

PowerWalker

Reliable Power Protection

CATALOG



UNINTERRUPTIBLE POWER SUPPLY

www.powerwalker.com

www.bluewalker.de

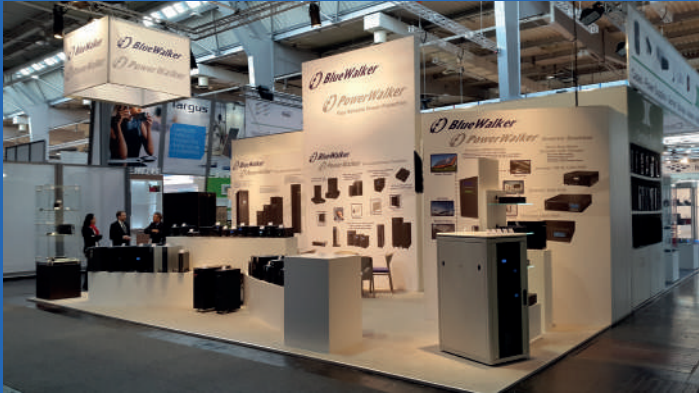


About us

BlueWalker GmbH is a German company founded in 2004. Since then the company has established itself as a professional supplier of Powerwalker UPSs and developed a comprehensive distribution network throughout Europe.

With a portfolio of over 300 models BlueWalker offers the suitable solution for most UPS needs: from beginner-friendly systems for home environment to high-performance and high-power systems for commercial usage.

PowerWalker UPSs combine reliability and safety with energy efficiency, high connectivity and excellent price-performance.
“PowerWalker, Your Reliable Protection”



Product Categories	Phase	Capacity (kVA)							
		0,5	1	2	3	10	20	50	300 500
VFD	1/1	0,4 - 1							
VI Tower	1/1	0,4 - 3							
VI Rack	1/1		1 - 3						
VFI Tower	1/1		1 - 10			30			
VFI Rack	1/1		1 - 10			30			
VFI 3/1	3/1					10 - 20	60		
VFI 3/3	3/3					10 - 300		800	

Single Unit Parallel Mode

PRODUCTS

- Solutions for home and business environment, professional uses and industrial applications
- Centralized or decentralized solutions
- Accessories available such as: battery packs, remote control cards, PDUs, chargers etc.
- Monitoring software
- Various communication options

POWER

- In a parallel mode a capacity of nearly one Megawatt can be reached
- Options for Single Phase, Three-to-One Phase and Three Phase
- High efficiency and reliability
- Models with Pure Sine Wave output
- Models with Unity Power Factor (PF1.0)

DESIGN

- Design solutions include desktop/tower, rackmount, 2-in-1 rackmount/tower, wall-mount, modular/scalable and cabinet UPSs
- Available with internal batteries, external batteries or additional battery packs
- Parallel and redundant operations
- Different output sockets (Schuko, French, UK, IEC)

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PowerWalker is a brand of BlueWalker GmbH

Line Interactive

400VA - 3000 VA



Online

1kVA - 300kVA



PoE UPS

IEEE 802.3af/at



Offline

400-1000VA



AVRs

600VA-3000VA



Inverters

650VA-5000VA



VI 600-1500 CSW

- HID (Human Interface Device) support for USB communication without additional software (supported by internal system drivers)
- Voltage Regulator with Pure Sine Wave output
- USB charging ports (2.1A)
- Easily replaceable batteries via front panel
- Auto-dimming LCD panel



IEC outlets

Schuko outlets

French outlets

MODEL	VI 600 CSW	VI 800 CSW	VI 1000 CSW	VI 1200 CSW	VI 1500 CSW
Power (VA)	600VA	800VA	1000VA	1200VA	1500VA
Power (W)	360W	480W	600W	720W	900W
INPUT					
Voltage	230Vac				
Voltage Range	170-280Vac				
Frequency Range	50/60Hz (Auto)				
OUTPUT					
Voltage Regulation	230Vac \pm 10 %				
Frequency Range	50/60Hz				
Transfer Time	Typical 6 ms, maximum 10ms				
AC to Battery	Typical 6 ms, maximum 10ms				
Waveform (Bat. Mode)	Pure Sine Wave				
Protection	Discharge, Overcharge and Overload Protection				
BATTERY					
Type	1x 12V / 7Ah	1x 12V / 9Ah	1x 12V / 10Ah	2x 12V / 7Ah	2x 12V / 9Ah
Recharge Time	6-8h to 90% after complete discharge				
Protection	Battery Discharge, Overcharge and Overload Protection				
CONNECTIONS AND COMMUNICATION					
Output	4x Schuko or 4x French or 8x IEC				
Protection Port	RJ11/RJ45 (Ethernet Surge Protection)				
Software	ViewPower				
Communication Ports	1x USB port with HID support				
Charger Ports	2x USB port 5V/2.1A (shared)				



PowerWalker VI CSW is a line-interactive UPS series with state of the art technology and design. The integrated AVR function and pure sinewave output ensures clean and stable output during power outages or voltage fluctuations. The UPS functions can be monitored and controlled via USB communication, either with a software or without (HID).

The modern and elegant design makes the VI CSW series especially suitable for home and office use. Applications include (but are not limited to) gaming and entertainment systems, office workstations, NAS etc.

Two USB charging ports (2.1A) in the front offers additional functionality and convenience. Furthermore, the design allows easy access to the battery compartment via the front panel for easy battery replacement.

- HID (Human Interface Device) support for USB communication without additional software (supported by internal system drivers)
- Surge protection for phone line and modem
- Supports full rating APFC power supplies
- Fast charging 2-4h to 90%
- 2 USB ports for charging (5V/2A)

PowerWalker VI GX is a premium line interactive series for gaming equipment. Professional gamers' devices are sensitive and even very small power outages lasting milliseconds may interrupt the gaming experience. Hours of progress might be lost, preparations go to waste and it might not only affect you, but your whole team. It is especially frustrating because blackouts happen without warning and there is nothing one can do once it occurred.

The UPS serves as an emergency power source, which supplies power to all connected loads (via batteries) during sudden blackouts. This ensures both a smooth bridging of power problems and enables a safe and orderly shutdown. The UPS protects sensitive hardware and operations against voltage fluctuations that may occur during irregularities of the mains supply. This way loss of data, hardware problems and unnecessary wear can be prevented effectively.



MODEL	VI 650 GX	VI 850 GX	VI 1200 GX	VI 1600 GX	VI 2200 GX
Power (VA)	650VA	850VA	1200VA	1600VA	2200VA
Power (W)	360W	480W	720W	960W	1200W
INPUT					
Voltage	230Vac				
Voltage Range	170-280Vac				
Frequency Range	50/60Hz (Auto)				
OUTPUT					
Voltage Regulation	230Vac \pm 10 %				
Frequency Range	50/60Hz				
Transfer Time	Typical 4-8 ms				
AC to Battery	Typical 4-8 ms				
Waveform (Bat. Mode)	Pulse Width Modulated				
Protection	Discharge, Overcharge and Overload Protection				
BATTERY					
Type	1x 12V / 7Ah	1x 12V / 9Ah	2x 12V / 7Ah	2x 12V / 9Ah	
Recharge Time	2-4h to 90% after complete discharge				
Protection	Battery Discharge, Overcharge and Overload Protection				
CONNECTIONS AND COMMUNICATION					
Output	2x Schuko or 2x French or 4x IEC		4x Schuko or 4x French or 6x IEC		
Protection Port	RJ11/RJ45 (Ethernet Surge Protection)				
Software	WinPower				
Ports	1x USB port with HID support				

VI 650-2200 GX



As a Gamer your primary concern will be the protection and continuity of your Gaming PC, your router and your monitor. By doing so you will be able to bridge short outages and keep playing, or perform a safe shutdown during a longer interruption. Line-Interactive UPS solutions up to 2200VA will offer a reliable power protection while also remain silent during standard operation.



650-850 VA
IEC / IEC-UK / Schuko / French



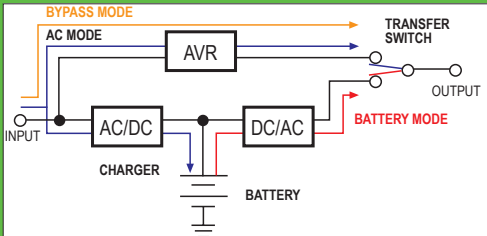
1200-2200 VA
IEC / IEC-UK / Schuko / French

Line-Interactive (VI) - Technology

PowerWalker VI Series (Voltage Independent), also known as line-interactive UPSs, ensure uninterrupted and regulated output voltage. The built-in Automatic Voltage Regulator provides even better protection and is the main difference between line-interactive and offline units. The AVR not only regulates the voltage, but by doing so also increases the lifespan of the batteries inside. To find out more about AVR-Technology, please see page 36.

In case the input voltage exceeds the acceptable voltage range, the UPS will switch to battery mode to prevent cuts and damage to the connected equipment. All line-interactive models have a communication port (i.e. USB) to allow monitoring and communication via PC. The newest version of the software is always available on powerwalker.com.

VI models are working silently. Units up to 1kVA are without the fan and for the bigger units the cooling fan only turns on during AVR or battery mode. Line-interactive UPS are frequently chosen to protect home or office equipment (PCs, Monitor, NAS etc.). They offer reliable and comprehensive protection for low cost.



VI 600-2000 SC

- Reliable and economic line-interactive series
- Compact size and high performance for home usage
- Reduced environmental impact: no CD, no USB cable in the box
- Available with French, Schuko and UK outlets



VI 650-3000 LCD

- LCD panel with operating information: input and output voltage, mode, battery level, load level
- Surge filter for phone line and modem
- USB communication and ViewPower software for controlling and monitoring



MODEL	COMMON for VI SC and VI LCD
INPUT	
Voltage Range	162-290Vac
Frequency Range	50/60Hz (Auto)
OUTPUT	
Voltage Regulation	230Vac \pm 10 %
Frequency Regulation	50/60Hz \pm 1Hz
Transfer Time	2-6 ms
AC mode to Battery mode	
Waveform (Battery Mode)	Pulse Width Modulated
Protection	Short-circuit and Output Overload
Communications	USB port

	Power (VA)	Power (W)	Batteries
VI 600 SC	600	360	1x 12V / 7Ah
VI 800 SC	800	480	1x 12V / 9Ah
VI 1000 SC	1000	600	2x 12V / 7Ah
VI 1500 SC	1500	900	2x 12V / 9Ah
VI 2000 SC	2000	1200	2x 12V / 9Ah
VI 650 LCD	650	360	1x 12V / 7Ah
VI 850 LCD	850	480	1x 12V / 9Ah
VI 1000 LCD	1000	600	2x 12V / 7Ah
VI 1500 LCD	1500	900	2x 12V / 9Ah
VI 2000 LCD	2000	1200	2x 12V / 9Ah
VI 3000 LCD	3000	1800	4x 12V / 9Ah



VI 1000 LCD French / Schuko / UK outlet

- HID (Human Interface Device) support for USB communication without additional software (supported by internal system drivers)
- Additionally WinPower software for monitoring
- Available with LCD or LED
- Surge protection for phone line and modem

PowerWalker VI SH and SHL Series are the bestsellers among home models. It is compatible with every Operating System or NAS. AVR module secures safe voltage level and extends the battery life.

