



Security II Series Uninterruptible Power Manager

For use with 420VA, 600VA, 800VA, 1100VA, 1440VA, 2200VA, and 3000VA
RoHS Compliant Uninterruptible Power Manager



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IMPORTANT NOTICE ON BATTERY WARRANTY

The UPM can be used in two different applications:

- 1. Typical “UPS” Use – used as automatic emergency power to provide continuous AC power to protect critical systems from either momentary or extended AC mains power failures that originate either inside or outside of a building.**
- 2. Portable Power Support – used as a source of AC power to critical systems on wheeled carts to continue to power a system while moving from place to place within a building.**

NOTE:

- The standard length of the battery warranty (Section 8 of this manual) is only valid for “Typical UPS” applications.**
- In Portable Power Support applications, the length of the battery warranty is limited to 90 days from the date the UPM is shipped from AMETEK Powervar.**

Difference Explained:

- All batteries loose capacity over time as the internal materials age.**
- When batteries are charged and discharged often, aging accelerates.**
- In Portable Power Support applications where UPMs are intentionally disconnected and reconnected to AC mains power several times a day, or week, the useful life of the battery could be limited to as short as 3-9 months depending on actual use, and how long the UPM is left disconnected from AC mains with battery fully or partially discharged.**

Reference the full warranty statement in Section 8, for further details.



DANGER



CAUTION



WARNING



ATTENTION

Danger- The danger symbol is used to indicate imminently hazardous situations, locations, and conditions which, if not avoided, **WILL** result in death, serious injury, and/or severe property damage.

Caution- The caution symbol is used to indicate potentially hazardous situations and conditions which, if not avoided, may result in injury. Equipment damage may also occur.

Warning- The warning symbol is used to indicate potentially hazardous situations and conditions which, if not avoided, **COULD** result in serious injury or death. Severe property damage **COULD** also occur.

Attention- The attention warning symbol is used to indicate situations and conditions that can cause operator injury and/or equipment damage.

Other warning symbols may appear along with the Danger and Caution symbol and are used to specify special hazards. These warnings describe particular areas where special care and/or procedures are required in order to prevent serious injury and possible death.



Electrical warnings- The electrical warning symbol is a lightning bolt mark enclosed in a triangle. The electrical warning symbol is used to indicate high voltage locations and conditions may cause serious injury or death.



Explosion warnings- The explosion warning symbol is an explosion mark enclosed in a triangle. The explosion warning symbol is used to indicate locations and conditions where molten, exploding parts may cause serious injury or death if the proper precautions are not observed.



Alternating Current



Refer to instruction manual/booklet.

1.0 INTRODUCTION

Thank you for your purchase of the AMETEK Powervar Security II Series UPM (hereafter referred to as “UPM”). AMETEK Powervar manufactures two versions of the UPM – a standard version, and a medical version listed to UL60601-1 and cUL C22.2 No. 60601.1. In addition, all models are compatible with International electrical distribution systems. International versions are UL listed (Medical listed to IEC60601-1 and EN60601) and carry the CE Mark. We’ve prepared this document to help familiarize you with the functions and controls of this product. If, after reviewing this manual, you have any questions at all, please feel free to contact our technical support team by phone (1-800-369-7179) or email us at rma.powervar@ametek.com.

AMETEK Powervar is a global provider of power management solutions, headquartered in Waukegan, Illinois, with international sales and distribution offices in Swindon, United Kingdom, Toronto, Canada, Mexico City, Mexico and Germany. All AMETEK Powervar solutions incorporate a high energy surge diverter, a noise filter and a low impedance isolation transformer. Together these components prevent power disturbances from destroying, degrading or disrupting system operations.

Registering your AMETEK Powervar Product

Please take a few moments to register your product purchase.

Registration is easy and quick via the product registration page found on our website at powervar.com.

2.0 SAFETY INSTRUCTIONS

IMPORTANT - SAVE THESE INSTRUCTIONS

**THIS MANUAL CONTAINS IMPORTANT SAFETY INSTRUCTIONS.
KEEP THIS MANUAL HANDY FOR REFERENCE.**



CAUTION

A battery can present a risk of electrical shock. Short-circuit currents can be extremely high and can create severe burns as well as the risk of fire or explosion from vented gases. Always observe proper precautions.

When replacing batteries, use the same quantity, rating and type of batteries used by AMETEK Powervar. The batteries used in this UPM are sealed lead-acid and are maintenance free. Proper disposal of batteries is required. Refer to your local codes for disposal of batteries.

<i>UPM Rating</i>	<i>Quantity and Battery Rating</i>
420 VA	2 X 21W @ 12 VOLT
600 VA	2 X 34W @ 12 VOLT
800 VA	2 X 34W @ 12 VOLT
1100 VA	4 X 34W @ 12 VOLT
1440 VA	4 X 34W @ 12 VOLT
2200 VA	8 X 34W @ 12 VOLT
3000 VA	8 X 34W @ 12 VOLT



CAUTION

- This UPM contains voltages which are potentially hazardous. All repairs should be performed by qualified service personnel.
- To reduce the risk of fire, connect only to a circuit provided with 20 amperes maximum branch circuit over-current protection in accordance with the National Electric Code, ANSI/NFPA 70.
- The UPM has its own internal energy source (battery). The output receptacles of the UPM may be live even when the UPM is not connected to an AC Supply.

Statement of Intended use

The medical UPMs are intended to protect medical, non-medical computer equipment and medical devices that need battery backup, surge protection, voltage regulation and line noise filtering in and around patient care areas. Safe and continuous operation of the UPM depends partially on the care taken by users. Please observe the following precautions. Not following these could result in warranty being voided.

NOTE:

- Portable Power Support Applications - If the UPM is integrated on to a mobile cart, it must be secured to the cart and tested in the application. If the UPM was provided as part of a system on a cart by a system OEM, refer to the specific mounting instructions and accessories provided by the system OEM.
- This UPM is intended for patient vicinity. AMETEK Powervar products are not designed for use in any application intended to support or sustain life.
- Do not use this UPM for life support applications in which a malfunction or failure of the UPM system could cause failure or significantly alter the performance of a life-support device.
- Do not use this UPM near or around flammable gases. Do not use this UPM within oxygen-enriched atmospheres.
- Do not disassemble the UPM.
- UPM is CLASS 1 equipment.
- Do not attempt to power the UPM from any receptacle except a properly grounded receptacle that matches the input plug provided with the UPM.
- Do not place the UPM near water or in environments of excessive humidity.
- Do not allow liquid or any foreign object to get inside the UPM.
- Do not block air vents on the side of the UPM. Keep a minimum of 3 inches on all sides.
- Do not plug appliances such as hair dryers, fans, heaters, etc. into the UPM.
- Do not place the UPM under direct sunshine or close to heat emitting sources (excessively warm temperatures will shorten battery life).
- This UPM is intended for installation in a temperature controlled, indoor area free of conductive contaminants.

- The AC power source for the UPM should be conveniently near the UPM and easily accessible – avoid extension cords or temporary power strips to power the UPM.
- The total leakage current of the UPM and consumer connected equipment should not exceed 3.5 mA for non-medical units.
- Not for use in a computer room as defined in the Standard for the Protection of Electronic Computer/Data Processing Equipment, ANSI/NFPA 75.
- The socket-outlet shall be installed near the equipment and shall be easily accessible.
- The battery should be disconnected from the UPM by unplugging at its quick connectors when maintenance or service work inside the UPM is necessary and when not consistently connected to the AC mains power.
- Do not dispose of batteries in a fire – batteries may explode.
- Do not open or mutilate batteries. Doing so may release electrolyte or other toxic substances, which may be harmful to the skin, eyes, or the environment.

A battery can present a risk of electric shock and high short circuit current. The following precautions should be observed when working with batteries:

- Remove watches, rings, or any other metal jewelry or objects which may make contact with the battery.
- Use tools with insulated handles.

FCC Issues



This UPM has been tested and found to comply with the limits for a Class A digital devices (Class B compliance optional), pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in both residential and commercial environments.

This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio and/or television reception, which can be determined by turning the UPM equipment on and off, the user is encouraged to try to correct the interference by one or more of the following measures:

- Relocate the UPM.
- Relocate the load.

This device complies to Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept interference received, including interference that may cause undesired operation.

3.0 INSTALLATION

Inspecting the UPM

If any equipment has been damaged during shipment, keep the shipping cartons and packing materials for the carrier or place of purchase and file a claim for shipping damage:

1. File with the carrier within 15 days of receipt of the equipment;
2. Send a copy of the damage claim within 15 days to your service representative.

NOTE:

Check the battery recharge date on the shipping carton label. If the date has passed and the batteries were never recharged, do not use the UPM. Contact your service representative.

Quick Start Guide

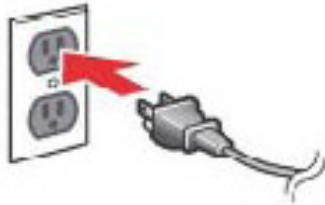
Security II - Quick Start Guide

This unit is shipped with the internal batteries disconnected.
Before starting the UPM, please follow these battery connection instructions.

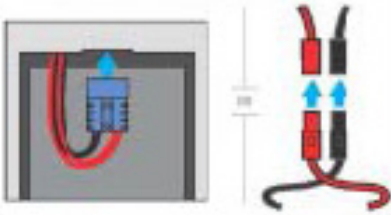
1. Remove UPM from the box



2. Plug UPM into the wall



3. Remove UPM front cover and connect battery connector



4. Put front cover back on and remove the yellow warning label



5. Turn UPM on by pressing ON button for **3 seconds**



IMPORTANT:

Wait 15 seconds after inserting the battery plug(s) before pressing the ON switch on the UPM front panel.

If you ship the UPM to another location at a later date, disconnect the battery plug(s) first to ensure that safety is maintained during shipment.

Unpacking the UPM

CAUTION

- Unpacking the unit in a low-temperature environment may cause condensation to occur in and on the unit. Do not install the unit until the inside and outside of the unit are absolutely dry {hazard of electric shock}.
- The unit is heavy. Use caution when unpacking and moving the unit.

Use care when moving and opening the carton. Leave the components packaged until ready to install.

To unpack the unit and accessories:

1. Open the outer carton and remove the accessories packaged with the unit.
2. Carefully lift the unit out of the outer carton.
3. Store the carton for future use.

Place the unit in a protected area that has adequate airflow and is free of humidity, flammable gas and corrosion.

NOTE:

Before installation, please read and understand the following instructions. Carefully examine the carton for damage. Notify the carrier immediately if damage is observed. Be sure to save the carton should you ever need to ship the UPM for repair or maintenance.



This UPM is intended for indoor use only. Although your UPM is very rugged, its internal components are not sealed from the environment. The UPM must be installed in a protected environment away from heat producing appliances such as furnaces, radiators, and heaters. Protect the UPM from exposure to dripping or standing water and high humidity or condensing air conditions.

The location should provide adequate airflow around the UPM. Provide a minimum 3" clearance on all sides for proper ventilation.

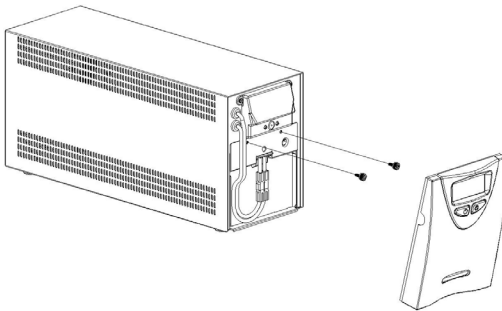
Applying Power to the UPM

Connect the power cord to a verified grounded 3 wire receptacle. Verify that the Site Wiring Fault “SF” is off (120 VAC models only). Once properly connected and initially checked, turn on the UPM by pressing and holding the front panel On/Off switch for 3 seconds.

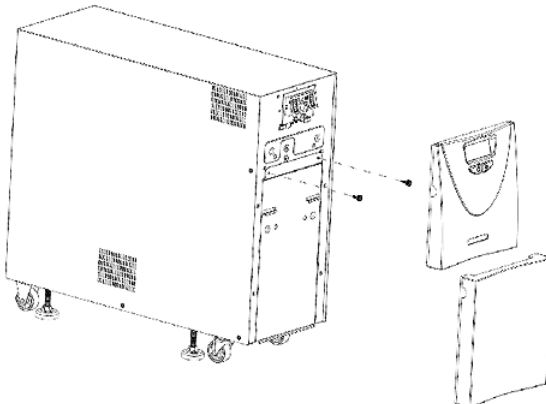
NOTE:

After applying power to the UPM, you must plug the battery enable plug(s) into the battery enable socket(s) behind the front panel of the UPM to operate.aaaa

420VA to 1440VA

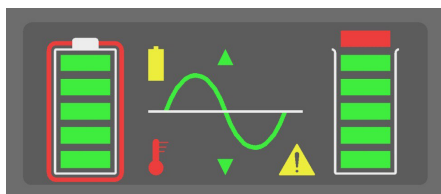


2200VA to 3000VA



Operational Tests

Observe the front panel of the UPM. The following table shows system status behavior.



UPM Front Panel

UPM LED DISPLAY	UNIT STATUS
	UPM output on
	Battery charge status in 20% increments
	UPM load status in 20% increments
	UPM in battery operation due to improper incoming AC voltage
	UPM overloaded
	Battery fault or battery disconnected
	Unit in buck operation due to high incoming AC voltage
	Unit in boost operation due to low incoming AC voltage
	Fault
	UPM over temperature

UPM Load and Battery Indicators



UPM display showing normal operation
(Fully charged batteries with 60% load shown)



UPM display showing in battery backup operation
(Batteries 80% charged with 60% load shown)



UPM display showing an overload condition (Batteries
100% charged and greater than 100% load shown)



UPM display showing over-temperature condition
(Batteries 80% charged with 80% load shown)



UPM display showing a bad battery condition
(Inspect or replace battery unit loaded to 60%)

NOTE:

Depending on the charge state of the battery, it is possible that the battery charge level LEDs may be flashing (this is normal).



Initial Startup

With the connected equipment powered off, perform an initial test of the UPM backup function by pressing the Test/Silence button on the front panel for 5 seconds. During this test, the Battery LED () on the front panel should briefly illuminate. It is also possible to test the backup function by unplugging the UPM input power cord. If you choose to test the UPM in this manner, you will note that the UPM will beep every few seconds while the power cord is unplugged. The Battery LED () will also illuminate constantly.

Once you have performed an initial test of the UPM backup function, turn on the connected computer equipment. Verify that the unit is not overloaded. If the unit is overloaded all load LED's will be on the fault LED () will flash, remove the least critical devices from the UPM one by one until the overload LED is extinguished. With the connected loads powered up, perform the backup test once again by pressing the Test/

Silence button or unplugging the UPM. When this final test is completed, the UPM will be ready to use.

Reference the below UPM fault code chart to identify the status of the UPM.

UPM Status Code	Definition
IF	Inverter fault
BE	Back-Feed fault
HL	Unit is off due to a high line
LL	Unit is off due to a low line
DB	Unit is off due to a low battery
FF	Fan fault
SF	Site wiring fault

NOTE:

- If the UPM is on continuously, it will perform an auto battery test every six days.
- If you are utilizing MopUPS Pro software or the iSitePRO network adapter, you can configure the system to automatically self-test periodically.
- The UPM is shipped with a charged battery, but some discharge naturally occurs during storage and shipment. You may use the UPM immediately, but you should realize that backup time may be less than the stated rating until the UPM battery has had at least six hours to charge.
- AMETEK Powervar recommends that you do not plug laser printers into the UPM. Laser printers are known to draw large amounts of current when the fuser/heater assembly is energized. Laser printers can easily overload the UPM or create a low voltage condition that can interfere with the operation of the Voltage Manager circuit.

4.0 OPERATION

On/Off Button

The On/Off button is a dual function control:

- When the UPM is off and AC power is present to the UPM input, pressing the On/Off button for more than 2 seconds will turn the UPM output on.
- If battery is connected, pressing the On/Off switch for 2 seconds or more will “cold-start” the UPM on its internal battery with no incoming AC present.
- When the UPM is on, pressing the On/Off button for more than 2 seconds will turn off the UPM output power.

Test/Silence Button

The Test/Silence button is a dual function control:

- Pressing the Test/Silence button when AC power is present and the UPM is operating causes the UPM to enter a self test mode in which it tests both battery and inverter for a few seconds before returning to the AC supply. We recommend you close all open files before initiating self-test.
- When AC power fails, the UPM warns you with an audible alarm. The Test/Silence button is used to silence the alarm. When battery power begins to run low, the audible alarm will automatically return and beep at a faster rate.

Load Monitor

The Load Monitor is a six-segment LED display that shows the current load percentage. The first 5 LED's each indicate approximately 20% load, with the 6th red LED showing the UPM is overloaded.

Battery Charge Monitor

The Battery Charge Monitor is a five-segment LED display that shows the charge capacity of the internal battery from zero to 100%. Each LED indicates approximately 20% of full charge.

Site Wiring Fault Indicator – (120 VAC models only)

The SF symbol will be displayed on the front panel of the UPM if it is connected to an improperly wired AC receptacle. This is to indicate a missing safety ground wire or a reversal in phase and neutral wiring. If

the “SF” is displayed on the front panel you should contact a qualified electrician immediately.

NOTE:

Do not operate the UPM if the Site Wiring Fault LED is illuminated. When lit, the LED is indicating a wiring condition, which may represent a hazard of fire or electrocution. In addition, improper wiring may create reliability problems for both the UPM and the connected system. Never use a 3-blade to 2-blade adapter (often called a “cheater”) to power UPM. These devices remove the safety ground connection to the UPM and will cause the Site Wiring Fault LED to illuminate.

Start Manager

When AC power is not available, such as in a new installation where wiring may be incomplete, you can still start the UPM to test its operation and the operation of your system using Start Manager. With the UPM off, follow these simple steps:

1. Disconnect the input AC power cable from the AC mains.
2. Ensure that the batteries are connected behind the front panel.
3. Press and hold the On/Off switch on the front panel until the UPM beeps.
4. The UPM is now running on battery. When you have finished, press the On/Off switch again. Plug the input AC power cable into the rear panel of the UPM.

SPECIAL FEATURES AND OPTIONS

The back panel of the Security II UPM offers special features that can be used to meet unique requirements such as: automated safe shutdown of protected computers, remote status monitoring, service diagnostics, load shedding, and sequenced start up.

AMETEK Powervar offers web-based and software options you may find helpful for managing your connected loads. A full complement of these offerings can be found on the [Powervar website](#).

Feature Highlights:

- Secure, remote monitoring of power quality and battery health.
- Real-time management with email and SNMP traps notifications.
- Proactive identification of problematic trends with event and data logging.
- Remote monitoring and alarm notifications via network or building management systems.
- Automated load shedding to save battery power for other loads.
- Automated safe shutdown of protected systems when AC outages exceed UPM battery capacity.
- Integrated switched PDU for remote socket control, load shedding, or sequenced start-up on AC power fail recovery.

5.0 MAINTENANCE

STORAGE

A charged battery, disconnected from a UPM or load, can maintain ideal voltage for approximately six months before recharge is necessary.

A discharged battery needs to be recharged within 72 hours of the discharge to avoid permanent battery damage. Storing a UPM with the battery connected can cause permanent battery damage and therefore, the battery must always be disconnected when storing the UPS.

The UPM may be stored for extended periods in an environment that does not subject the UPM to extremes of temperature or humidity.

When storing for extended periods, the battery should be charged every six months. If the storage location is characterized by above 77°F temperature, the battery should be recharged every two months. The UPM does not need to be turned on for charging to occur – it only needs to be plugged in with batteries connected. Batteries must be disconnected when charging cycle is complete and UPM is returned to storage.

NOTE:

This product is not designed for continuous use on batteries. UPM should always be plugged in to AC mains voltage when not being used in battery back-up mode to avoid damaging internal batteries, resulting in the battery not operating correctly (i.e. overheating or inability to retain a charge).

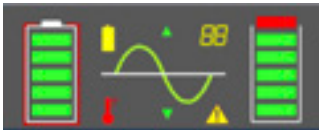
The UPM firmware in this unit provides an additional warning and alarm to help prevent and detect this condition.

1. Battery Connected Warning – helps prevent the UPM from being stored with the battery connected. This will cause the display to flash the pattern below and sound the audible alarm indicating to disconnect the battery. This will occur when:

- AC is removed, the output is turned off, and the battery is connected.
- Operating on battery back-up (no AC present) and output is turned off or the battery is depleted.



2. Deeply Discharged Battery Alarm – when detected will flash the pattern below and sound the audible alarm, indicating to remove AC Power, and call AMETEK Powervar service for a battery replacement at 1-800-369-7179.



IMPORTANT INFORMATION

The batteries inside this UPM are a special type called “sealed lead-acid”. These batteries use a non-liquid electrolyte, which makes it possible to use them in any physical orientation. The batteries are designed to last from two to five years. Their actual life span will depend on several factors including how often power outages occur, how long power outages last, and the temperature of the environment in which the UPM operates. Frequent, long duration power outages will shorten battery life more than infrequent, short duration outages. Consistent high temperatures in the area where the UPM is used will also shorten battery life.

The UPM is equipped with a Low/Replace Battery LED () on the front panel. If the LED illuminates, you should make sure that the battery

has at least six hours to charge without a power interruption. Inadequate (much shorter than usual) backup time, premature low battery alarm sounds, and persistent Low/Replace Battery LED illumination are all good signs that the batteries inside your UPM requires replacement. The batteries inside your UPM are designed to be replaced by an authorized service personnel only. Please familiarize yourself with the following precautions before proceeding with battery replacement.

 WARNING

Servicing of batteries should always be performed or supervised by someone who has read and understood the following precautions and who understands the hazards associated with storage batteries. This procedure should not be performed by someone who is unauthorized or who is incapable of following these precautions.

 CAUTION

- Only the battery assembly in this unit is user serviceable (non-medical units only). The battery compartment is accessed by removing the front panel as described in the following instructions. No other user serviceable parts are contained in this UPM. Do not remove any cover other than the front battery access panels.
- A battery (even a depleted one) can deliver very high currents when short-circuited. There is a danger of electrical shock. Remove all watches, rings, bracelets or other metal objects. Use only tools with insulated handles.
- Do not dispose of batteries in a fire. There is a danger of explosion.
- Do not dispose of batteries in an environmentally unfriendly manner. Batteries may be returned to AMETEK Powervar for proper disposal.
- Do not open or mutilate the batteries. This may release electrolyte that is toxic to the environment and harmful to the skin and eyes.
- Replacement batteries may be ordered from AMETEK Powervar by phone or via our website at www.powervar.com.
- Medical units have no user serviceable parts inside.

User Replaceable Battery (Non-medical units only)

Eventually every UPM requires a new battery. AMETEK Powervar expects the battery in your UPM to last a minimum of two years – perhaps longer if power outages are short and infrequent. The UPM makes battery replacement by the user fast and easy. It is not necessary to turn off the UPM or the connected system. The UPM allows the battery to be “hot-swapped” while the system is running.

NOTE:

Changing the batteries in this UPM is designed to be a safe and simple procedure. Batteries may be replaced while the UPM is on and providing power to the connected load. You should remember, however, that if a power outage occurs after the old batteries are disconnected and before the new batteries are installed, power will be lost to your connected system and components.



RISK OF EXPLOSION IF BATTERY IS REPLACED BY INCORRECT TYPE.

When replacing batteries, contact Powervar for correct battery replacement kits. Reference replacement kit part numbers below.

<i>VA Rating</i>	<i>Replacement Battery Kit Part No.</i>
420	50842-01
600/800	50880-01
1100/1440	50814-01
2200/3000	50822-01

 CAUTION

Risk of Energy Hazard, 12V, maximum 8.5 Ampere-hour batteries. Before replacing batteries, remove conductive jewelry such as chains, wrist watches, and rings. High energy through conductive materials could cause severe burns.

 CAUTION

Do not dispose of batteries in a fire. The batteries may explode.

 CAUTION

Do not open or mutilate batteries. Released material is harmful to the skin and eyes. It may be toxic. A battery can present a risk of electrical shock and high short circuit current. The following precautions should be observed when working with batteries:

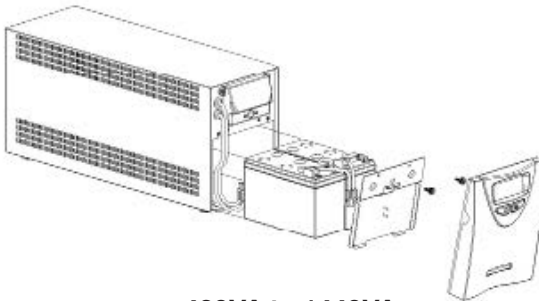
- Remove watches, rings or other metal objects.
- Use tools with insulated handles.
- Wear rubber gloves and boots.
- Do not lay tools or metal parts on top of batteries.
- Disconnect the charging source prior to connecting or disconnecting battery terminals.
- Determine if battery is inadvertently grounded. If inadvertently grounded remove source from ground. Contact with any part of grounded battery can result in electrical shock.

NOTE:

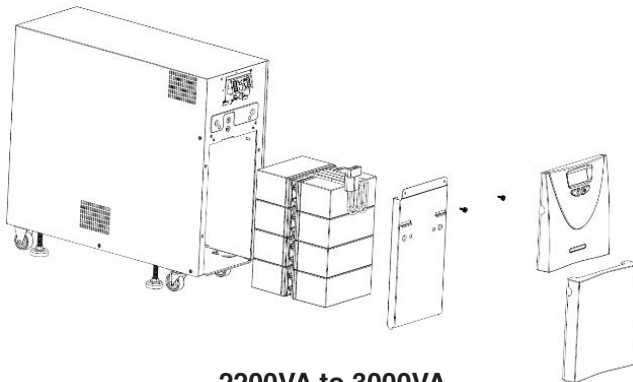
If you have read and understood the cautions preceding this section, you may proceed with the following steps.

Battery Replacement (Non-medical units only)

1. Carefully pull the front panel away from the unit. The panel should pop loose. (Refer to figure on page 13)
2. Disconnect the red and black connector from each other.
3. Loosen the (2) thumb screws that attach the battery door to the unit.
4. Remove the battery door. Carefully slide the old batteries out and put aside.
5. Replace with new batteries (ensure same battery size and type are used).
6. Reinstall the battery door and tighten the thumb screws.
7. Re-connect the red and black connectors with each other.
8. Carefully reinsert the front panel back on to the UPM (ensure none of the battery wires are pinched).



