	Typ akumulatora	Acid (default)  Lithium  Jeżeli wybrałeś opcję Lit, w menu 17, 18 i 19 możesz ustawić napięcie ładowania akumulatora i napięcie odcięcia niskiego prądu stałego
17	Napięcie ładowania w fazie absorpcji*	12.0 - 14.5 V (default 14.1 V) 
18	Napięcie ładowania w fazie podtrzymywania*	12.0 - 14.5 V (default 13.6 V) 
19	Napięcie odcięcia	10.0 - 12.0 V (default 10.5 V) 

23	Podświetlenie ekranu	OFF (default)  ON 
24	Brzęczyk	ON (default)  OFF 
29	Ładowarka AC	Enable grid charge (default)  Disable grid charge 
30	Funkcja UPS	ON (default)  OFF 

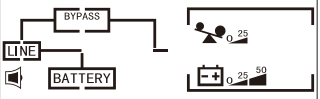
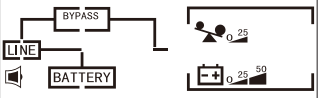
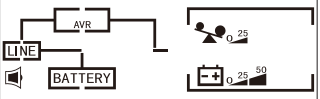
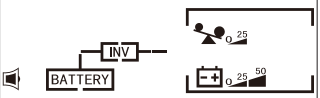
* Jeżeli napięcie ładowania podtrzymującego jest wyższe od napięcia absorpcyjnego, rozlegnie się ciągły dźwięk alarmu, zacznie migać czerwona dioda LED i ikona BATTERY będzie mrugać.

Reset

Jeśli chcesz zresetować wszystkie parametry, naciśnij i przytrzymaj klawisz ⏏ i wybierz opcję „DEF” naciskając klawisz ⏏. Naciśnij i przytrzymaj klawisz ↻ aby wyjść. Uruchom ponownie UPS.

Tryby pracy i wskaźniki na ekranie

Tryb pracy	**Opis**	**Display**

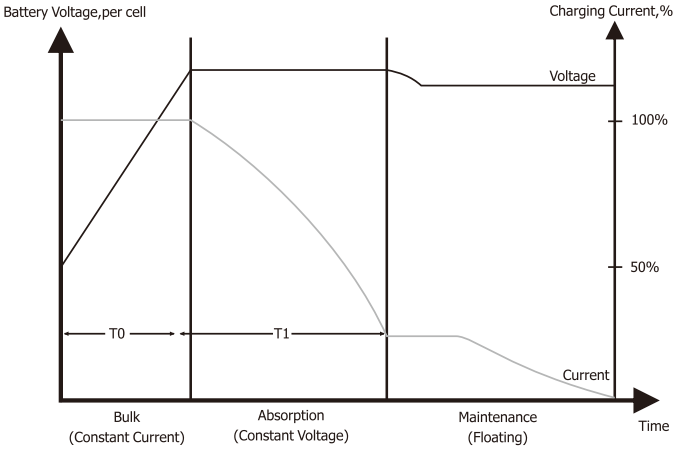
Błąd	Kod błędu jest wyświetlany na ekranie	
Tryb ładowania	W tym trybie akumulator jest ładowany z sieci. Gdy napięcie wejściowe jest nieprawidłowe, UPS wyłączy się lub przejdzie w tryb błędu	
Tryb sieciowy	Moc wejściowa zapewni energię konsumentowi i jednocześnie naładuje akumulator. Jeśli napięcie wejściowe jest inne niż 220 V lub 230 V, UPS nie będzie działać. Jeśli napięcie wejściowe jest nieprawidłowe, UPS przełączy się na tryb akumulatorowy	 
Tryb baterii	UPS będzie zasilany z akumulatora, który będzie również dostarczał energię do odbiornika..	