VI SHL, in comparison to VI SH, features an LCD with comprehensive information about voltages, load, battery level and mode. The UPS can also be monitored and controlled via the PowerWalker WinPower software for advanced setup.

HID - Technology

A Human Interface Device (HID) is a common class for Operating Systems. Devices supporting HID are automatically detected and immediately available for management on Windows, MacOS, Linux and other systems without installing additional software.



Models with HID support are the best choice for all applications that forbid installation of monitoring software. Typical applications involve financial or governmental institution that require complicated clearance procedure to authorize 3rd party software. Home users will appreciate HID in combination with NAS. It might be irreplaceable for ATMs, kiosks, surveillance video recording systems or specific industrial and office applications.

MODEL	VI 650 SH	VI 850 SH	VI 1200 SH	VI 2200 SH
MODEL	VI 650 SHL	VI 850 SHL	VI 1200 SHL	VI 2200 SHL
Power (VA)	650VA	850VA	1200VA	2200VA
Power (W)	360W	480W	600W	1100W
INPUT				
Voltage	230Vac			
Voltage Range	170-280Vac			
Frequency Range	50/60Hz (Auto)			
OUTPUT				
Voltage Regulation	230Vac \pm 10 %			
Frequency Range	50/60Hz			
Transfer Time	Typical 4-8 ms			
AC to Battery				
Waveform (Bat. Mode)	Pulse Width Modulated			
Protection	Discharge, Overcharge and Overload Protection			
BATTERY				
Type	1x 12V / 7Ah	1x 12V / 9Ah	2x 12V / 7Ah	2x 12V / 9Ah
Recharge Time	4h to 90% after complete discharge			
Protection	Battery Discharge, Overcharge and Overload Protection			
CONNECTIONS AND COMMUNICATION				
Output	2x Schuko or 2x French or 4x IEC		2x Schuko + 2x IEC or 2x French + 2x IEC or 6x IEC	
Protection Port	RJ11 in/out		RJ11/RJ45 in/out	
Software	WinPower			
Ports	1x USB port with HID support			
Signalling	SHL Series has LCD and SH Series has LEDs			

VI 650-2200 SH



VI 650-2200 SHL



650-850 VA
Schuko / French / IEC



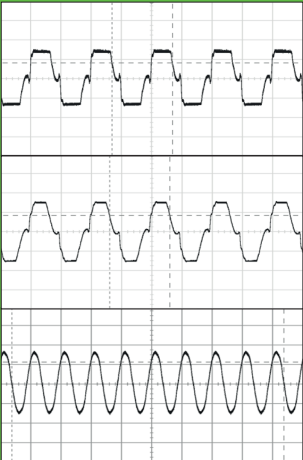
1200-2200 VA
Schuko / French / IEC

PSW - Technology

Pure Sine Wave refers to the shape of the voltage output in the battery mode. In contrary to Pulse Width Modulated Alternating Current (PWM AC) or simulated sine wave, the PSW output allows motor-based loads to be supplied from a UPS. This includes all compressors, pumps, various home appliances, roller blinds or garage doors.

In addition to motor-based loads compatibility, the PSW allows power supplies to run at their maximal efficiency and prolongs their life time. Simulated wave input creates some additional losses on power supplies, which means it is easier to exceed maximum UPS power capacity.

All line interactive UPSs provide mains voltage to the output in normal mode, only in battery mode it must be alternated from DC to AC, where PSW has an application. Utility voltage has always sine wave characteristics. By default, all online UPSs, using double conversion AC/DC/AC, provide PSW output. Still, the implementation of the feature might be of different quality. For instance, all three characteristics shown on the right would be considered as PSW and it would be sufficient to run an AC motor, but the efficiency and life time would be affected.



VI 600-800 SW

- Automatic voltage regulation
- Pure sine wave output
- Surge filter for phone line and modem
- USB communication



VI 750-2000 PSW

- Automatic voltage regulation with pure sine wave output
- Surge filter for phone line and modem
- USB communication and ViewPower software for controlling and monitoring



With its efficient digitalized PWM-based controller, PowerWalker VI PSW serie provides even higher quality Pure Sine Wave output than VI SW. It is a perfect solution for demanding home requirement up to 2000VA.

	Power (VA)	Power (W)	Batteries	Recharge to 90%
VI 600 SW	600	360	1x 12V / 7Ah	4h
VI 800 SW	800	480	1x 12V / 9Ah	4h
VI 750 PSW	750	480	1x 12V / 9Ah	6h
VI 1000 PSW	1000	700	2x 12V / 7Ah	6h
VI 1500 PSW	1500	1050	2x 12V / 9Ah	6h
VI 2000 PSW	2000	1400	2x 12V / 10Ah	6h



MODEL	COMMON for VI SW and VI PSW
INPUT	
Voltage Range	162-290Vac
Frequency Range	50/60Hz (Auto)
OUTPUT	
Voltage Regulation	230Vac \pm 10 %
Frequency Regulation	50/60Hz \pm 1Hz
Typical Transfer Time	2-6 ms
AC mode to Battery mode	
Waveform (Battery Mode)	Pulse Sine Wave
Protection	Short-circuit, Output Overload, Discharge and Overcharge
Communications	USB port
Software	PowerWalker ViewPower
Surge Protection Port	RJ11/RJ45 in/out

- Automatic Voltage Regulator with Pure Sine Wave output
- USB with Human Interface Device (HID) support and Intelligent Slot for communication cards
- Programmable outlets

PowerWalker VI 1100-3000 CW is an advanced line-interactive UPS series with pure sine wave output. Combined with the AVR function for voltage stabilization, this UPS series will provide clean and stable power to the connected equipment. While designed for home and office use, this UPS will also safeguard more sensitive IT and network devices, as well as high-end PC systems.



VI 1100-3000 CW



VI 1100-1500 CW and VI 2000-3000 CW

The programmable outlets and comprehensive LCD display present a high degree of functionality and flexibility that are rarely found in other line-interactive solutions. Additionally this series offers a variety of communication options, such as USB communication with software or without software (HID), or even communication via an optional network card (SNMP).

VI 1000-3000 RT HID



The PowerWalker VI RT HID is line-interactive rack/tower UPS with PSW, HID, AVR, EPO, external battery connector and a slot for extension card (i.e. SNMP monitoring). It offers highest quality output among VI UPSs. In 19" rack cabinet, it occupies only 2U height.

It is by far the most advanced line interactive UPS for professional applications. It features professional parameters for the highly demanding environment, including support for generators with wide voltage and frequency range on input with total harmonic distortion on output voltage below 3%. Self-monitoring provides fault diagnosis.

- Rack/Tower design with swappable LCD direction
- Pure sine wave output with PF=0.9
- Selectable line sensitivity allowing generator support
- HID support (HID Power Device)



	Power (VA)	Power (W)	Batteries
VI 1100 CW	1100	770	2x 12V / 7Ah
VI 1500 CW	1500	1050	2x 12V / 9Ah
VI 2000 CW	2000	1400	4x 12V / 7Ah
VI 3000 CW	3000	2100	4x 12V / 9Ah
VI 500 R1U	500	300	2x 6V / 7Ah
VI 750 R1U	750	450	2x 6V / 9Ah
VI 1000 R1U	1000	600	4x 6V / 7Ah
VI 1500 R1U	1500	900	4x 6V / 9Ah
VI 1200 RLE	1200	720	2x 12V / 7.2Ah
VI 2200 RLE	2200	1320	2x 12V / 9Ah
VI 3000 RLE	3000	1800	4x 12V / 7.2Ah
VI 1000 ERT HID	1000	900	2x 12V / 9Ah
VI 1000 RT HID	1000	900	3x 12V / 7Ah
VI 1500 RT HID	1500	1350	3x 12V / 9Ah
VI 2000 RT HID	2000	1800	6x 12V / 7Ah
VI 3000 RT HID	3000	2700	6x 12V / 9Ah



- Human Interface Device (HID) compatible USB connection (no additional drivers needed)
- Slim 1U design
- Pure Sine Wave for wide range of applications and harsh environment
- Auto-dimming screen (UPS is woken up with mute button)



PowerWalker VI R1U Series offers slim design, which is unique on the market. It occupies only 1U of rack cabinet, but what is more, it can be fitted into places never before available for UPSs. It could even fit under your TV table to protect your home theatre. Considering the fact that fan is completely switched off in normal operation and LCD dims automatically, neither noise nor LCD shine will disturb your experience. With pure sine wave output in battery mode, it delivers high-quality voltage for the equipment. HID support for USB port will allow communication with NAS without further compatibility issues.



VI 500-1500 R1U

- Automatic Voltage Regulator with Pure Sine Wave output
- USB with Human Interface Device (HID) support and Intelligent Slot for communication cards
- Auto dimming screen (UPS is woken up with mute button)
- Fully automatic and silent operation

PowerWalker VI 1200-3000 RLE is a compact line-interactive series with rack design. The unit provides Pure Sine Wave output with voltage regulation, offering optimal protection for small motor-based loads and servers with APFC power supplies. The USB port features HID support, which allows native communication with nearly all common operating systems – removing the need for installing additional software.

Improved internal heat dissipation makes sure the UPS runs silently during standard operation. A comprehensive LCD panel provides all the necessary information and will auto-dim after a few seconds. These features make the UPS series an attractive solution for home use as well.



Front of VI 1200-3000 RLE



Back of VI 1200 RLE



Back of VI 2200-3000 RLE

VI 1200-3000 RLE

MODEL	VI CW	VI R1U	VI RLE	VI ERT HID	VI RT HID
INPUT					
Voltage Range	165-290 VAC			161-276VAC	
Frequency Range	50/60Hz			50/60Hz ±5Hz for Normal Mode 40-70Hz for Generator Mode	
OUTPUT					
Voltage Regulation	±1.5%	±10%		±5%	
Transfer Time	2-6ms (typical, 10ms max)	4ms typical		2-6ms typical; 10ms maximal; 13ms for generator mode	
AC mode to Battery mode	Pure Sine Wave				
Waveform (Battery Mode)					
CONNECTIONS					
Communications	USB with HID, RS232	USB with HID	USB with HID, RS232	USB with HID, RS-232 with dry-out	
Protection Port	No	No	Yes	RJ11, RJ45 in/out	
EPO	Yes	No	Yes	No	Yes
Software	ViewPower	PowerMaster		WinPower	



VFI 1000 R1U

- Slim 1U design
- Simple one-button control and advanced functions via software
- High efficiency and long autonomy time with four 6V batteries



Front Panel

PowerWalker VFI 1000R/1U has a unique 1U slim design (only 44mm), which allows it to be installed in places inaccessible before. If you think one button is not enough to control your equipment, connect it to PC via USB or Ethernet and have full access to all functions with PowerWalker ViewPower.