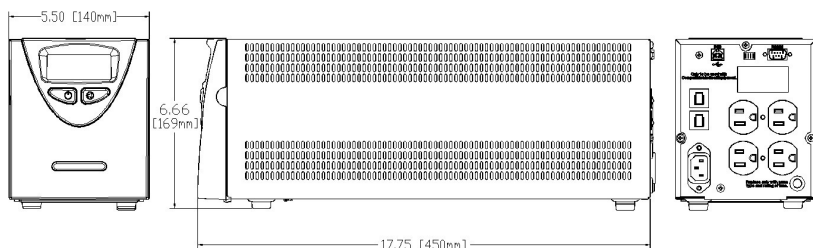
420VA to 1440VA



2200VA to 3000VA

6.0 SPECIFICATIONS

North American Models ABCE422-11 and ABCE422-11MED



	ABCE422-11 50042-02R	ABCE422-11MED 50042-22R
Type	Standard	Medical Grade
Power Rating (VA/Watts)	420 / 378	420 / 378
Inverter Waveform	Low Distortion Sine Wave	Low Distortion Sine Wave
Transfer Time	4 ms. Typical	4 ms. Typical
Frequency	60 Hz.	60 Hz.
BTU/Hr.	140	140
T.H.D. w/100% Resistive Load	<4% On Battery	<4% On Battery
Online Efficiency (w/o Charger)	90%	90%
Input Voltage	120	120
Input Current	5.18 Amps	5.18 Amps
Output Voltage	120	120
Output Current (VA/Watts)	3.50 / 3.20 Amps	3.50 / 3.20 Amps
Input Voltage Range (w/o Using Battery)	96 to 144 Volts	96 to 144 Volts
Output Regulation (On Mains)	± 10%	± 10%
Output Regulation (On Battery)	± 5%	± 5%
Backup Time at Full Load (0.7 P.F.)	5 Minutes	5 Minutes
Floor Mountable	Yes (Optional)	Yes (Optional)
Communications Interface	DB9, USB	DB9, USB
Shipping Weight (lbs.)	37	37

North American Models ABCE422-11 and ABCE422-11MED

Front Panel Controls • Power On/Off • Test • Load Level LED Gauge • Battery Charge LED Gauge • Voltage Manager Boost LED • Voltage Output On LED • Voltage Manager Buck LED • On Battery LED • Replace Battery LED • Overload LED • Fault Code LED • System Over Temperature LED Rear Panel Information and Controls • Six (6) Foot Power Cord with NEMA 5-15P Plug • Four (4) NEMA 5-15R Receptacles • Configuration Manager DIP Switches • Communications Manager DB9 Port, USB Port • Circuit Breaker • AC Inlet Module Internal Batteries • User Hot-Swappable (See Instruction Manual) • Type: 12 Volt, High Rate 21W • Quantity: 2 Batteries • Recharge Time: 6 Hours to 80%, 24 Hours to Full Charge Environmental • Temperature: 0 to 40°C (32 to 104°F) Operating -20 to 60°C (-40 to 140°F) Shipment/Storage • Humidity: 5 to 90% Non-Condensing (Operating, Shipment/Storage) • Altitude: 3,000m (10,000 ft) max. Operating; 12,000m (40,000 ft) max. Shipment/Storage	Safety Agency and EMC Compliance: All Units are Listed by UL and Marked With the UL/cUL Marking Standard UPM: Products Listed to: • UL1778 5th Edition • CSA 22.2 Nos. 107.3-14 Products in Compliance with: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • IEC61000-4-2, Electrostatic Discharge • IEC61000-4-3, Radiated Electromagnetic Field Immunity • IEC61000-4-4, Electrical Fast Transient/Burst Immunity • IEC61000-4-5, Surge Immunity • IEC61000-4-6, Immunity to Conducted Radio Frequency Disturbances • IEC61000-4-8, Power Frequency Magnetic Field Immunity • IEC61000-4-11, Voltage Dips, Short Interruptions and Voltage Variations Medical UPM: Products Listed to: • UL60601-1 2nd and 3rd Edition • UL1778 5th Edition • CSA 22.2 No. 601.1-M89 • CSA 22.2 No. 107-1-M91 • CSA 22.2 Nos. 0-M1982 • CSA 22.2 Nos. 0.4-M1982 Products in Compliance with: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • EN60601-1-2 : 2007 *Note: Class B is Available as an Option Please Consult Your Powervar Sales Representative RoHS Compliance: All Products (Standard and Medical) are RoHS Compliant
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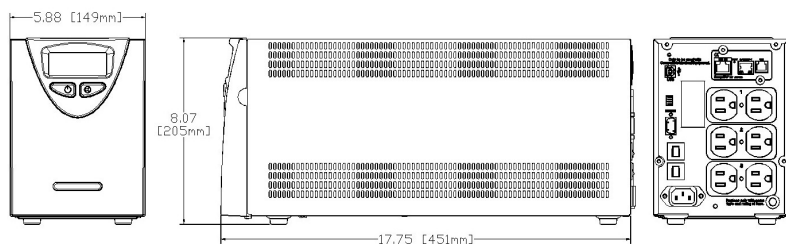
NOISE REJECTION-ISOLATION: With unit under power and an ANSI/IEEE C62.41Cat. A pulse applied either normal or common mode at the input, the noise output voltage will be less than 10V normal mode and less than 0.5V common mode in all four quadrants (CM-NM, NM-NM, CM-CM, NM-COM).

SURGE VOLTAGE WITHSTAND CAPABILITY: Tested under power to ANSI/IEEE C62.41 Cat. A & B (formerly IEEE587-1980). CAT. A - 6000V @ 200 amps, 0.5 usec risetime, 100 kHz decay, Cat. B - 6000V @ 500 amps, 0.5 usec risetime, 100 kHz decay.

Warranty/Support: AMETEK Powervar warrants the electronics and transformers used in its uninterruptible power managers to be free from defects in materials and workmanship for a period of five years from the date of shipment. Batteries are warranted for a period of two years from the date of shipment. For service or support on any AMETEK Powervar product, please contact AMETEK Powervar Technical Support at (800) 369-7179 or visit the AMETEK Powervar website at www.powervar.com.

Battery Life Disclaimer: AMETEK Powervar's standard battery warranty applies only to UPM products which are continuously connected to AC mains power, except during utility power outages. Products which are regularly and intentionally disconnected from AC mains power will experience battery discharge/charge cycles potentially far more numerous than those for which the battery was designed. As a result, products used in such applications will experience substantially reduced battery life. For that reason, AMETEK Powervar's standard battery warranty does not apply for applications in which the UPM product is regularly and intentionally disconnected from AC mains power. AMETEK Powervar UPM products used in such applications shall receive a 90 day warranty on batteries.

North American Models ABCE602-11 and ABCE602-11MED



	ABCE602-11 50060-03R	ABCE602-11MED 50060-23R
Type	Standard	Medical Grade
Power Rating (VA/Watts)	600 / 540	600 / 540
Inverter Waveform	Low Distortion Sine Wave	Low Distortion Sine Wave
Transfer Time	4 ms. Typical	4 ms. Typical
Frequency	60 Hz.	60 Hz.
BTU/Hr.	189	189
T.H.D. w/100% Resistive Load	<4% on Battery	<4% on Battery
Online Efficiency (w/o Charger)	91%	91%
Input Voltage	120	120
Input Current	7.16 Amps	7.16 Amps
Output Voltage	120	120
Output Current (VA/Watts)	5.00 / 4.50 Amps	5.00 / 4.50 Amps
Input Voltage Range (w/o Using Battery)	96 to 144 Volts	96 to 144 Volts
Output Regulation (On Mains)	± 10%	± 10%
Output Regulation (On Battery)	± 5%	± 5%
Backup Time at Full Load (0.7 P.F.)	5 Minutes	5 Minutes
Floor Mountable	Yes (Optional)	Yes (Optional)
Communications Interface	DB9, USB (SNMP Optional)	DB9, USB (SNMP Optional)
Shipping Weight (lbs.)	45	45

North American Models ABCE602-11 and ABCE602-11MED

Front Panel Controls • Power On/Off • Test • Load Level LED Gauge • Battery Charge LED Gauge • Voltage Manager Boost LED • Voltage Output On LED • Voltage Manager Buck LED • On Battery LED • Replace Battery LED • Overload LED • Fault Code LED • System Over Temperature LED Rear Panel Information and Controls • Six (6) Foot Power Cord with NEMA 5-15P Plug • Six (6) NEMA 5-15R Receptacles • Configuration Manager DIP Switches • Communications Manager DB9 Port, USB Port • Circuit Breaker • AC Inlet Module • SNMP Slot (Contact Factory) Internal Batteries • User Hot-Swappable (See Instruction Manual) • Type: 12 Volt, High Rate 34W • Quantity: 2 Batteries • Recharge Time: 6 Hours to 80%, 24 Hours to Full Charge Environmental • Temperature: 0 to 40°C (32 to 104°F) Operating -20 to 60°C (-40 to 140°F) Shipment/Storage • Humidity: 5 to 90% Non-Condensing (Operating, Shipment/Storage) • Altitude: 3,000m (10,000 ft) max. Operating; 12,000m (40,000 ft) max. Shipment/Storage	Safety Agency and EMC Compliance: All Units are Listed by UL and Marked with the UL/cUL Marking Standard UPM: Products Listed to: • UL1778 5th Edition • CSA 22.2 Nos. 107.3-14 Products in Compliance with: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • IEC61000-4-2, Electrostatic Discharge • IEC61000-4-3, Radiated Electromagnetic Field Immunity • IEC61000-4-4, Electrical Fast Transient/Burst Immunity • IEC61000-4-5, Surge Immunity • IEC61000-4-6, Immunity to Conducted Radio Frequency Disturbances • IEC61000-4-8, Power Frequency Magnetic Field Immunity • IEC61000-4-11, Voltage Dips, Short Interruptions and Voltage Variations Medical UPM: Products Listed to: • UL60601-1 2nd and 3rd Edition • UL1778 5th Edition • CSA 22.2 No. 601.1-M89 • CSA 22.2 No. 107-1-M91 • CSA 22.2 Nos. 0-M1982 • CSA 22.2 Nos. 0.4-M1982 Products in Compliance with: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • EN60601-1-2 : 2007 *Note: Class B is Available as an Option Please Consult Your Powervar Sales Representative RoHS Compliance: All products (Standard and Medical) are RoHS Compliant
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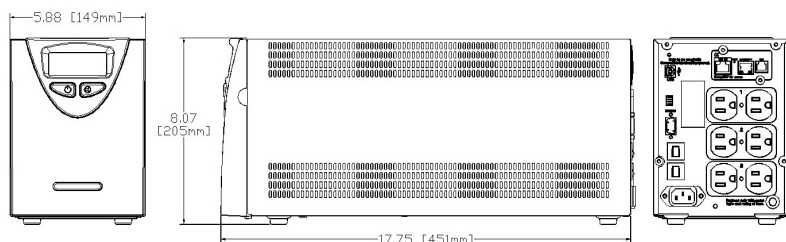
NOISE REJECTION-ISOLATION: With unit under power and an ANSI/IEEE C62.41Cat. A pulse applied either normal or common mode at the input, the noise output voltage will be less than 10V normal mode and less than 0.5V common mode in all four quadrants (CM-NM, NM-NM, CM-CM, NM-COM).

SURGE VOLTAGE WITHSTAND CAPABILITY: Tested under power to ANSI/IEEE C62.41 Cat. A & B (formerly IEEE587-1980). CAT. A - 6000V @ 200 amps, 0.5 usec risetime, 100 kHz decay, Cat. B - 6000V @ 500 amps, 0.5 usec risetime, 100 kHz decay.

Warranty/Support: AMETEK Powervar warrants the electronics and transformers used in its uninterruptible power managers to be free from defects in materials and workmanship for a period of five years from the date of shipment. Batteries are warranted for a period of two years from the date of shipment. For service or support on any AMETEK Powervar product, please contact AMETEK Powervar Technical Support at (800) 369-7179 or visit the AMETEK Powervar website at www.powervar.com.

Battery Life Disclaimer: AMETEK Powervar's standard battery warranty applies only to UPM products which are continuously connected to AC mains power, except during utility power outages. Products which are regularly and intentionally disconnected from AC mains power will experience battery discharge/charge cycles potentially far more numerous than those for which the battery was designed. As a result, products used in such applications will experience substantially reduced battery life. For that reason, AMETEK Powervar's standard battery warranty does not apply for applications in which the UPM product is regularly and intentionally disconnected from AC mains power. AMETEK Powervar UPM products used in such applications shall receive a 90 day warranty on batteries.

North American Models ABCE802-11 and ABCE802-11MED



	ABCE802-11 50080-03R	ABCE802-11MED 50080-23R
Type	Standard	Medical Grade
Power Rating (VA/Watts)	800 / 720	800 / 720
Inverter Waveform	Low Distortion Sine Wave	Low Distortion Sine Wave
Transfer Time	4 ms. Typical	4 ms. Typical
Frequency	60 Hz.	60 Hz.
BTU/Hr.	231	231
T.H.D. w/100% Resistive Load	<4% on Battery	<4% on Battery
Online Efficiency (w/o Charger)	91%	91%
Input Voltage	120	120
Input Current	9.35 Amps	9.35 Amps
Output Voltage	120	120
Output Current (VA/Watts)	6.70 / 6.00 Amps	6.70 / 6.00 Amps
Input Voltage Range (w/o Using Battery)	96 to 144 Volts	96 to 144 Volts
Output Regulation (On Mains)	± 10%	± 10%
Output Regulation (On Battery)	± 5%	± 5%
Backup Time at Full Load (0.7 P.F.)	5 Minutes	5 Minutes
Floor Mountable	Yes (Optional)	Yes (Optional)
Communications Interface	DB9, USB (SNMP Optional)	DB9, USB (SNMP Optional)
Shipping Weight (lbs.)	49	49

North American Models ABCE802-11 and ABCE802-11MED

Front Panel Controls • Power On/Off • Test • Load Level LED Gauge • Battery Charge LED Gauge • Voltage Manager Boost LED • Voltage Output On LED • Voltage Manager Buck LED • On Battery LED • Replace Battery LED • Overload LED • Fault Code LED • System Over Temperature LED Rear Panel Information and Controls • Six (6) Foot Power Cord with NEMA 5-15P Plug • Six (6) NEMA 5-15R Receptacles • Configuration Manager DIP Switches • Communications Manager DB9 Port, USB Port • Circuit Breaker • AC Inlet Module • SNMP Slot (Contact Factory) Internal Batteries • User Hot-Swappable (See Instruction Manual) • Type: 12 Volt, High Rate 34W • Quantity: 2 Batteries • Recharge Time: 6 Hours to 80%, 24 Hours to Full Charge Environmental • Temperature: 0 to 40°C (32 to 104°F) Operating -20 to 60°C (-40 to 140°F) Shipment/Storage • Humidity: 5 to 90% Non-Condensing (Operating, Shipment/Storage) • Altitude: 3,000m (10,000 ft) max. Operating; 12,000m (40,000 ft) max. Shipment/Storage	Safety Agency and EMC Compliance: All Units are Listed by UL and Marked with the UL/cUL Marking Standard UPM: Products Listed to: • UL1778 5th Edition • CSA 22.2 Nos. 107.3-14 Products in Compliance with: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • IEC61000-4-2, Electrostatic Discharge • IEC61000-4-3, Radiated Electromagnetic Field Immunity • IEC61000-4-4, Electrical Fast Transient/Burst Immunity • IEC61000-4-5, Surge Immunity • IEC61000-4-6, Immunity to Conducted Radio Frequency Disturbances • IEC61000-4-8, Power Frequency Magnetic Field Immunity • IEC61000-4-11, Voltage Dips, Short Interruptions and Voltage Variations Medical UPM: Products Listed to: • UL60601-1 2nd and 3rd Edition • UL1778 5th Edition • CSA 22.2 No. 601.1-M89 • CSA 22.2 No. 107-1-M91 • CSA 22.2 Nos. 0-M1982 • CSA 22.2 Nos. 0.4-M1982 Products in Compliance with: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • EN60601-1-2 : 2007 *Note: Class B is Available as an Option Please Consult Your Powervar Sales Representative RoHS Compliance: All products (Standard and Medical) are RoHS Compliant
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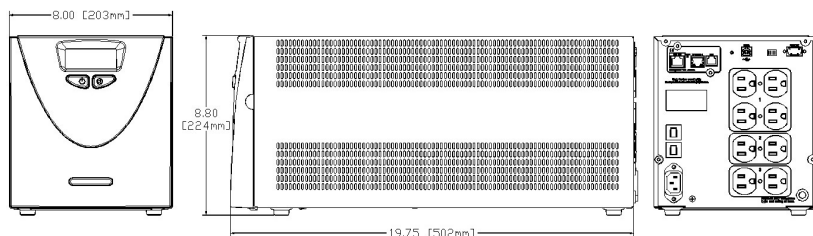
NOISE REJECTION-ISOLATION: With unit under power and an ANSI/IEEE C62.41Cat. A pulse applied either normal or common mode at the input, the noise output voltage will be less than 10V normal mode and less than 0.5V common mode in all four quadrants (CM-NM, NM-NM, CM-CM, NM-COM).

SURGE VOLTAGE WITHSTAND CAPABILITY: Tested under power to ANSI/IEEE C62.41 Cat. A & B (formerly IEEE587-1980). CAT. A - 6000V @ 200 amps, 0.5 usec risetime, 100 kHz decay, Cat. B - 6000V @ 500 amps, 0.5 usec risetime, 100 kHz decay.

Warranty/Support: AMETEK Powervar warrants the electronics and transformers used in its uninterruptible power managers to be free from defects in materials and workmanship for a period of five years from the date of shipment. Batteries are warranted for a period of two years from the date of shipment. For service or support on any AMETEK Powervar product, please contact AMETEK Powervar Technical Support at (800) 369-7179 or visit the AMETEK Powervar website at www.powervar.com.

Battery Life Disclaimer: AMETEK Powervar's standard battery warranty applies only to UPM products which are continuously connected to AC mains power, except during utility power outages. Products which are regularly and intentionally disconnected from AC mains power will experience battery discharge/charge cycles potentially far more numerous than those for which the battery was designed. As a result, products used in such applications will experience substantially reduced battery life. For that reason, AMETEK Powervar's standard battery warranty does not apply for applications in which the UPM product is regularly and intentionally disconnected from AC mains power. AMETEK Powervar UPM products used in such applications shall receive a 90 day warranty on batteries.

North American Models ABCE1102-11 and ABCE1102-11MED



	ABCE1102-11 50110-03R	ABCE1102-11MED 50110-23R
Type	Standard	Medical Grade
Power Rating (VA/Watts)	1100 / 990	1100 / 990
Inverter Waveform	Low Distortion Sine Wave	Low Distortion Sine Wave
Transfer Time	4 ms. Typical	4 ms. Typical
Frequency	60 Hz.	60 Hz.
BTU/Hr.	359	359
T.H.D. w/100% Resistive Load	<4% on Battery	<4% on Battery
Online Efficiency (w/o Charger)	90%	90%
Input Voltage	120	120
Input Current	12.00 Amps	12.00 Amps
Output Voltage	120	120
Output Current (VA/Watts)	9.20 / 8.25 Amps	9.20 / 8.25 Amps
Input Voltage Range (w/o Using Battery)	96 to 144 Volts	96 to 144 Volts
Output Regulation (On Mains)	± 10%	± 10%
Output Regulation (On battery)	± 5%	± 5%
Backup Time at Full Load (0.7 P.F.)	> 5 Minutes	> 5 Minutes
Floor Mountable	Yes (Optional)	Yes (Optional)
Communications Interface	DB9, USB (SNMP Optional)	DB9, USB (SNMP Optional)
Shipping Weight (lbs.)	71	71

North American Models ABCE1102-11 and ABCE1102-11MED

Front Panel Controls • Power On/Off • Test • Load Level LED Gauge • Battery Charge LED Gauge • Voltage Manager Boost LED • Voltage Output On LED • Voltage Manager Buck LED • On Battery LED • Replace Battery LED • Overload LED • Fault Code LED • System Over Temperature LED Rear Panel Information and Controls • Six (6) Foot Power Cord with NEMA 5-15P Plug • Eight (8) NEMA 5-15R Receptacles • Configuration Manager DIP Switches • Communications Manager DB9 Port, USB Port • Circuit Breaker • AC Inlet Module • SNMP Slot (Contact Factory) Internal Batteries • User Hot-Swappable (See Instruction Manual) • Type: 12 Volt, High Rate 34W • Quantity: 4 Batteries • Recharge Time: 8 Hours to 80%, 24 Hours to Full Charge Environmental • Temperature: 0 to 40°C (32 to 104°F) Operating -20 to 60°C (-40 to 140°F) Shipment/Storage • Humidity: 5 to 90% Non-Condensing (Operating, Shipment/Storage) • Altitude: 3,000m (10,000 ft) max. Operating; 12,000m (40,000 ft) max. Shipment/Storage	Safety Agency and EMC Compliance: All Units are Listed by UL and Marked with the UL/cUL Marking Standard UPM: Products Listed to: • UL1778 5th Edition • CSA 22.2 Nos. 107.3-14 Products in Compliance with: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • IEC61000-4-2, Electrostatic Discharge • IEC61000-4-3, Radiated Electromagnetic Field Immunity • IEC61000-4-4, Electrical Fast Transient/Burst Immunity • IEC61000-4-5, Surge Immunity • IEC61000-4-6, Immunity to Conducted Radio Frequency Disturbances • IEC61000-4-8, Power Frequency Magnetic Field Immunity • IEC61000-4-11, Voltage Dips, Short Interruptions and Voltage Variations Medical UPM: Products Listed to: • UL60601-1 2nd and 3rd Edition • UL1778 5th Edition • CSA 22.2 No. 601.1-M89 • CSA 22.2 No. 107-1-M91 • CSA 22.2 Nos. 0-M1982 • CSA 22.2 Nos. 0.4-M1982 Products in Compliance with: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • EN60601-1-2 : 2007 *Note: Class B is Available as an Option Please Consult Your Powervar Sales Representative RoHS Compliance: All products (Standard and Medical) are RoHS Compliant
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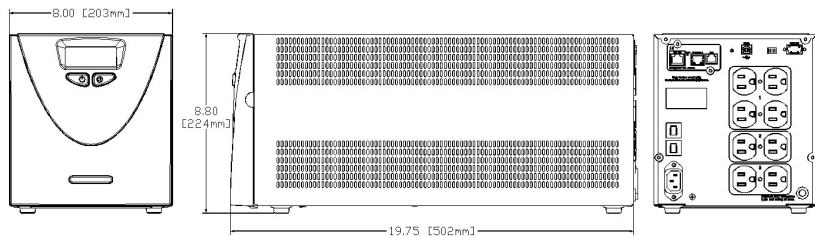
NOISE REJECTION-ISOLATION: With unit under power and an ANSI/IEEE C62.41Cat. A pulse applied either normal or common mode at the input, the noise output voltage will be less than 10V normal mode and less than 0.5V common mode in all four quadrants (CM-NM, NM-NM, CM-CM, NM-COM).

SURGE VOLTAGE WITHSTAND CAPABILITY: Tested under power to ANSI/IEEE C62.41 Cat. A & B (formerly IEEE587-1980). CAT. A - 6000V @ 200 amps, 0.5 usec risetime, 100 kHz decay, Cat. B - 6000V @ 500 amps, 0.5 usec risetime, 100 kHz decay.

Warranty/Support: AMETEK Powervar warrants the electronics and transformers used in its uninterruptible power managers to be free from defects in materials and workmanship for a period of five years from the date of shipment. Batteries are warranted for a period of two years from the date of shipment. For service or support on any AMETEK Powervar product, please contact AMETEK Powervar Technical Support at (800) 369-7179 or visit the AMETEK Powervar website at www.powervar.com.

Battery Life Disclaimer: AMETEK Powervar's standard battery warranty applies only to UPM products which are continuously connected to AC mains power, except during utility power outages. Products which are regularly and intentionally disconnected from AC mains power will experience battery discharge/charge cycles potentially far more numerous than those for which the battery was designed. As a result, products used in such applications will experience substantially reduced battery life. For that reason, AMETEK Powervar's standard battery warranty does not apply for applications in which the UPM product is regularly and intentionally disconnected from AC mains power. AMETEK Powervar UPM products used in such applications shall receive a 90 day warranty on batteries.

North American Models ABCE1442-11 and ABCE1442-11MED



	ABCE1442-11 50144-03R	ABCE1442-11MED 50144-23R
Type	Standard	Medical Grade
Power Rating (VA/Watts)	1440 / 1296	1440 / 1296
Inverter Waveform	Low Distortion Sine Wave	Low Distortion Sine Wave
Transfer Time	4 ms. Typical	4 ms. Typical
Frequency	60 Hz.	60 Hz.
BTU/Hr.	459	459
T.H.D. w/100% Resistive Load	<4% on Battery	<4% on Battery
Online Efficiency (w/o Charger)	91%	91%
Input Voltage	120	120
Input Current	12.00 Amps	12.00 Amps
Output Voltage	120	120
Output Current (VA/Watts)	12.00 / 10.80 Amps	12.00 / 10.80 Amps
Input Voltage Range (w/o Using Battery)	96 to 144 Volts	96 to 144 Volts
Output Regulation (On Mains)	± 10%	± 10%
Output Regulation (On battery)	± 5%	± 5%
Backup Time at Full Load (0.7 P.F.)	> 5 Minutes	> 5 Minutes
Floor Mountable	Yes (Optional)	Yes (Optional)
Communications Interface	DB9, USB (SNMP Optional)	DB9, USB (SNMP Optional)
Shipping Weight (lbs.)	71	71

North American Models ABCE1442-11 and ABCE1442-11MED

Front Panel Controls • Power On/Off • Test • Load Level LED Gauge • Battery Charge LED Gauge • Voltage Manager Boost LED • Voltage Output On LED • Voltage Manager Buck LED • On Battery LED • Replace Battery LED • Overload LED • Fault Code LED • System Over Temperature LED Rear Panel Information and Controls • Six (6) Foot Power Cord with NEMA 5-15P Plug • Eight (8) NEMA 5-15R Receptacles • Configuration Manager DIP Switches • Communications Manager DB9 Port, USB Port • Circuit Breaker • AC Inlet Module • SNMP Slot (Contact Factory) Internal Batteries • User Hot-Swappable (See Instruction Manual) • Type: 12 Volt, High Rate 34W • Quantity: 4 Batteries • Recharge Time: 8 Hours to 80%, 24 Hours to Full Charge Environmental • Temperature: 0 to 40°C (32 to 104°F) Operating -20 to 60°C (-40 to 140°F) Shipment/Storage • Humidity: 5 to 90% Non-Condensing (Operating, Shipment/Storage) • Altitude: 3,000m (10,000 ft) max. Operating; 12,000m (40,000 ft) max. Shipment/Storage	Safety Agency and EMC Compliance: All Units are Listed by UL and Marked with the UL/cUL Marking Standard UPM: Products Listed to: • UL1778 5th Edition • CSA 22.2 Nos. 107.3-14 Products in Compliance with: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • IEC61000-4-2, Electrostatic Discharge • IEC61000-4-3, Radiated Electromagnetic Field Immunity • IEC61000-4-4, Electrical Fast Transient/Burst Immunity • IEC61000-4-5, Surge Immunity • IEC61000-4-6, Immunity to Conducted Radio Frequency Disturbances • IEC61000-4-8, Power Frequency Magnetic Field Immunity • IEC61000-4-11, Voltage Dips, Short Interruptions and Voltage Variations Medical UPM: Products Listed to: • UL60601-1 2nd and 3rd Edition • UL1778 5th Edition • CSA 22.2 No. 601.1-M89 • CSA 22.2 No. 107-1-M91 • CSA 22.2 Nos. 0-M1982 • CSA 22.2 Nos. 0.4-M1982 Products in Compliance with: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • EN60601-1-2 : 2007 *Note: Class B is Available as an Option Please Consult Your Powervar Sales Representative RoHS Compliance: All products (Standard and Medical) are RoHS Compliant
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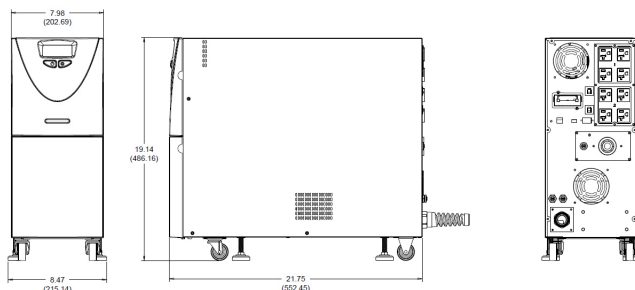
NOISE REJECTION-ISOLATION: With unit under power and an ANSI/IEEE C62.41Cat. A pulse applied either normal or common mode at the input, the noise output voltage will be less than 10V normal mode and less than 0.5V common mode in all four quadrants (CM-NM, NM-NM, CM-CM, NM-COM).

SURGE VOLTAGE WITHSTAND CAPABILITY: Tested under power to ANSI/IEEE C62.41 Cat. A & B (formerly IEEE587-1980). CAT. A - 6000V @ 200 amps, 0.5 usec risetime, 100 kHz decay, Cat. B - 6000V @ 500 amps, 0.5 usec risetime, 100 kHz decay.

Warranty/Support: AMETEK Powervar warrants the electronics and transformers used in its uninterruptible power managers to be free from defects in materials and workmanship for a period of five years from the date of shipment. Batteries are warranted for a period of two years from the date of shipment. For service or support on any AMETEK Powervar product, please contact AMETEK Powervar Technical Support at (800) 369-7179 or visit the AMETEK Powervar website at www.powervar.com.