Tryb ładowania

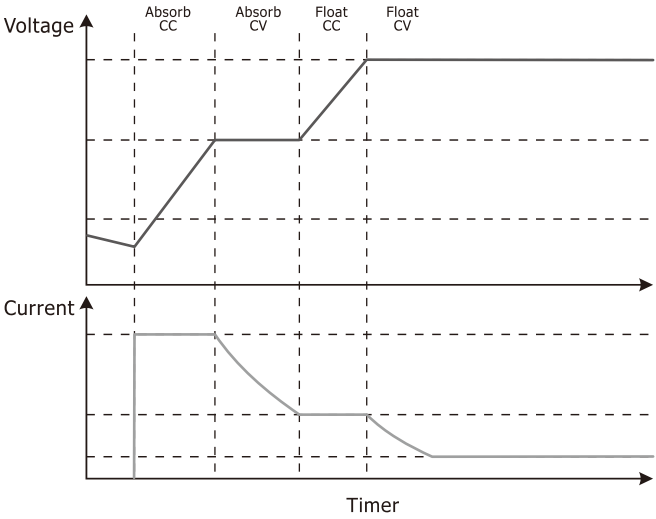
Napięcie akumulatora: 10 - 14,5 V DC

Etapy ładowania: Boost CC - Boost CV - Boost FV

Algorytm ładowania akumulatorów kwasowych



Algorytm ładowania baterii litowych



Kody błędów

02	Wysoka temperatura	41	Napięcie wejściowe za niskie
03	Napięcie akumulatora zbyt wysokie	42	Napięcie wejściowe za wysokie
04	Napięcie akumulatora zbyt niskie	43	Częstotliwość wejściowa za niska
05	Zwarcie na wyjściu	44	Częstotliwość wejściowa za wysoka
06	Wysokie napięcie wyjściowe	45	Usterka AVR
07	Przeciążenie	51	Nadprąd
11	Usterka głównego przekaźnika	58	Niskie napięcie wyjściowe

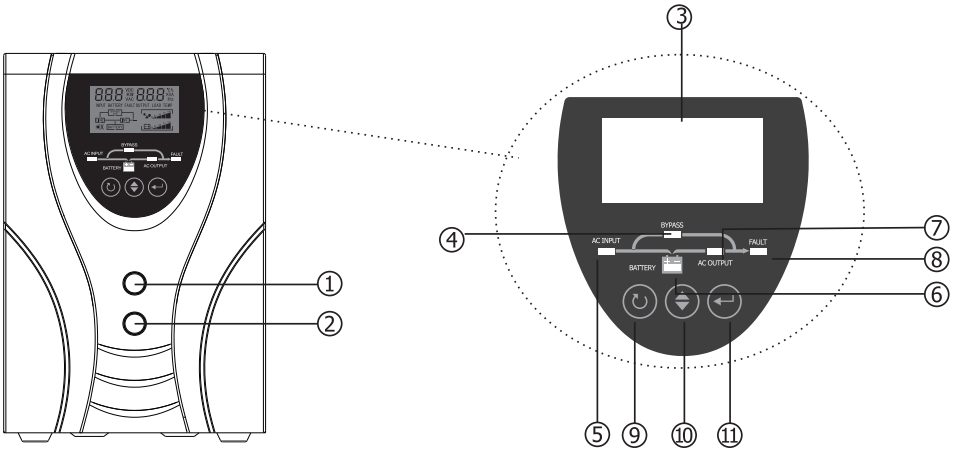
Rozwiązywanie problemów

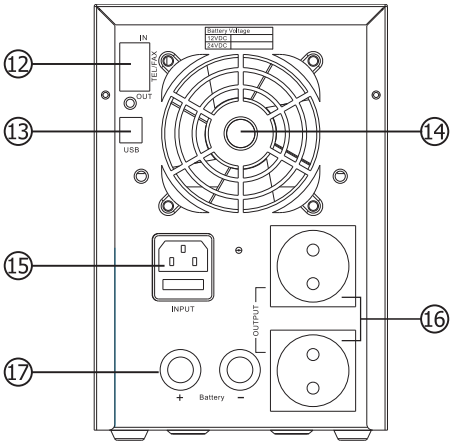
LED/Buzzer	Display	Możliwa przyczyna	Rozwiązanie
Brzęczyk	Ikona BATTERY mruga	Rozładowana bateria	Naładuj baterię
	Ikona mruga	Przeciążenie	Usuń jednego lub więcej konsumentów
Brzęczyk i czerwona dioda LED włączone	02 - 58 kod błędu	Sprawdź opis kodu błędu w tabeli powyżej	Usuń przyczynę błędu zgodnie z powyższą tabelą

Caracteristici de baza

UPS cu sinusoida pura
Algoritm de incarcare in 3 pasi
Protectie suprasarcina si scurtcircuit
Protectie polaritate inversata
Protectie supra-descarcare
Curent de incarcare reglabil
Interfata comunicare cu computerul
Functie AVR