Don't be misled by its compact size. It is a powerful device that offers a solution for the professional application. It offers Intelligent Slot that can accommodate SNMP Card for ethernet control, Modbus Card compatible with PLCs or AS/400 for dry contacts. Apart from that, you can directly connect it to installation that requires Emergency Power Off for fire safety.

ECO mode for saving energy and four 9Ah batteries ensure a long autonomy time for your load. Wide input voltage acceptance range stretches between 110V and 300V, making it suitable for harsh environments.

MODEL	VFI 1000R/1U
Power (VA)	1000VA
Power (W)	800W
INPUT	
Voltage Range	110-300 VAC at 50% load 160-300 VAC at 100% load
Frequency Range	50/60Hz (auto-sensing)
OUTPUT	
Voltage	220/230/240VAC +/-1%
Frequency Regulation	40-70Hz (50/60Hz auto-sensing)
Frequency Regulation (Battery mode)	50/60Hz +/-0.5%
Current Crest Ratio	3:1
Harmonic Distortion	< 3 % THD (Linear Load) < 5 % THD (Non-linear Load)
Transfer Time	0ms (Line to Battery Mode)
AC to Battery mode	max 4 ms (Line to Bypass Mode)
Waveform (Battery Mode)	Pure Sine Wave
BATTERY	
Type	4x 9Ah / 6V Sealed Lead-acid
Recharge Time	4h to 90% after complete discharge
EFFICIENCY	
AC Mode	86%
Battery Mode	83%
CONNECTIONS	
Communications	USB, EPO and Intelligent Slot
Output	3x IEC
Software	ViewPower



VFI 1000 LR1U LITHIUM

- High-performance Lithium Iron Phosphate battery with extended design life
- Slim 1U design
- Simple one-button control and advanced functions via software



Front Panel

PowerWalker VFI 1000 LR1U Lithium is a high-performance online UPS designed for professional IT applications. With the double conversion technology the UPS provides reliable and overall protection for your sensitive IT equipment, maximizing the availability of your critical devices. Additionally, the wide input voltage range offers more flexibility and allows the unit to be used in harsh environments.

Highlight of this unit is the Lithium Iron Phosphate battery integrated inside the 1U housing. Compared to traditional lead-acid-batteries, lithium cells feature highly extended battery life, lower maintenance cost and greatly reduced weight. This leads to more ease and less frustration during operation and maintenance.

In short, PowerWalker VFI 1000 LR1U Lithium is a unique solution, which combines maximum power protection and highly durable Lithium batteries inside a slim 1U housing.

MODEL	VFI 1000 LR1U Lithium
Power (VA)	1000VA
Power (W)	800W
INPUT	
Voltage Range	110-300 VAC at 50% load 160-300 VAC at 100% load
Frequency Range	50/60Hz (auto-sensing)
OUTPUT	
Voltage	220/230/240VAC +/-1%
Frequency Regulation	40-70Hz (50/60Hz auto-sensing)
Frequency Regulation (Battery mode)	50/60Hz +/-0.5%
Current Crest Ratio	3:1
Harmonic Distortion	< 3 % THD (Linear Load) < 5 % THD (Non-linear Load)
Transfer Time	0ms (Line to Battery Mode)
AC to Battery mode	max 4 ms (Line to Bypass Mode)
Waveform (Battery Mode)	Pure Sine Wave
BATTERY	
Type	25.6V/3.3Ah LiFePO
Recharge Time	4h to 90% after complete discharge
EFFICIENCY	
AC Mode	86%
Battery Mode	83%
CONNECTIONS	
Communications	USB, EPO and Intelligent Slot
Output	3x IEC
Software	ViewPower

VFI 1000-3000 C

VFI 6000-10000 CT



- Comprehensive display allows easy monitoring and access of UPS status
- Generator compatible
- True double conversion technology
- Emergency Power Off connection and Intelligent Slot for extension card (i.e. SNMP or Modbus)

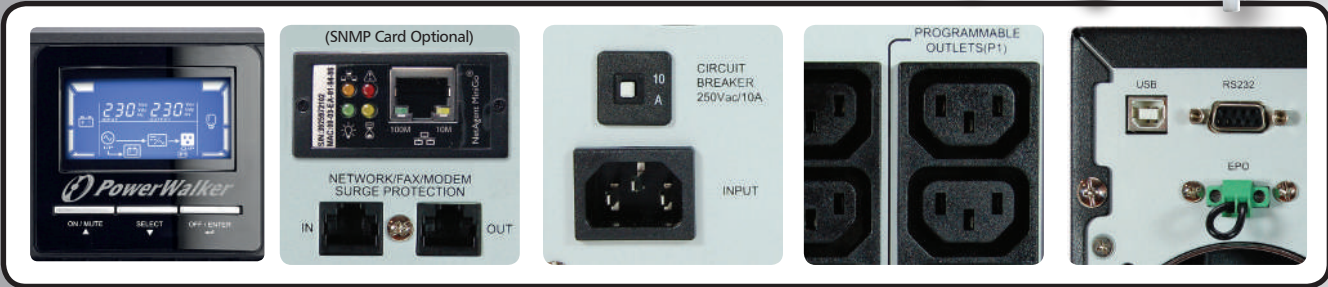


VFI 1000 C LCD

PowerWalker VFI C and VFI CT series are comprehensive solutions for professional applications. It offers all the benefits of double conversion technology, providing stable output for the loads.

Communication with both series can be realized by USB cable, RS232 cable or using an intelligent slot, it can be extended to SNMP, Modbus or dry-contacts. UPSs are compatible with ViewPower software for monitoring and control.

PowerWalker VFI CT is a professional single phase solution up to 10kVA. Those advanced products offer a variety of detailed configurations to be set from LCD panel. The software is supplementary to offer more comfortable setup.



MODEL	VFI 1000 C	VFI 2000 C	VFI 3000 C	VFI 1000 CG PF1	VFI 1500 CG PF1	VFI 2000 CG PF1	VFI 3000 CG PF1
Power	1000VA / 800W	2000VA / 1600W	3000VA / 2400W	1000VA / 1000W	1500VA / 1500W	2000 VA / 2000 W	3000 VA / 3000 W
INPUT							
Voltage Range	110-300 VAC at 50% load or 160-280 VAC at 100% load						
Frequency Range	40-70Hz						
OUTPUT							
Output Voltage	208/220/230/240Vac ± 1%						
Frequency Range	50Hz ± 0.3Hz or 60Hz ± 0.3Hz			50Hz ± 0.1Hz or 60Hz ± 0.1Hz			
Total Harmonic Distortion	≤ 3 % THD (linear load) / ≤ 6 % THD (non-linear load)			≤ 2 % THD (linear load) / ≤ 4 % THD (non-linear load)			
Transfer Time	0ms (Line to Battery Mode) or max 4 ms (Line to Bypass Mode)						
BATTERY							
Batteries	2 x 9Ah/12V	4 x 9Ah/12V	6 x 9Ah/12V	3 x 7Ah/12V	3 x 9Ah/12V	6 x 7Ah/12V	6 x 9Ah/12V
Recharge Time	9h to 90% after complete discharge			4h to 90% after complete discharge			
Charger	1A			1A / [2A] / 4A / 6A / 8A / 10A / 12A		1A / [2A] / 4A / 6A / 8A	
CONNECTIONS							
EPO (Emergency Power Off)	No			Yes			
Output	3x IEC	4x IEC	4x IEC + Terminal	4x IEC (2 programmable output)		8x IEC (4 programmable output)	8x IEC (4 prog.) + 1x IEC C19
Protection Port	No			RJ11/RJ45 in/out			
LCD	Yes (blue lit)			Yes, new type with black lit			
REQUIREMENTS AND SOFTWARE							
Software	ViewPower						
Ports	RS232, USB and Intelligent Slot						
Key differences	<ul style="list-style-type: none">● Battery configuration and charger's current● Power Factor● Outlets and programmable outlets● Fine technical specification (THD, efficiency, voltage and frequency accuracy)						



VFI 1000-3000 TG

VFI 1000-3000 TGS

VFI 1000-3000 TGB

- HID support for USB communication
- Comprehensive display allows easy monitoring and access of UPS status
- Generator compatible
- Emergency Power Off connection and Intelligent Slot for extension card
- Available with stronger charger or with internal batteries

The PowerWalker VFI 1000-3000 TGB and its long-run version VFI 1000-3000 TGS offer a professional solution for home and office environment. UPSs are available with internal batteries or alternatively with stronger charger (6A instead of 1A) for an external battery solution.

BP for VFI 1000 TGS/TGB

MODEL	COMMON for VFI 1000-3000 TG/TGB/TGS	
INPUT		
Voltage Range	176-300 VAC 80-285 VAC in bypass mode	
Frequency Range	40-70Hz (Auto)	
THDi	<5%	
Input PF	≥ 0.99 at full load	
OUTPUT		
Voltage Regulation	220/230/240 VAC ±2%	
THDv	≤2% Full Linear Load ≤5% Non-Linear Load	
Frequency Synchronized	45Hz - 55Hz or 54Hz - 66Hz	
Overload in line mode	constant @100%-105%; 1min @105%-130%; 10s @130%-150%; 300ms @>150%; bypass at higher;	
Overload in battery mode	10s @100%-150%; cut-off at higher	
Frequency Regulation	50/60Hz ±0,05Hz	
Typical Transfer Time	0 ms	
AC mode to Battery mode		

VFI TGB/TGS series are detected as HID Power Device by the internal O/S drivers and can be managed without additional software. It finds its application in all dedicated systems for kiosks, ATMs as well as in high-security level systems, where additional software is not allowed (read more on page 5).

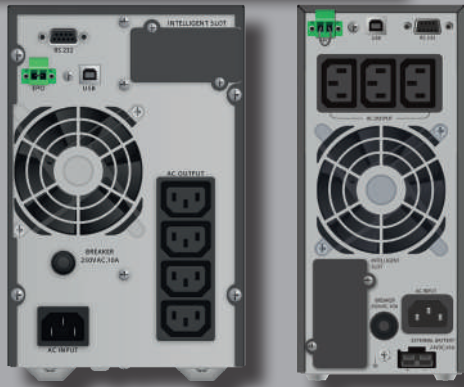


VFI 3000 TGS



VFI 2000 TGS

	Power (VA)	Power (W)	Batteries	Battery Connector
VFI 1000 TG	1000	900	2x 12V / 9Ah	No
VFI 2000 TG	2000	1800	4x 12V / 9Ah	
VFI 3000 TG	3000	2700	6x 12V / 9Ah	
VFI 1000 TGB	1000	900	2x 12V / 9Ah	Yes, at 24VDC
VFI 2000 TGB	2000	1800	4x 12V / 9Ah	Yes, at 48VDC
VFI 3000 TGB	3000	2700	6x 12V / 9Ah	Yes, at 72VDC
VFI 1000 TGS	1000	900	None	Yes, at 24VDC
VFI 2000 TGS	2000	1800	None	Yes, at 48VDC
VFI 3000 TGS	3000	2700	None	Yes, at 72VDC



VFI 1000 TG

VFI 1000 TGS

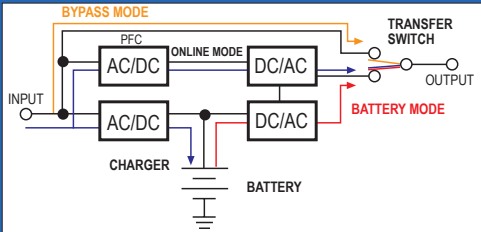
Online (VFI) - Technology

Voltage and Frequency Independent UPSs, also known as online or true double-conversion, always provide stable power to the load with clean sine wave characteristics.