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North American Models ABCE2202-11 and ABCE3002-11



	ABCE2202-11 50220-05R	ABCE3002-11 50300-05R
Type	Standard	Medical Grade
Power Rating (VA/Watts)	1800 / 1620	1800 / 1620
Inverter Waveform	Low Distortion Sine Wave	Low Distortion Sine Wave
Transfer Time	4 ms. Typical	4 ms. Typical
Frequency	50 / 60 Hz.	50 / 60 Hz.
BTU/Hr.	375	471
T.H.D. w/100% Resistive Load	<4% on Battery	<4% on Battery
Online Efficiency (w/o Charger)	95%	95%
Input Voltage	120	120
Input Current	16.0 Amps	16.0 Amps
Output Voltage	120	120
Output Current (VA/Watts)	15.0 / 13.5 Amps	15.0 / 13.5 Amps
Input Voltage Range (w/o Using Battery)	96 to 144 volts	96 to 144 volts
Output Regulation (Mains)	± 10%	± 10%
Output Regulation (On Battery)	± 5%	± 5%
Backup Time at Full Load (0.7 P.F.)	> 5 Minutes	> 5 Minutes
Floor Mountable	Yes (Optional)	Yes (Optional)
Communications Interface	DB9, USB (SNMP Optional)	DB9, USB (SNMP Optional)
Shipping Weight (lbs.)	142	142
Dimensions (in/mm) LxWxH	7.98 x 21.75 x 19.14 / 202.69 x 552.45 x 486.16	7.98 x 21.75 x 19.14 / 202.69 x 552.45 x 486.16
Output Receptacle	(8)NEMA 5-20R AND (1)NEMA L5-30R	(8)NEMA 5-20R AND (1)NEMA L5-30R

North American Models ABCE2202-11 and ABCE3002-11

Front Panel Controls • Power On/Off • Test • Load Level LED Gauge • Battery Charge LED Gauge • Voltage Manager Boost LED • Voltage Output On LED • Voltage Manager Buck LED • On Battery LED • Replace Battery LED • Overload LED • Fault Code LED • System Over Temperature LED Rear Panel Information and Controls • 6 Foot Power Cord with NEMA 5-20P Plug • Configuration Manager DIP Switches • Communications Manager DB9 Port, USB Port • Circuit Breaker • AC Inlet Module • SNMP Slot (Contact Factory) Internal Batteries • User Hot-Swappable (See Instruction Manual) • Type: 12 Volt, High Rate 34W • Quantity: 8 Batteries • Recharge Time: 6 Hours to 80%, 24 Hours to Full Charge Environmental • Temperature: 0 to 40°C (32 to 104°F) Operating -20 to 60°C (-40 to 140°F) Shipment/Storage • Humidity: 5 to 90% Non-Condensing (Operating, Shipment/Storage) • Altitude: 3,000m (10,000 ft) max. Operating; 12,000m (40,000 ft) max. Shipment/Storage	Safety Agency and EMC Compliance: All Units are Listed by UL and Marked with the UL/cUL Marking Standard UPM: Products Listed to: • UL1778 5th Edition • CSA 22.2 Nos. 107.3-14 Products in Compliance with: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • IEC61000-4-2, Electrostatic Discharge • IEC61000-4-3, Radiated Electromagnetic Field Immunity • IEC61000-4-4, Electrical Fast Transient/Burst Immunity • IEC61000-4-5, Surge Immunity • IEC61000-4-6, Immunity to Conducted Radio Frequency Disturbances • IEC61000-4-8, Power Frequency Magnetic Field Immunity • IEC61000-4-11, Voltage Dips, Short Interruptions and Voltage Variations Products in Compliance with: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • EN60601-1-2 : 2007 *Note: Class B is Available as an Option Please Consult Your Powervar Sales Representative RoHS Compliance: All products (Standard and Medical) are RoHS Compliant
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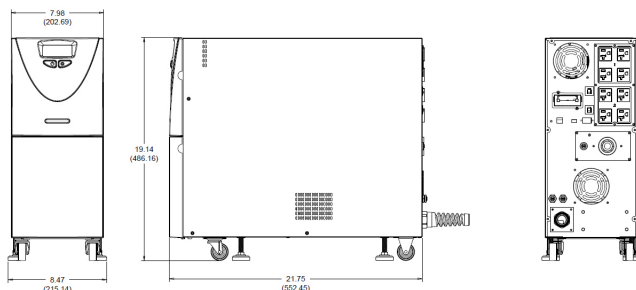
NOISE REJECTION-ISOLATION: With unit under power and an ANSI/IEEE C62.41Cat. A pulse applied either normal or common mode at the input, the noise output voltage will be less than 10V normal mode and less than 0.5V common mode in all four quadrants (CM-NM, NM-NM, CM-CM, NM-COM).

SURGE VOLTAGE WITHSTAND CAPABILITY: Tested under power to ANSI/IEEE C62.41 Cat. A & B (formerly IEEE587-1980). CAT. A - 6000V @ 200 amps, 0.5 usec risetime, 100 kHz decay, Cat. B - 6000V @ 500 amps, 0.5 usec risetime, 100 kHz decay.

Warranty/Support: AMETEK Powervar warrants the electronics and transformers used in its uninterruptible power managers to be free from defects in materials and workmanship for a period of five years from the date of shipment. Batteries are warranted for a period of two years from the date of shipment. For service or support on any AMETEK Powervar product, please contact AMETEK Powervar Technical Support at (800) 369-7179 or visit the AMETEK Powervar website at www.powervar.com.

Battery Life Disclaimer: AMETEK Powervar's standard battery warranty applies only to UPM products which are continuously connected to AC mains power, except during utility power outages. Products which are regularly and intentionally disconnected from AC mains power will experience battery discharge/charge cycles potentially far more numerous than those for which the battery was designed. As a result, products used in such applications will experience substantially reduced battery life. For that reason, AMETEK Powervar's standard battery warranty does not apply for applications in which the UPM product is regularly and intentionally disconnected from AC mains power. AMETEK Powervar UPM products used in such applications shall receive a 90 day warranty on batteries.

North American Models ABCE2202-11 and ABCE3002-11



	ABCE2202-11 50220-03R	ABCE3002-11 50300-03R
Type	Standard	Medical Grade
Power Rating (VA/Watts)	2200 / 1980	2760 / 2484
Inverter Waveform	Low Distortion Sine Wave	Low Distortion Sine Wave
Transfer Time	4 ms. Typical	4 ms. Typical
Frequency	50 / 60 Hz.	50 / 60 Hz.
BTU/Hr.	375	471
T.H.D. w/100% Resistive Load	<4% on Battery	<4% on Battery
Online Efficiency (w/o Charger)	95%	95%
Input Voltage	120	120
Input Current	24.0 Amps	24.0 Amps
Output Voltage	120	120
Output Current (VA/Watts)	18.5 / 16.5 Amps	23.0/ 20.7Amps
Input Voltage Range (w/o Using Battery)	96 to 144 volts	96 to 144 volts
Output Regulation (Mains)	± 10%	± 10%
Output Regulation (On Battery)	± 5%	± 5%
Backup Time at Full Load (0.7 P.F.)	> 5 Minutes	> 5 Minutes
Floor Mountable	Yes (Optional)	Yes (Optional)
Communications Interface	DB9, USB (SNMP Optional)	DB9, USB (SNMP Optional)
Shipping Weight (lbs.)	142	142
Dimensions (in/mm) LxWxH	7.98 x 21.75 x 19.14 / 202.69 x 552.45 x 486.16	7.98 x 21.75 x 19.14 / 202.69 x 552.45 x 486.16
Output Receptacle	(8)NEMA 5-20R AND (1)NEMA L5-30R	(8)NEMA 5-20R AND (1)NEMA L5-30R

North American Models ABCE2202-11 and ABCE3002-11

Front Panel Controls • Power On/Off • Test • Load Level LED Gauge • Battery Charge LED Gauge • Voltage Manager Boost LED • Voltage Output On LED • Voltage Manager Buck LED • On Battery LED • Replace Battery LED • Overload LED • Fault Code LED • System Over Temperature LED Rear Panel Information and Controls • 6 Foot Power Cord with NEMA L5-30P Plug • Configuration Manager DIP Switches • Communications Manager DB9 Port, USB Port • Circuit Breaker • AC Inlet Module • SNMP Slot (Contact Factory) Internal Batteries • User Hot-Swappable (See Instruction Manual) • Type: 12 Volt, High Rate 34W • Quantity: 8 Batteries • Recharge Time: 8 Hours to 80%, 24 Hours to Full Charge Environmental • Temperature: 0 to 40°C (32 to 104°F) Operating -20 to 60°C (-40 to 140°F) Shipment/Storage • Humidity: 5 to 90% Non-Condensing (Operating, Shipment/Storage) • Altitude: 3,000m (10,000 ft) max. Operating; 12,000m (40,000 ft) max. Shipment/Storage	Safety Agency and EMC Compliance: All Units are Listed by UL and Marked with the UL/cUL Marking Standard UPM: Products Listed to: • UL1778 5th Edition • CSA 22.2 Nos. 107.3-14 Products in Compliance with: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • IEC61000-4-2, Electrostatic Discharge • IEC61000-4-3, Radiated Electromagnetic Field Immunity • IEC61000-4-4, Electrical Fast Transient/Burst Immunity • IEC61000-4-5, Surge Immunity • IEC61000-4-6, Immunity to Conducted Radio Frequency Disturbances • IEC61000-4-8, Power Frequency Magnetic Field Immunity • IEC61000-4-11, Voltage Dips, Short Interruptions and Voltage Variations Products in Compliance with: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • EN60601-1-2 : 2007 *Note: Class B is Available as an Option Please Consult Your Powervar Sales Representative RoHS Compliance: All products (Standard and Medical) are RoHS Compliant
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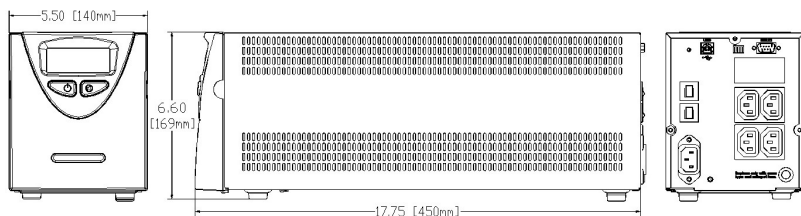
NOISE REJECTION-ISOLATION: With unit under power and an ANSI/IEEE C62.41Cat. A pulse applied either normal or common mode at the input, the noise output voltage will be less than 10V normal mode and less than 0.5V common mode in all four quadrants (CM-NM, NM-NM, CM-CM, NM-COM).

SURGE VOLTAGE WITHSTAND CAPABILITY: Tested under power to ANSI/IEEE C62.41 Cat. A & B (formerly IEEE587-1980). CAT. A - 6000V @ 200 amps, 0.5 usec risetime, 100 kHz decay, Cat. B - 6000V @ 500 amps, 0.5 usec risetime, 100 kHz decay.

Warranty/Support: AMETEK Powervar warrants the electronics and transformers used in its uninterruptible power managers to be free from defects in materials and workmanship for a period of five years from the date of shipment. Batteries are warranted for a period of two years from the date of shipment. For service or support on any AMETEK Powervar product, please contact AMETEK Powervar Technical Support at (800) 369-7179 or visit the AMETEK Powervar website at www.powervar.com.

Battery Life Disclaimer: AMETEK Powervar's standard battery warranty applies only to UPM products which are continuously connected to AC mains power, except during utility power outages. Products which are regularly and intentionally disconnected from AC mains power will experience battery discharge/charge cycles potentially far more numerous than those for which the battery was designed. As a result, products used in such applications will experience substantially reduced battery life. For that reason, AMETEK Powervar's standard battery warranty does not apply for applications in which the UPM product is regularly and intentionally disconnected from AC mains power. AMETEK Powervar UPM products used in such applications shall receive a 90 day warranty on batteries.

International Models ABCE422-22 and ABCE422-22MED



	ABCE422-22 51042-02R	ABCE422-22MED 51042-22R
Type	Standard	Medical Grade
Power Rating (VA/Watts)	420 / 378	420 / 378
Inverter Waveform	Low Distortion Sine Wave	Low Distortion Sine Wave
Transfer Time	4 ms. Typical	4 ms. Typical
Frequency	50 / 60 Hz.	50 / 60 Hz.
BTU/Hr.	140	140
T.H.D. w/100% Resistive Load	<4% On Battery	<4% On Battery
Online Efficiency (w/o Charger)	90%	90%
Input Voltage	230	230
Input Current	2.70 Amps	2.70 Amps
Output Voltage	230	230
Output Current (VA/Watts)	1.85 / 1.65 Amps	1.85 / 1.65 Amps
Input Voltage Range (w/o Using Battery)	185 to 276 Volts	185 to 276 Volts
Output Regulation (On Mains)	± 10%	± 10%
Output Regulation (On Battery)	± 5%	± 5%
Backup Time at Full Load (0.7 P.F.)	5 Minutes	5 Minutes
Floor Mountable	Yes (Optional)	Yes (Optional)
Communications Interface	DB9, USB	DB9, USB
Shipping Weight (kg)	16.80	16.80

International Models ABCE422-22 and ABCE422-22MED

Front Panel Controls • Power On/Off • Test • Load Level LED Gauge • Battery Charge LED Gauge • Voltage Manager Boost LED • Voltage Output On LED • Voltage Manager Buck LED • On Battery LED • Replace Battery LED • Overload LED • Fault Code LED • System Over Temperature LED Rear Panel Information and Controls • 1.8 Meter Power Cord with IEC320 Plug • Four (4) IEC320 Receptacles • Configuration Manager DIP Switches • Communications Manager DB9 Port, USB Port • Circuit Breaker • AC Inlet Module Internal Batteries • User Hot-Swappable (See Instruction Manual) • Type: 12 Volt, High Rate 21Wh • Quantity: 2 Batteries • Recharge Time: 6 Hours to 80%, 24 Hours to Full Charge Environmental • Temperature: 0 to 40°C (32 to 104°F) Operating -20 to 60°C (-40 to 140°F) Shipment/Storage • Humidity: 5 to 90% Non-Condensing (Operating, Shipment/Storage) • Altitude: 3,000m (10,000 ft) max. Operating; 12,000m (40,000 ft) max. Shipment/Storage	Safety Agency and EMC Compliance: All Units are Listed by UL and Marked with the UL/cUL Marking Standard UPM: Products Listed to: • UL IEC62040, CE mark with CB report Products in Compliance with: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • IEC61000-4-2, Electrostatic Discharge • IEC61000-4-3, Radiated Electromagnetic Field Immunity • IEC61000-4-4, Electrical Fast Transient/Burst Immunity • IEC61000-4-5, Surge Immunity • IEC61000-4-6, Immunity to Conducted Radio Frequency Disturbances • IEC61000-4-8, Power Frequency Magnetic Field Immunity • IEC61000-4-11, Voltage Dips, Short Interruptions and Voltage Variations Medical UPM: Products Listed to: • UL60601-1 2nd and 3rd Edition, CE Mark with CB Report • CSA 22.2 No. 601.1-M89 • CSA 22.2 No. 107-1-M91 • CSA 22.2 Nos. 0-M1982 • CSA 22.2 Nos. 0.4-M1982 Products in Compliance with: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • EN60601-1-2 : 2007 *Note: Class B is Available as an Option Please Consult Your Powervar Sales Representative RoHS Compliance: All products (Standard and Medical) are RoHS Compliant
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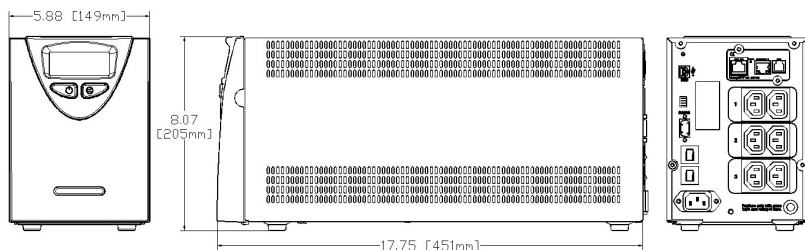
NOISE REJECTION-ISOLATION: With unit under power and an ANSI/IEEE C62.41Cat. A pulse applied either normal or common mode at the input, the noise output voltage will be less than 10V normal mode and less than 0.5V common mode in all four quadrants (CM-NM, NM-NM, CM-CM, NM-COM).

SURGE VOLTAGE WITHSTAND CAPABILITY: Tested under power to ANSI/IEEE C62.41 Cat. A & B (formerly IEEE587-1980). CAT. A - 6000V @ 200 amps, 0.5 usec risetime, 100 kHz decay, Cat. B - 6000V @ 500 amps, 0.5 usec risetime, 100 kHz decay.

Warranty/Support: AMETEK Powervar warrants the electronics and transformers used in its uninterruptible power managers to be free from defects in materials and workmanship for a period of five years from the date of shipment. Batteries are warranted for a period of two years from the date of shipment. For service or support on any AMETEK Powervar product, please contact AMETEK Powervar Technical Support at (800) 369-7179 or visit the AMETEK Powervar website at www.powervar.com.

Battery Life Disclaimer: AMETEK Powervar's standard battery warranty applies only to UPM products which are continuously connected to AC mains power, except during utility power outages. Products which are regularly and intentionally disconnected from AC mains power will experience battery discharge/charge cycles potentially far more numerous than those for which the battery was designed. As a result, products used in such applications will experience substantially reduced battery life. For that reason, AMETEK Powervar's standard battery warranty does not apply for applications in which the UPM product is regularly and intentionally disconnected from AC mains power. AMETEK Powervar UPM products used in such applications shall receive a 90 day warranty on batteries.

International Models ABCE602-22 and ABCE602-22MED



	ABCE602-22 51060-03R	ABCE602-22MED 51060-23R
Type	Standard	Medical Grade
Power Rating (VA/Watts)	600 / 540	600 / 540
Inverter Waveform	Low Distortion Sine Wave	Low Distortion Sine Wave
Transfer Time	4 ms. Typical	4 ms. Typical
Frequency	50 / 60 Hz.	50 / 60 Hz.
BTU/Hr.	162	162
T.H.D. w/100% Resistive Load	<4% on Battery	<4% on Battery
Online Efficiency (w/o Charger)	92%	92%
Input Voltage	230	230
Input Current	3.73 Amps	3.73 Amps
Output Voltage	230	230
Output Current (VA/Watts)	2.60 / 2.35 Amps	2.60 / 2.35 Amps
Input Voltage Range (w/o Using Battery)	185 to 276 Volts	185 to 276 Volts
Output Regulation (On Mains)	± 10%	± 10%
Output Regulation (On Battery)	± 5%	± 5%
Backup Time at Full Load (0.7 P.F.)	5 Minutes	5 Minutes
Floor Mountable	Yes (Optional)	Yes (Optional)
Communications Interface	DB9, USB (SNMP Optional)	DB9, USB (SNMP Optional)
Shipping Weight (kg)	20.40	20.40

International Models ABCE602-22 and ABCE602-22MED

Front Panel Controls • Power On/Off • Test • Load Level LED Gauge • Battery Charge LED Gauge • Voltage Manager Boost LED • Voltage Output On LED • Voltage Manager Buck LED • On Battery LED • Replace Battery LED • Overload LED • Fault Code LED • System Over Temperature LED Rear Panel Information and Controls • 1.8 Meter Power Cord with IEC320 Plug • Eight (8) IEC320 Receptacles • Configuration Manager DIP Switches • Communications Manager DB9 Port, USB Port • Circuit Breaker • AC Inlet Module • SNMP Slot (Contact Factory) Internal Batteries • User Hot-Swappable (See Instruction Manual) • Type: 12 Volt, High Rate 34W • Quantity: 2 Batteries • Recharge Time: 6 Hours to 80%, 24 Hours to Full Charge Environmental • Temperature: 0 to 40°C (32 to 104°F) Operating -20 to 60°C (-40 to 140°F) Shipment/Storage • Humidity: 5 to 90% Non-Condensing (Operating, Shipment/Storage) • Altitude: 3,000m (10,000 ft) max. Operating; 12,000m (40,000 ft) max. Shipment/Storage	Safety Agency and EMC Compliance: All Units are Listed by UL and Marked with the UL/cUL Marking Standard UPM: Products Listed to: • UL IEC62040, CE Mark with CB Report Products in Compliance with: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • IEC61000-4-2, Electrostatic Discharge • IEC61000-4-3, Radiated Electromagnetic Field Immunity • IEC61000-4-4, Electrical Fast Transient/Burst Immunity • IEC61000-4-5, Surge Immunity • IEC61000-4-6, Immunity to Conducted Radio Frequency Disturbances • IEC61000-4-8, Power Frequency Magnetic Field Immunity • IEC61000-4-11, Voltage Dips, Short Interruptions and Voltage Variations Medical UPM: Products Listed to: • UL60601-1 2nd and 3rd Edition, CE Mark with CB Report • CSA 22.2 No. 601.1-M89 • CSA 22.2 No. 107-1-M91 • CSA 22.2 Nos. 0-M1982 • CSA 22.2 Nos. 0.4-M1982 Products in Compliance With: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • EN60601-1-2 : 2007 *Note: Class B is Available as an Option Please Consult Your Powervar Sales Representative RoHS Compliance: All products (Standard and Medical) are RoHS Compliant
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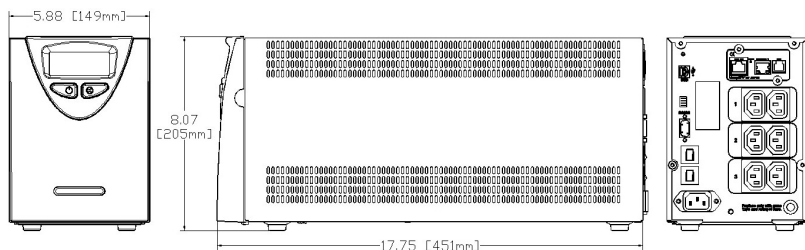
NOISE REJECTION-ISOLATION: With unit under power and an ANSI/IEEE C62.41Cat. A pulse applied either normal or common mode at the input, the noise output voltage will be less than 10V normal mode and less than 0.5V common mode in all four quadrants (CM-NM, NM-NM, CM-CM, NM-COM).

SURGE VOLTAGE WITHSTAND CAPABILITY: Tested under power to ANSI/IEEE C62.41 Cat. A & B (formerly IEEE587-1980). CAT. A - 6000V @ 200 amps, 0.5 usec risetime, 100 kHz decay, Cat. B - 6000V @ 500 amps, 0.5 usec risetime, 100 kHz decay.

Warranty/Support: AMETEK Powervar warrants the electronics and transformers used in its uninterruptible power managers to be free from defects in materials and workmanship for a period of five years from the date of shipment. Batteries are warranted for a period of two years from the date of shipment. For service or support on any AMETEK Powervar product, please contact AMETEK Powervar Technical Support at (800) 369-7179 or visit the AMETEK Powervar website at www.powervar.com.

Battery Life Disclaimer: AMETEK Powervar's standard battery warranty applies only to UPM products which are continuously connected to AC mains power, except during utility power outages. Products which are regularly and intentionally disconnected from AC mains power will experience battery discharge/charge cycles potentially far more numerous than those for which the battery was designed. As a result, products used in such applications will experience substantially reduced battery life. For that reason, AMETEK Powervar's standard battery warranty does not apply for applications in which the UPM product is regularly and intentionally disconnected from AC mains power. AMETEK Powervar UPM products used in such applications shall receive a 90 day warranty on batteries.

International Models ABCE802-22 and ABCE802-22MED



	ABCE802-22 51080-03R	ABCE802-22MED 51080-23R
Type	Standard	Medical Grade
Power Rating (VA/Watts)	800 / 720	800 / 720
Inverter Waveform	Low Distortion Sine Wave	Low Distortion Sine Wave
Transfer Time	4 ms. Typical	4 ms. Typical
Frequency	50 / 60 Hz.	50 / 60 Hz.
BTU/Hr.	199	199
T.H.D. w/100% Resistive Load	<4% on Battery	<4% on Battery
Online Efficiency (w/o Charger)	92%	92%
Input Voltage	230	230
Input Current	4.88 Amps	4.88 Amps
Output Voltage	230	230
Output Current (VA/Watts)	3.50 / 3.15 Amps	3.50 / 3.15 Amps
Input Voltage Range (w/o Using Battery)	185 to 276 Volts	185 to 276 Volts
Output Regulation (On Mains)	± 10%	± 10%
Output Regulation (On Battery)	± 5%	± 5%
Backup Time at Full Load (0.7 P.F.)	5 Minutes	5 Minutes
Floor Mountable	Yes (Optional)	Yes (Optional)
Communications Interface	DB9, USB (SNMP Optional)	DB9, USB (SNMP Optional)
Shipping Weight (kg)	22	22

International Models ABCE802-22 and ABCE802-22MED

Front Panel Controls • Power On/Off • Test • Load Level LED Gauge • Battery Charge LED Gauge • Voltage Manager Boost LED • Voltage Output On LED • Voltage Manager Buck LED • On Battery LED • Replace Battery LED • Overload LED • Fault Code LED • System Over Temperature LED Rear Panel Information and Controls • 1.8 Meter Power Cord with IEC320 Plug • Six (6) IEC320 Receptacles • Configuration Manager DIP Switches • Communications Manager DB9 Port, USB Port • Circuit Breaker • AC Inlet Module • SNMP Slot (Contact Factory) Internal Batteries • User Hot-Swappable (See Instruction Manual) • Type: 12 Volt, High Rate 34W • Quantity: 2 Batteries • Recharge Time: 6 Hours to 80%, 24 Hours to Full Charge Environmental • Temperature: 0 to 40°C (32 to 104°F) Operating -20 to 60°C (-40 to 140°F) Shipment/Storage • Humidity: 5 to 90% Non-Condensing (Operating, Shipment/Storage) • Altitude: 3,000m (10,000 ft) max. Operating; 12,000m (40,000 ft) max. Shipment/Storage	Safety Agency and EMC Compliance: All Units are Listed by UL and Marked with the UL/cUL Marking Standard UPM: Products Listed to: • UL IEC62040, CE Mark with CB report Products in Compliance with: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • IEC61000-4-2, Electrostatic Discharge • IEC61000-4-3, Radiated Electromagnetic Field Immunity • IEC61000-4-4, Electrical Fast Transient/Burst Immunity • IEC61000-4-5, Surge Immunity • IEC61000-4-6, Immunity to Conducted Radio Frequency Disturbances • IEC61000-4-8, Power Frequency Magnetic Field Immunity • IEC61000-4-11, Voltage Dips, Short Interruptions and Voltage Variations Medical UPM: Products Listed to: • UL60601-1 2nd and 3rd Edition, CE Mark with CB Report • CSA 22.2 No. 601.1-M89 • CSA 22.2 No. 107-1-M91 • CSA 22.2 Nos. 0-M1982 • CSA 22.2 Nos. 0.4-M1982 Products in Compliance with: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • EN60601-1-2 : 2007 *Note: Class B is Available as an Option Please Consult Your Powervar Sales Representative RoHS Compliance: All products (Standard and Medical) are RoHS Compliant
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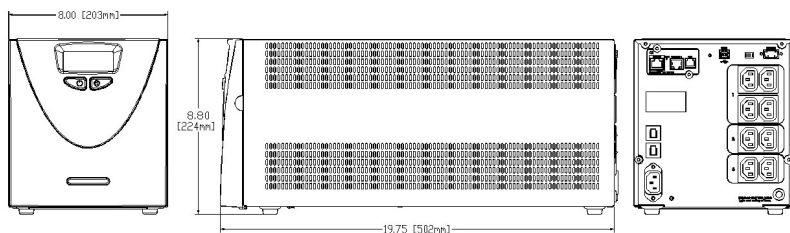
NOISE REJECTION-ISOLATION: With unit under power and an ANSI/IEEE C62.41Cat. A pulse applied either normal or common mode at the input, the noise output voltage will be less than 10V normal mode and less than 0.5V common mode in all four quadrants (CM-NM, NM-NM, CM-CM, NM-COM).

SURGE VOLTAGE WITHSTAND CAPABILITY: Tested under power to ANSI/IEEE C62.41 Cat. A & B (formerly IEEE587-1980). CAT. A - 6000V @ 200 amps, 0.5 usec risetime, 100 kHz decay, Cat. B - 6000V @ 500 amps, 0.5 usec risetime, 100 kHz decay.

Warranty/Support: AMETEK Powervar warrants the electronics and transformers used in its uninterruptible power managers to be free from defects in materials and workmanship for a period of five years from the date of shipment. Batteries are warranted for a period of two years from the date of shipment. For service or support on any AMETEK Powervar product, please contact AMETEK Powervar Technical Support at (800) 369-7179 or visit the AMETEK Powervar website at www.powervar.com.

Battery Life Disclaimer: AMETEK Powervar's standard battery warranty applies only to UPM products which are continuously connected to AC mains power, except during utility power outages. Products which are regularly and intentionally disconnected from AC mains power will experience battery discharge/charge cycles potentially far more numerous than those for which the battery was designed. As a result, products used in such applications will experience substantially reduced battery life. For that reason, AMETEK Powervar's standard battery warranty does not apply for applications in which the UPM product is regularly and intentionally disconnected from AC mains power. AMETEK Powervar UPM products used in such applications shall receive a 90 day warranty on batteries.