Prezentare produs





1. Buton pornire	10. Buton selectie informatii
2. Buton oprire	11. Buton confirmare
3. Ecran LCD	12. Fax/Tel
4. LED bypass	13. USB
5. LED intrare AC	14. Ventilator
6. LED baterie	15. Intrare AC
7. LED iesire AC	16. Iesire AC
8. LED eroare	17. Intrare baterie
9. Inapoi (iesire)	

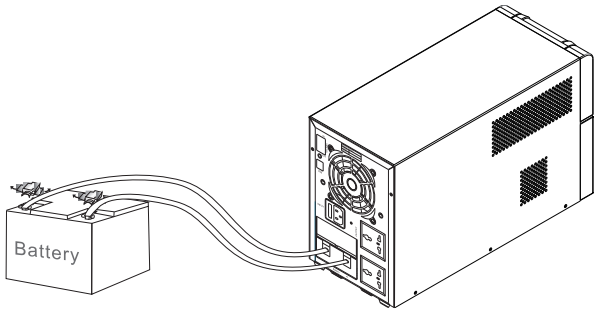
Conectare baterie

Scoateti capacele de protectie de pe terminalele bateriei.

Conectati la terminalele bateriei cablurile de conexiune ale UPS-ului: cablul rosu la terminalul pozitiv (+), cablul negru la terminalul negativ (-).

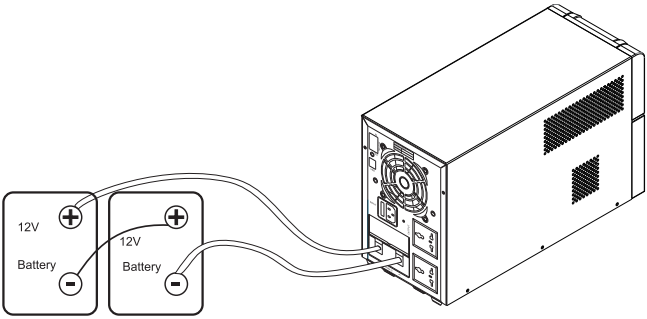
Recomandare: conectati o siguranta de protectie pe borna pozitiva (+) a bateriei.

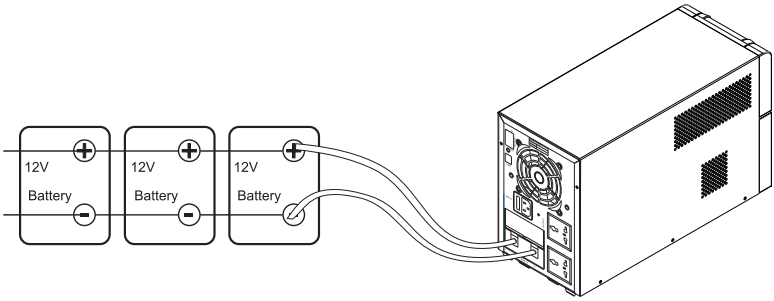
Cand folositi o singura baterie, tensiunea bateriei trebuie sa fie egala cu tensiunea nominala DC a UPS-ului.



Daca folositi doua sau mai multe baterii, acestea trebuie sa aiba aceeasi tensiune si amperaj (Ah). Suma tensiunii lor trebuie sa fie egala cu tensiunea

nominala DC a UPS-ului.





Atentionari:

Asigurati-va ca ati inseriat corect bateriile.

Asigurati-va ca ati conectat corect cablurile dintre UPS si baterii.

Fiti atenti la polaritatea (+/-) marcata de carcasa bateriei.

Cablul rosu trebuie conectat la terminalul pozitiv (-), iar cablul negru al terminalul negativ (-).

Dupa ce ati facut conexiunile, puneti capacele de protectie la loc.

Conexiunile trebuie efectuate de personal calificat.

Pornirea / Oprirea UPS-ului

Atentionare: nu conectati gresit intrarea si iesirile UPS-ului.

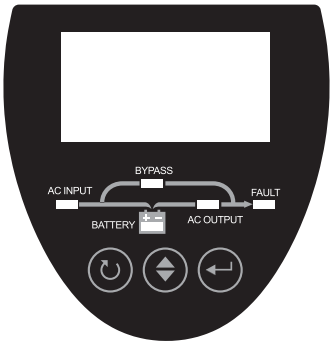
Conectati cablul de alimentare al UPS-ului in intrarea AC a UPS-ului si intr-o priza de 230V.