In the first phase of conversion, the AC power at the input of the UPS is rectified and supplied to electronics and battery circuit. Then, in the second phase, DC electricity is alternated to sine wave output. In this way, the load connected to the UPS is isolated from the electrical current input and its variable character.

Another advantage of this technology is “zero” transfer time in case of a total power failure at the input. In addition, the VFI Series of PowerWalker provide the most reliable voltage regulation, with a tolerance between 0.5% and 3% of the nominal value. Total harmonic distortions and power factor on input are better controlled than in VI and VFD models, so not only online UPSs provide good support for the load, but also they have a positive influence on the utility network.

VFI Series provide various means of communication - USB, Serial (RS-232) port, Dry contacts or Intelligent Slot. Advanced software avails monitoring and control from a personal computer. Online UPSs are specially designed for all professional applications. Especially for Data Processing Centers (DPC), cloud computing, high power industrial applications, financial services, medical centres and all critical applications in general.



Parallel Mode

Up to 3 units of the same size
Available for VFI 6000-10000VA

Unity Power Factor

PF1.0 means 10kVA = 10kW
The highest performance for resistive loads
Available for 6-10kVA units

VFI 6000-10000 TGS

VFI 6000-10000 TGB



VFI 6000/10000 TGB PF1

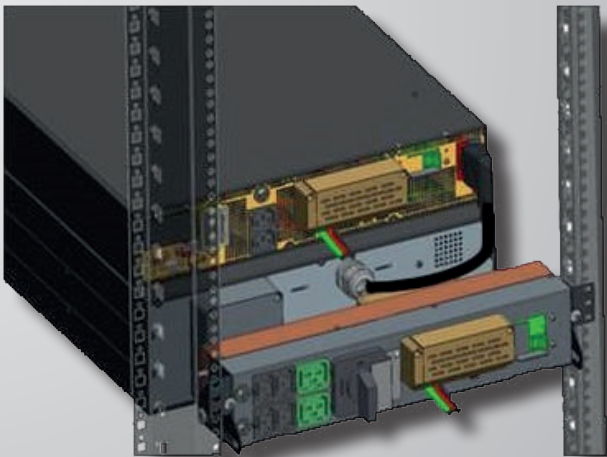
VFI 6000/10000 TGS PF1

BP for VFI 6000/10000 TGB

Back of VFI 6000/10000 TGS



VFI 6000/10000 RTG PF1



PDU for VFI RTG



Back of VFI 6000/10000 RTG PF1
(including Battery Pack)

VFI 6000-10000 RTGS

VFI 6000-10000 RTG

Parallel Mode

Up to 3 units of the same size
Available for VFI 6000-10000 VA

Unity Power Factor

PF1.0 means 10kVA = 10kW
Available for 6-10kVA units

The PowerWalker VFI 6000-10000 RTG(S) series offer a professional solution for IT and office environment. They are available in two versions:

RTG: Marketing name of the series and also standard rack UPS with BP as a set

RTGS: Long-run version with strong charger for big external batteries (no battery pack in the package)

	Power (VA)	Power (W)	Batteries	Battery Connector
VFI 6000 TGB	6000	6000	16x 12V / 7Ah	Yes, at 192VDC
VFI 10000 TGB	10000	10000	16x 12V / 9Ah	
VFI 6000 RTG	6000	6000	16x 12V / 7Ah	
VFI 10000 RTG	10000	10000	16x 12V / 9Ah	Yes, at 192-240VDC
VFI 6000 TGS	6000	6000	None	
VFI 10000 TGS	10000	10000	None	
VFI 6000 RTGS	6000	6000	None	
VFI 10000 RTGS	10000	10000	None	

VFI 6000-10000 RTG PF1 is offered together with a fitting Power Distribution Unit and Maintenance Bypass Switch. An external unit connected with the UPS (including a communication cable) will allow easy maintenance and convenient distribution of output. Unit features input/output terminal connection as well as 4x IEC C13 and 2x IEC C19 outlets.

MODEL	COMMON for VFI 6000-10000 TGB/RTG/RTGS	
INPUT		
Voltage Range	160-276 VAC	
Frequency Range	40-70Hz (Auto)	
THDi	<3%	
Input PF	≥ 0.995 at full load	
OUTPUT		
Voltage Regulation	208/220/230/240 VAC ±2%	
THDv	≤1% Full Linear Load ≤5% Non-Linear Load	
Overload in line mode	10min @105%-125%; 30s @125%-150%; 500ms @>150%	
Typical Full Load Efficiency	95%	
Parallel Operation	Optional	



VFI 1000-10000 CG PF1

- Programmable Output Voltage and Frequency
- EPO Function (Emergency Power Off)
- True Double Conversion Technology with high output Power Factor
- External battery connector
- Strong 12A charger



The PowerWalker VFI 1000-10000 CG PF1 is a professional series for commercial applications featuring unity Power Factor (PF=1.0). The wide input voltage and frequency ranges allow operation in unstable networks and provide generator support. 1-3kVA are equipped with a very strong charger with adjustable current and 6-10kVA can present very low harmonic distortions (<1%) and high efficiency (up to 94%).

Multiple accessories, including battery packs and communication cards, enhance the functionality of the UPS and allow a greater backup time. The system can be monitored locally via an LCD panel or remotely via the PowerWalker ViewPower software.

VFI 6000-10000 CG PF1 features, apart from the Power Factor 1.0, a parallel operation for most requiring applications like data centres, medical centres or financial institutions.



Parallel Mode

Up to 2 units of the same size only for VFI 6000-10000CG PF1

VFI 1000-10000 RMG PF1

- Hot Swappable Batteries
- Online technology with Power Factor 1.0
- Strong charger with adjustable current
- Wide input voltage range for all environments and support for AC generator
- Support for laser printers and ultrasound systems (allows connecting loads with half-wave imbalance)
- New LCD design - with estimated backup time and icon diagram

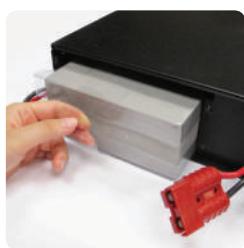


VFI 10000 RMG

The PowerWalker VFI 1000-10000 RMG PF1 is a professional series for commercial applications featuring unity Power Factor (PF=1.0) and very strong charger with adjustable current. The wide input voltage and frequency ranges allow operation in unstable networks and provide generator support.

Multiple accessories, including battery packs and communication cards, enhance the functionality of the UPS and allow a greater backup time. The system can be monitored locally via an LCD panel or remotely via the PowerWalker ViewPower software. With its slim design, it only requires 2U valuable space of your rack system. The UPS can be installed in 19" rack systems or used as tower

Access to the battery compartment is possible through the front panel. Battery replacement can be done without the need to remove the UPS from the operation.



Unity Power Factor

PF1.0 means 10kVA = 10kW
Available for 6-10kVA units

Unity Power Factor

PF1.0 means 10kVA = 10kW
The highest performance for resistive loads
Available for VFI CG PF1

MODEL	VFI 6000 CT	VFI 10000 CT	VFI 6000 CG PF1	VFI 10000 CG PF1
Power	6000 VA / 5400 W	10000 VA / 9000 W	6000 VA / 6000 W	10000 VA / 10000 W
INPUT				
Voltage Range	110-300 VAC @ 0-60% load 140-300 VAC @ 60-80% load 176-300 VAC @ 80-100% load			
Total Harmonic Distortion			≤4% @ 100% load; ≤6% @ 50% load	
Frequency Range	46Hz ~ 54Hz (50Hz) / 56Hz ~ 64Hz (60Hz)			
Power Factor	≥ 0.99 @ 100% Load			
OUTPUT				
Output Voltage (Configurable)	208/220/230/240Vac ± 1%			
Frequency Range (Battery Mode)	50Hz ± 0.1Hz or 60Hz ± 0.1Hz			
Current Crest Ratio	3:1			
Total Harmonic Distortion	≤ 3 % THD (linear load) ; ≤ 6 % THD (non-linear load)		≤1% Full Linear Load; ≤4% Non-Linear Load	
Transfer Time	Zero			
BATTERY				
Type (units.)	12 V / 9 Ah (16 Pcs.)	12 V / 9 Ah (20 Pcs.)	12 V / 9 Ah (20 Pcs.)	12 V / 9 Ah (20 Pcs.)
Recharge Time	9h -> 90%			
Charging Current	Default 1.0 A ± 10%, Max. 2.0 A ± 10%		1.0 A ± 10%	
CONNECTIONS				
Communications	USB and RS-232 ports + Intelligent Slot			
Software	PowerWalker ViewPower			
EPO (Emergency Power Off)	Yes			
Output	1x Output Terminals			

MODEL	VFI 1000 RMG	VFI 1500 RMG	VFI 2000 RMG	VFI 3000 RMG	VFI 6000 RMG	VFI 10000 RMG
Power	1kVA / 1kW	1.5kVA / 1.5kW	2kVA / 2kW	3kVA / 3kW	6kVA / 6kW	10kVA / 10kW
INPUT						
Low Line Transfer (% Load) Voltage below which the UPS switches to battery mode	160/140/120/110VAC ± 5%					
Low Line Comeback Voltage above which the UPS switches to AC mode	170/150/130/120VAC ±5%					
High Line Transfer Voltage above which the UPS switches to battery mode	300 Vac ± 5%					
High Line Comeback Voltage below which the UPS switches to AC mode	290 Vac ± 5%					
Frequency Range	45Hz ~ 55Hz or 56Hz ~ 65Hz				46 ~ 54Hz or 56 ~ 64Hz	
Phase	Single phase with ground					
Power Factor	≥ 0.99 @ 220-230 VAC					
OUTPUT						
Output Voltage (Configurable)	208/220/230/240Vac					
Voltage Regulation AC	± 1 %					
Frequency Range (Configurable) (Frequency Converter Mode)	48 ~ 52Hz or 58 ~ 62Hz				46 ~ 54Hz or 56 ~ 64Hz	
Frequency Range (Battery Mode)	50Hz ± 0.1Hz or 60Hz ± 0.1Hz					
Current Crest Ratio	3:1					
Total Harmonic Distortion - Voltage	≤2% Full Linear Load; ≤4% Non-Linear Load				≤1% Full Linear Load; ≤4% Non-Linear Load	
Transfer Time AC mode to Battery mode	Zero					
Transfer Time Inverter-Bypass	4 ms (Typical)					
Waveform (Battery Mode)	Pure Sine Wave					
BATTERY						
Type	12 V / 7 Ah	12 V / 9 Ah	12 V / 7 Ah	12 V / 9 Ah	12 V / 9 Ah	
Quantity	3		6		20	
Recharge Time	3h to 90%				7h to 90%	
Charger	1A / [2A] / 4A / 6A / 8A / 10A / 12A		1A / [2A] / 4A / 6A / 8A		[1A] / 2A / 4A	
CONNECTIONS						
Communications	USB and RS-232 ports					
Output IEC C13	8x IEC (4 programmable output)				Terminal Connection	
Output IEC C19	0					
Protection Port	RJ-11/RJ/45 (in/out)				1	
EPO (Emergency Power Off)	No					
EPO (Emergency Power Off)	Yes					
Intelligent Slot	Yes					
Software	ViewPower					