International Models ABCE1102-22 and ABCE1102-22MED



	ABCE1102-22 51110-03R	ABCE1102-22MED 51110-23R
Type	Standard	Medical Grade
Power Rating (VA/Watts)	1100 / 990	1100 / 990
Inverter Waveform	Low Distortion Sine Wave	Low Distortion Sine Wave
Transfer Time	4 ms. Typical	4 ms. Typical
Frequency	50 / 60 Hz.	50 / 60 Hz.
BTU/Hr.	239	239
T.H.D. w/100% Resistive Load	<4% on Battery	<4% on Battery
Online Efficiency (w/o Charger)	93%	93%
Input Voltage	230	230
Input Current	8.10 Amps	8.10 Amps
Output Voltage	230	230
Output Current (VA/Watts)	4.80 / 4.30 Amps	4.80 / 4.30 Amps
Input Voltage Range (w/o Using Battery)	185 to 276 volts	185 to 276 volts
Output Regulation (Mains)	± 10%	± 10%
Output Regulation (On Battery)	± 5%	± 5%
Backup Time at Full Load (0.7 P.F.)	> 5 Minutes	> 5 Minutes
Floor Mountable	Yes (Optional)	Yes (Optional)
Communications Interface	DB9, USB (SNMP Optional)	DB9, USB (SNMP Optional)
Shipping Weight (kg)	32	32

International Models ABCE1102-22 and ABCE1102-22MED

Front Panel Controls • Power On/Off • Test • Load Level LED Gauge • Battery Charge LED Gauge • Voltage Manager Boost LED • Voltage Output On LED • Voltage Manager Buck LED • On Battery LED • Replace Battery LED • Overload LED • Fault Code LED • System Over Temperature LED Rear Panel Information and Controls • 1.8 Meter Power Cord with IEC320 Plug • Eight (8) IEC320 Receptacles • Configuration Manager DIP Switches • Communications Manager DB9 Port, USB Port • Circuit Breaker • AC Inlet Module • SNMP Slot (Contact Factory) Internal Batteries • User Hot-Swappable (See Instruction Manual) • Type: 12 Volt, High Rate 34W • Quantity: 4 Batteries • Recharge Time: 8 Hours to 80%, 24 Hours to Full Charge Environmental • Temperature: 0 to 40°C (32 to 104°F) Operating -20 to 60°C (-40 to 140°F) Shipment/Storage • Humidity: 5 to 90% Non-Condensing (Operating, Shipment/Storage) • Altitude: 3,000m (10,000 ft) max. Operating; 12,000m (40,000 ft) max. Shipment/Storage	Safety Agency and EMC Compliance: All Units are Listed by UL and Marked with the UL/cUL Marking Standard UPM: Products Listed to: • UL IEC62040, CE Mark with CB report Products in Compliance with: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • IEC61000-4-2, Electrostatic Discharge • IEC61000-4-3, Radiated Electromagnetic Field Immunity • IEC61000-4-4, Electrical Fast Transient/Burst Immunity • IEC61000-4-5, Surge Immunity • IEC61000-4-6, Immunity to Conducted Radio Frequency Disturbances • IEC61000-4-8, Power Frequency Magnetic Field Immunity • IEC61000-4-11, Voltage Dips, Short Interruptions and Voltage Variations Medical UPM: Products Listed to: • UL60601-1 2nd and 3rd Edition, CE Mark with CB Report • CSA 22.2 No. 601.1-M89 • CSA 22.2 No. 107-1-M91 • CSA 22.2 Nos. 0-M1982 • CSA 22.2 Nos. 0.4-M1982 Products in Compliance With: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • EN60601-1-2 : 2007 *Note: Class B is Available as an Option Please Consult Your Powervar Sales Representative RoHS Compliance: All products (Standard and Medical) are RoHS Compliant
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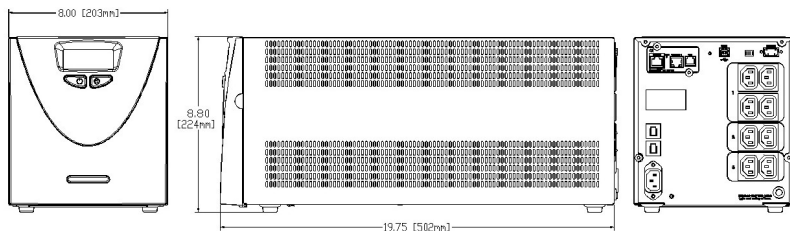
NOISE REJECTION-ISOLATION: With unit under power and an ANSI/IEEE C62.41Cat. A pulse applied either normal or common mode at the input, the noise output voltage will be less than 10V normal mode and less than 0.5V common mode in all four quadrants (CM-NM, NM-NM, CM-CM, NM-COM).

SURGE VOLTAGE WITHSTAND CAPABILITY: Tested under power to ANSI/IEEE C62.41 Cat. A & B (formerly IEEE587-1980). CAT. A - 6000V @ 200 amps, 0.5 usec risetime, 100 kHz decay, Cat. B - 6000V @ 500 amps, 0.5 usec risetime, 100 kHz decay.

Warranty/Support: AMETEK Powervar warrants the electronics and transformers used in its uninterruptible power managers to be free from defects in materials and workmanship for a period of five years from the date of shipment. Batteries are warranted for a period of two years from the date of shipment. For service or support on any AMETEK Powervar product, please contact AMETEK Powervar Technical Support at (800) 369-7179 or visit the AMETEK Powervar website at www.powervar.com.

Battery Life Disclaimer: AMETEK Powervar's standard battery warranty applies only to UPM products which are continuously connected to AC mains power, except during utility power outages. Products which are regularly and intentionally disconnected from AC mains power will experience battery discharge/charge cycles potentially far more numerous than those for which the battery was designed. As a result, products used in such applications will experience substantially reduced battery life. For that reason, AMETEK Powervar's standard battery warranty does not apply for applications in which the UPM product is regularly and intentionally disconnected from AC mains power. AMETEK Powervar UPM products used in such applications shall receive a 90 day warranty on batteries.

International Models ABCE1442-22 and ABCE1442-22MED



	ABCE1442-22 51144-03R	ABCE1442-22MED 51144-23R
Type	Standard	Medical Grade
Power Rating (VA/Watts)	1440 / 1296	1440 / 1296
Inverter Waveform	Low Distortion Sine Wave	Low Distortion Sine Wave
Transfer Time	4 ms. Typical	4 ms. Typical
Frequency	50 / 60 Hz.	50 / 60 Hz.
BTU/Hr.	292	292
T.H.D. w/100% Resistive Load	<4% on Battery	<4% on Battery
Online Efficiency (w/o Charger)	94%	94%
Input Voltage	230	230
Input Current	8.54 Amps	8.54 Amps
Output Voltage	230	230
Output Current (VA/Watts)	6.30 / 5.65 Amps	6.30 / 5.65 Amps
Input Voltage Range (w/o Using Battery)	185 to 276 volts	185 to 276 volts
Output Regulation (Mains)	± 10%	± 10%
Output Regulation (On Battery)	± 5%	± 5%
Backup Time at Full Load (0.7 P.F.)	> 5 Minutes	> 5 Minutes
Floor Mountable	Yes (Optional)	Yes (Optional)
Communications Interface	DB9, USB (SNMP Optional)	DB9, USB (SNMP Optional)
Shipping Weight (kg)	32	32

International Models ABCE1442-22 and ABCE1442-22MED

Front Panel Controls • Power On/Off • Test • Load Level LED Gauge • Battery Charge LED Gauge • Voltage Manager Boost LED • Voltage Output On LED • Voltage Manager Buck LED • On Battery LED • Replace Battery LED • Overload LED • Fault Code LED • System Over Temperature LED Rear Panel Information and Controls • 1.8 Meter Power Cord with IEC320 Plug • Eight (8) IEC320 Receptacles • Configuration Manager DIP Switches • Communications Manager DB9 Port, USB Port • Circuit Breaker • AC Inlet Module • SNMP Slot (Contact Factory) Internal Batteries • User Hot-Swappable (See Instruction Manual) • Type: 12 Volt, High Rate 34W • Quantity: 4 Batteries • Recharge Time: 8 Hours to 80%, 24 Hours to Full Charge Environmental • Temperature: 0 to 40°C (32 to 104°F) Operating -20 to 60°C (-40 to 140°F) Shipment/Storage • Humidity: 5 to 90% Non-Condensing (Operating, Shipment/Storage) • Altitude: 3,000m (10,000 ft) max. Operating; 12,000m (40,000 ft) max. Shipment/Storage	Safety Agency and EMC Compliance: All Units are Listed by UL and Marked with the UL/cUL Marking Standard UPM: Products Listed to: • UL IEC62040, CE Mark with CB Report Products in Compliance with: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • IEC61000-4-2, Electrostatic Discharge • IEC61000-4-3, Radiated Electromagnetic Field Immunity • IEC61000-4-4, Electrical Fast Transient/Burst Immunity • IEC61000-4-5, Surge Immunity • IEC61000-4-6, Immunity to Conducted Radio Frequency Disturbances • IEC61000-4-8, Power Frequency Magnetic Field Immunity • IEC61000-4-11, Voltage Dips, Short Interruptions and Voltage Variations Medical UPM: Products Listed to: • UL60601-1 2nd and 3rd Edition, CE Mark with CB Report • CSA 22.2 No. 601.1-M89 • CSA 22.2 No. 107-1-M91 • CSA 22.2 Nos. 0-M1982 • CSA 22.2 Nos. 0.4-M1982 Products in Compliance with: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • EN60601-1-2 : 2007 *Note: Class B is Available as an Option Please Consult Your Powervar Sales Representative RoHS Compliance: All products (Standard and Medical) are RoHS Compliant
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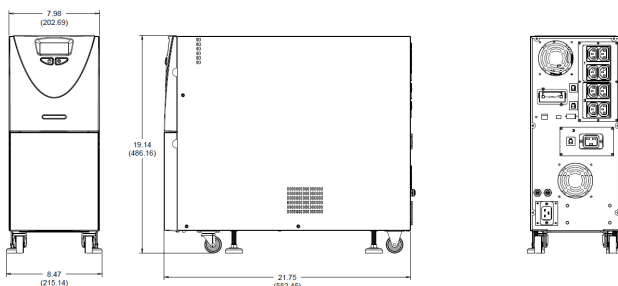
NOISE REJECTION-ISOLATION: With unit under power and an ANSI/IEEE C62.41Cat. A pulse applied either normal or common mode at the input, the noise output voltage will be less than 10V normal mode and less than 0.5V common mode in all four quadrants (CM-NM, NM-NM, CM-CM, NM-COM).

SURGE VOLTAGE WITHSTAND CAPABILITY: Tested under power to ANSI/IEEE C62.41 Cat. A & B (formerly IEEE587-1980). CAT. A - 6000V @ 200 amps, 0.5 usec risetime, 100 kHz decay, Cat. B - 6000V @ 500 amps, 0.5 usec risetime, 100 kHz decay.

Warranty/Support: AMETEK Powervar warrants the electronics and transformers used in its uninterruptible power managers to be free from defects in materials and workmanship for a period of five years from the date of shipment. Batteries are warranted for a period of two years from the date of shipment. For service or support on any AMETEK Powervar product, please contact AMETEK Powervar Technical Support at (800) 369-7179 or visit the AMETEK Powervar website at www.powervar.com.

Battery Life Disclaimer: AMETEK Powervar's standard battery warranty applies only to UPM products which are continuously connected to AC mains power, except during utility power outages. Products which are regularly and intentionally disconnected from AC mains power will experience battery discharge/charge cycles potentially far more numerous than those for which the battery was designed. As a result, products used in such applications will experience substantially reduced battery life. For that reason, AMETEK Powervar's standard battery warranty does not apply for applications in which the UPM product is regularly and intentionally disconnected from AC mains power. AMETEK Powervar UPM products used in such applications shall receive a 90 day warranty on batteries.

International Models ABCE2202-22 and ABCE2202-22MED



	ABCE2202-22 51220-03R	ABCE2202-22MED 51220-23R
Type	Standard	Medical Grade
Power Rating (VA/Watts)	2200 / 1980	2200 / 1980
Inverter Waveform	Low Distortion Sine Wave	Low Distortion Sine Wave
Transfer Time	4 ms. Typical	4 ms. Typical
Frequency	50 / 60 Hz.	50 / 60 Hz.
BTU/Hr.	375	375
T.H.D. w/100% Resistive Load	<4% on Battery	<4% on Battery
Online Efficiency (w/o Charger)	95%	95%
Input Voltage	230	230
Input Current	16.0 Amps	16.0 Amps
Output Voltage	230	230
Output Current (VA/Watts)	9.55 / 8.60 Amps	9.55 / 8.60 Amps
Input Voltage Range (w/o Using Battery)	185 to 276 Volts	185 to 276 Volts
Output Regulation (Mains)	± 10%	± 10%
Output Regulation (On Battery)	± 5%	± 5%
Backup Time at Full Load (0.7 P.F.)	> 5 Minutes	> 5 Minutes
Floor Mountable	Yes (Optional)	Yes (Optional)
Communications Interface	DB9, USB (SNMP Optional)	DB9, USB (SNMP Optional)
Shipping Weight (kg)	75	75
Dimensions (in/mm) LxWxH	7.98 x 21.75 x 19.14 / 202.69 x 552.45 x 486.16	7.98 x 21.75 x 19.14 / 202.69 x 552.45 x 486.16
Output Receptacle	Eight (8) IEC320 C13 and (1) IEC320 C19	Eight (8) IEC320 C13 and (1) IEC320 C19

International Models ABCE2202-22 and ABCE2202-22MED

Front Panel Controls • Power On/Off • Test • Load Level LED Gauge • Battery Charge LED Gauge • Voltage Manager Boost LED • Voltage Output On LED • Voltage Manager Buck LED • On Battery LED • Replace Battery LED • Overload LED • Fault Code LED • System Over Temperature LED Rear Panel Information and Controls • 1.8 Meter Power Cord with IEC320 Plug • Configuration Manager DIP Switches • Communications Manager DB9 Port, USB Port • Circuit Breaker • AC Inlet Module • SNMP Slot (Contact Factory) Internal Batteries • User Hot-Swappable (See Instruction Manual) • Type: 12 Volt, High Rate 34W • Quantity: 8 Batteries • Recharge Time: 8 Hours to 80%, 24 Hours to Full Charge Environmental • Temperature: 0 to 40°C (32 to 104°F) Operating -20 to 60°C (-40 to 140°F) Shipment/Storage • Humidity: 5 to 90% Non-Condensing (Operating, Shipment/Storage) • Altitude: 3,000m (10,000 ft) max. Operating; 12,000m (40,000 ft) max. Shipment/Storage	Safety Agency and EMC Compliance: All Units are Listed by UL and Marked with the UL/cUL Marking Standard UPM: Products Listed to: • UL IEC62040, CE Mark with CB Report Products in Compliance with: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • IEC61000-4-2, Electrostatic Discharge • IEC61000-4-3, Radiated Electromagnetic Field Immunity • IEC61000-4-4, Electrical Fast Transient/Burst Immunity • IEC61000-4-5, Surge Immunity • IEC61000-4-6, Immunity to Conducted Radio Frequency Disturbances • IEC61000-4-8, Power Frequency Magnetic Field Immunity • IEC61000-4-11, Voltage Dips, Short Interruptions and Voltage Variations Medical UPM: • UL60601-1 2nd and 3rd Edition, CE Mark with CB Report • CSA 22.2 No. 601.1-M89 • CSA 22.2 No. 107-1-M91 • CSA 22.2 Nos. 0-M1982 • CSA 22.2 Nos. 0.4-M1982 Products in Compliance with: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • EN60601-1-2 : 2007 *Note: Class B is Available as an Option Please Consult Your Powervar Sales Representative RoHS Compliance: All products (Standard and Medical) are RoHS Compliant
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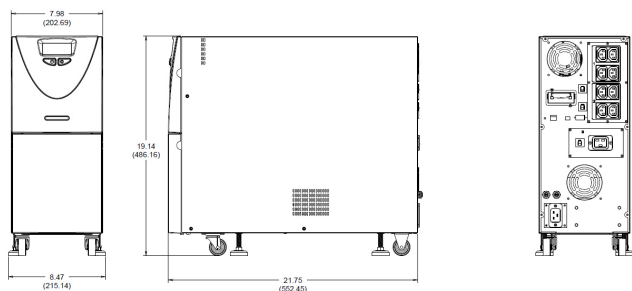
NOISE REJECTION-ISOLATION: With unit under power and an ANSI/IEEE C62.41Cat. A pulse applied either normal or common mode at the input, the noise output voltage will be less than 10V normal mode and less than 0.5V common mode in all four quadrants (CM-NM, NM-NM, CM-CM, NM-COM).

SURGE VOLTAGE WITHSTAND CAPABILITY: Tested under power to ANSI/IEEE C62.41 Cat. A & B (formerly IEEE587-1980). CAT. A - 6000V @ 200 amps, 0.5 usec risetime, 100 kHz decay, Cat. B - 6000V @ 500 amps, 0.5 usec risetime, 100 kHz decay.

Warranty/Support: AMETEK Powervar warrants the electronics and transformers used in its uninterruptible power managers to be free from defects in materials and workmanship for a period of five years from the date of shipment. Batteries are warranted for a period of two years from the date of shipment. For service or support on any AMETEK Powervar product, please contact AMETEK Powervar Technical Support at (800) 369-7179 or visit the AMETEK Powervar website at www.powervar.com.

Battery Life Disclaimer: AMETEK Powervar's standard battery warranty applies only to UPM products which are continuously connected to AC mains power, except during utility power outages. Products which are regularly and intentionally disconnected from AC mains power will experience battery discharge/charge cycles potentially far more numerous than those for which the battery was designed. As a result, products used in such applications will experience substantially reduced battery life. For that reason, AMETEK Powervar's standard battery warranty does not apply for applications in which the UPM product is regularly and intentionally disconnected from AC mains power. AMETEK Powervar UPM products used in such applications shall receive a 90 day warranty on batteries.

International Models ABCE3002-22 and ABCE3002-22MED



	ABCE3002-22 51300-03R	ABCE3002-22MED 51300-23R
Type	Standard	Medical Grade
Power Rating (VA/Watts)	3000 / 2700	3000 / 2700
Inverter Waveform	Low Distortion Sine Wave	Low Distortion Sine Wave
Transfer Time	4 ms. Typical	4 ms. Typical
Frequency	50 / 60 Hz.	50 / 60 Hz.
BTU/Hr.	512	512
T.H.D. w/100% Resistive Load	<4% on Battery	<4% on Battery
Online Efficiency (w/o Charger)	95%	95%
Input Voltage	230	230
Input Current	16.0 Amps	16.0 Amps
Output Voltage	230	230
Output Current (VA/Watts)	13.0 / 11.75 Amps	13.0 / 11.75 Amps
Input Voltage Range (w/o Using Battery)	185 to 276 Volts	185 to 276 Volts
Output Regulation (Mains)	± 10%	± 10%
Output Regulation (On Battery)	± 5%	± 5%
Backup Time at Full Load (0.7 P.F.)	> 5 Minutes	> 5 Minutes
Floor Mountable	Yes (Optional)	Yes (Optional)
Communications Interface	DB9, USB (SNMP Optional)	DB9, USB (SNMP Optional)
Shipping Weight (kg)	75	75
Dimensions (in/mm) LxWxH	7.98 x 21.75 x 19.14 / 202.69 x 552.45 x 486.16	7.98 x 21.75 x 19.14 / 202.69 x 552.45 x 486.16
Output Receptacle	Eight (8) IEC320 C13 and (1) IEC320 C19 Receptacles	Eight (8) IEC320 C13 and (1) IEC320 C19 Receptacles

International Models ABCE3002-22 and ABCE3002-22MED

Front Panel Controls • Power On/Off • Test • Load Level LED Gauge • Battery Charge LED Gauge • Voltage Manager Boost LED • Voltage Output On LED • Voltage Manager Buck LED • On Battery LED • Replace Battery LED • Overload LED • Fault Code LED • System Over Temperature LED Rear Panel Information and Controls • 1.8 Meter Power Cord with IEC320 Plug • Configuration Manager DIP Switches • Communications Manager DB9 Port, USB Port • Circuit Breaker • AC Inlet Module • SNMP Slot (Contact Factory) Internal Batteries • User Hot-Swappable (See Instruction Manual) • Type: 12 Volt, High Rate 34W • Quantity: 4 Batteries • Recharge Time: 8 Hours to 80%, 24 Hours to Full Charge Environmental • Temperature: 0 to 40°C (32 to 104°F) Operating -20 to 60°C (-40 to 140°F) Shipment/Storage • Humidity: 5 to 90% Non-Condensing (Operating, Shipment/Storage) • Altitude: 3,000m (10,000 ft) max. Operating; 12,000m (40,000 ft) max. Shipment/Storage	Safety Agency and EMC Compliance: All Units are Listed by UL and Marked with the UL/cUL Marking Standard UPM: Products Listed to: • UL IEC62040, CE Mark with CB Report Products in Compliance with: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • IEC61000-4-2, Electrostatic Discharge • IEC61000-4-3, Radiated Electromagnetic Field Immunity • IEC61000-4-4, Electrical Fast Transient/Burst Immunity • IEC61000-4-5, Surge Immunity • IEC61000-4-6, Immunity to Conducted Radio Frequency Disturbances • IEC61000-4-8, Power Frequency Magnetic Field Immunity • IEC61000-4-11, Voltage Dips, Short Interruptions and Voltage Variations Medical UPM: • UL60601-1 2nd and 3rd Edition, CE Mark with CB Report • CSA 22.2 No. 601.1-M89 • CSA 22.2 No. 107-1-M91 • CSA 22.2 Nos. 0-M1982 • CSA 22.2 Nos. 0.4-M1982 Products in Compliance with: • FCC-Part 15, Subpart B, Sections 15.107b & 15.109b Class A Digital Device* • CISPR11:2009, A1; 2010, Class A* • EN60601-1-2 : 2007 *Note: Class B is Available as an Option Please Consult Your Powervar Sales Representative RoHS Compliance: All products (Standard and Medical) are RoHS Compliant
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NOISE REJECTION-ISOLATION: With unit under power and an ANSI/IEEE C62.41Cat. A pulse applied either normal or common mode at the input, the noise output voltage will be less than 10V normal mode and less than 0.5V common mode in all four quadrants (CM-NM, NM-NM, CM-CM, NM-COM).

SURGE VOLTAGE WITHSTAND CAPABILITY: Tested under power to ANSI/IEEE C62.41 Cat. A & B (formerly IEEE587-1980). CAT. A - 6000V @ 200 amps, 0.5 usec risetime, 100 kHz decay, Cat. B - 6000V @ 500 amps, 0.5 usec risetime, 100 kHz decay.

Warranty/Support: AMETEK Powervar warrants the electronics and transformers used in its uninterruptible power managers to be free from defects in materials and workmanship for a period of five years from the date of shipment. Batteries are warranted for a period of two years from the date of shipment. For service or support on any AMETEK Powervar product, please contact AMETEK Powervar Technical Support at (800) 369-7179 or visit the AMETEK Powervar website at www.powervar.com.

Battery Life Disclaimer: AMETEK Powervar's standard battery warranty applies only to UPM products which are continuously connected to AC mains power, except during utility power outages. Products which are regularly and intentionally disconnected from AC mains power will experience battery discharge/charge cycles potentially far more numerous than those for which the battery was designed. As a result, products used in such applications will experience substantially reduced battery life. For that reason, AMETEK Powervar's standard battery warranty does not apply for applications in which the UPM product is regularly and intentionally disconnected from AC mains power. AMETEK Powervar UPM products used in such applications shall receive a 90 day warranty on batteries.

7.0 TROUBLESHOOTING

The troubleshooting information provided in this section should help you discover the cause of most commonly encountered difficulties. Before following the troubleshooting steps provided, be certain that you have verified the following items:

- The UPM should be plugged into a properly working outlet.
- The line voltage to the UPM is within specified boundaries.
- The circuit breaker on the rear panel of the UPM has been reset.
- The battery enable plug(s) is installed.

Problem	Possible Cause	Action you should take
UPM does not power up and has no audible alarm	1. On/Off Button not pressed long enough. 2. No incoming line voltage or voltage too high or too low. 3. UPM input power cord is not plugged in. 4. Rear panel circuit breaker is tripped.	1. Press and hold the On/Off switch for 3 seconds min. 2. Check wall socket and test for proper line voltage. 3. Plug in input power cord. 4. Reduce load and reset circuit breaker.
UPM Overload LED's are illuminated and continuous audible alarm sounds	UPM is overload.	Reduce load by removing the least critical load items from the UPM output.
Low/Replace Battery LED is illuminated	Battery voltage is too low or battery is dead.	Recharge battery for at least six hours and reset UPM. If LED is still illuminated, replace the battery.
Site Wiring Fault LED is illuminated	Site wiring problem.	Contact a qualified electrician to verify wiring at this site.
Backup time is less than expected	Battery is not fully charged or battery is dead.	Recharge battery for at least six hours and retest back up time.
UPM is normal, but the computer will not turn on.	Computer input power cord is loose or not connected.	Connect the power input power cord.

Output Fuse Rating Chart

Work to be done only by qualified service personnel. It is critical that the same type and rating of fuses are used:

Replace with same type and rating of fuse fuse must be rated to IEC 60127-2	
Model	Fuse rating (slo-blo)
ABCE422-11MED	250 VAC 4.0 A
ABCE422-22MED	250 VAC 2.0 A
ABCE602-11MED	250 VAC 6.3 A
ABCE602-22MED	250 VAC 3.15 A
ABCE802-11MED	250 VAC 8.0 A
ABCE802-22MED	250 VAC 4.0 A
ABCE1102-11MED	250 VAC 10.0 A
ABCE1102-22MED	250 VAC 8.0 A
ABCE1442-11MED	250 VAC 12.5 A
ABCE1442-22MED	250 VAC 8.0 A

* 2200 and 3000 VA units have resettable output circuit breaker.

Technical Support

AMETEK Powervar provides technical product support during our regular business hours of 8:00 a.m. to 5:00 p.m. Between the hours of 5:00 p.m. and 8:00 a.m., our phone system will allow you to leave a message for our technical support department. The phone mail system also provides an emergency number to call in the event you should require immediate assistance. In North America, call toll free at (800) 369-7179. Contact our European headquarters at +44 (0) 1793-553980 or visit our website at www.powervar.com for more locations.

8.0 WARRANTY

The AMETEK Powervar Security II Series UPM is warranted to be free from defects in material and workmanship for **sixty (60) months** from date of shipment from AMETEK Powervar, on the chassis & electronic components and **twenty four (24) months** from date of shipment from AMETEK Powervar on the batteries. This warranty is limited to repairing, replacing, or refurbishing, at AMETEK Powervar's option, any defective component, circuit board or module within the Product. This warranty is limited to AMETEK Powervar depot service. Refer to AMETEK Powervar Warranty Statement for complete details.

Life Support

AMETEK Powervar does not recommend the use of our UPM products on life support equipment where the failure of the UPM could endanger or compromise patient safety or diminish the effectiveness of such life support equipment.

9.0 FRANCAIS

AVIS IMPORTANT SUR LA GARANTIE DE LA BATTERIE

L'UPM peut être utilisé dans deux applications différentes:

1. **Utilisation typique de l'« UPS »** - utilisé comme alimentation automatique de secours pour fournir une alimentation continue en courant alternatif afin de protéger les systèmes critiques contre les pannes momentanées ou prolongées de CA provenant de l'intérieur ou de l'extérieur d'un bâtiment.
2. **Support d'alimentation portable** - utilisé comme source d'alimentation en CA pour les systèmes critiques sur des chariots à roulettes afin de continuer à alimenter un système tout en se déplaçant d'un endroit à l'autre dans un bâtiment.

REMARQUE :

- La durée standard de la garantie de la batterie (section 8 de ce manuel) n'est valable que pour les applications « UPS typique ».
- Dans les applications de Support d'alimentation portable, la durée de la garantie de la batterie est limitée à 90 jours à compter de la date d'expédition de l'UPM par AMETEK Powervar.

La différence expliquée:

- Toutes les batteries perdent de leur capacité avec le temps, car les matériaux internes vieillissent.
- Lorsque les batteries sont souvent chargées et déchargées, le vieillissement s'accélère.
- Dans les applications de Support d'alimentation portable où les UPM sont intentionnellement déconnectés et reconnectés au secteur plusieurs fois par jour ou par semaine, la durée de vie utile de la batterie peut être limitée à 3 à 9 mois, en fonction de l'utilisation réelle et de la durée pendant laquelle l'UPM reste déconnecté du secteur avec la batterie complètement ou partiellement déchargée.

Pour plus de détails, consultez la déclaration de garantie complète à la section 8.



DANGER



ATTENTION



AVERTISSEMENT



PRUDENCE

Danger - Le symbole danger est utilisé pour signaler les situations, emplacements et conditions qui, s'ils ne sont pas évités, CAUSERONT la mort, des blessures sérieuses et/ou des dommages matériels importants.

Attention - Le symbole attention est utilisé pour signaler les situations et les conditions potentiellement dangereuses qui, si elles ne sont pas évitées, peuvent causer des blessures. L'équipement peut aussi être endommagé.

Avertissement - Le symbole avertissement est utilisé pour signaler les situations et les conditions potentiellement dangereuses qui, si elles ne sont pas évitées, POURRAIENT causer des blessures sérieuses, voire mortelles. Des dommages matériels importants POURRAIENT aussi en résulter.

Prudence - Le symbole prudence est utilisé pour signaler les situations et les conditions qui peuvent causer des blessures à l'utilisateur et/ou endommager l'équipement.

D'autres symboles d'avertissement peuvent apparaître en plus des symboles Danger et Attention et sont utilisés pour identifier des dangers spéciaux. Ces avertissements concernent des domaines particuliers qui demandent une attention et/ou des procédures spéciales afin d'éviter des blessures importantes, voire la mort.