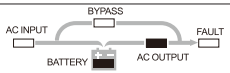
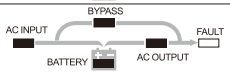
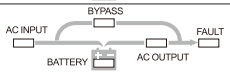
Atentionare: Chiar daca ecranul se aprinde cand conectati bateria, UPS-ul nu este pornit si functional in totalitate.

Pentru a porni UPS-ul, apasati butonul ON timp de 2-3 secunde. UPS-ul va confirma pornirea printr-un beep lung. Pe ecran vor aparea diferiti indicatori in functie de conexiunile facute. Cand UPS-ul este pornit, puteti opri alerta sonora apasand scurt butonul ON. Pe ecran apare pictograma . Cand alerta sonora este activa, pe ecran apare pictograma .

Pentru a opri complet UPS-ul, apasati butonul OFF timp de 2-3 secunde. Ecranul se va stinge.

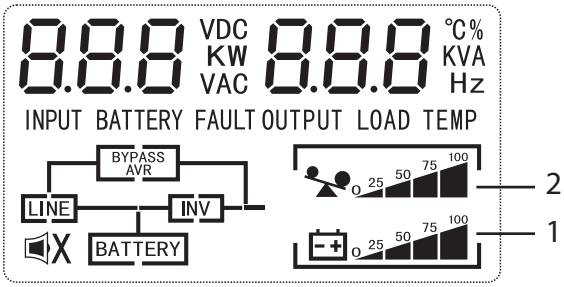
Indicatori LED



Mod de operare	Indicatori LED
Mod backup	
Mod linie	
Mod incarcare baterie	

Avertizare	Descriere
Avertizare tensiune scazuta a bateriei	Sunet scurt la fiecare 2 secunde. LED-ul rosu clipeste. Pe ecran, pictograma clipeste.
Avertizare suprasarcina	Sunet scurt la fiecare 2 secunde. LED-ul rosu clipeste. Pe ecran, pictograma clipeste.
Avertizare setari incorecte baterie	Sunet scurt la fiecare 2 secunde. LED-ul rosu clipeste. Pe ecran, pictograma BATTERY clipeste.
Mod eroare	Sunet continuu. LED-ul rosu clipeste.

Ecranul LCD



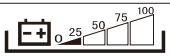
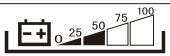
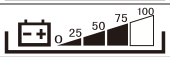
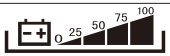
1. Indicator nivel baterie

2. Indicator nivel sarcina

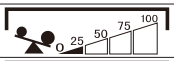
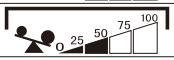
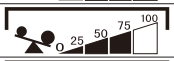
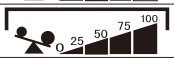
Informatii despre baterie in mod AC. Indicatori status incarcare baterie

Mod	Incarcare baterie	Indicator nivel baterie
Mod curent constant, tensiune constanta	0 - 25%	Toate barele vor clipi pe rand.
	25 - 50%	Prima bara va fi aprinsa. Restul barelor vor clipi pe rand.
	50 - 75%	Primele doua bare vor fi aprinse. Restul barelor vor clipi pe rand.
	75 - 100%	Primele trei bare vor fi aprinse. A patra bara va clipi.
Mod floating	Baterie complet incarcata	Toate cele 4 bare ale indicatorului de nivel incarcare baterie vor fi aprinse.

Informatii despre baterie in mod baterie. Indicatori nivel tensiune baterie

Tensiune baterie	Indicator nivel baterie
0 - 25%	
25 - 50%	
50 - 75%	
75 - 100%	

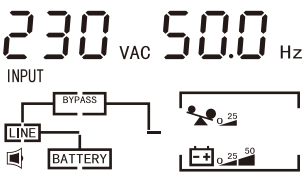
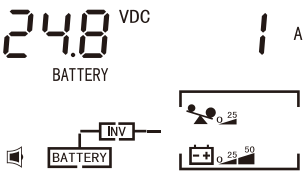
Informatii despre sarcina