VFI 1000-10000 CRM

VFI 1000-10000 CRS

Optional Accessories

- BATTERY PACK
Expanding Autonomy
- IEC - SCHUKO
Adapter
- REMOTE
MANAGEMENT
SNMP / AS-400
- MANUAL BYPASS
ECO Function

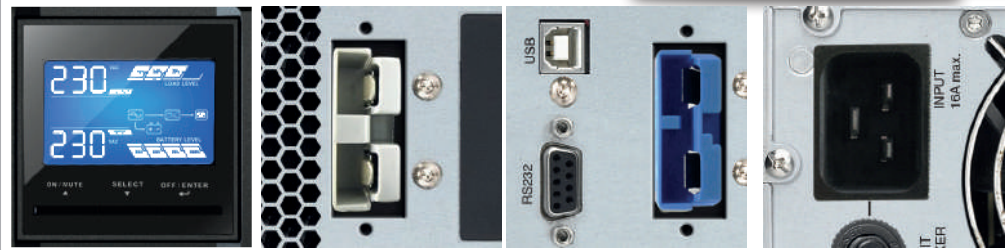
- Comprehensive display allows easy monitoring and access of UPS status
- Adjustable charging current via LCD or software for VFI CRS
- Wide input voltage range compatible with generators
- Optional "CRS" edition without internal batteries for long-run applications

PowerWalker VFI CRM and VFI CRS are online design UPSs with Power Factor 0.8. The two series are available in the range up to 10kVA offering all modern conveniences like connection for external battery packs. For VFI CRS, you can also select charging current to optimally charge external battery packs.

The UPS accepts a wide range of input voltage, working even with 110VAC returning Pure Sine Wave voltage with an accuracy of 1% and input power factor correction.

Additional CRS edition was released to support long-running applications with a stronger charger instead of internal batteries.

PowerWalker VFI 6000-10000 CRM are compact rack UPSs with batteries integrated in an external Battery Pack. This setup not only enhances battery pack management but simply reduces the weight of a single element and makes installation and maintenance easier. Additionally, you can decide how to mount it in your rack system.



VFI 1000 CRM - only 31cm depth
VFI 2000 CRM - only 41cm depth

MODEL	VFI 1000 CRM/CRS	VFI 2000 CRM/CRS	VFI 3000 CRM/CRS	VFI 6000 CRM/CRS	VFI 10000 CRM/CRS
PHASE	Single phase with ground				
CAPACITY	1000 VA 800 W	2000 VA 1600 W	3000 VA 2400 W	6000VA 4800W	10000 VA 8000 W
INPUT					
Nominal Voltage	200/208/220/230/240VAC			208/220/230/240VAC	
Input Voltage Range	110-300 VAC at 50% load			110-300 VAC at 50% load	
	160-280 VAC at 100% load			176-300 VAC at 100% load	
Frequency Range	40 Hz ~ 70 Hz			46~54 Hz or 56~64 Hz	
Power Factor	>0.99 @ Nominal Voltage (100% load)				
OUTPUT					
Output Voltage	200/208/220/230/240VAC			208/220/230/240VAC	
Voltage Regulation	± 1 %				
Frequency Range (Synchronized Range)	47~ 53 Hz or 57 ~ 63 Hz			46~54 Hz or 56~64 Hz	
Frequency Range (Batt. Mode)	50 Hz ± 0.25 Hz or 60Hz ± 0.3 Hz			50 Hz or 60Hz ± 0.1 Hz	
Harmonic Distortion	< 3 % THD (Linear Load)			< 3 % THD (Linear Load)	
	< 6 % THD (Non-linear Load)			< 5 % THD (Non-linear)	
EFFICIENCY					
To AC Mode	88%	88%	90%	92%	93%
To Battery Mode	83%	85%	88%	90%	91%
BATTERY					
Battery Type	12 V / 9 Ah				
Numbers	CRM: 2 CRS: none	CRM: 4 CRS: none	CRM: 6 CRS: none	CRM: 16 (in ext, BP) CRS: none	
Typical Recharge Time	4 hours recover to 90% capacity			9 hours recover to 90%	
Charging Current (Max.)	CRM: 1.0 A / CRS: 6A			1/2/4/6A (adjustable)	
Charging Voltage	27.4VDC±1%	54.7VDC±1%	82.1VDC±1%	218.4VDC±1%	

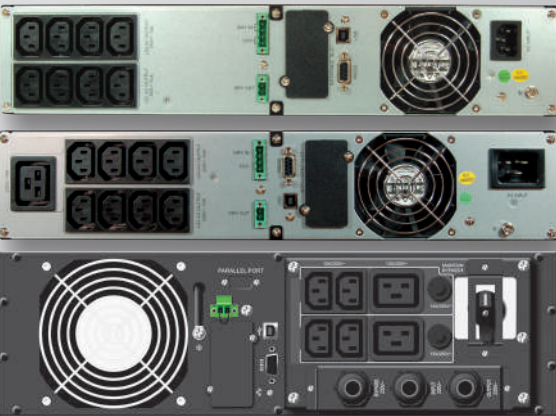
VFI 1000-3000 RT HID

- Rack/Tower design with swappable LCD direction
- Online technology with Pure Sine Wave Output with PF=0.9
- Selectable line sensitivity allowing generator support
- Supports parallel operation (6-10kVA)
- Compact rack/tower design - 3U (6kVA) or 5U (10kVA)



Optional Accessories

- BATTERY PACK
Expanding Autonomy
- REMOTE
MANAGEMENT
SNMP / AS-400
- IEC - SCHUKO
Adapter



Parallel Mode

Up to 2 units of the same size
Available for VFI 6000-10000 PRT HID

MODEL	VFI 1000 RT HID	VFI 1500 RT HID	VFI 2000 RT HID	VFI 3000 RT HID	VFI 6000 PRT HID	VFI 10000 PRT HID
Power	1000 VA / 900 W	1500 VA / 1350 W	2000 VA / 1800 W	3000 VA / 2700 W	6000 VA / 5400 W	10000 VA / 9000 W
INPUT						
Voltage Range	120-276VAC					
Frequency Range	45-66Hz					
Phase	Single phase with ground					
Power Factor	≥ 0.99 (100% load)					
OUTPUT						
Voltage	208/220/230/240Vac ± 1%					
Frequency (Battery Mode)	50Hz / 60Hz ± 0.2Hz					
Current Crest Ratio	3:1					
Total Harmonic Distortion	< 2 % THD (linear load)					
Transfer Time AC mode to Battery mode	Zero					
Transfer Time Inverter to Bypass	Zero					
Waveform (Battery Mode)	Pure Sine Wave					
Parallel Work	No				Yes, up to 2 units	
BATTERY						
Type	12 V / 7 Ah	12 V / 7 Ah	12 V / 9 Ah	12 V / 9 Ah	12V / 5Ah	12V / 9Ah
DC Voltage	36VDC	48VDC	48VDC	72VDC	180VDC	240VDC
Recharge Time	3h to 90% for internal batteries					
CONNECTIONS						
Communications	USB and RS-232 ports					
EPO (Emergency Power Off)	Yes					
Output	8x 10A IEC			8x 10A IEC 1X 16A IEC	4x 10A IEC, 2X 16A IEC	8X 16A IEC
Software	WinPower					

VFI 6000-10000 PRT HID



REDUNDANT PROTECTION
Parallel Mode

PowerWalker VFI (P)RT HID Series is a professional rack UPS with Power Factor 0.9. The series reaches 3kVA in 2U height of the 19" rack cabinet, 6kVA in 3U and 10kVA in 5U - including batteries. VFI RT models have programmable IEC outputs, USB and RS-232 for communication and Intelligent Slot for extension cards. Additionally, it offers EPO and dry contacts. All supported with WinPower software for monitoring and control.

6-10kVA units need to be hard-wired, but they feature a power distribution module with several outlets (C13 and C19). The devices are secured with physical Maintenance Bypass Switch and EPO connector. The two bigger units can operate in parallel for power extension or redundancy. This way one UPS is backing up the other in case of a failure, resulting in the highest security level.

VFI RT HID and VFI PRT HID are advanced rack series, especially suitable for computer systems for small businesses or servers, but it also works very well in industrial applications.

VFI 6000 P/RT LCD
(Tower Installation)



VFI 10000 CRM LCD
WITH 3U BATTERY PACK



VFI 6000 CRM LCD



VFI 10000 CRM LCD

Accessories

Uninterruptible Power Supplies are working in combination with various auxiliary equipment, accessories and extensions.

Professional devices feature the Intelligent Slot - an extension to various protocols of communication. Most popular SNMP Cards will allow you to communicate over Ethernet and control and monitor your device from any place connected to the Internet. Modbus is a widely used protocol in industry and dry contacts are especially flexible for the dedicated installations.

To extend backup time a variety of Battery Packs are offered. High power solutions are more likely to be connected to dedicated battery banks.

Input and output can be additionally managed with transfer switches or power distribution units.

PowerWalker offer includes various Battery Packs to extend autonomy time of UPSs. Multiple solutions are cross-compatible among many models. Name of the product carries most important information about the accessory:

BP

BP A36T -18x7Ah+3A
BP T288T -48x9Ah
BP P180R -15x9Ah
BP A72RM-6x9Ah

BP - Battery Pack

Connector:
A - Anen type
P - PP45 type
T - Terminal

Voltage:
240 - 240V
36 - 36V

Build:
T - Tower
R - Rack
Additional:
M - Metal panel
B - Single compartment housing

Additional:
3A - In-built 3A charger

Size of batteries:
9Ah - 9Ah battery
7Ah - 7Ah battery

Amount of batteries:
60 - 60 batteries
12 - 12 batteries



NMC Module

SNMP Cards offer IP Address and Web Interface for most convenient monitoring. SNMP module allows remote monitoring and managing multiple UPSs from anywhere with internet access. Integrated web access will leverage internet capability of SNMP card to remotely program or shut down UPSs. Equipped with SNMP card, power conditions of all UPSs can be monitored anytime/ anywhere even if the UPS units are located in different floors/locations.

SNMP CARD



EMD Module

EMD (environmental monitoring device) for SNMP cards are connectivity devices to remotely monitor temperature and humidity via SNMP card. It provides dry contacts to communicate with compatible devices such as security systems or alarm systems.