Avertissements électriques - Le symbole d'avertissement électrique est un éclair à l'intérieur d'un triangle. Le symbole d'avertissement électrique est utilisé pour signaler les emplacements et les conditions de haute tension, qui peuvent causer des blessures importantes, voire mortelles.



Avertissements d'explosion - Le symbole d'avertissement d'explosion est représenté par une explosion à l'intérieur d'un triangle. Le symbole d'avertissement d'explosion est utilisé pour signaler les emplacements et les conditions dans lesquels des pièces fondues explosives peuvent causer des blessures importantes, voire mortelles, si les précautions appropriées ne sont pas prises.



Courant alternatif

Voir le manuel/livret d'instructions.

1.0 INTRODUCTION

Nous vous remercions pour votre achat de l'AMETEK Powervar Security II Séries UPM (ci-après dénommé « UPM »). AMETEK Powervar fabrique deux versions de l'UPM – une version standard, une version médicale répertoriée UL60601-1 et C22.2 No. 60601.1. En outre, tous les modèles sont compatibles avec les systèmes internationaux de distribution électrique. Les versions internationales sont homologuées UL (version médicale homologuée IEC60601-1 et EN60601) et portent le marquage CE. Nous avons préparé ce document afin de vous familiariser avec les fonctions et les commandes de ce produit. Si, après examen de ce manuel, vous avez des questions, n'hésitez pas à contacter notre équipe d'assistance technique par téléphone au (1-800-369-7179) ou nous écrire à servicerma@powervar.com.

AMETEK Powervar est un fournisseur mondial de solutions de gestion de l'énergie, dont le siège est à Waukegan, Illinois, avec des ventes internationales et des bureaux de distribution à Swindon Royaume-Uni, Toronto Canada, Mexico Mexique et en Allemagne. Toutes les solutions d'AMETEK Powervar incorporent un dispositif de protection contre les surtensions, un filtre de bruit et un transformateur d'isolation basse impédance. Ensemble, ces éléments empêchent les perturbations électriques de détruire, dégrader ou perturber le fonctionnement du système.

Enregistrement de votre produit AMETEK Powervar

Veuillez prendre quelques minutes pour enregistrer l'achat de votre produit. L'enregistrement est facile et rapide à partir de la page d'enregistrement que vous trouverez sur notre site Web powervar.com.

2.1 CONSIGNES DE SÉCURITÉ

IMPORTANT - CONSERVEZ CES INSTRUCTIONS

CE MANUEL CONTIENT DES CONSIGNES DE SÉCURITÉ IMPORTANTES. CONSERVEZ CE MANUEL À PORTÉE DE MAIN COMME RÉFÉRENCE.



ATTENTION

Une batterie peut présenter un risque de décharge électrique. Les courants de court-circuit peuvent être extrêmement élevés et peuvent provoquer des brûlures sérieuses ainsi que des incendies ou l'explosion de gaz présents dans l'atmosphère. Prenez toujours les précautions appropriées.

Lors du remplacement des batteries, utilisez toujours la même quantité, la même classe et le même type de batteries que ceux utilisés par AMETEK Powervar. Les batteries utilisées dans cet UPM sont des batteries étanches au plomb-acide, sans entretien. La disposition des batteries doit être faite de manière correcte. Reportez-vous à vos codes locaux pour la disposition des batteries.

<i>Modele UPM</i>	<i>Quantité et type de batterie</i>
420 VA	2 X 21W @ 12 VOLT
600 VA	2 X 34W @ 12 VOLT
800 VA	2 X 34W @ 12 VOLT
1100 VA	4 X 34W @ 12 VOLT
1440 VA	4 X 34W @ 12 VOLT
2200 VA	8 X 34W @ 12 VOLT
3000 VA	8 X 34W @ 12 VOLT



ATTENTION

- Il existe des tensions à l'intérieur de cet UPM qui sont potentiellement dangereuses. Toutes les réparations doivent être effectuées par un personnel d'entretien qualifié.
- Pour réduire le risque d'incendie, ne branchez cet UPM que sur un circuit équipé d'une dérivation de protection contre les

surintensités d'un maximum de 20 ampères, en conformité avec le Code national de l'électricité, ANSI/NFPA 70.

- L'UPM est équipé de sa propre source interne d'énergie (batterie). Les prises de sortie de l'UPM peuvent être sous tension, même lorsque celui-ci n'est pas branché sur une alimentation CA.

Déclaration d'utilisation prévue

Les UPM médicaux sont destinés à protéger le matériel médical et non médical, ainsi que les dispositifs médicaux nécessitant une batterie de secours, une protection contre les surtensions, un réglage de tension et un filtrage du bruit de ligne dans et autour des zones de soins aux patients. Le fonctionnement en toute sécurité et de façon continue de l'UPM dépend en partie du soin pris par les utilisateurs. Veuillez respecter les recommandations suivantes. Ne pas suivre ces recommandations pourrait annuler la garantie.

REMARQUE:

- Applications de Support d'alimentation portable - Si l'UPM est intégrée à un chariot mobile, l'UPM doit être fixée au chariot et testé dans l'application. Si l'UPM a été fourni dans le cadre d'un système sur un chariot par un système OEM, reportez-vous aux instructions de montage spécifiques et aux accessoires fournis par le système OEM.
- L'UPM n'est pas prévu pour le contact avec le patient ou pour une installation susceptible de provoquer un contact accidentel avec les patients.
- Ne pas utiliser cet UPM pour les applications de soutien vital dans lesquelles un dysfonctionnement ou une panne du système UPM pourrait entraîner une défaillance ou modifier de manière significative les performances d'un équipement de soutien vital.
- Ne pas utiliser cet UPM à proximité ou autour des gaz inflammables. Ne pas utiliser cet UPM dans une atmosphère enrichie en oxygène.
- Ne pas démonter l'UPM.
- L'UPM est un équipement de CLASSE 1.
- Ne pas essayer d'alimenter l'UPM à partir d'une prise qui n'est pas correctement mise à la terre ou qui n'est pas parfaitement adaptée à la prise d'alimentation fournie avec l'UPM.

- Ne pas placer l'UPM près de l'eau ou dans un environnement trop humide.
- Ne pas laisser de liquide ou un objet étranger pénétrer dans l'UPM.
- Ne pas bloquer les aérations sur le côté de l'UPM. Garder un minimum de 8 cm sur tous les côtés.
- Ne pas brancher des appareils comme des sèche-cheveux, des ventilateurs, des radiateurs, etc. sur l'UPM.
- Ne pas placer l'UPM en plein soleil ou près d'une source de chaleur (des températures trop élevées réduiront la durée de vie de la batterie).
- Cet UPM est conçu pour une installation à l'intérieur, dans une zone climatisée ne contenant aucun contaminant conducteur.
- L'alimentation CA de cet UPM doit se trouver assez proche de celui-ci et être facilement accessible. Évitez d'alimenter l'UPM en utilisant des rallonges ou des blocs multiprises temporaires.
- Le courant de fuite total de l'UPM et de l'équipement consommateur qui y est connecté ne doit pas dépasser 3,5 mA pour les unités non médicales.
- Ne doit pas être utilisé dans une salle informatique définie par la norme ANSI/NFPA 75 sur la protection des ordinateurs et des équipements électroniques de traitement des données.
- La prise de sortie doit être installée près de l'équipement et doit être facilement accessible.
- La batterie doit être déconnectée de l'UPM en la débranchant au niveau de ses connexions rapides si des travaux d'entretien ou de réparation à l'intérieur de l'UPM s'avèrent nécessaires.
- Ne pas jeter les batteries au feu; elles pourraient exploser.
- Ne pas ouvrir ou endommager les batteries. Cela pourrait libérer l'électrolyte ou d'autres substances toxiques qui pourraient être dangereuses pour la peau, les yeux ou l'environnement.

Une batterie peut présenter un risque de décharge électrique et de courant de court circuit de forte intensité. Les précautions suivantes doivent être prises lorsqu'on travaille avec des batteries:

- Retirer les montres, bagues et tout autre bijou ou objet métallique qui pourraient entrer en contact avec la batterie.
- Utiliser des outils à poignées isolées.

Réglementation FCC



Cet UPM a été testé et il a été déterminé qu'il est conforme aux limites pour les appareils numériques de classe A (conformité à la classe B en option), selon la partie 15 des réglementations de la FCC (Commission fédérale des communications des États-Unis). Ces limites sont conçues afin de fournir une protection raisonnable contre les interférences nuisibles dans les environnements résidentiels ou commerciaux.

Cet équipement produit, utilise et peut irradier de l'énergie de fréquence radio et, s'il n'est pas installé et utilisé conformément aux présentes instructions, peut causer des interférences préjudiciables aux communications radio. Toutefois il n'existe aucune garantie que ces interférences n'interviendront pas dans une installation particulière. Si cet équipement crée des interférences nuisibles dans la réception de la radio ou de la télévision, ce qui peut être identifié en allumant et éteignant l'UPM, l'utilisateur est invité à essayer de les corriger en suivant l'une des procédures ci-dessous :

- Repositionner l'UPM
- Repositionner la charge

Cet appareil est conforme à la partie 15 des réglementations de la FCC. Son fonctionnement est soumis aux conditions suivantes: (1) cet appareil n'est pas censé causer des interférences dangereuses et (2) cet appareil doit accepter toute interférence reçue, y compris les interférences qui pourraient causer un fonctionnement indésirable.

3.1 INSTALLATION

Inspection de l'UPM

Si une partie quelconque de l'équipement a été endommagée pendant l'expédition, conservez les boîtes et les matériaux d'emballage pour le transporteur ou le lieu d'achat et soumettez une réclamation pour dommages lors de l'expédition:

1. Déposez-la auprès du transporteur dans les 15 jours suivants la réception de l'équipement;
2. Envoyez à votre représentant de service une copie de la réclamation pour dommages dans un délai de 15 jours.

REMARQUE:

Vérifiez la date de recharge de la batterie sur l'étiquette du carton d'emballage. Si la date est dépassée et si les batteries n'ont jamais été rechargées, n'utilisez pas l'UPM. Contactez votre représentant de service.

Guide de démarrage rapide

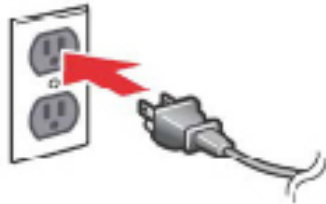
SECURITY II Guide de démarrage rapide

L'UPM est livré avec les batteries internes déconnectées.
Avant de le mettre en marche, SVP suivre la procédure suivante.

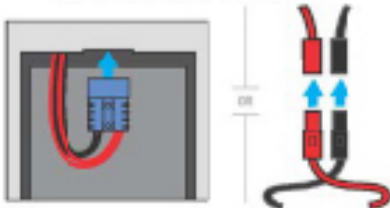
1. Retirez le UPS de la boîte



2. Retirez le UPS de la boîte



3. Retirez le couvercle en façade et branchez le connecteur



4. Remettez le couvercle et retirez le collant jaune



5. Appuyez pendant 3 secondes pour démarrer le UPM



IMPORTANT:

Attendre 15 secondes suivant le branchement des batteries avant de démarrer le UPM.

Si vous devez expédier le UPM dans un autre endroit, il faudra déconnecter les batteries par sécurité.

Déballage de l'UPM



ATTENTION

- Déballer l'appareil dans un environnement froid peut entraîner la formation de condensation sur et dans l'appareil. N'installez pas l'appareil avant que l'intérieur et l'extérieur soient absolument secs {danger de décharge électrique}.
- L'appareil est lourd. Prenez des précautions lors du déballage et du déplacement de l'appareil.

Faites attention en déplaçant et en ouvrant le carton. Laissez les composants emballés jusqu'à ce qu'ils soient prêts à être installés.

Pour déballer l'appareil et les accessoires:

1. Ouvrez le carton extérieur et sortez les accessoires emballés avec l'appareil.
2. Soulevez l'appareil avec précaution pour le sortir du carton extérieur.
3. Conservez le carton pour une utilisation future

Placez l'appareil dans une zone protégée, suffisamment ventilée, exempte d'humidité, de gaz inflammable et de corrosion.

REMARQUE:

Avant l'installation, veuillez lire et comprendre les instructions suivantes. Vérifiez bien que le carton n'est pas endommagé. En cas de dommages, avisez immédiatement le transporteur.

Conservez le carton au cas où vous devriez expédier l'UPM pour réparation ou entretien.



Cet UPM est destiné uniquement à une utilisation intérieure. Bien que votre UPM soit très résistant, ses composants internes ne sont pas isolés de l'environnement. L'UPM doit être installé dans un environnement protégé, éloigné d'appareils produisant de la chaleur comme les chaudières, les radiateurs et les chauffages. Protégez l'UPM de tout contact avec de l'eau qui s'égoutte ou stagnante et de l'humidité élevée et évitez les conditions favorisant la condensation..

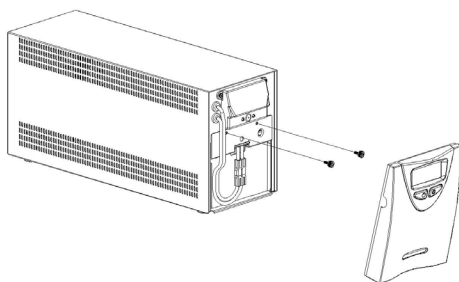
L'emplacement doit permettre une ventilation suffisante autour de l'UPM. Prévoyez un dégagement de minimum 7,6 cm sur tous les côtés pour une bonne ventilation.

Mise sous tension de l'UPM

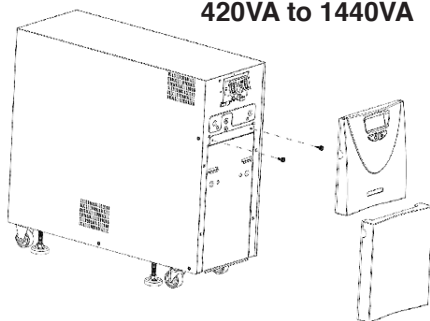
Branchez le cordon d'alimentation à une prise vérifiée à 3 broches mise à la terre. Vérifiez que le voyant de défaut de câblage du site est éteint (modèles à 120 VCA uniquement). Une fois le branchement correctement effectué et après vérification, allumez l'UPM en appuyant sur l'interrupteur marche/arrêt (On/Off) du panneau avant et maintenez-le enfoncé pendant 3 secondes.

REMARQUE:

Pour utiliser l'UPM vous devez d'abord brancher la ou les prises d'activation de la batterie dans le ou les réceptacles d'activation derrière le panneau avant de l'UPM.



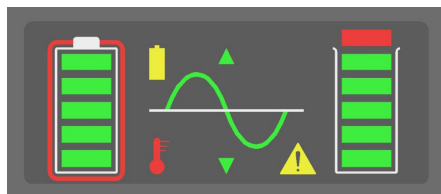
420VA to 1440VA



2200VA to 3000VA

Tests de fonctionnement

Observez le panneau avant de l'UPM. Le tableau suivant montre les états du système.



**Panneau avant
UPM**

UPM LED DISPLAY	UNIT STATUS
	Alimentation disponible à la sortie du UPM
	Niveau de charge des batteries par segments de 20%
	Niveau des charges protégées par segments de 20%
	Alimentation sur batteries
	Surcharge du UPS
	Batteries en trouble ou déconnectées
	UPM en correction due à un voltage trop élevé
	UPM en correction due à un voltage trop bas
	Faute
	UPM en surchauffe

Voyants de charge et de batterie de l'UPM



Affichage UPM indiquant un fonctionnement normal (Batteries complètement chargées avec une charge de 60 % indiquée)



Affichage UPM indiquant un fonctionnement sur la batterie de secours (Batteries chargées à 80% avec une charge de 60% indiquée)



Affichage UPM indiquant un état de surcharge (Batteries chargées à 100% avec une charge de 100% indiquée)



Affichage UPM indiquant une surchauffe
(Batteries chargées à 80% avec une charge de 80% indiquée)



Affichage UPM indiquant une batterie en mauvais état (Inspecter ou remplacer la batterie chargée à 60%)

REMARQUE:

Selon l'état de charge de la batterie, il est possible que les DEL de niveau de charge de la batterie clignotent (c'est normal).



Démarrage initial

L'équipement connecté à l'UPM étant éteint, effectuez un test initial de la fonction de secours de l'UPM en appuyant sur le bouton Test/Silence du panneau avant. Pendant ce test, le voyant de la batterie () sur le panneau avant devrait s'allumer brièvement. Il est également possible de tester la fonction de secours en débranchant le cordon d'alimentation de l'UPM. Si vous décidez de tester l'UPM de cette façon, vous observerez que l'UPM émettra un bip à quelques secondes d'intervalle tant que le cordon sera débranché. Le voyant de la batterie () s'allumera aussi constamment.

Une fois le test initial de la fonction de secours de l'UPM effectué, allumez l'équipement informatique connecté. Vérifiez que l'appareil n'est pas surchargé. Si l'appareil est surchargé, tous les voyants de charge clignotent et le voyant de défaut () clignotera. Déconnectez de l'UPM un par un les appareils les moins importants jusqu'à ce que les voyants de surcharge s'éteignent. En gardant les charges connectées allumées, effectuez le test de secours à nouveau en appuyant sur le bouton Test/ Silence ou en débranchant l'UPM. Une fois ce test final terminé, l'UPM est prêt à être utilisé.

Consulter le tableau des codes de défaut UPM ci-dessous pour identifier l'état de l'UPM.

Code d'état UPM	Définition
IF	Défaillance de l'inverseur
BE	Défaillance de réalimentation
HL	Appareil éteint en raison d'une tension élevée
LL	Appareil éteint en raison d'une tension basse
DB	Appareil éteint en raison d'une batterie faible
FF	Défaillance du ventilateur
SF	Défaut de câblage du site

REMARQUE:

- Si l'UPM est allumé en permanence, il effectuera un test automatique de la batterie tous les six jours.
- Si vous utilisez le logiciel MopUPS Pro ou l'adaptateur réseau iSitePRO, vous pouvez configurer le système pour qu'il effectue un auto-test périodique.
- L'UPM est expédié avec une batterie chargée, mais il est normal qu'elle se décharge partiellement pendant l'entreposage et l'expédition. Vous pouvez utiliser l'UPM immédiatement, mais vous devez savoir que la durée d'autonomie disponible peut être inférieure à la valeur annoncée tant que la batterie de l'UPM n'aura pas été rechargée pendant au moins six heures.

4.1 FONCTIONNEMENT

Bouton On/Off (marche/arrêt)

Le bouton On/Off a deux fonctions:

- Lorsque l'UPM est éteint et que la tension CA est présente à l'entrée de l'UPM, appuyer sur ce bouton pendant plus de 2 secondes allumera l'UPM.
- Si la batterie est connectée, appuyer sur le bouton On/Off pendant au moins 2 secondes entraînera un « démarrage à froid » de l'UPM sur sa batterie interne sans CA entrant.
- Lorsque l'UPM est allumé, appuyer sur le bouton On/Off pendant plus de 2 secondes éteindra l'UPM et coupera la tension de so

Bouton Test/Silence

Le bouton Test/Silence a deux fonctions:

- Appuyer sur le bouton Test/Silence lorsque la tension CA est présente et que l'UPM fonctionne fait passer l'UPM en mode autotest dans lequel il teste à la fois la batterie et l'inverseur pendant quelques secondes avant de retourner à l'alimentation CA. Nous recommandons de fermer tous les fichiers ouverts avant de démarrer un autotest.
- Lorsque l'alimentation CA tombe en panne, l'UPM vous alerte avec une alarme sonore. Le bouton de Test/Silence est utilisé pour couper l'alarme. Lorsque la charge de la batterie commence à baisser, l'alarme sonore s'allume automatiquement et émet des bips à fréquence plus élevée.

Moniteur de charge

Le moniteur de charge est un affichage DEL à 6 segments qui indique la charge actuelle en pourcentage. Chacune des premières 5 DEL correspond à une charge d'environ 20%, avec la 6ème DEL rouge indiquant que l'UPM est surchargé.

Moniteur de charge de la batterie

Le moniteur de charge de la batterie est un affichage DEL à 5 segments qui indique la capacité de charge de la batterie interne de zéro à 100%. Chaque DEL indique environ 20% de la pleine charge.

Indicateur de défaut de câblage du site (modèles de 120 VCA uniquement)

Le symbole SF s'affichera sur le panneau avant de l'UPM si celui-ci est connecté à une prise CA mal câblée. L'indicateur est prévu pour indiquer l'absence de mise à la terre de sécurité ou une inversion entre le neutre et la phase. Si le « SF » s'affiche sur le panneau avant, adressez-vous immédiatement à un électricien qualifié.

REMARQUE:

Ne pas faire fonctionner l'UPM si la DEL de défaut de câblage du site est allumée. Lorsqu'elle est allumée, la DEL indique un câblage qui peut représenter un danger d'incendie ou d'électrocution. De plus, un mauvais câblage peut causer des problèmes de fiabilité à la fois pour l'UPM et pour le système qui y est connecté. Ne jamais utiliser un adaptateur 3 pôles - 2 pôles (souvent appelé « tricheur ») avec l'UPM. Ces dispositifs suppriment la connexion de sécurité à la terre de l'UPM et feront s'allumer la DEL de défaut de câblage de site.

Gestionnaire de démarrage

Lorsque l'alimentation CA n'est pas disponible, par exemple dans une nouvelle installation dans laquelle le câblage n'est pas terminé, vous pouvez malgré tout mettre en marche l'UPM pour tester son fonctionnement et celui de votre système à l'aide du gestionnaire de démarrage. Avec l'UPM éteint, suivez ces étapes simples:

1. Débranchez le câble d'alimentation CA de l'alimentation secteur.
2. Assurez-vous que les batteries sont connectées derrière le panneau avant.
3. Appuyez sur le commutateur On/Off sur le panneau avant et maintenez-le enfoncé jusqu'à ce que l'UPM émette un bip.
4. L'UPM fonctionne maintenant sur batterie. Lorsque vous avez terminé, appuyez à nouveau sur le bouton On/Off. Branchez le câble d'alimentation CA sur le panneau arrière de l'UPM.

CARACTÉRISTIQUES SPÉCIALES ET OPTIONS

Le panneau arrière de l'UPM Security II offre des fonctions spéciales qui peuvent être utilisées pour répondre à des exigences uniques telles que: l'arrêt sécurisé automatisé des ordinateurs protégés, la surveillance de statut à distance, les diagnostics de service, le délestage et le démarrage séquentiel.

AMETEK Powervar offre des options basées sur le Web et des logiciels que vous pouvez trouver utiles pour gérer vos charges connectées. Un complément complet de ces offres est disponible sur le [site Web de Powervar](#).

Points forts des fonctionnalités:

- Surveillance sécurisée et à distance de la qualité du courant et de l'état des batteries.
- Gestion en temps réel avec notifications par e-mail et traps SNMP.
- Identification proactive des tendances problématiques grâce à l'enregistrement des événements et des données.
- Surveillance à distance et notifications d'alarme via le réseau ou les systèmes de gestion des bâtiments.
- Délestage automatique de la charge afin d'économiser l'énergie de la batterie pour d'autres charges.
- Arrêt sécurisé automatisé des systèmes protégés lorsque les coupures de CA dépassent la capacité des batteries UPM.
- PDU commutée intégrée pour le contrôle à distance des prises, le délestage ou le démarrage séquentiel en cas de reprise après une panne de CA.

5.1 ENTRETIEN

Entreposage

L'UPM peut être entreposé pendant des périodes prolongées dans un environnement qui ne le soumette pas à des conditions extrêmes de température ou d'humidité. En cas d'entreposage de longue durée la batterie doit être chargée tous les six mois. Si le lieu d'entreposage est caractérisé par des températures supérieures à la normale, la batterie doit être rechargée tous les deux mois. L'UPM n'a pas besoin d'être allumé pour le recharger, il a seulement besoin d'être branché avec les batteries connectées.

REMARQUE:

Ce produit n'est pas destiné à être utilisé de façon continue sur batterie. L'UPM doit toujours être branché à la tension de secteur lorsqu'il n'est pas utilisé en mode batterie de secours pour éviter d'endommager les batteries internes, entraînant un dysfonctionnement de la batterie (p. ex. surchauffe ou incapacité à conserver la charge).

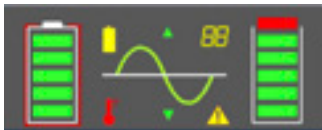
Le microprogramme de l'UPM dans cette unité fournit un avertissement et une alerte supplémentaires pour empêcher et détecter cette condition.

1. Avertissement de connexion de la batterie : évitez que l'UPM ne soit stocké avec la batterie connectée. Cela entraîne le clignotement du symbole ci-dessous à l'écran et le déclenchement de l'alarme sonore qui indique de déconnecter la batterie. Cela se produit lorsque:
 - Le courant alternatif est coupé, la sortie est désactivée et la batterie est déconnectée.
 - Le système fonctionne sur la batterie de secours (absence

de courant alternatif) et la sortie est désactivée ou la batterie est déchargée.



2. Alerte de batterie profondément déchargée : lorsque cette condition est détectée, le symbole ci-dessous clignote et l'alarme sonore se déclenche, indiquant de couper l'alimentation CA et de contacter le service AMETEK Powervar au 1-800-369-7179 pour procéder au remplacement de la batterie.



Attention

Informations importantes

Les batteries à l'intérieur de cet UPM sont d'un type spécial appelé « scellées au plomb-acide ». Ces batteries utilisent un électrolyte non liquide qui permet de les utiliser dans n'importe quelle orientation physique. Les batteries sont conçues pour durer de deux à cinq ans. Leur durée de vie réelle dépendra de plusieurs facteurs dont la fréquence des pannes de courant, la durée des pannes de courant et la température de l'environnement dans lequel l'UPM fonctionne. Les pannes de courant fréquentes et longues réduiront la durée de vie de la batterie plus que les pannes de courant rares et courtes. Des températures régulièrement élevées dans la zone où l'UPM est utilisé réduiront également la durée de vie de la batterie.

L'UPM est équipé d'une DEL Batterie basse/Remplacer (Low/Replace Battery) () sur le panneau avant. Si la DEL s'allume, assurez-vous que la batterie a au moins six heures de charge sans interruption

d'alimentation. Une durée d'autonomie inadéquate (beaucoup plus courte que d'habitude), un signal prématuré d'alarme sonore de batterie basse et une illumination persistante de la DEL Batterie basse/ Remplacer sont des signes certains que les batteries dans votre UPM doivent être remplacées. Les batteries dans votre UPM sont conçues pour être remplacées par un personnel autorisé seulement. Veuillez vous familiariser avec les précautions qui suivent avant de procéder au remplacement de la batterie.



AVERTISSEMENT

L'entretien des batteries doit toujours être fait ou supervisé par une personne ayant lu et compris les précautions qui suivent et qui comprend les dangers associés aux batteries d'accumulateurs. Cette procédure ne doit pas être exécutée par une personne qui n'y est pas autorisée ou qui est incapable de suivre ces consignes.



ATTENTION

- Seul le bloc batterie est remplaçable par l'utilisateur dans cet appareil (appareils non médicaux en bon état uniquement). Le compartiment des batteries est accessible en enlevant le panneau avant selon les instructions suivantes. Il n'existe aucun autre élément dans cet UPM qui puisse être remplacé par l'utilisateur. N'enlevez aucun capot autre que les panneaux avant d'accès aux batteries.
- Une batterie (même déchargée) peut envoyer des courants de forte intensité si elle est court-circuitée. Il existe un danger d'électrocution. Enlevez toutes les montres, bagues et tous les bracelets ou autres objets métalliques. Utilisez des outils à poignées isolées.
- Ne pas mettre les batteries au feu. Il existe un danger d'explosion.
- Ne vous débarrassez pas des batteries d'une façon qui pourrait affecter l'environnement. Les batteries peuvent être renvoyées à AMETEK Powervar pour être éliminées correctement.

- Ne pas ouvrir ou endommager les batteries. Cela pourrait libérer l'électrolyte qui est toxique pour l'environnement et dangereux pour la peau et les yeux.
- Les batteries de rechange peuvent être commandées auprès de AMETEK Powervar par téléphone ou par notre site web www.powervar.com.
- Les appareils médicaux n'ont aucune pièce réparable par l'utilisateur à l'intérieur.

Batterie remplaçable par l'utilisateur (appareils non médicaux uniquement)

Finalement, chaque UPM nécessite une batterie neuve. AMETEK Powervar prévoit une durée de la batterie dans votre UPM de minimum deux ans, peut-être plus si les pannes de courant sont brèves et rares. Avec l'UPM le remplacement de la batterie par l'utilisateur est rapide et facile. Il n'est pas nécessaire d'éteindre l'UPM ou le système y connecté. L'UPM permet de changer la batterie « à chaud », pendant que le système fonctionne.