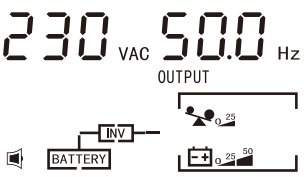
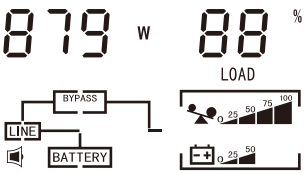
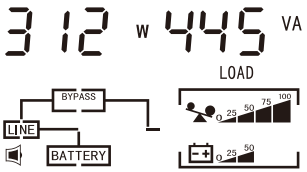
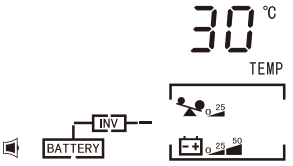
Nivel sarcina	Indicator nivel sarcina
0 - 25%	
25 - 50%	
50 - 75%	
75 - 100%	

Cand pictograma clipeste indica suprasarcina.

Selectare afisare informatii

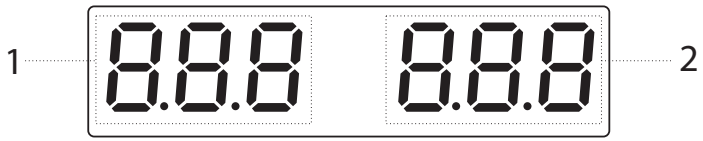
Apasati tasta pentru a afisa pe rand diferite informatii.

Informatie	Afisaj pe ecran
Intrare	Tensiune de intrare = 230 V Frecventa de intrare = 50 Hz 
Baterie	Tensiune baterie = 24.8 V Curent baterie = 1 A 

Iesire	Tensiune de iesire = 230 V Frecventa de iesire = 50 Hz 
Sarcina	Putere = 879 W Procent = 88 % 
Sarcina	Putere = 312 W Putere aparenta = 445 VA 
Temperatura	Temperatura = 30° 

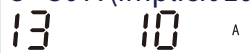
Meniu setari

Apasati lung tasta ↵ pentru a accesa meniul cu setari. Apasati din nou scurt tasta ↵ pentru a accesa un anumit meniu si tasta ▲▼ pentru a selecta o anumita optiune. Apasati lung tasta ↻ pentru a iesi din meniu. Toate setarile vor avea efect dupa repornirea UPS-ului.



1. Meniu

2. Optiune selectabila

Meniu	Descriere	Optiuni
03	Tensiune de iesire	220 V  230 V (implicit) 
04	Frecventa de iesire	50 Hz (implicit)  60 Hz 
07	Repornire automata in caz de suprasarcina	Dezactivat (implicit)  Activat 
13	Curent maxim de incarcare a bateriei de la retea	5 - 30 A (implicit 10 A) 

14	Tip baterie	Acid (implicit)  Litiu  Daca ati selectat optiunea Litiu, in meniurile 17, 18 si 19 puteti seta tensiunea de incarcare a bateriei si tensiunea de intrerupere DC joasa
17	Tensiune de incarcare in faza de absorbtie *	12.0 - 14.5 V (implicit 14.1 V) 
18	Tensiune de incarcare in faza float *	12.0 - 14.5 V (implicit 13.6 V) 
19	Tensiune de intrerupere	10.0 - 12.0 V (implicit 10.5 V) 
23	Lumina de fundal ecran	OFF, stins (implicit)  ON, aprins 
24	Buzzer	ON, activ (implicit)  OFF, dezactivat 

29	Incarcator AC	Activeaza incarcarea de la retea (implicit)  Dezactiveaza incarcarea de la retea 
30	Functie UPS	ON, activ (implicit)  OFF, dezactivat 

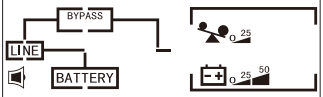
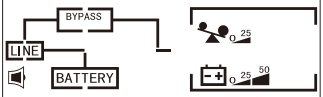
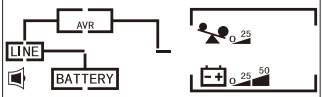
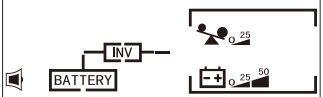
* Daca tensiunea de incarcare float este mai mare decat tensiunea de absorbtie, se va auzi un sunet de alarma continuu, LED-ul rosu va clipi, iar pe ecran pictograma BATTERY va clipi.

Reset

Daca doriti sa resetati toti parametrii, apasati lung tasta ⇕ si selectati optiunea “DEF“ apasand tasta ⇕. Apasati lung tasta ↻ pentru a iesi. Toti parametrii au revenit la valorile din fabrica. Reporniti UPS-ul.