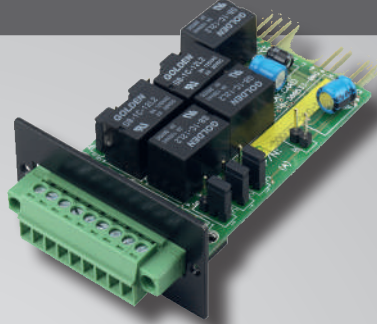
MODBUS CARD

The PowerWalker Modbus Card is a communication accessory that provides a pair of RJ-45 interface for remote monitoring and controlling of UPSs. It converts standard RS232 signal to RS232 signal with a specified address, which allows controlling many UPSs from one computer. You can setup a desired address with jumpers (range 0-255).



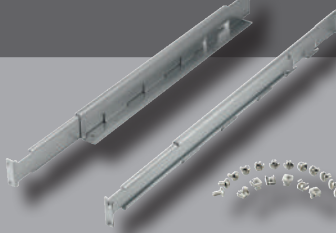
AS/400 CARD

AS/400 Cards provide potential free connection pins (dry contacts) for remote shutdown and monitoring of a UPS. It is frequently used along with PLCs and signal control panels. Information delivered are UPS failure, Alarm, Main Fail, Bypass, Battery Low, UPS On. Using AS/400 it is possible to shutdown UPS remotely. Solution requires external 12V/24VDC source for a high signal.



Rack Mount Kit

Rack Mount Kit or simply rails for rack or sliders are accessory that allows you to mount your 19 inch device into cabinets. It keeps your UPS secured.



External Charger

The additional battery charger allows to speed up the charging process, especially when UPS is connected with additional battery packs.



ATS

Automatic Transfer Switch is designed with two independent power inlets to supply power to the load from two different power sources. Should the primary power source fail, the secondary will automatically backup the connected equipment without interruption.



MBS



Maintenance Bypass Switch can be installed between mains and UPS and enables maintenance of the UPS without turning off connected equipment. It can also be used as PDU (Power Distribution Unit). With Master/Slave function for energy saving. Available as 19" rack and box version.

Additionally users may select from variety of cables and extensions:

- PDU's
- UK Converter
- C14-Schuko Converter
- UK Input Cable C13 or C19
- EU Input Cable C13 or C19
- Swiss Input Cable C13 or C19
- C13-C14 Extension
- C19-C20 Extension
- C13-C20 Converter
- C14-C19 Converter
- RS-232 Cable
- USB Cable



WE offer various Input cables including European, UK, Swiss that cover all countries we operate in. All accessories comply with IEC 60320 Standard (International Electrotechnical Commission).

Typical connections of IEC standard are C13/C14 shown on the left. This type is rated to 10A (2,4kW at 240VAC) and covers most of home and Small Business appliances. For 3kVA units an IEC C19/C20 is used. This type is rated to 16A. Professional UPS may have C20 Input, C19 Output and several C13 Output sockets.

Three-Phase Solutions

Three-to-One Phase UPS

High Power Rack UPS

VFI 10000-20000 TP 3/1

VFI 10000 TCP 3/1

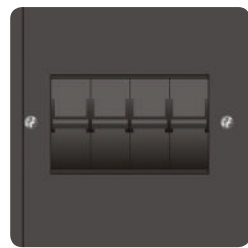
- Online Pure Sine Wave with high Power Factor of 0.9
- Three-phase or single-phase input
- Wide input voltage range frequency converter mode for generator support
- N+X Parallel Redundancy for up to 4 UPS of the same size
- Intelligent fan control for reduced noise level
- Dual card slots can operate with AS400 and SNMP card at same time

Three-to-one phase UPSs are connected to three phase 400V mains and they supply single-phase 230V output to the load. This setup is frequently used in IT facilities as most buildings are supplied with a three-phase network, while servers and auxiliary equipment only require single phase power

Parallel configuration allows connecting up to 4 devices in parallel, thus reaching a total

capacity of 80KVA. A Redundant configuration with 2 units ensures continuous availability of electrical supply in the event of hardware failure (e.g. one of the two UPS fails).

PowerWalker VFI TP 3/1 series features a USB port and serial port (RS-232) allowing the unit to be connected to a large number of operating systems for configuration and monitoring of the unit.



VFI 10000TP 3/1



VFI 20000TP 3/1

MODEL	VFI 10000 TCP 3/1	VFI 10000 TP 3/1	VFI 20000 TP 3/1
Power	10000 VA 9000 W	10000 VA 9000 W	20000 VA 18000 W
INPUT			
Voltage	230V / 400V		
Voltage Range single phase	110-276VAC single phase with ground (L-N-G)		
Transfer Voltage Range	Based on Load percentage 100%/50%		
Line low loss	176VAC/110VAC (± 3%)		
Line low comeback	186VAC/120VAC (± 3%)		
Line high loss	276VAC (± 3%)		
Line high comeback	266VAC (± 3%)		
Voltage Range three phase	190-478VAC three phase with ground (R-S-T-N-G)		
Transfer Voltage Range	Based on Load percentage 100%/50%		
Line low loss	305VAC/190VAC (± 3%)		
Line low comeback	322VAC/208VAC (± 3%)		
Line high loss	478VAC (± 3%)		
Line high comeback	461VAC (± 3%)		
THDi	<5% with full load		
Frequency Range	45-55Hz/54-66Hz		
Power Factor	≥ 0.99 at Full Load		
Generator Set	1.8 x UPS Rating Power		
OUTPUT			
Voltage	208/220/230/240 ± 1%		
Frequency (Synchronized Range)	45-55Hz/54-66Hz		
Frequency (Battery Mode)	50/60Hz ± 0.05%		
Current Crest Ratio	3:1		
Harmonic Distortion	≤ 2% (Full Linear Load)		
Waveform	Pure Sine Wave		
Overload Capability	5 min at 100-110% 1 min at 110-130% 10 sec at 130-150% 2 sec at >150%		
Parallel configuration	optional parallel kit	Up to 4 UPS of the same size	
TRANSFER TIME			
AC to DC	Zero		
Inverter to Bypass	Zero		
Inverter to ECO	Zero		
ECO to Inverter	<10ms		
BATTERY			
Type	12V / 9Ah		
Quantity	20x	24x in one string	48x in two strings of 24 pcs
Recharge Time	8h to 90%	3h to 90%	
BYPASS			
Bypass Before UPS Power-on	Default “No” Change to “Yes” via display panel		
Overload und UPS Failure	Automatically transfer to bypass		
By Setting	Voltage Range: 176-276V ± 3%		
CONNECTIONS			
Communications	USB & RS232		
Outlets	2x IEC C13, Terminal outlet	Terminal outlet	
Intelligent Slot	Yes		
AS-400 (dry contacts)	Yes		
EPO (Emergency Power Off)	Yes		
Maintenance Switch	Yes		
REQUIREMENTS AND SOFTWARE			
Software	WinPower		
Ports	1x USB port or 1x Port RS-232		
PRODUCT DETAILS			
Dimensions			
Depth(+ handles) x Width x Height (mm)	550 x 260 x 708	650 x 350 x 890	
Weight	85kg	127kg	188kg

VFI 10000-20000 CPR 3/1

VFI 10000-20000 CPR 3/3

- Professional IT solution with three phase input
- Available with three or single phase output
- Parallel operation with range up to 60kVA (3x20kVA)
- Extendable battery packs available
- Generator-compatible
- 3-stage charging design for optimized battery performance

The PowerWalker VFI CPR series offer a professional IT rack solution for modern data centers with a high power factor of 0.9. The total capacity can be extended to 60kVA by connecting up to three units in parallel. Furthermore the easy plug and play design allows an increased backup time by connecting more battery packs. In ECO mode the UPS reaches an efficiency of up to 96%.

The wide input voltage and frequency ranges allow operation in unstable networks and provide generator support. Multiple accessories, including battery packs and communication cards, enhance the functionality of the UPS and allow a greater backup time. The system can be monitored locally via an LCD panel or remotely via the PowerWalker ViewPower software.



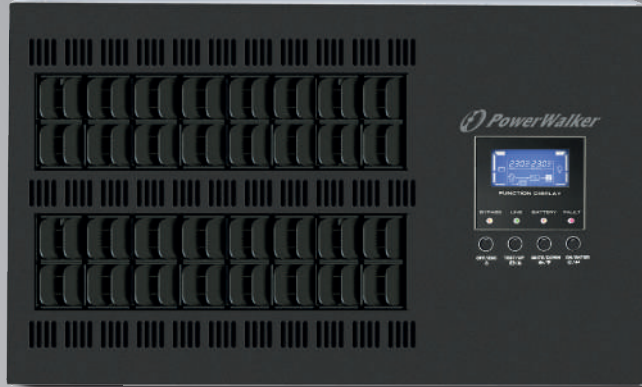
VFI 10000 CPR 3/1 back



VFI 15000-20000 CPR 3/1



VFI 10000-30000 CPR 3/3



MODEL	VFI CPR 3/1 Series	VFI CPR 3/3 Series
INPUT		
Nominal Voltage	230V / 400V	400V
Voltage Range	176-276VAC (1-phase) @100% load 110-300VAC (1-phase) @50% load Or like CPR 3/3 for 3-phase input	305-478 VAC (3-phase) @100% load 190-520 VAC (3-phase) @50% load
THDi	<6% with full load	
Frequency Range	46-54Hz/56-64Hz	
Power Factor	≥ 0.99 at Full Load	
OUTPUT		
Voltage	208/220/230/240V ± 1% (L+N)	3x400V ± 1% (3PH+N)
Frequency (Synchronized Range)	46-54Hz/56-64Hz	
Frequency	50/60Hz ± 0.1Hz	
Harmonic Distortion	≤2% Full Linear Load; ≤5% Non-Linear Load	
Overload Capability	Line: 10min @100%-110%; 1min @110%-130%; 1s @>130%; BAT: 30s @100%-110%; 10s @110%-130%; 1s @>130%	
Parallel configuration	Up to 3 UPS of the same size	
TRANSFER TIME		
AC to DC	Zero	
Inverter to Bypass	0ms (<4ms interruption occurs from inverter to bypass when phase lock fails)	
Inverter to ECO	<10ms	
CONNECTIONS		
Communications	USB & RS232	
Intelligent Slot	Yes	
EPO (Emergency Power Off)	Yes	
Software	ViewPower	

MODEL	VFI 10000 CPR 3/1	VFI 15000 CPR 3/1	VFI 20000 CPR 3/1	VFI 10000 CPR 3/3	VFI 15000 CPR 3/3	VFI 20000 CPR 3/3
Power	10000 VA 9000 W	15000 VA 13500 W	20000 VA 18000 W	10000 VA 9000 W	15000 VA 13500 W	20000 VA 18000 W
BATTERY						
Installation	Batteries are installed in separate compartment, connected to the UPS with cable. Each pack has 20x9Ah					
Type	12V / 9Ah					
Quantity	1x20x9Ah/12V	2x20x9Ah/12V	2x20x9Ah/12V	1x20x9Ah/12V	2x20x9Ah/12V	2x20x9Ah/12V
Charger	[1A] / 2A / 4A	1A / [2A] / 4A		[1A] / 2A / 4A	1A / [2A] / 4A	
PRODUCT DETAILS						
Width	438mm (19" rack)					
Height	266mm (3U BP, 3U UPS)	532mm (6U UPS, 2x 3U BP)		399mm (6U UPS, 3U BP)		532mm (6U UPS, 2x 3U BP)
Depth	668mm (UPS) / 580mm (BP)					
Weight	85kg	151kg		105kg		151kg

Three Phase - Technology

All three-phase uninterruptible power supplies are designed in online technology (Voltage and Frequency Independent). A good understanding of online UPSs is required to further compare three-phase solutions. As a typical rule, solutions above 10kVA are supplying whole facilities and therefore require three-phase connection, although some higher power single phase solutions are available.