REMARQUE:

Le changement des batteries dans cet UPM est conçu comme une procédure sûre et simple. Les batteries peuvent être remplacées pendant que l'UPM est allumé et qu'il alimente la charge connectée. Cependant, n'oubliez pas que si une panne de courant survient après que les anciennes batteries aient été déconnectées et avant que les nouvelles n'aient été installées, l'alimentation du système et des composants connectés sera interrompue.



RISQUE D'EXPLOSION SI LA BATTERIE EST REMPLACÉE PAR UNE BATTERIE DE TYPE INCORRECT.

Lorsque vous remplacez les batteries, contactez Powervar pour les kits

de remplacement de batterie corrects. Voir les références des kits de remplacement ci-dessous.

<i>Indice VA</i>	<i>Référence de kit de remplacement de batterie</i>
420	50842-01
600/800	50880-01
1100/1440	50814-01
2200/3000	50822-01



ATTENTION

Risque de danger électrique, batterie de 12 V, maximum 8,5 ampères-heures. Avant de remplacer les batteries, retirez les bijoux conducteurs comme les chaînes, les bracelets-montres et les bagues. De forts courants à travers un matériau conducteur peuvent provoquer des brûlures graves.



ATTENTION

Ne pas jeter les batteries au feu. Les batteries peuvent exploser.



ATTENTION

Ne pas ouvrir ou endommager les batteries. La substance libérée est dangereuse pour la peau et les yeux. Elle peut être toxique. Une batterie peut présenter un risque de décharge électrique et de courant de court circuit de forte intensité. Les précautions suivantes doivent être prises lorsqu'on travaille avec des batteries:

- Retirez les montres, les bagues ou autres objets métalliques.
- Utiliser des outils à poignées isolées.
- Portez des gants et des bottes en caoutchouc.
- Ne posez pas d'outils ou de pièces métalliques sur les batteries.

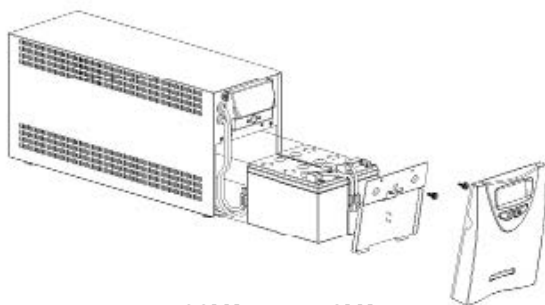
- Déconnectez la source de charge avant de connecter ou déconnecter les bornes de la batterie.
- Vérifiez que la batterie n'est pas mise à la terre par inadvertance.
- Si elle est mise à la terre, retirez la source de terre. Le contact avec une batterie mise à la terre peut entraîner une électrocution.

REMARQUE:

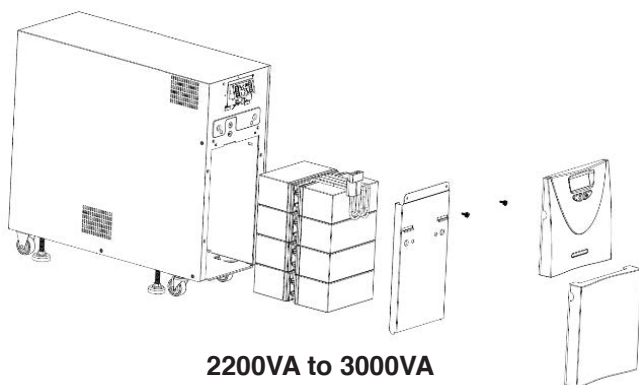
Si vous avez lu et compris les avertissements précédant cette section, vous pouvez procéder comme suit.

Remplacement de la batterie (appareils non médicaux uniquement)

1. Tirez avec précaution sur le panneau avant pour le séparer de l'appareil. Le panneau devrait sortir facilement (Consultez la figure à la page 67).
2. Séparez les connecteurs rouge et noir l'un de l'autre.
3. Desserrez les (2) vis à ailettes qui attachent la porte de la batterie à l'appareil.
4. Retirez la porte de la batterie. Sortez la vieille batterie en la faisant glisser avec précaution et mettez-la de côté.
5. Remplacez-la par une nouvelle batterie (assurez-vous d'utiliser la même taille et type de batterie).
6. Réinstallez la porte de la batterie et serrez les vis à ailettes.
7. Reconnectez les connecteurs rouge et noir.
8. Remettez soigneusement le panneau avant sur l'UPM (faites attention à ne pas pincer les câbles de la batterie).



420VA to 1440VA



2200VA to 3000VA



GEFAHR

Gefahr - Das Gefahrensymbol wird zur Anzeige unmittelbar gefährlicher Situationen, Orte und Bedingungen verwendet, die bei Nichtvermeidung zu tödlichen oder schweren Verletzungen und/oder schweren Sachbeschädigungen führen WERDEN.



VORSICHT

Vorsicht - Das Vorsichtsymbol wird zur Anzeige potenziell gefährlicher Situationen und Bedingungen verwendet, die bei Nichtvermeidung zu Verletzungen führen können. Sachbeschädigungen können ebenfalls auftreten.



WARNUNG

Warnung - Das Warnsymbol wird zur Anzeige potenziell gefährlicher Situationen und Bedingungen verwendet, die bei Nichtvermeidung zu schweren oder tödlichen Verletzungen führen KÖNNTEN. Schwere Sachbeschädigungen KÖNNTEN ebenfalls auftreten.



ACHTUNG

Achtung - Das Warnsymbol Achtung wird zur Anzeige von Situationen und Bedingungen verwendet, die Verletzungen des Bedieners und/oder Sachbeschädigungen verursachen können.

Andere Warnsymbole können neben den Symbolen Gefahr und Vorsicht verwendet werden, um besondere Gefahren anzuzeigen. Diese Warnhinweise beschreiben besondere Bereiche, in denen spezielle Vorsichtsmaßnahmen oder Verfahren erforderlich sind, um schwere und möglicherweise tödliche Verletzungen zu vermeiden.



Gefährliche elektrische Spannung - Das elektrische Warnsymbol ist ein in einem Dreieck eingeschlossener Blitz. Das Blitzsymbol warnt vor Orten und Bedingungen mit Hochspannung, die schwere oder tödliche Verletzungen verursachen können.



Explosionsgefahr - Das Warnsymbol Explosionsgefahr ist ein in einem Dreieck eingeschlossenes Explosionssymbol. Das Warnsymbol Explosionsgefahr warnt vor Orten und Bedingungen, bei denen geschmolzenes, explodierendes Material schwere oder tödliche Verletzungen verursachen können, wenn die angemessenen Vorsichtsmaßnahmen nicht eingehalten werden.



Wechselstrom



Beachten Sie das Anleitungshandbuch/Begleitheft.

10.0 DEUTSCH

WICHTIGER HINWEIS ZUR BATTERIEGARANTIE

Das UPM-Gerät kann in zwei verschiedenen Anwendungen eingesetzt werden:

1. **Typische „USV“-Anwendung:** wird als automatische Notstromversorgung verwendet, um kritische Systeme bei kurzzeitigen oder längeren Netzausfällen innerhalb oder außerhalb eines Gebäudes kontinuierlich mit Wechselstrom zu versorgen.
2. **Tragbare Stromversorgung:** wird als Wechselstromquelle für kritische Systeme auf Transportwagen verwendet, um ein System weiterhin mit Strom zu versorgen, während es sich innerhalb eines Gebäudes von Ort zu Ort bewegt.

HINWEIS:

- Die Standarddauer der Batteriegarantie (Abschnitt 8 dieses Handbuchs) gilt nur für „typische USV“-Anwendungen.
- Bei Anwendungen als tragbare Stromversorgung ist die Batteriegarantie auf 90 Tage ab dem Datum der Auslieferung der USV durch AMETEK Powervar begrenzt.

Erklärung des Unterschieds:

- Alle Batterien verlieren mit der Zeit an Kapazität, da die Materialien im Inneren altern.
- Wenn Batterien häufig geladen und entladen werden, beschleunigt sich die Alterung.
- Bei Anwendungen als tragbare Stromversorgung, bei denen UPM-Geräte mehrmals täglich oder wöchentlich vom Netz getrennt und wieder angeschlossen werden, kann die Lebensdauer der Batterie auf 3 bis 9 Monate begrenzt sein, je nach tatsächlicher Nutzung und je nachdem, wie lange das UPM-Gerät bei vollständig oder teilweise entladener Batterie vom Netz getrennt bleibt.

Weitere Informationen finden Sie in der vollständigen Garantieerklärung in Abschnitt 8.

1.0 EINLEITUNG

Vielen Dank, dass Sie sich für einen Kauf eines UPMs der Serie AMETEK Powervar Security II (im Weiteren als „UPM“ bezeichnet) entschieden haben. AMETEK Powervar stellt zwei Versionen von UPMs her – eine Standardversion sowie eine nach UL60601-1 und cUL C22.2 Nr. 60601.1 gelistete medizinische Version. Darüber hinaus sind alle Modelle mit den internationalen Stromverteilungssystemen kompatibel. Internationale Versionen sind UL-gelistet (medizinisch gelistet laut IEC60601-1 und EN60601) und mit einer CE-Kennzeichnung versehen. Wir haben diese Unterlage erstellt, um Sie mit den Funktionen und Steuerungen dieses Produkts vertraut zu machen. Sollten Sie nach dem Lesen dieses Handbuchs noch Fragen haben, können Sie sich jederzeit telefonisch (+1 800 369 7179) oder per E-Mail (rma.powervar@ametek.com) an unser technisches Supportteam wenden.

AMETEK Powervar ist ein weltweiter Anbieter von Leistungsmanagementlösungen mit Hauptsitze in Waukegan (Illinois, USA) und internationalen Vertriebs- und Handelsniederlassungen in Großbritannien, Kanada, Mexiko und Deutschland. Alle Lösungen von AMETEK Powervar beinhalten einen Überspannungsableiter für hohe Energie, einen Rauschfilter sowie einen niederohmigen Trenntransformator. Gemeinsam verhindern diese Komponenten, Verhindert, dass Spannungsstörungen den Betrieb des Systems zerstören, vermindern oder beeinträchtigen.

Registrierung Ihres AMETEK Powervar Produkts

Bitte nehmen Sie sich einen Moment Zeit, um Ihren Produktkauf zu registrieren. Die Registrierung ist einfach und schnell über unsere Produktregistrierungsseite auf unserer Website unter powervar.com.

2.1 SICHERHEITSHINWEISE

WICHTIG - BEWAHREN SIE DIESE ANLEITUNGEN AUF

DIESES HANDBUCH ENTHÄLT WICHTIGE SICHERHEITSHINWEISE. BEWAHREN SIE DIESES HANDBUCH FÜR SPÄTERE NACHSCHLAGEZWECKE AUF.



VORSICHT

Batterien können das Risiko eines Stromschlags aufweisen. Kurzschlussströme können extrem hoch sein und schwere Verbrennungen sowie ein Brand- oder Explosionsrisiko entwichener Gase verursachen. Treffen Sie immer die angebrachten Sicherheitsvorkehrungen.

Verwenden Sie beim Austausch von Batterien nur dieselbe Menge, Leistung und Art von Batterien wie die von AMETEK Powervar verwendeten. Bei den in diesem UPM verwendeten Batterien handelt es sich um wartungsfreie Blei-Säure-Batterien. Batterien müssen ordnungsgemäß entsorgt werden. Bitte beachten Sie die örtlichen Bestimmungen zur korrekten Entsorgung von Batterien

<i>UPM-Leistung</i>	<i>Menge und Batterieleistung</i>
420 VA	2 X 21W @ 12 VOLT
600 VA	2 X 34W @ 12 VOLT
800 VA	2 X 34W @ 12 VOLT
1100 VA	4 X 34W @ 12 VOLT
1440 VA	4 X 34W @ 12 VOLT
2200 VA	8 X 34W @ 12 VOLT
3000 VA	8 X 34W @ 12 VOLT



VORSICHT

- Dieser UPM enthält potenziell gefährliche Spannungen. Alle Reparaturen sollten nur von qualifiziertem Servicepersonal durchgeführt werden.
- Um das Brandrisiko zu reduzieren, sollte das Gerät nur an einen Schaltkreis mit einem Nebenstromkreisschutz mit einer maximalen

Sicherungsbemessung von 20 Ampere gemäß dem National Electric Code ANSI/NFPA 70 angeschlossen werden.

- Das UPM-Gerät ist mit einer internen Energiequelle (Batterie) ausgestattet. Die Ausgangsbuchsen des UPM-Geräts können Spannung führen, auch wenn das UPM-Gerät nicht an eine Wechselstromquelle angeschlossen ist.

Erklärung zur bestimmungsgemäßen Verwendung

Die medizinischen UPM-Geräte sind für den Schutz von medizinischen und nicht-medizinischen Computern sowie medizinischen Geräten bestimmt, die eine Notstromversorgung per Batterie, einen Überspannungsschutz, eine Spannungsregelung und eine Rauschfilterung in und rund um Patientenversorgungsbereiche benötigen. Der sichere und kontinuierliche Betrieb des UPM-Geräts hängt teilweise von der umsichtigen Vorgehensweise seitens der Anwender ab. Bitte befolgen Sie die nachstehende Vorsichtsmaßnahmen. Eine Nichtbefolgung dieser Maßnahmen könnte die Garantie aufheben.

HINWEIS:

- Anwendung als tragbare Stromversorgung: Wenn das UPM-Gerät auf einem mobilen Transportwagen integriert wird, muss es am Wagen gesichert und in der Anwendung geprüft werden. Wenn das UPM-Gerät als Teil eines Systems auf einem Transportwagen von einem System-OEM geliefert wurde, beachten Sie die spezifischen Montageanweisungen und das Zubehör des System-OEM.
- Dieser UPM-Gerät ist für den Einsatz in Patientenumgebungen bestimmt. Powervar-Produkte sind nicht für die Verwendung in Anwendungen ausgelegt, die Leben unterstützen oder erhalten.
- Verwenden Sie dieses UPM-Gerät nicht für lebensunterstützende Anwendungen, bei denen eine Fehlfunktion oder ein Ausfall des UPM-Geräts zu einem Versagen oder einer erheblichen Veränderung der Leistung eines lebensunterstützenden Geräts führen könnte.
- Verwenden Sie dieses UPM-Gerät nicht neben oder in der Nähe entzündlicher Gase. Verwenden Sie dieses UPM-Gerät nicht innerhalb von sauerstoffangereicherten Atmosphären.
- Das UPM-Gerät darf nicht auseinandergenommen werden.

- Das UPM-Gerät ist eine Ausrüstung der KLASSE 1.
- Das UPM-Gerät darf nur über eine ordnungsgemäß geerdete Steckdose mit Strom versorgt werden, die mit dem zusammen mit dem UPM-Gerät bereitgestellten Netzstecker übereinstimmt.
- Stellen Sie das UPM-Gerät nicht in der Nähe von Wasser oder in einer übermäßig feuchten Umgebung auf.
- Es dürfen keine Flüssigkeiten oder Fremdgegenstände in das Innere des UPM-Geräts gelangen.
- Blockieren Sie nicht die Lüftungsöffnungen an der Seite des UPM-Geräts. Halten Sie auf allen Seiten einen Mindestabstand von 75 mm ein.
- Schließen Sie keine Haushaltsgeräte wie Haartrockner, Ventilatoren, Heizgeräte usw. an das UPM-Gerät an.
- Stellen Sie das UPM-Gerät nicht unter direkter Sonneneinstrahlung oder in der Nähe von Wärmequellen auf (übermäßig hohe Temperaturen verkürzen die Batterielebensdauer).
- Dieses UPM-Gerät ist für die Aufstellung in einem temperaturgeregelten Innenbereich frei von leitenden Verunreinigungen bestimmt.
- Die Wechselstromquelle des UPM-Geräts sollte sich in bequemer Nähe zum UPM-Gerät befinden und leicht zugänglich sein – vermeiden Sie bei der Versorgung des UPM-Geräts Verlängerungskabel oder temporäre Steckerleisten.
- Der Gesamtbleitstrom des UPM-Geräts und der angeschlossenen Verbrauchergeräte sollte 3,5 mA bei nicht-medizinischen Geräten nicht überschreiten.
- Nicht zur Verwendung in Computerräumen, die nach dem Standard zum Schutz von elektronischen Computern/ Datenverarbeitungsanlagen, ANSI/NFPA 75, definiert sind.
- Die Steckdose muss in der Nähe der Ausrüstungen angebracht und leicht zugänglich sein.
- Bei Wartungs- oder Servicearbeiten innen der UPM, die Batterie muss immer vom Gerät getrennt werden. Ziehen Sie die Batterie vom Gerät durch die Schnellanschlüsse hinter der Frontplatte ab.
- Batterien zur Entsorgung nicht ins Feuer werfen – Batterien könnten explodieren.

- Batterien nicht öffnen oder zerstören. Dadurch könnten Elektrolyte oder andere toxische Stoffe austreten, die schädlich für die Haut, Augen oder die Umwelt sein können.

Batterien können das Risiko eines Stromschlags oder eines hohen Kurzschlussstroms aufweisen. Die folgenden Vorsichtsmaßnahmen sollten bei der Arbeit mit Batterien eingehalten werden:

- Legen Sie Uhren, Ringe oder anderen Schmuck bzw. Gegenstände aus Metall ab, die in Kontakt mit der Batterie geraten können.
- Werkzeuge mit isolierten Griffen verwenden.

FCC-Fragen



Dieses UPM-Gerät wurde getestet und erfüllt die gemäß Teil 15 der FCC-Vorschriften für digitale Geräte der Klasse A (Compliance der Klasse B optional) festgelegten Grenzwerte. Diese Grenzwerte sollen einen angemessenen Schutz gegen schädlichen Störungen in Wohn- und gewerblich genutzten Gebieten gewährleisten.

Dieses Gerät erzeugt, nutzt und emittiert Hochfrequenzstrahlung und kann sich bei einer nicht den Anweisungen entsprechenden Installation und Verwendung negativ auf den Funkverkehr auswirken. Es kann jedoch nicht gewährleistet werden, dass bei bestimmten Installationen keine Interferenzen auftreten. Sollte das Gerät Störungen im Rundfunk- und Fernsehempfang verursachen, was durch Aus- und Einschalten des UPM-Gerätes festgestellt werden kann, empfehlen wir, die Störung durch eine oder mehrere der folgenden Maßnahmen zu beheben::

- Verlagerung des UPM-Geräts
- Verlagerung der Last

Dieses Gerät entspricht Teil 15 der FCC-Vorschriften. Für den Betrieb gelten folgende Bedingungen: (1) Das Gerät darf keine schädlichen Störungen verursachen; und (2) das Gerät muss den Empfang von Interferenzen zulassen, einschließlich von Interferenzen, die einen unerwünschten Betrieb verursachen können.

3.1 ANSCHLUSS

Inspektion des UPM-Geräts

Falls Ausrüstungen während des Versands beschädigt wurden, bewahren Sie die Versandkartons und Verpackungsmaterialien für den Spediteur oder den Kaufort auf und reklamieren den Versandschaden wie nachstehend angegeben:

1. Melden Sie den Schaden innerhalb von 15 Tagen nach Erhalt der Ausrüstungen dem Spediteur;
2. Senden Sie eine Kopie der Schadensmeldung innerhalb von 15 Tagen an Ihren Service-Vertreter.

HINWEIS:

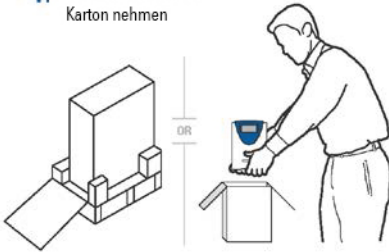
Prüfen Sie das Batterieaufladedatum auf dem Aufkleber des Versandkartons. Falls das Datum abgelaufen ist und die Batterien nie aufgeladen wurden, verwenden Sie das UPM-Gerät nicht. Wenden Sie sich an Ihre Service-Vertreter.

Kurzanleitung Security II Kurzanleitung

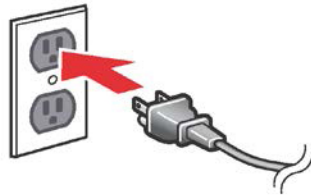
Security II Kurzanleitung

Dieses Gerät wird mit getrennten internen Batterien geliefert.
Bitte befolgen Sie vor dem Start des UPM-Geräts die nachstehenden Anleitungen zum Anschluss der Batterien.

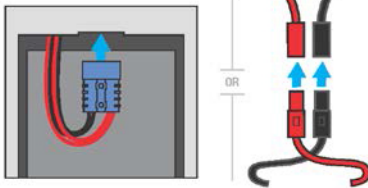
1. UPM-Gerät aus dem Karton nehmen



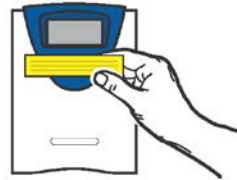
2. UPM-Gerät an Steckdose anschließen



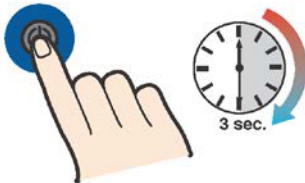
3. Frontblende des UPM-Geräts entfernen und Batteriestecker



4. Frontblende wieder anbringen und den gelben



5. UPM-Gerät durch Drücken der EIN-Taste während 3 Sekunden einschalten



WICHTIG:

Nach Einführen des/der Batteriestecker(s) 15 Sekunden warten, bevor die EIN-Taste an der Frontblende des UPM-Geräts gedrückt wird.

Falls das UPM-Gerät zu einem späteren Zeitpunkt an einen anderen Ort gesendet wird, muss der bzw. müssen die Batteriestecker zuerst getrennt werden, um die Sicherheit

Auspacken des UPM-Geräts



VORSICHT

- Bei Auspacken des Geräts in einer Umgebung mit niedrigen Temperaturen kann Kondensation in und auf dem Gerät entstehen. Installieren Sie das Gerät erst, wenn die Innen- und Außenseite desselben vollständig trocken ist {Stromschlaggefahr}.
- Das Gerät ist schwer. Gehen Sie beim Auspacken und Bewegen des Geräts vorsichtig vor.

Gehen Sie beim Bewegen und Öffnen des Kartons vorsichtig vor. Lassen Sie die Komponenten bis zu deren Einbau in ihrer Verpackung.

So packen Sie das Gerät und die Zubehörteile aus

1. Den äußeren Karton öffnen und die mit dem Gerät verpackten Zubehörteile herausnehmen.
2. Das Gerät vorsichtig aus dem äußeren Karton heben.
3. Den Karton für spätere Verwendungszwecke aufbewahren.

Stellen Sie das Gerät in einem geschützten Bereich mit einer angemessenen Luftzufuhr und ohne Feuchtigkeit, entzündlichen Gasen und Korrosion auf.

HINWEIS:

Bitte lesen Sie vor dem Anschluss die folgenden Anleitungen. Prüfen Sie den Karton sorgfältig auf Beschädigungen. Benachrichtigen Sie den Spediteur umgehend, falls Schäden festgestellt werden. Bewahren Sie den Karton unbedingt für den Fall auf, dass Sie das UPM-Gerät zu Reparatur- oder Wartungszwecken versenden müssen.



Dieser UPM-Gerät ist nur für den Einsatz in Innenräumen bestimmt. Obwohl das UPM-Gerät sehr robust ist, sind dessen Innenkomponenten nicht gegenüber der Umwelt versiegelt. Das UPM-Gerät muss in einer geschützten Umgebung entfernt von Wärme erzeugenden Geräten wie Öfen, Heizkörpern und Heizgeräten aufgestellt werden.

Schützen Sie das UPM-Gerät vor der Belastung durch tropfendes oder stehendes Wasser und hoher Luftfeuchtigkeit oder kondensierenden Luftbedingungen.

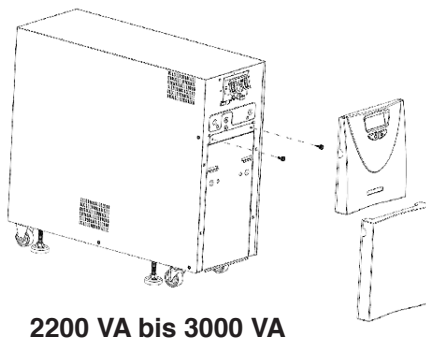
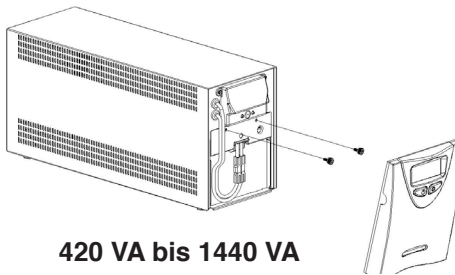
Am Standort sollte einen angemessenen Luftstrom rund um das UPM-Gerät vorhanden sein. Sehen Sie an allen Seiten einen Abstand von mindestens 75 mm für eine korrekte Belüftung vor.

Einschalten des UPM-Geräts

Schließen Sie das Netzkabel an einer verifizierten, geerdeten dreipoligen Steckdose an. Stellen Sie sicher, dass Anzeige eines Standortverdrahtungsfehlers „SF“ nicht leuchtet (nur 120-VAC-Modelle). Schalten Sie das ordnungsgemäß angeschlossene und grundsätzlich geprüfte UPM-Gerät ein, indem Sie den Ein-/Aus-Schalter an der Frontblende 3 Sekunden lang gedrückt halten.

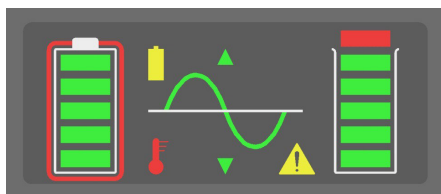
HINWEIS:

Zum Betrieb des UPM-Geräte muss/müssen zuerst der/die Batterieaktivierungsstecker in die Batterieaktivierungsbuchse/n hinter der Frontblende des UPM-Geräts gesteckt werden.



Betriebstests

Prüfen Sie die Frontblende des UPM-Geräts. Die nachstehende Tabelle zeigt das Systemstatusverhalten an.



**UPM-
Frontblende**

UPM-LED-ANZEIGE	GERÄTESTATUS
	UPM-Ausgang ein
	Batterieladezustand in 20%igen Schritten
	UPM-Ladezustand in 20%igen Schritten
	UPM im Batteriebetrieb aufgrund ungeeigneter eingehender AC-Spannung
	UPM überlastet
	Batteriefehler oder Batterie getrennt
	Gerät im Buck-Betrieb aufgrund hoher eingehender AC-Spannung
	Gerät im Boost-Betrieb aufgrund hoher eingehender AC-Spannung
	Fehler
	UPM über Temperatur.

UPM Last- und Batterieanzeigen



UPM-Display zeigt normalen Betrieb an
(Batterien voll geladen mit 60%iger Lastanzeige)



UPM-Display zeigt Batterie im Backup-Betrieb an (Batterien zu 80% geladen mit 60%iger Lastanzeige)



UPM-Display zeigt Batterie im Überlastzustand an
(Batterien zu 100% geladen und Lastanzeige über 100%)



UPM-Display zeigt Batterie im Übertemperaturzustand an (Batterien zu 80% geladen mit 80%iger Lastanzeige)



UPM-Display zeigt einen schlechten Batteriezustand an (zu 60% geladene Batterieeinheit prüfen oder austauschen)

HINWEIS:

Abhängig vom Ladezustand der Batterie können die Batterieladezustand-LEDs eventuell blinken (dies ist normal).



Erste Inbetriebnahme

Führen Sie bei dem ausgeschalteten, angeschlossenen UPM-Gerät eine Erstprüfung der Backup-Funktion durch, indem Sie die Taste „Testen/Stummschalten“ an der Frontblende 5 Sekunden lang drücken. Während dieser Prüfung sollte die Batterie-LED () an der Frontblende kurz aufleuchten. Die Backup-Funktion kann auch geprüft werden, indem Sie das Netzkabel des UPM-Geräts abziehen. Wenn Sie das UPM-Gerät auf diese Weise prüfen, werden Sie feststellen, dass diese alle paar Sekunden piept, während das Netzkabel getrennt ist. Außerdem leuchtet die Batterie-LED () durchgehend.

Schalten Sie nach der Erstprüfung der Backup-Funktion des UPM-Geräts die angeschlossenen Computerausrüstungen ein. Prüfen Sie, dass das Gerät nicht überlastet ist. Bei einer Überlastung des Geräts leuchten alle Last-LEDs und die Fehler-LED () blinkt. Entfernen Sie die am wenigsten kritischen Vorrichtungen nacheinander vom UPM-Gerät, bis die Überlastungs-LED erlischt. Führen Sie bei eingeschalteten Lasten erneut den Backup-Test durch, indem Sie die Taste „Testen/Stummschalten“ an der Frontblende drücken oder das Netzkabel des UPM-Geräts ziehen. Wenn diese letzte Prüfung abgeschlossen ist, ist das UPM-Gerät einsatzbereit.