Moduri de operare si indicatorii de pe ecran

Mod operare	**Descriere**	**Afisaj pe ecran**
Eroare	Codul de eroare este afisat pe ecran	

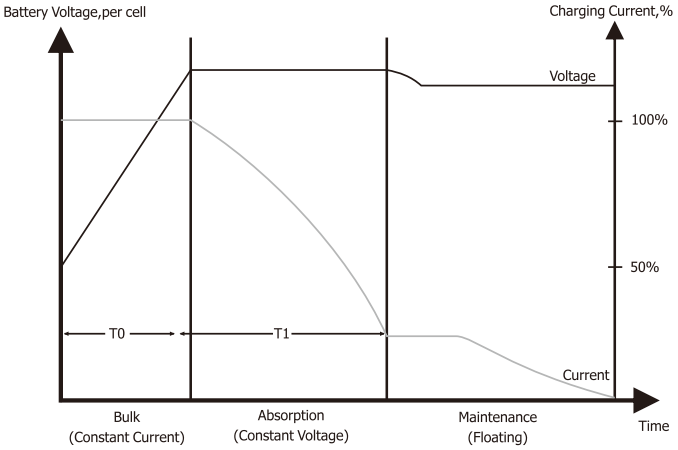
Mod incarcare	In acest mod, bateria se incarca de la retea. Cand tensiunea de intrare este anormala, UPS-ul e va inchide sau va trece pe modul eroare	
Mod linie	Tensiunea de intrare a UPS-ului va alimenta consumatorul si va incarca si bateria in acelasi timp. Daca tensiunea de intrare este diferita fata de 220V sau 230V, UPS-ul nu va functiona. Daca tensiunea de intrare este anormala, UPS-ul va trece pe modul baterie.	 
Mod baterie	UPS-ul se va alimenta de la baterie si tot de la baterie va oferi si energie pentru consumator.	

Mod de incarcare

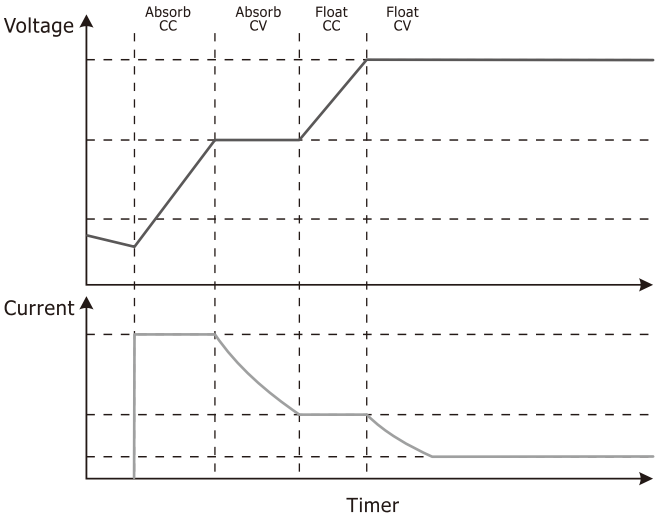
Tensiune baterie: 10 - 14.5 V DC

Regula de incarcare: Boost CC - Boost CV - Boost FV

Algoritmul de incarcare al bateriilor cu acid



Algoritmul de incarcare al bateriilor cu Litiu



Coduri de eroare

02	Temperatura ridicata	41	Tensiune de intrare prea mica
03	Tensiune baterie prea mare	42	Tensiune de intrare prea mare
04	Tensiune baterie prea mica	43	Frecventa semnal intrare prea mica
05	Scurtcircuit pe iesire	44	Frecventa semnal intrare prea mare
06	Tensiune de iesire mare	45	Eroare AVR
07	Suprasarcina	51	Curent prea mare
11	Eroare releu principal	58	Tensiune de iesire mica

Probleme si solutii

LED/alerta sonora	**Ecran**	**Posibila cauza**	**Solutie**
Doar alerta sonora	Pictograma BATTERY clipeste	Baterie descarcata	Incarcati bateria
	Pictograma clipeste	Suprasarcina	Eliminati unul sau mai multi consumatori
Alerta sonora continua si LED-ul rosu aprins	Cod eroare 02 - 58	Verificati descrierea codului de eroare in tabelul de mai sus	Indepartati sursa erorii conform tabelului de mai sus