Loads in the range of tens or hundreds of kilowatts require many high capacity batteries. A battery solution for 100kW may weight several tons and it is impossible to offer a UPS with internal batteries. For that reason all our products above 40kVA are designed to work with external batteries. For any such demand, we suggest to contact us directly for consultations.

During the installation a three-phase UPS is integrated to the building's electrical installation. It requires a qualified technician to perform the commissioning and coordination. The technical specifications of the building needs to be observed (network type, grounding, phase order, characteristics of the load etc.).

The UPS becomes a sophisticated element of the electrical installation and much needs to be considered when connecting loads:

Three-phase UPSs are described by additional parameters like phase synchronization speed, phase displacement at imbalances and other. Feel free to contact our sales representative to find the right solution for your individual needs.



MODEL	VFI CPE 3/3	VFI CP 3/3	VFI CPG 3/3
INPUT	3x 400VAC (3Phase + N)		
Voltage	305-478 VAC (3-phase) at 100% load; 190-520 VAC (3-phase) at 50% load		
Voltage Range	46-54Hz or 56-64Hz		
Frequency Range	≥ 0.99 at Full Load		
Power Factor	OUTPUT		
	Voltage		
	3 x 400 VAC (3phase + N) +/- 1%		
	Parallel Operation		
	Up to 3 UPS of the same size with extension kit (optional)		
	Frequency Range		
	46-54Hz or 56-64Hz		
	Frequency Range		
	50/60 Hz +/-0.1Hz		
	Harmonic Distortion		
	<2% THD (Linear Load); <5% THD (Non-linear Load)		
	<2% THD (Linear Load); <4% THD (Non-linear Load)		
	Transfer Time		
	0ms		

MODEL	Power		Batteries	Charger	
VFI 10000 CPE 3/3	10000VA	9000W	16x9Ah	1A	
VFI 15000 CPE 3/3	15000VA	13500W	2x16x9Ah	2A	
VFI 20000 CPE 3/3	20000VA	18000W	2x16x9Ah	2A	
VFI 10000 CP 3/3	10000VA	9000W	20x9Ah	1A	
VFI 15000 CP 3/3	15000VA	13500W	2x20x9Ah	2A	
VFI 20000 CP 3/3	20000VA	18000W	2x20x9Ah	2A	
VFI 30000 CP 3/3	30000VA	27000W	3x20x9Ah	4A	
VFI 10K CPG 3/3	10000VA	10000W	20x9Ah	1-12A	
VFI 15K CPG 3/3	15000VA	15000W	32x9Ah		
VFI 20K CPG 3/3	20000VA	20000W	32x9Ah		
VFI 30K CPG 3/3	30000VA	30000W	2x32x7Ah		
VFI 40K CPG 3/3	40000VA	40000W	2x32x9Ah	1-24A	
VFI 60K CPG 3/3	60000VA	60000W	External Only		
VFI 80K CPG 3/3	80000VA	80000W			
VFI 100K CPG 3/3	100kVA	100kW			
VFI 120K CPG 3/3	120kVA	120kW	24A		
VFI 160K CPG 3/3	160kVA	160kW	32A		
VFI 200K CPG 3/3	200kVA	200kW	40A		
			48A		

VFI 10000-30000 CP 3/3



- Three-Phase Online with Power Factor 0.9
- Wide input voltage range for generator support
- Battery Packs available
- Optional dual-mains inputs for VFI CP
- Optional isolation transformer offers galvanic isolation and complete common mode noise rejection

PowerWalker VFI CP, CPE and CPG integrate true double conversion design and active input power factor correction on all phases to ensure the best output voltage conditions, power quality and power performance at all times. An easy-configurable LCD panel enhances the flexibility to meet ever-increasing power demand of IT and networked environment.

VFI CP 3/3 is an energy-efficient unit with 96% efficiency in ECO Mode. It offers an Emergency Power Off function as well as a physical Maintenance Bypass Switch, making

this UPS series a great solution for buildings and infrastructure.

VFI CP 3/3 is designed for professional users who require a straightforward solution for easy installation. Longer backup times can be achieved by connecting different Battery Packs (40, 60, 80 batteries). The 3-stage extendable charging design ensures increased lifetime and performance of the batteries.

All three series support generators and can be ordered with isolation transformer for noise reduction. The Slim tower construction ensures a small footprint.

The PowerWalker VFI CPE 3/3 series is an economy version of the VFI CP 3/3 series, featuring all the essential characteristics of a professional UPS with slightly reduced backup time. Instead of 20-battery strings, the CPE 3/3 is equipped with 16-battery strings which is still more than enough to provide reliable backup during power failures. In ECO mode the UPS reaches an efficiency of up to 96%.

VFI 10000/15000/20000/30000 CP 3/3



VFI 10000-20000 CPE 3/3

Parallel Mode

Up to 3 models in parallel

The PowerWalker VFI CPG 3/3 series is a professional commercial solution reaching 200kVA in a single cabinet. Equipped with three-level inverter topology, it results in high efficiency reaching 95% in Line Mode and even 98% in ECO Mode. The series ensures low harmonic distortions and precise voltage regulation (1%). All phases have Active Power Factor Correction.

All three phase UPSs accommodate Intelligent Slot, which could be used with SNMP Card, AS/400 or Modbus Card as accessories. They feature communication over USB and RS-232. With Parallel Extension Kit up to 3 models can be connected together providing power capacity up to 600kVA or N+X parallel redundancy.



- Three-Phase Online with Power Factor 1.0
- Wide input voltage range for generator support
- Battery Packs available
- Built-in backfeed protection for VFI CPG
- Optional isolation transformer offers galvanic isolation and complete common mode noise rejection available on project basis

The PowerWalker VFI CPG 3/3 PF1 series is a professional commercial solution reaching 200kW in a single cabinet. Equipped with three-level inverter topology, it results in high efficiency reaching 95% in Line Mode and even 98% in ECO Mode. The series ensures low harmonic distortions and precise voltage regulation (1%). All phases have Active Power Factor Correction.

Thanks to its modern design, the VFI CPG series is characterized by very high power density (kVA output in relation to the size/volume of the unit). For safety reasons this series has been equipped with backfeed protection (reverse feed) in order to avoid power transfer to the input terminal in case of mains failure.

VFI CPG is assembled from internally parallel modules, reducing the amount of different components used. Such design, with built-in Maintenance Bypass Switch, significantly reduces cost of maintenance. Dual input is available to support secondary AC input to assure the connected loads are fully protected.

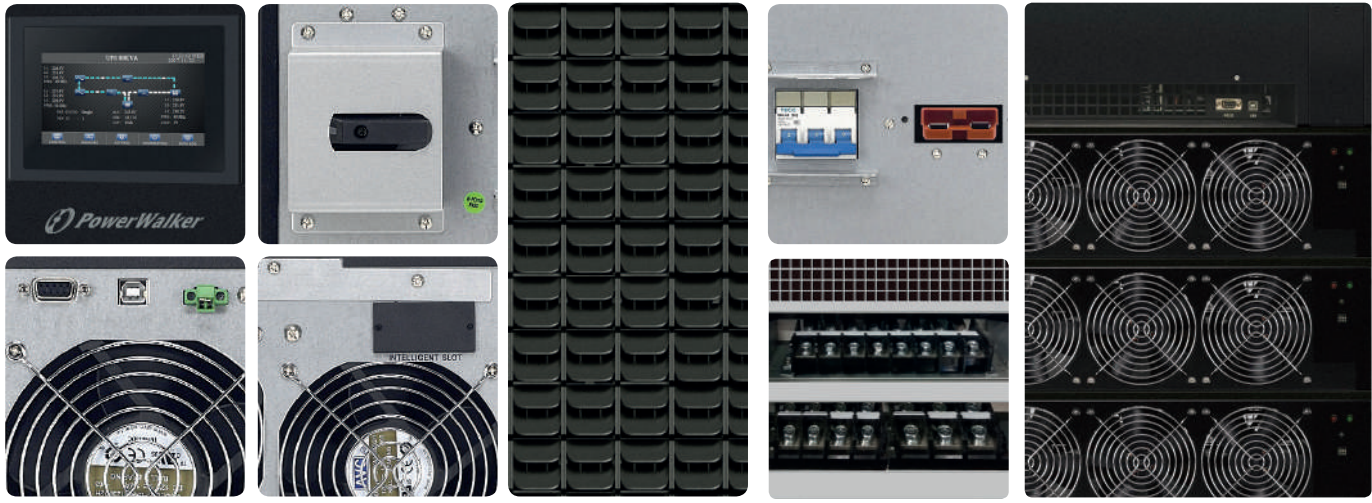
Unit is equipped with an advanced full colour touch panel which allows advanced control. Additionally PC with ViewPower can be used.

VFI 10K-200K CPG 3/3

Parallel Mode



VFI CPG Series



Three-Phase Solutions

Various applications UPSs

Modular Solutions

VFI 10K CPH 3/3 AND 3/1

- UPS works stand-alone or as a part of a modular solution
- Available as 3/1 or 3/3 (input/output)
- Fits into every regular 19 inch rack cabinet
- Alternatively can be installed in a special designed rack cabinet (optional) with 10 inch touch screen (up to 40KW)
- Scalable up to 200KW

PowerWalker VFI CPH 3/1 or 3/3 is an innovative solution for a variety of applications. This 10KW UPS can work standalone as a tower or rack solution, or it can be installed as part of a modular N+X system.

As a rack unit, the UPS fits into any standard 19-inch rack cabinet and occupies a space of 3U (6U with battery pack). Using the included connection box, installation is convenient and easy.

Alternatively, PowerWalker provides a specifically designed 12U rack cabinet with an advanced 10-inch touch panel allowing a high degree of comfort during operation. Inside this cabinet, you can either install four CPH units or share the space between UPS and battery modules.

In a modular setup, all modules are hot-swappable and work parallel redundant. Additionally, each UPS can be controlled and monitored separately using an independent LCD. This ensures high reliability, flexibility and ease of maintenance. PowerWalker VFI CPH is an all-encompassing three-phase solution.