Beachten Sie die nachstehende Tabelle mit den UPM-Fehlercodes, um den Status des UPM-Geräts zu bestimmen.

UPM-Statuscode	Definition
IF	Wechselrichterfehler
BE	Rückspeisefehler
HL	Gerät ist aufgrund einer hohen Leitung aus
LL	Gerät ist aufgrund einer niedrigen Leitung aus
DB	Gerät ist aufgrund einer niedrigen Batterie aus
FF	Lüfterfehler
SF	Fehler Standortverkabelung

HINWEIS:

- Falls das UPM-Gerät kontinuierlich eingeschaltet ist, führt es alle sechs Tage einen automatischen Batterietest durch.
- Falls Sie die Software MopUPS Pro oder den Netzwerkadapter iSitePRO verwenden, können Sie das System so konfigurieren, dass es regelmäßig automatische Selbsttests durchführt.
- Das UPM-Gerät wird mit geladener Batterie versendet. Während der Lagerung und des Versands tritt jedoch eine gewisse natürliche Entladung auf. Sie können das UPM-Gerät sofort einsetzen, sollten jedoch bedenken, dass die Backup-Zeit eventuell geringer als der angegebene Nennwert ist, bis die UPM-Batterie mindestens sechs Stunden lang aufgeladen wurde.
- AMETEK Powervar empfiehlt, keine Laserdrucker an das UPM-Gerät anzuschließen. Laserdrucker verbrauchen bekanntermaßen große Strommengen, wenn die Fixier-/Erhitzer-Baugruppe erregt ist. Laserdrucker können das UPM-Gerät leicht überlasten oder einen Niederspannungszustand verursachen, der die korrekte Funktionsweise des Spannungsmanager-Schaltkreises beeinträchtigen kann.

4.1 BETRIEB

Ein-/Aus-Taste

Die Ein-/Aus-Taste ist eine Doppelfunktionssteuerung:

- Wenn das UPM-Gerät ausgeschaltet und AC-Strom am UPM-Eingang vorhanden ist, wird der UPM-Ausgang durch Drücken der Ein-/Aus-Taste während mehr als 2 Sekunden eingeschaltet.
- Falls die Batterie angeschlossen ist, wird das UPM-Gerät bei Drücken des Ein-/Aus-Schalters während 2 Sekunden oder mehr über die interne Batterie ohne Vorhandensein von eingehendem Wechselstrom „kaltgestartet“.
- Wenn das UPM-Gerät eingeschaltet ist, wird die UPM-Ausgangsleistung durch Drücken der Ein-/Aus-Taste während mehr als 2 Sekunden ausgeschaltet.

Taste „Testen/Stummschalten“

Die Taste „Testen/Stummschalten“ ist eine Doppelfunktionssteuerung:

- Wenn AC-Strom vorhanden und das UPM-Gerät in Betrieb ist, wird das UPM-Gerät durch Drücken der Taste „Testen/Stummschalten“ in den Selbsttestmodus versetzt, in dem sowohl die Batterie als auch der Wechselrichter während einiger Sekunden getestet werden, bevor das Gerät zur AC-Versorgung zurückkehrt. Wir empfehlen Ihnen, vor dem Start des Selbsttests alle geöffneten Dateien zu schließen.
- Bei Ausfall der AC-Versorgung warnt Sie das UPM-Gerät mit einem akustischen Signalton. Die Taste „Testen/Stummschalten“ wird zur Stummschaltung des Signaltons verwendet. Geht die Batterieleistung zu Neige, kehrt der akustische Signalton automatisch zurück und piept schneller.

Lastmonitor

Der Lastmonitor ist ein 6-Segment-LED-Display, das den aktuellen Lastprozentsatz anzeigt. Die ersten fünf LEDs zeigen jeweils ca. 20% der Last an, während die sechste rote LED auf die Überlastung des UPM-Geräts hinweist.

Batterielademonitor

Der Batterielademonitor ist ein 5-Segment-LED-Display, das die Ladekapazität der internen Batterie von Null bis 100% anzeigt. Jede LED zeigt ca. 20% der vollen Ladung an.

Anzeige Fehler Standortverkabelung – (nur 120-VAC-Modelle).

Das SF-Symbol wird auf der Frontblende des UPM-Geräts angezeigt, falls dieses an eine unsachgemäß verkabelte Steckdose angeschlossen ist. Damit soll ein fehlender Erdungsdraht oder die Umkehrung des Phasen- und Neutralleiters angezeigt werden. Bei Anzeige von „SF“ auf der Frontblende sollten Sie sofort einen qualifizierten Elektriker hinzuziehen.

HINWEIS:

Betreiben Sie das UPM-Gerät nicht, falls die LED „Fehler Standortverkabelung“ leuchtet. Die leuchtende LED zeigt einen Verkabelungszustand an, der eine Brand- oder Stromschlaggefahr darstellen könnte. Eine fehlerhafte Verkabelung kann darüber hinaus zu Zuverlässigkeitsproblemen des UPM-Geräts und des angeschlossenen Systems führen. Verwenden Sie niemals einen Adapter zur Verwandlung eines Steckers mit 3 Stiften in einen 2-Stift-Stecker (auch als „Cheater“ bezeichnet), um das UPM-Gerät an den Strom anzuschließen. Dieser Vorrichtungen entfernen den Erdanschluss des UPM-Geräts und führen dazu, dass die LED „Fehler Standortverkabelung“ leuchtet.

Start-Manager

Wenn noch keine AC-Versorgung zur Verfügung steht, beispielsweise bei einer neuen Installation ohne abgeschlossene Verkabelung, können Sie das UPM-Gerät dennoch mit dem Start-Manager starten, um dessen Betrieb und den Betrieb Ihres Systems zu prüfen. Führen Sie bei ausgeschaltetem UPM-Gerät die folgenden einfachen Schritte durch:

1. Das AC-Eingangsnetskabel vom AC-Stromnetz trennen.

2. Sicherstellen, dass die Batterien hinter der Frontblende angeschlossen sind.
3. Den Ein-/Aus-Schalter an der Frontblende gedrückt halten, bis das UPM-Gerät piept.
4. Das UPM-Gerät wird jetzt über die Batterie betrieben.
Anschließend den Ein-/Aus-Schalter erneut drücken. Das AC-Eingangskabel in die Rückseite des UPM-Geräts stecken.

BESONDERE FUNKTIONEN UND OPTIONEN

Die Rückseite des Security II UPM-Geräts bietet besondere Funktionen, die zur Erfüllung einzigartiger Anforderungen verwendet werden können, darunter: automatische sichere Abschaltung geschützter Computer, ferngesteuerte Zustandsüberwachung, Servicediagnose, Lastabwurf und sequenziertes Hochfahren.

AMETEK Powervar bietet webbasierte und Softwareoptionen, die bei der Steuerung Ihrer angeschlossenen Lasten hilfreich sein können. Eine vollständige Auflistung dieser Angebote finden Sie auf der Powervar-Website.

Besondere Funktionen:

- Sichere Fernüberwachung der Stromqualität und des Batteriezustands.
- Echtzeit-Management mit E-Mail- und SNMP-Traps-Benachrichtigungen.
- Proaktive Erkennung problematischer Trends mit Ereignis- und Datenprotokollierung.
- Fernüberwachung und Alarmbenachrichtigung über das Netzwerk oder Gebäudemanagementsysteme.
- Automatischer Lastabwurf, um Batterieleistung für andere Lasten zu sparen.
- Automatische sichere Abschaltung geschützter Systeme, wenn die Netzstromausfall die Kapazität der UPM-Batterie überschreiten.
- Integrierte geschaltete PDU zur Fernsteuerung von Steckdosen, zum Lastabwurf oder zum sequenzierten Hochfahren nach der Wiederherstellung der Wechselstromversorgung.

5.1 WARTUNG

LAGERUNG

Das UPM-Gerät kann während längerer Zeiträume in einer Umgebung gelagert werden, in der das UPM-Gerät keiner extremen Temperatur oder Feuchtigkeit ausgesetzt ist.

Bei einer langfristigen Lagerung sollte die Batterie alle sechs Monate aufgeladen werden. Falls am Lagerort die oben beschriebene normale Temperatur vorherrscht, sollte die Batterie alle zwei Monate aufgeladen werden. Das UPM-Gerät muss zur Aufladung nicht eingeschaltet werden – es genügt, es mit den verbundenen Batterie an den Strom anzuschließen.

HINWEIS:

Das Produkt ist nicht für Dauerbetrieb mit Batterien ausgelegt. Der UPM sollte möglichst immer an die Netzspannung angeschlossen sein, wenn er nicht gerade im batteriegestützten Notstrombetrieb befindet. Somit werden Schäden an den internen Batterien vermieden, die dazu führen könnten, dass diese nicht mehr ordnungsgemäß arbeitet (z.B. Überhitzung oder dass die Batterie die Ladung nicht halten kann).

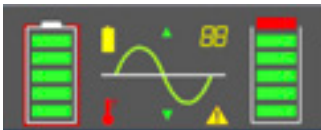
Die Firmware des UPM bietet einen zusätzlichen Warner und Alarm, um einen solchen Zustand zu verhindern bzw. zu erkennen.

1. Warnung, dass die Batterie angeschlossen ist - dies soll verhindern, dass die USV mit angeschlossener Batterie eingelagert wird. Im Display blinkt dann das untenstehende Muster und ein hörbarer Alarm fordert dazu auf, die Batterie abzuklemmen. Dies tritt auf, wenn:
 - die Netzspannung nicht mehr angeschlossen ist, der Ausgang abgestellt wird und die Batterie noch angeschlossen ist.

- sich das Gerät (ohne angeschlossene Netzspannung) im batteriegestützten Notstrombetrieb befindet und der Ausgang abgeschaltet wird oder die Batterie leer ist.



2. Alarm, dass die Batterie tiefentladen ist - wenn dieser Zustand erkannt wird, blinkt das untenstehende Muster im Display und ein hörbarer Alarm fordert dazu auf, das Gerät von der Netzspannung zu trennen. Bitte kontaktieren Sie in diesem Fall den Kundendienst von AMETEK Powervar unter 1-800-369-7179, um die Batterie zu ersetzen.



WICHTIGER HINWEIS

Bei den in diesem UPM verwendeten Batterien handelt es sich um sogenannte „Blei-Säure-Batterien“. Diese Batterien verwenden ein nicht-flüssiges Elektrolyt, sodass dies in jeder physischen Ausrichtung eingesetzt werden können. Die Batterien sind auf eine Lebensdauer zwischen zwei und fünf Jahren ausgelegt. Die tatsächliche Lebensdauer hängt von mehreren Faktoren ab, darunter der Häufigkeit von Stromausfällen, der Länge der Stromausfälle und der Umgebungstemperatur, in der das UPM-Gerät betrieben wird. Häufige, lange Stromausfälle verkürzen die Batterielebensdauer mehr als seltene, kurze Stromausfälle. Gleichbleibend hohe Temperaturen im Einsatzbereich des UPM-Geräts verkürzen die Batterielebenszeit ebenfalls.

Das UPM-Gerät ist an der Frontblende mit einer LED-Anzeige „Batterie niedrig/austauschen“ () ausgestattet. Falls die LED leuchtet, sollten Sie sicherstellen, dass die Batterie mindestens sechs Stunden lang ohne Unterbrechung der Stromversorgung laden kann. Unzureichende (erheblich kürzere als üblich) Backup-Zeiten, das vorzeitige Ertönen des Alarms „Batterie niedrig“ und das ständige Aufleuchten der LED-Anzeige „Batterie niedrig/austauschen“ sind alle Anzeichen dafür, dass die Batterien innerhalb Ihres UPM-Geräts gewechselt werden müssen. Die Batterien innerhalb

Ihres UPM-Geräts dürfen nur von zugelassenem Servicepersonal ausgetauscht werden. Bitte machen Sie sich mit den folgenden Vorsichtsmaßnahmen vertraut, bevor Sie einen Austausch der Batterie vornehmen.

 WARNUNG

Die Wartung von Batterien sollte immer von einer Person durchgeführt oder überwacht werden, welche die folgenden Vorsichtsmaßnahmen gelesen und verstanden hat und die mit der Akkus verbundenen Gefahren versteht. Dieses Verfahren darf nicht von Personen durchgeführt werden, die nicht befugt oder in der Lage sind, diese Vorsichtsmaßnahmen zu befolgen.

 VORSICHT

- Nur die in diesem Gerät enthaltene Batteriebaugruppe kann vom Anwender gewartet werden (nur nicht-medizinische Geräte). Das Batteriefach ist durch Entfernung der Frontblende zugänglich, wie in den nachstehenden Anleitungen beschrieben wird. Dieses UPM-Gerät enthält keine weiteren Bauteile, die vom Anwender gewartet werden können. Entfernen Sie keine anderen Abdeckungen mit Ausnahme des vorderen Batteriedeckels.
- Eine Batterie kann selbst im entladenen Zustand sehr hohe Ströme erzeugen, wenn sie kurzgeschlossen wird. Es besteht Stromschlaggefahr. Legen Sie alle Armbanduhren, Ringe,

Armbänder oder andere Metallgegenstände ab. Nur Werkzeuge mit isolierten Griffen verwenden.

- Batterien zur Entsorgung nicht ins Feuer werfen. Es besteht Explosionsgefahr.
- Batterien nicht auf umweltschädliche Art und Weise entsorgen. Batterien können zur ordnungsgemäßen Entsorgung an AMETEK Powervar zurückgesendet werden.
- Batterien nicht öffnen oder zerstören. Dadurch könnte Elektrolyt austreten, der giftig für die Umwelt und schädlich für die Haut und Augen ist.
- Ersatzbatterien können bei AMETEK Powervar telefonisch oder über die Website www.powervar.com bestellt werden. Falls Sie Batterien von einer anderen Quelle erwerben, stellen Sie unbedingt sicher, dieselbe Art und Menge von Batterien zu verwenden.
- Medizinische Geräte enthalten keine Bauteile, die vom Anwender gewartet werden können.

Vom Anwender wechselbare Batterie (nur nicht-medizinische Geräte)

Früher oder später benötigt jedes UPM-Gerät eine neue Batterie. AMETEK Powervar geht von einer Lebensdauer der Batterie in Ihrem UPM-Gerät von mindestens zwei Jahren aus – eventuell sogar länger, wenn Stromausfälle nur kurz und selten auftreten. Das UPM-Gerätermöglicht einen schnellen und einfachen Austausch der Batterie seitens des Anwenders. Es ist nicht erforderlich, das UPM-Gerät oder angeschlossene System auszuschalten. Die Batterie des UPM-Geräts kann im laufenden Betrieb des Systems gewechselt („hot-swapped“) werden.

HINWEIS:

Der Wechsel der Batterien dieses UPM-Geräts wurde als sicheres und einfaches Verfahren konzipiert. Die Batterien können ausgetauscht werden, während das UPM-Gerät eingeschaltet ist und die angeschlossenen Lasten mit Strom versorgt. Sie sollten jedoch beachten, dass Ihre angeschlossenen Systeme und Komponenten nicht mit Strom versorgt werden, falls nach der Trennung der alten Batterien und vor dem Anschluss der neuen ein Stromausfall eintritt



VORSICHT

BEI ERSATZ DER BATTERIE DURCH EINEN UNGEEIGNETEN BATTERIETYP BESTEHT EXPLOSIONSGEFAHR.

Wenden Sie sich bezüglich des korrekten Batterieersatzkits beim Austausch der Batterie an Powervar. Die entsprechenden Artikelnummern der Ersatzkits finden Sie nachstehend.

<i>VA-Leistung</i>	<i>Art.-Nr. Batterie-Ersatzkit</i>
420	50842-01
600/800	50880-01
1100/1440	50814-01
2200/3000	50822-01



VORSICHT

Stromschlaggefahr, 12 V, max. 8,5 Ah Batterien. Legen Sie vor dem Austausch von Batterien leitfähigen Schmuck wie Ketten, Armbanduhren und Ringe ab. Über leitfähige Materialien übertragene hohe Energie kann schwere Verbrennungen verursachen.

 VORSICHT

Batterien zur Entsorgung nicht ins Feuer werfen.

 VORSICHT

Batterien nicht öffnen oder zerstören. Das freigesetzte Material ist schädlich für Haut und Augen. Er kann giftig sein. Batterien können das Risiko eines Stromschlags oder eines hohen Kurzschlussstroms aufweisen. Die folgenden Vorsichtsmaßnahmen sollten bei der Arbeit mit Batterien eingehalten werden:

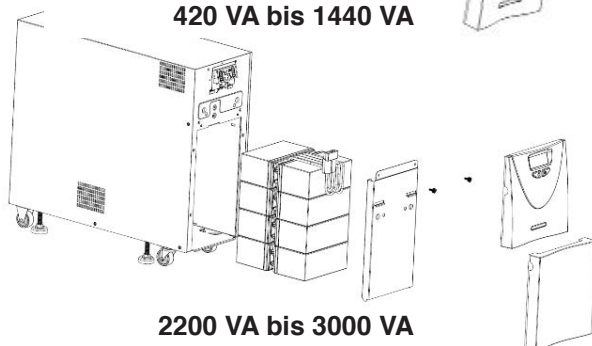
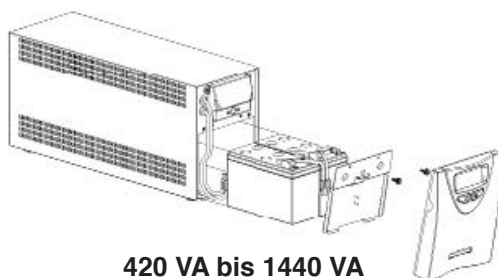
- Armbanduhren, Ringe oder andere Metallgegenstände ablegen.
 - Werkzeuge mit isolierten Griffen verwenden.
 - Gummihandschuhe und Schuhe mit Gummisohlen tragen.
 - Werkzeuge oder Metallteile nicht auf den Batterien ablegen.
 - Die Ladequelle vor dem Anschluss oder der Trennung von Batterieklemmen trennen.
 - Prüfen, ob die Batterie unbemerkt geerdet wurde. Im Falle einer versehentlichen Erdung die Stromquelle von der Erde trennen. Die Berührung jedes Teils einer geerdeten Batterie kann einen Stromschlag verursachen.
-

HINWEIS:

Falls Sie die vor diesem Abschnitt aufgeführten Vorsichtsmaßnahmen gelesen und verstanden haben, können Sie mit den folgenden Schritten fortfahren. Beachten Sie die Abbildung auf Seite 16, die zur Unterstützung beim nachstehenden Batterie-Austauschverfahren gedacht ist.

Austausch der Batterie (nur nicht-medizinische Geräte)

1. Die Frontblende vorsichtig vom Gerät wegziehen. Die Frontblende herauspringen (Beachten Sie die Abbildung auf Seite 91).
2. Den roten und schwarzen Steckverbinder voneinander trennen.
3. Die (2) Rändelschrauben lösen, mit denen die Batterieklappe am Gerät befestigt ist.
4. Die Batterieklappe entfernen. Die alten Batterien vorsichtig herausgleiten lassen und zur Seite legen.
5. Durch neue Batterien ersetzen (sicherstellen, Batterien derselben Größe und desselben Typs zu verwenden).
6. Batterieklappe wieder anbringen und Rändelschrauben anziehen.
7. Den roten und schwarzen Steckverbinder wieder miteinander verbinden.
8. Die Frontblende vorsichtig wieder auf dem UPM-Gerät einsetzen (dabei sicherstellen, dass keines der Batteriekabel eingeklemmt wird).



11.0 ITALIANO

AVVISO IMPORTANTE SULLA GARANZIA DELLA BATTERIA

L'UPM può essere usato in due modalità diverse:

1. **Uso "UPS" tipico** - utilizzato come alimentazione di emergenza automatica per fornire corrente CA continuamente in modo da proteggere sistemi critici da mancanza temporanea o prolungata di corrente CA causata da fattori interni o esterni all'edificio.
2. **Supporto di corrente portatile** - utilizzato come fonte di corrente CA per sistemi critici su carrelli a rotelle per continuare a fornire alimentazione ad un sistema mentre ci si sposta da un punto all'altro all'interno dell'edificio.

NOTA:

- La durata della garanzia sulla batteria standard (sezione 8 del manuale) è valida solo per uso "UPS tipico".
- In caso di uso come supporto di corrente portatile, la durata della garanzia sulla batteria è limitata a 90 giorni dalla data di spedizione dell'UPM da parte di AMETEK Powervar.

Spiegazione differenze:

- Tutte le batterie perdono capacità nel tempo causato da invecchiamento dei materiali interni.
- In caso di carica e scarica frequente delle batterie, l'invecchiamento accelera.
- Durante l'uso come supporto di corrente portatile dove gli UPM vengono scollegati e ricollegati intenzionalmente alla corrente CA principale più volte al giorno, o alla settimana, la vita utile della batteria potrebbe ridursi a 3-9 mesi a seconda dell'utilizzo reale e dal tempo che l'UPM viene lasciato scollegato dalla corrente CA con batteria completamente o parzialmente carica.

Fare riferimento alla dichiarazione sulla garanzia completa nella sezione 8 per maggiori dettagli.



PERICOLO



ATTENZIONE



AVVERTENZA



AVVISO

Pericolo - Il simbolo di pericolo viene utilizzato per indicare situazioni, posizioni e condizioni di imminente pericolo, che, se non evitate, AVRANNO come conseguenza morte, gravi lesioni e/o gravi danni alle cose.

Attenzione - Il simbolo di attenzione viene utilizzato per indicare situazioni e condizioni potenzialmente pericolose, che, se non evitate, possono causare lesioni. Sono anche possibili danni all'apparecchiatura.

Avvertenza - Il simbolo di avvertenza viene utilizzato per indicare situazioni e condizioni potenzialmente pericolose, che, se non evitate, POTREBBERO causare gravi lesioni o morte. POTREBBERO essere possibili anche gravi danni alle cose.

Avviso - Il simbolo di avviso viene utilizzato per indicare situazioni o condizioni che potrebbero causare lesioni all'operatore e/o danni all'apparecchiatura.

Altri simboli possono comparire insieme a quelli di Pericolo e di Attenzione, utilizzati per indicare particolari pericoli. Questi simboli descrivono aree in cui sono necessarie particolari attenzioni e/o procedure per prevenire gravi lesioni o la morte.



Avvertenze elettriche - Il simbolo di avvertenza elettrica è il simbolo di un fulmine racchiuso in un triangolo. Il simbolo di avvertenza elettrica è utilizzato per indicare posizioni e condizioni di alta tensione che potrebbero provocare gravi lesioni o morte.



Avvertenze di esplosione - Il simbolo di avvertenza di esplosione è il simbolo di un'esplosione racchiuso in un triangolo. Il simbolo di avvertenza di esplosione viene utilizzato per indicare posizioni e condizioni in cui parti fuse, esplodendo, potrebbero causare gravi lesioni o morte quando non siano osservate le appropriate precauzioni.



Corrente alternata



Fare riferimento alle istruzioni del manuale/libretto.

1.0 INTRODUZIONE

Grazie per avere acquistato l'UPM AMETEK Powervar Serie Security II (d'ora in poi chiamato "UPM"). AMETEK Powervar costruisce due versioni dell'UPM: una versione standard e una versione medica, conformi con UL60601-1 e cUL C22.2 No. 60601.1. Inoltre, tutti i modelli sono compatibili con i sistemi di distribuzione elettrica internazionali. Le versioni internazionali sono conformi UL (quelle mediche conformi a IEC60601-1 e EN60601) e sono contrassegnate dal marchio CE. Abbiamo preparato questo documento per permettervi di familiarizzare con le funzioni e i comandi di questo prodotto. Qualora, dopo avere letto questo manuale, abbiate qualunque domanda, contattate liberamente il nostro team di assistenza tecnica telefonicamente (1-800-369-7179) oppure via e-mail, all'indirizzo rma.powervar@ametek.com.

AMETEK Powervar è un fornitore globale di soluzioni per la gestione dell'alimentazione con sede a Waukegan, Illinois, e uffici internazionali di vendita e distribuzione a Swindon (Regno Unito), Toronto (Canada), Città del Messico (Messico) e Germania. Tutte le soluzioni AMETEK Powervar integrano un deviatore di sovratensione ad alta energia, un filtro antirumore e un trasformatore di isolamento a bassa impedenza. Insieme, questi componenti eliminano il pericolo che disturbi di alimentazione possano distruggere, degradare o danneggiare le funzionalità del sistema.

Registrazione del prodotto AMETEK Powervar

Dedicate alcuni istanti per registrare il prodotto che avete acquistato. La registrazione è facile e rapida tramite la pagina di registrazione dei prodotti disponibile sul nostro sito web: powervar.com.

2.1 ISTRUZIONI PER LA SICUREZZA

IMPORTANTE - CONSERVARE QUESTE ISTRUZIONI

QUESTO MANUALE CONTIENE IMPORTANTI INFORMAZIONI SULLA SICUREZZA. TENERE QUESTO MANUALE A PORTATA DI MANO COME RIFERIMENTO.



Una batteria può comportare il rischio di scossa elettrica. Le correnti di corto circuito possono essere estremamente elevate e possono determinare gravi ustioni, oltre al rischio di incendio o esplosione da parte di gas presenti. Adottare sempre le precauzioni adeguate.

Durante la sostituzione delle batterie, utilizzare sempre batterie della stessa quantità, tipo e specifiche di quelle utilizzate da AMETEK Powervar. Le batterie utilizzate in questo UPM sono sigillate, con piombo e acido, e non richiedono manutenzione. Le batterie devono essere smaltite adeguatamente. Fare riferimento alle normative locali per lo smaltimento delle batterie.

<i>Specifiche dell'UPM</i>	<i>Quantità e specifiche delle batterie</i>
420 VA	2 X 21 W @ 12 VOLT
600 VA	2 X 34 W @ 12 VOLT
800 VA	2 X 34 W @ 12 VOLT
1100 VA	4 X 34 W @ 12 VOLT
1440 VA	4 X 34 W @ 12 VOLT
2200 VA	8 X 34 W @ 12 VOLT
3000 VA	8 X 34 W @ 12 VOLT



- Questo UPM contiene tensioni potenzialmente pericolose. Tutte le riparazioni devono essere effettuate da personale di assistenza qualificato.
- Per ridurre il rischio di incendio, collegare esclusivamente a un circuito dotato di protezione per una sovracorrente massima di 20 ampere, secondo la Normativa Elettrica Nazionale, ANSI/NFPA 70.

- Questo UPM è dotato di una propria fonte interna di energia (batteria). Le prese di uscita dell'UPM possono essere sotto tensione anche quando l'UPM non è collegato a una fonte di alimentazione in CA.

Dichiarazione di destinazione d'uso

Gli UPM medici sono destinati a proteggere apparecchiature mediche, computer non medici e dispositivi medici che richiedano batterie di riserva, protezione da sovracorrenti, regolazione della tensione e filtraggio del rumore in linea, all'interno e attorno alle aree destinate ai pazienti. Il funzionamento sicuro e continuativo dell'UPM dipende in parte dalle cure adottate dagli utilizzatori. Osservare le seguenti precauzioni. La loro mancata osservanza può comportare l'annullamento della garanzia.

NOTA:

- Supporto di corrente portatile - se l'UPM è collocato su un carrello mobile, esso deve essere fissato al carrello e collaudato per tale applicazione. Se l'UPM è fornito come parte di un sistema su un carrello da un sistema OEM, fare riferimento alle istruzioni di montaggio specifiche e agli accessori forniti dal sistema OEM.
- Questo UPM è destinato ad essere utilizzato nelle vicinanze dei pazienti. I prodotti AMETEK Powervar non sono destinati ad essere utilizzati in applicazioni intese a supportare o sostenere la vita.
- Non utilizzare questo UPM per applicazioni di supporto alla vita, nelle quali un malfunzionamento o un guasto dell'UPM potrebbe causare un guasto o alterare in modo significativo le prestazioni di un dispositivo di supporto alla vita.
- Non utilizzare questo UPM vicino o attorno a gas infiammabili.
- Non utilizzare questo UPM in atmosfere arricchite di ossigeno.
- Non smontare questo UPM.
- L'UPM è un apparecchio di CLASSE 1.
- Non cercare di alimentare l'UPM da una presa che non sia adeguatamente collegata a terra e che corrisponda alla spina di alimentazione fornita con l'UPM.
- Non posizionare l'UPM vicino ad acqua o in ambiente eccessivamente umidi.
- Non permette a liquidi o qualunque oggetto estraneo di penetrare nell'UPM.

- Non ostruire le prese d'aria sul lato dell'UPM. Garantire su ogni lato una spaziatura di almeno 8 cm.
- Non collegare all'UPM apparecchi quali asciugacapelli, ventilatori, stufe, ecc.
- Non esporre direttamente l'UPM alla luce solare o vicino a fonti di calore (temperature eccessivamente elevate riducono la vita delle batterie).
- Questo UPM è destinato ad essere installato in un'area interna a temperatura controllata, priva di contaminanti conduttivi.
- L'alimentazione in CA dell'UPM deve essere sufficientemente vicina all'UPM e facilmente accessibile: evitare prolunghe o prese multiple temporanee per alimentare l'UPS.
- La corrente di dispersione complessiva dell'UPS e delle apparecchiature collegate non devono superare i 3,5 mA per le unità non mediche.
- Non deve essere utilizzato in una sala computer, come definito in Protezione dei computer elettronici/Apparecchiature di elaborazione dati, ANSI/NFPA 75.
- La presa di uscita deve essere installata vicino all'apparecchiatura ed essere facilmente accessibile.
- La batteria deve essere scollegata dall'UPM rilasciando i suoi connettori rapidi quando sia necessario effettuare operazioni di manutenzione o di riparazione all'interno dell'UPS e quando non collegata all'alimentazione in CA.
- Non smaltire le batterie incendiandole, in quanto potrebbero esplodere.
- Non aprire o manomettere le batterie. Questo potrebbe comportare il rilascio di elettrolita o altre sostanze tossiche, che potrebbero essere pericolose per la pelle, gli occhi e l'ambiente.

Una batteria può presentare il rischio di scosse elettriche ed elevate correnti di cortocircuito. Durante il lavoro con le batterie occorre osservare le seguenti precauzioni:

- Rimuovere orologi, anelli e altri gioielli metallici, oppure oggetti che potrebbero entrare a contatto con le batterie.
- Utilizzare attrezzi con l'impugnatura isolata.

Questioni FCC



Questo UPM è stato collaudato e riscontrato rispettare i limiti per dispositivi digitali di Classe A (conformità alla Classe B opzionale) secondo i termini della Parte 15 delle regole FCC. Questi limiti sono

destinati a fornire una ragionevole protezione contro interferenze pericolose in ambienti sia residenziali che commerciali.

Questa apparecchiatura genera, utilizza e può irradiare energia in radiofrequenza e, se non installata e utilizzata secondo le istruzioni, può causare interferenze dannose alle comunicazioni radio. Tuttavia, non esiste garanzia che tali interferenze non si verifichino in una particolare installazione. Qualora questa apparecchiatura causi interferenze dannose alle ricezioni radio e/o televisive (il che può essere determinato spegnendo e accendendo l'apparecchiatura) si consiglia all'utilizzatore di provare a correggere l'interferenza mediante una o più delle seguenti misure:

- Spostare l'UPM.
- Spostare il carico.

Questo dispositivo è conforme alla Parte 15 delle regole FCC. L'utilizzo è soggetto alle seguenti due condizioni:

1. Questo dispositivo non deve causare interferenze dannose.
2. Questo dispositivo deve accettare le interferenze ricevute, incluse le interferenze che potrebbero determinare un funzionamento indesiderato.

3.1 INSTALLAZIONE

Ispezione dell'UPM

Qualora qualche apparecchiatura sia stata danneggiata durante la spedizione, conservare le confezioni e i materiali di imballaggio per il corriere o il luogo di vendita e presentare un reclamo per danno durante il trasporto:

1. Presentarlo al corriere entro 15 giorni dal ricevimento dell'apparecchiatura;
2. Inviare una copia del reclamo per danni al proprio rappresentante dell'assistenza entro 15 giorni.

NOTA:

Controllare la data di ricarica della batteria sull'etichetta della confezione di spedizione. Se la data è trascorsa e le batterie non sono mai state ricaricate, non utilizzare l'UPM. Contattare il rappresentante per l'assistenza.

Guida rapida

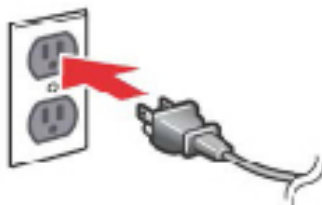
Security II - Guida rapida

**Questa unità viene spedita con le batterie interne scollegate.
Prima di avviare l'UPM, seguire queste istruzioni per il collegamento della batteria.**

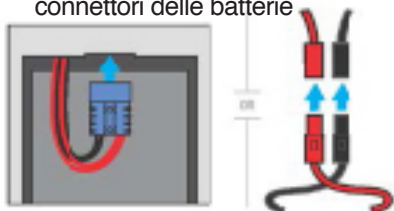
- 1.** Rimuovere l'UPM dalla confezione



- 2.** Collegare l'UPM alla presa a muro



- 3.** Rimuovere il coperchio frontale dell'UPM e collegare i connettori delle batterie



- 4.** Reinstallare il coperchio anteriore e rimuovere l'etichetta di avvertenza gialla



- 5.** Accendere l'UPM premendo il tasto di accensione per 3 secondi



IMPORTANTE:

Dopo avere collegato le spine delle batterie, attendere 15 secondi prima di premere l'interruttore di accensione sul pannello frontale dell'UPM.

Qualora, successivamente, si spedisca l'UPM a un'altra località, scollegare prima i cavi delle batterie, per garantire la sicurezza durante la spedizione.

Disimballo dell'UPM



ATTENZIONE

- Il disimballo dell'unità in un ambiente a bassa temperatura può causare la formazione di condensa all'interno e sulla unità. Non installare l'unità fino a che l'interno e l'esterno dell'unità non siano completamente asciutti {pericolo di scossa elettrica}.
- L'unità è pesante. Adottare cautela per disimballare e spostare l'unità.

Adottare cautela per spostare e aprire la confezione. Lasciare i componenti imballati fino a quando si sarà pronti per l'installazione.

Per disimballare l'unità e gli accessori:

1. Aprire la confezione esterna e rimuovere gli accessori confezionati con l'unità.
2. Sollevare con attenzione l'unità dalla confezione esterna.
3. Conservare la confezione per utilizzi futuri.

Posizionare l'unità in una zona protetta con un adeguato flusso di aria e assenza di umidità, gas infiammabili e agenti corrosivi.

NOTA:

Prima dell'installazione, leggere e comprendere le seguenti istruzioni. Esaminare attentamente la confezione per verificare la presenza di danni. Comunicare immediatamente al corriere eventuali danni rilevati. Accertarsi di conservare la confezione, nel caso in cui fosse necessario spedire l'UPM per riparazioni o manutenzione.



Questo UPM è destinato ad essere utilizzato solo all'interno. Anche se l'UPM è molto robusto, i suoi componenti interni non sono sigillati dall'ambiente. L'UPM deve essere installato in un ambiente protetto, lontano da apparecchiature che producano calore, come caldaie, radiatori e riscaldatori. Occorre proteggere l'UPM dall'esposizione ad acqua gocciolante o stagnante e dall'aria con elevata umidità o presenza di condensa.

La posizione deve garantire un adeguato flusso d'aria attorno all'UPM. Occorre prevedere una distanza di almeno 8 cm su tutti i lati per garantire una ventilazione adeguata.

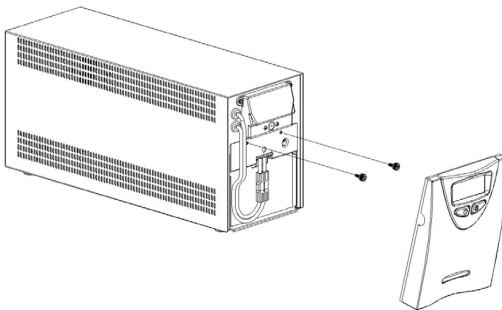
Applicazione dell'alimentazione all'UPM

Collegare il cavo di alimentazione a una presa a 3 conduttori verificata. Verificare che il LED che segnala guasti nel cablaggio (Site Wiring Fault), "SF", sia spento (solo per i modelli a 120 VCA). Una volta correttamente collegato ed effettuati i controlli iniziali, accendere l'UPM premendo e tenendo premuto il pulsante di accensione/spegnimento, collocato sul pannello frontale, per 3 secondi.

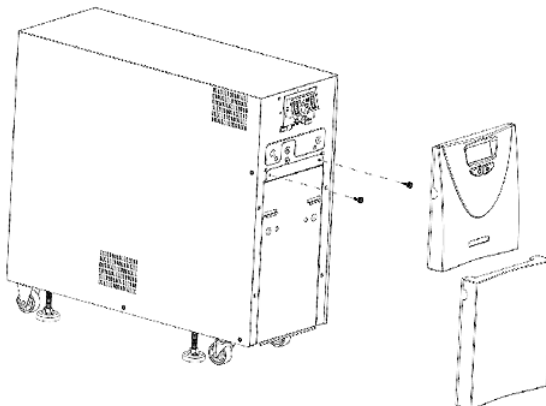
NOTA:

Dopo avere applicato l'alimentazione all'UPM occorre collegare le spine di attivazione della batteria nelle corrispondenti prese, collocate dietro il pannello frontale per operare.

Da 420 VA a 1440 VA

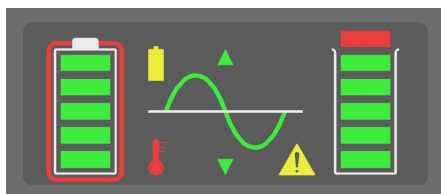


Da 2200 VA a 3000 VA



Test di funzionamento

Osservare il pannello frontale dell'UPM. La seguente tabella illustra il comportamento dello stato del sistema.



**Pannello frontale
dell'UPM**

DISPLAY A LED DELL'UPM	STATO DELL'UNITÀ
	Uscita UPM attiva
	Stato di carica della batteria in incrementi del 20%
	Stato di carico dell'UPM in incrementi del 20%
	L'UPM funziona tramite la batteria a causa di una tensione di alimentazione non corretta
	UPM sovraccarico
	Guasto batteria o batteria non collegata
	Unità in funzionamento buck a causa di una elevata tensione CA in ingresso
	Unità in funzionamento boost a causa di una bassa tensione CA in ingresso
	Guasto
	UPM surriscaldato

Indicatori di carico dell'UPM e delle batterie



Display dell'UPM durante il normale funzionamento (viene mostrata la situazione in cui le batterie sono completamente cariche e il carico è del 60%)



Display dell'UPM durante il funzionamento con batterie (viene mostrata la situazione in cui le batterie sono cariche all'80% e il carico è del 60%)



Display dell'UPM durante una condizione di sovraccarico (viene mostrata la situazione in cui le batterie sono completamente cariche e il carico è superiore al 100%)



Display dell'UPM durante una condizione di surriscaldamento (viene mostrata la situazione in cui le batterie sono cariche all'80% e il carico è dell'80%)



Display dell'UPM durante una condizione di problema con le batterie (ispezionare o sostituire l'unità batterie carica al 60%)

NOTA:

In funzione dello stato di carica delle batterie, è possibile che i LED del livello di carica delle batterie lampeggino (si tratta di un comportamento normale).



Avvio iniziale

Con il sistema collegato e spento, effettuare un test iniziale della funzione di backup dell'UPM premendo il pulsante Test/Silenzi, collocato sul pannello frontale, per 5 secondi. Durante il test, il LED Batteria (■), sul pannello frontale, dovrebbe accendersi brevemente. È anche possibile effettuare il test della funzione di backup scollegando il cavo di alimentazione dell'UPM. Se si sceglie di effettuare il test in questo modo, si noterà che l'UPM emetterà un segnale acustico ogni pochi secondi mentre il cavo di alimentazione è scollegato. Il LED Batteria (■) sarà acceso costantemente.

Una volta effettuato un test iniziale della funzione di backup dell'UPM, accendere il computer collegato. Verificare che l'unità non sia sovraccarica. Qualora l'unità sia sovraccarica, tutti i LED di carico saranno accesi e il LED di errore (▲) lampeggerà. Scollegare uno ad uno dall'UPM tutti i dispositivi meno critici, fino a che il LED di sovraccarico si spenga. Con i carichi collegati accesi, effettuare ancora una volta il test di backup, premendo il pulsante Test/Silenzi o

scollegando l'UPM. Al termine di questo test finale, l'UPM è pronto per essere utilizzato.

Fare riferimento al seguente schema dei codici di errore dell'UPM per identificare lo stato dell'UPM.

Codice di stato dell'UPM	Definizione
IF	Guasto dell'invertitore
BE	Guasto del Back-Feed
HL	L'unità è inattiva a causa di linea alta
LL	L'unità è inattiva a causa di linea bassa
DB	L'unità è inattiva a causa di batteria scarica
FF	Guasto ventola
SF	Guasto del cablaggio

NOTA:

- Se l'UPM è tenuto continuamente acceso, effettuerà un test automatico delle batterie ogni sei giorni.
- Se si utilizza il software MopUPS Pro o l'adattatore di rete iSitePRO, è possibile configurare il sistema in modo che effettui periodicamente un test automatico.
- L'UPM viene spedito con una batteria carica, ma una perdita di carica si verifica naturalmente durante l'immagazzinaggio e la spedizione. È possibile iniziare a utilizzare l'UPM immediatamente, ma occorre sapere che il tempo di backup può essere inferiore a quello dichiarato fino a che la batteria non sia stata sotto carica per almeno sei ore.
- AMETEK Powervar raccomanda di non collegare stampanti laser all'UPM. È noto che le stampanti laser assorbono grandi quantità di corrente quando il gruppo fuser/riscaldatore viene alimentato. Le stampanti laser possono facilmente sovraccaricare l'UPM o creare condizioni di bassa tensione che possono interferire con il funzionamento del circuito di gestione della tensione.

4.1 FUNZIONAMENTO

Pulsante di accensione/spegnimento

Il pulsante di accensione/spegnimento ha una doppia funzione:

- Quando l'UPM è spento ed è presente alimentazione in CA all'ingresso dell'UPM, premendo il pulsante di accensione/spegnimento per 2 secondi, l'UPM si accenderà.
- Se la batteria è collegata, premendo il pulsante di accensione/spegnimento per 2 secondi causerà un "avviamento a freddo" dell'UPM sulla base della batteria interna, senza alimentazione CA.
- Quando l'UPM è acceso, premendo il pulsante di accensione/spegnimento per più di 2 secondi, l'UPM si disattiverà l'alimentazione in uscita dall'UPM.

Pulsante Test/Silenzio

Il pulsante di Test/Silenzio ha una doppia funzione:

- Premendo il pulsante Test/Silenzio quando è presente alimentazione in CA e l'UPM è in funzione, l'UPM entra nella modalità di test automatico, in cui per alcuni secondi vengono testati sia la batteria che l'invertitore prima di tornare all'alimentazione in CA. Si raccomanda di chiudere tutti i file aperti prima di avviare un test automatico.
- In caso di interruzione dell'alimentazione in CA, l'UPM emette un segnale acustico. Il pulsante Test/Silenzio è usato per silenziare il segnale acustico. Quando la carica della batteria comincia a diminuire verrà automaticamente riattivato il segnale acustico, a una frequenza maggiore.

Monitor di carico

Il monitor di carico è un display a LED con sei segmenti, che mostra l'attuale percentuale di carico. Ciascuno dei primi 5 LED indica circa il 20% di carico, mentre il sesto LED comunica che l'UPM è sovraccarico.

Monitor ricarica batterie

Il monitor ricarica batterie è un display a LED con sei segmenti, che mostra la capacità di carica della batteria interna da zero al 100%. Ogni LED indica circa il 20% della carica completa.

Indicatore di guasto del cablaggio (solo per i modelli a 120 VCA)

Il simbolo SF verrà visualizzato sul pannello frontale dell'UPM quando questo sia collegato a una presa CA non cablata correttamente. Questo indica la mancanza di un conduttore di terra o un'inversione fra un conduttore di fase e di terra. Qualora "SF" compaia sul pannello frontale, occorre contattare immediatamente un elettricista qualificato.

NOTA:

Non mettere in funzione l'UPM quando il LED di Guasto del cablaggio è acceso. Quando è acceso, il LED indica un problema di cablaggio, che potrebbe rappresentare un rischio di incendio o di scossa elettrica. Inoltre, un cablaggio non corretto potrebbe potenzialmente creare problemi sia per l'UPM che per il sistema ad esso collegato. Non utilizzare mai un adattatore da 3 a 2 poli per alimentare l'UPM. Questi dispositivi eliminano dall'UPM la connessione con la linea di terra e questo causerà l'accensione del LED di Guasto del cablaggio.

Gestore di avvio

Quando non sia disponibile alimentazione CA (per esempio in una nuova installazione, ove il cablaggio sia ancora incompleto) è comunque possibile avviare l'UPM per testare il funzionamento dell'UPM e del proprio sistema, utilizzando il Gestore di avvio. Con l'UPM spento, seguire questi semplici passi:

1. Scollegare il cavo di alimentazione dalla presa.
2. Accertarsi che, dietro il pannello frontale, le batterie siano collegate.
3. Premere e tenuto premuto il pulsante di accensione/spegnimento sul pannello frontale fino a che l'UPM emetta un segnale acustico.

4. Ora l'UPM funziona grazie alle batterie. Al termine, premere di nuovo il pulsante di accensione/spengimento. Inserire il cavo di alimentazione CA nel pannello posteriore dell'UPM.

FUNZIONI SPECIALI E OPZIONI

Il pannello posteriore dell'UPM Security II offre funzioni speciali che possono essere utilizzate per soddisfare esigenze particolari, come lo spegnimento automatico di sicurezza dei computer protetti, il monitoraggio remoto dello stato, la diagnostica dei servizi, la rotazione dell'erogazione (load shedding) e l'avvio sequenziato.

METEK Powervar offre opzioni su web e software utili per gestire i carichi collegati. È possibile trovare un prospetto completo di questa offerta sul sito Powervar.

Dettagli funzioni:

- Monitoraggio da remoto sicuro della qualità della corrente e dello stato della batteria.
- Gestione in tempo reale con notifiche email e trap SNMP.
- Identificazione proattiva di tendenze problematiche con registro di eventi e dati.
- Monitoraggio remoto e notifiche di allarmi tramite rete o sistemi di gestione di edifici.
- Rotazione dell'erogazione automatica per risparmiare carica delle batterie per altri carichi.
- Spegnimento automatico di sicurezza dei sistemi protetti quando l'interruzione di alimentazione CA eccede la capacità della batteria UPM.
- PDU switched integrata per il controllo remoto di prese, rotazione dell'erogazione o avvio sequenziato al termine di una interruzione di alimentazione CA.

5.1 MANUTENZIONE

IMMAGAZZINAGGIO

Una batteria carica, scollegata da un UPM o da un carico, può mantenere una tensione ideale per circa sei mesi prima che sia necessaria una ricarica. Una batteria scarica deve essere ricaricata entro 72 ore dall'esaurimento della carica, per evitare danni permanenti alla batteria. Immagazzinare un UPM con la batteria collegata può causare danni permanenti alla batteria, quindi la batteria va sempre scollegata prima di immagazzinare l'UPM.

L'UPM può essere immagazzinato per lunghi periodi in un ambiente che non sottoponga l'UPM a valori estremi di temperatura e di umidità.

In caso di immagazzinaggio per lunghi periodi, la batteria deve essere ricaricata ogni sei mesi. Se l'ambiente di immagazzinaggio ha una temperatura superiore ai 25 °C, la batteria deve essere ricaricata ogni due mesi. Per ricaricare la batteria non occorre accendere l'UPM, è sufficiente sia alimentato mentre le batterie sono collegate. Le batterie devono essere scollegate al termine della ricarica, quando l'UPM è riportato in magazzino.

NOTA:

Questo prodotto non è pensato per un utilizzo continuo a batteria. L'UPM deve essere sempre collegato all'alimentazione CA quando non utilizzato in modalità backup con le batterie, per evitare di danneggiare le batterie interne con conseguente funzionamento non corretto (cioè surriscaldamento o incapacità di trattenere la carica).

Il firmware di questa unità garantisce un'ulteriore avvertenza e avviso per contribuire a rilevare e prevenire questa condizione.

1. Avvertenza batterie collegate: contribuisce e prevenire che l'unità sia immagazzinata con le batterie collegate. In questo caso, il display lampeggerà seguendo lo schema indicato in basso e verrà generato un allarme sonoro che invita a scollegare la batteria. Questo si verifica quando:

- L'alimentazione CA viene rimossa, l'uscita viene disabilitata e la batteria è collegata.
- L'unità funziona grazie alla batteria (l'alimentazione CA non è presente) e l'uscita è disattivata, oppure la batteria è scarica.



2. Allarme batteria completamente scarica: in questo caso il display lampeggia secondo lo schema riportato in basso e viene generato un segnale acustico, che invita a rimuovere l'alimentazione CA e contattare l'assistenza AMETEK Powervar al numero 1-800-369-7179 per provvedere alla sostituzione della batteria.



Attenzione

INFORMAZIONI IMPORTANTI

Le batterie contenute all'interno di questo UPM sono di un tipo speciale, detto "al piombo-acido sigillate". Queste batterie utilizzano un elettrolita non liquido, che rende possibile utilizzarle in qualunque orientazione fisica. Le batterie sono progettate per durare dai due ai cinque anni. La durata effettiva dipende da diversi fattori, fra cui la frequenza delle interruzioni dell'alimentazione CA, la durata di tali interruzioni e la temperatura dell'ambiente in cui è collocato l'UPM. Interruzioni di alimentazione frequenti e di lunga durata ridurranno la vita delle batterie più interruzioni brevi e poco frequenti. Anche temperature costantemente elevate nell'area in cui viene utilizzato l'UPM contribuiscono a ridurre la durata delle batterie.

Sul pannello frontale dell'UPM è collocato un LED () indicatore di Batteria scarica/sostituire. Se il LED si illumina, occorre fare in modo che la batteria possa ricaricarsi per almeno sei ore senza interruzioni di alimentazione. Tempo di backup inadeguato (molto più breve del solito), allarme sonoro prematuro di batteria scarica e la persistente illuminazione del LED Batteria scarica/sostituire sono tutti segni che indicano che la batteria dell'UPM deve essere sostituita. Le batterie all'interno dell'UPM devono essere sostituite solo da personale di assistenza autorizzato. Prima di procedere alla sostituzione delle batterie occorre familiarizzarsi con le seguenti precauzioni.



AVVERTENZA

L'assistenza sulle batterie deve sempre essere effettuata o supervisionata da qualcuno che abbia letto e compreso le seguenti precauzioni e sia a conoscenza dei pericoli associati all'immagazzinamento delle batterie. Questa procedura non deve essere effettuata da personale non autorizzato o che sia incapace di seguire queste precauzioni.



ATTENZIONE

- In questa unità solo il gruppo batterie è manutenibile dall'utilizzatore (solo per unità non mediche). È possibile accedere al vano batterie rimuovendo il pannello anteriore, come riportato nelle seguenti istruzioni. Nessun altro componente manutenibile dall'utilizzatore è contenuto in questo UPM. Non rimuovere alcun coperchio diverso dai pannelli frontali di accesso alle batterie.
- Una batteria (anche scarica) può generare correnti molto elevate se cortocircuitata. Sussiste il rischio di scosse elettriche. Rimuovere orologi, anelli, braccialetti e ogni altro oggetto in metallo. Utilizzare solo attrezzi con l'impugnatura isolata.
- Non smaltire le batterie nel fuoco. Sussiste il rischio di esplosioni.
- Non smaltire le batterie in modi dannosi per l'ambiente. Le batterie possono essere restituite ad AMETEK Powervar per un corretto smaltimento.

- Non aprire o manomettere le batterie. Questo potrebbe comportare il rilascio di elettrolita, tossico per l'ambiente e pericoloso per la pelle e gli occhi.
- È possibile ordinare batterie sostitutive da AMETEK Powervar telefonicamente o tramite il sito web www.powervar.com.
- Le unità mediche non contengono parti manutenibili dall'utilizzatore.

Batteria sostituibile dall'utilizzatore (solo per unità non mediche)

Prima o poi, ogni UPM richiede una nuova batteria. AMETEK Powervar si aspetta che la batteria dell'UPM duri almeno due anni: forse più a lungo se le interruzioni di alimentazione sono brevi e poco frequenti. La sostituzione della batteria dell'UPM da parte dell'utilizzatore è facile e rapida. Non è necessario spegnere l'UPM o il sistema collegato. L'UPM permette la sostituzione "a caldo" della batteria, mentre il sistema è in funzione.

NOTA:

La sostituzione delle batterie dell'UPM prevede una procedura semplice e sicura. Le batterie possono essere sostituite mentre l'UPM è acceso e fornisce alimentazione al carico collegato. Occorre tuttavia ricordare che se dovesse manifestarsi una interruzione di alimentazione CA mentre le vecchie batterie sono scollegate e quelle nuove non sono ancora installate, i sistemi e i componenti collegati rimarrebbero privi di alimentazione.



ATTENZIONE

RISCHIO DI ESPLOSIONE QUALORA LA BATTERIA SOSTITUIVA SIA DI TIPO NON CORRETTO.

Per sostituire le batterie, contattare Powervar per avere i kit di batterie sostitutive corretti. Fare riferimento ai codici dei kit sostitutivi, qui in basso.

<i>Specifiche VA</i>	<i>Codice del kit batterie sostitutivo</i>
420	50842-01

600/800	50880-01
1100/1440	50814-01
2200/3000	50822-01

 ATTENZIONE

Batterie con rischio energetico, 12 V, max. 8,5 ampere-ora. Prima di sostituire le batterie, rimuovere accessori conduttori, come catene, cinturini di orologio e anelli. Il passaggio di una elevata energia attraverso materiale conduttivo può causare gravi ustioni.

 ATTENZIONE

Non smaltire le batterie nel fuoco. Le batterie potrebbero esplodere.

 ATTENZIONE

Non aprire o manomettere le batterie. Il materiale rilasciato può essere pericoloso per la pelle e per gli occhi. Può essere tossico. Una batteria può presentare il rischio di scosse elettriche ed elevate correnti di cortocircuito. Durante il lavoro con le batterie occorre osservare le seguenti precauzioni:

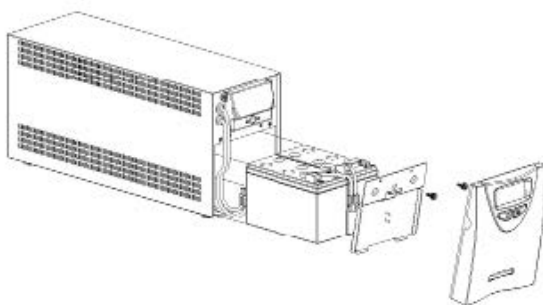
- Rimuovere orologi, anelli e altri oggetti metallici.
- Utilizzare attrezzi con l'impugnatura isolata.
- Indossare stivali e guanti di gomma.
- Non posare attrezzi o parti metalliche sulle batterie.
- Scollegare la fonte di alimentazione prima di collegare o scollegare i terminali delle batterie.
- Determinare se la batteria è inavvertitamente messa a terra. In caso affermativo, rimuovere la fonte dalla terra. Il contatto con qualsiasi parte di una batteria messa a terra può causare scosse elettriche.

NOTA:

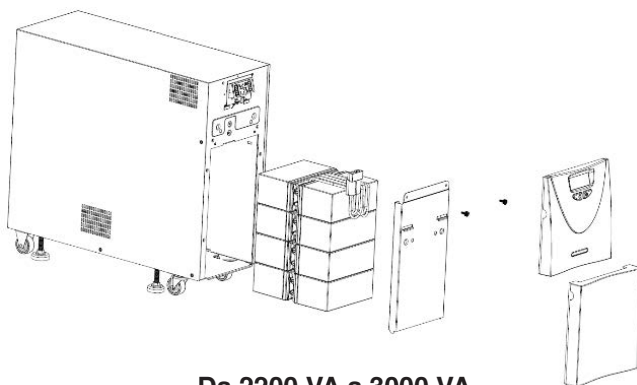
Dopo avere letto e compreso le avvertenze che precedono questa sezione, è possibile procedere con i passi successivi.

Sostituzione delle batterie (solo per unità non mediche)

1. Allontanare delicatamente il pannello frontale dall'unità. Il pannello deve sganciarsi completamente. (Fare riferimento alla figura a pagina 115).
2. Scollegare i connettori rosso e nero l'uno dall'altro.
3. Allentare le (2) viti zigrinate che collegano lo sportello delle batterie all'unità.
4. Rimuovere lo sportello delle batterie. Estrarre delicatamente le vecchie batterie e metterle da parte.
5. Sostituire con le nuove batterie (accertarsi di utilizzare batterie dello stesso tipo e dimensione).
6. Reinstallare lo sportello delle batterie e stringere le viti zigrinate.
7. Ricollegare i connettori rosso e nero l'uno con l'altro.
8. Inserire delicatamente il pannello frontale sull'UPM (evitare di incastrare i fili delle batterie).



Da 420 VA a 1440 VA



Da 2200 VA a 3000 VA



Access additional product information and
support on the web at
www.powervar.com

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