MODEL	VFI 10K CPH 3/3 and VFI 10K CPH 3/1
Power (kVA)	10kVA
Power (kW)	10kW
INPUT	
Voltage	3x 400VAC (3Phase + N +G)
Frequency Range	40 - 70Hz
Input Voltage Range	305-478VAC @ 100% load 190-520VAC @ 50% load
Current Distortion THDi	<1.5% @ 100% load <2.5% @ 50% load <6.0% @ 10% load
Current Limitation	High overload: PFC Limit (Discharging batteries)
Power Factor	>0.99 at 100% load
THDi	<4% @ full load
INVERTER	
Voltage	Three-phase output: 3 x 360/380/400/415 VAC (3phase + N +G) Single-phase output: 208/220/230/240 VAC (L + N + G)
Voltage Precision	+/- 1%
THD	<2% with linear load; < 3% with non-linear load
Current Crest Ratio	3:1
Frequency Range	50/60 Hz +/-0.1Hz (Battery Mode); 50/60 Hz +/- 4Hz (Synchronized)
Transfer Time	0ms (max 4ms from bypass to Online)
Waveform	Pure Sine Wave
EFFICIENCY	
AC Mode	94.0%
ECO Mode	97.0%
Battery Mode	93.5%
BATTERY	
Amount	32/34/36/38/40 pcs organized in two half-strings
Charging Current	4A
INDICATORS	
LCD Display	Text LCD Display UPS Status, load level, battery level, input/output voltage, discharge time, fault conditions
PHYSICAL	
Dimension (mm)	678 x 418 x 132 (3U)
Net Weight (kg)	20.5kg



VFI CPM 3/3

- Modular and scalable solution up to 300kVA in single cabinet or 420kVA in parallel cabinets
- Unity Power Factor (kVA = kW)
- Dual input and adjustable charging current
- Simple maintenance by hot-swappable modules
- 5.7" display or optional 10" touch panel
- Internal battery trays available as battery solution

The PowerWalker VFI CPM 3/3 series is a modular solution with the capacity to reach 420kW output power. It features hot-swappable power modules available as 20kW and 30kW.

The standard cabinet offers a 5.7" LCD display for monitoring and control of the whole system. Optionally a 10" touch panel can be installed instead for even greater overview and convenience. Each unit is equipped with dual input, communication ports, including extension slot. Cabinets can be equipped with UPS modules, battery slots or a combination of both, allowing many different solutions and offering the highest degree of flexibility.

The VFI CPM series has a high overload capability, withstanding up to 60s at 150% overload. Additionally the Unity Power Factor and high efficiency (up to 94.5%) significantly reduces heat loss of the operating equipment. Each 20kW provides 6A and 30kW module 8A charging current, summing up to powerful solution even for big battery banks. The CPM series combines high flexibility and scalability with great performance and power, making it the optimal solution for many different applications.



VFI MP 3/3

Modular UPS - Technology

Modular UPS takes the concept from parallel operation of several UPS. The target is to increase the maximum power (parallel operation) or increase power availability (redundant parallel).

Each module is a complete UPS set, which requires only to be mounted in the special cabinet (CPA - Centralized Parallel Architecture). No additional control module for parallel application and load sharing is necessary.

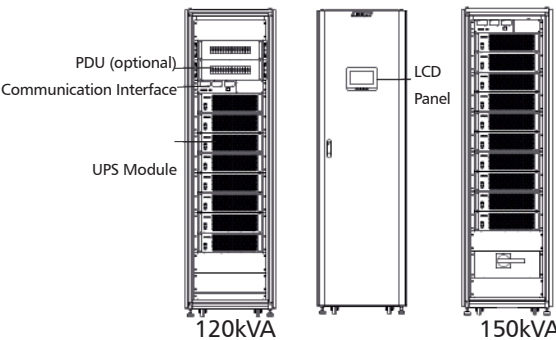
If the system has 2 modules above the required power for parallel redundancy, the availability of the UPS system is over 99.99% and its MTBF (Mean Time Between Failure) would be over 10 Million hours.

If the system has one more module for parallel redundancy, the MTTR (Mean Time To Repair) would be 0. If the quantity of failure modules is over parallel redundancy capacity, the MTTR to change the module is less than 5 minutes.

- Supports up to 10 hot-swappable 15kVA UPS modules up to 150KVA output capacity
- N+X parallel redundant configuration which leaves no SPOF (Single Point of Failure)
- 7" colorful touch-screen
- Configurable battery quantity from 32 to 42 pieces per set
- Optimized performance with >93% efficiency

VFI MP 3/3 can be configured with a capacity from 15KVA to 150KVA to meet various applications such as data center, larger computer systems and equipments with large power demand. 7" colorful touch-screen LCD provides user-friendly interface for the display of operational information. Easy installation and load expansion are results of modular design, hot-swappable UPS modules require no cables to connect and it is safe while UPS is connected and loaded. For convenience and efficiency, cabinets were prepared in three power ratings to choose: 90kVA, 120kVA and 150kVA, additionally it can be wired top or bottom for input/output cabling.

APPLICATION (example of upgradability of VFI CPM)



For 120kW Data Center a 180kW cabinet is ordered with 5x30kW Power Modules installed. Unit is capable of providing 150kW of power on output (cabinet is rated 180kVA). UPS works in 4+1 redundancy system. If one power module fails, system is still providing enough power.

Additional module can be installed to provide maximum 180kW (cabinet rating) to work in 4+2 redundancy.

Data Center, if upgraded to 15kW, works in 5+1 redundancy.

SMART PoE UPS



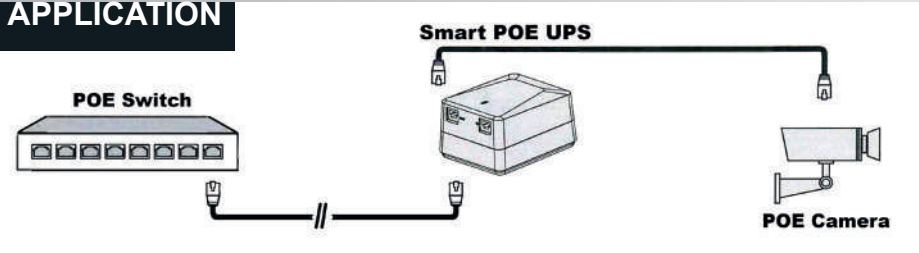
- Active PoE standard 802.3af/802.3at
- 48VDC output with load detection
- Single cable input (Data + Power) suitable for remote installations
- High-performance Lithium Battery 36.5Wh
- A wall-mount plate included

When it comes to dedicated security and surveillance systems connectivity issues may not only be caused by accidental events (such as blackouts or network problems), but you also need to be prepared for intentional and malicious attacks.

PowerWalker Smart PoE UPS is a compact device, designed specifically to safeguard your PoE camera from loss of connection. It is powered and charged from a single PoE line (data + power), allowing the installation right next to the camera.

With the PowerWalker Smart PoE UPS, you essentially transform each PoE camera with memory capacity into a security network with its own backup system.

APPLICATION



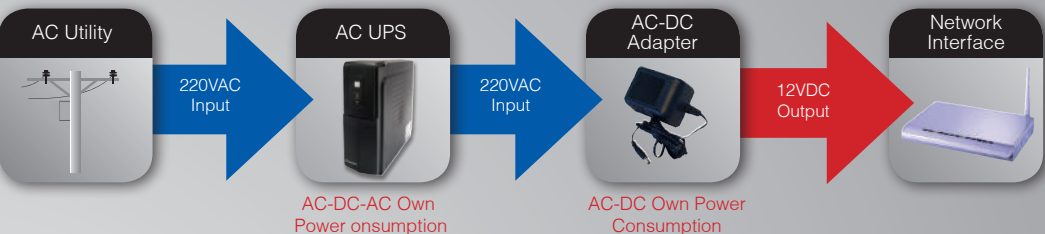
PoE STANDARD IEEE 802.3

	DC SecureAdapter	DC Solar UPS	Smart PoE UPS
INPUT			
Input Type	CEE 7/16 (Type C)	Micro USB	RJ45 (Ethernet)
Nominal Input Voltage	230VAC	5VDC / 0.5A	48VDC PoE Standard
Input Voltage Range	90-264VAC		37 - 57 VDC
Input Frequency Range	50/60Hz		
Alternative Input		Solar Panel 5-8VDC / 0.5A	
Surge Protection	1.5kV		
OUTPUT			
Outlet	Coaxial DC Connector 5.5/3.5mm	@ 12V LED bulbs	RJ45 (Ethernet)
Output Power	25W (2.1A)	5W (1A charger)	15.4W
Normal Voltage	12VDC +/-5%	5VDC (USB standard)	48VDC Active PoE Standard 802.3af/802.3at
Outlet 2		2x Coaxial DC Connector for bulbs OD 5.5mm / ID 2.5mm	
Output Power2		2x 1.2W (2x 0.1A)	
Normal Voltage2		12VDC	
BATTERY			
Type/Rating	9.6Wh Lithium-ion 3.7V	15.8Wh Lithium-ion 3.6V	36.5Wh Lithium-ion 14.4V
Recharge Time	3h to 90%	9h/4h to 90% without load (solar panel / micro USB)	7h to 90%
Example Backup Time	150min @ 12V/1A router 90min @ 12V/2A router (average consumption is 40% of rated)	12h @ single light bulb 6h @ both light bulbs	90min @ 15.4W 180min @ 8W

ONE-TIME POWER CONSUMPTION



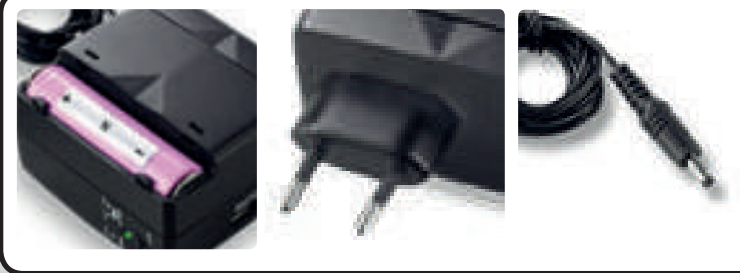
TWO-TIME POWER CONSUMPTION



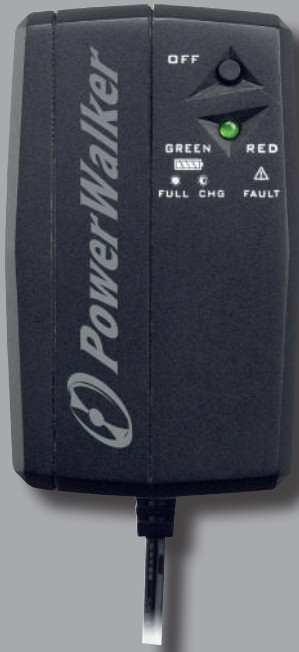
DC UPS - Technology

DC UPSs provide efficient solution for small electronics, finding its application mostly for IT devices. It has only one-time power consumption during the AC-DC conversion compared to the standard UPS solution which has AC-DC and DC-AC two-time power conversion. DC UPSs may directly replace the original power supply (adapter)

- 25W/2.1A DC UPS
- Output Coaxial DC Connector
- LED Indicators for UPS status
- 2.6Ah (2600mAh) Lithium-Ion Battery
- Perfect solution for routers, access points, VoIP, IP cameras, security systems, alarms, modems, decoders, etc.
- Directly replace original power supply



PowerWalker DC SecureAdapter is equipped with a 1m long cable and its compact size allows it to fit between other plugs in an extension cord. 12VDC is a global standard and 25W output on coaxial DC connector (OD 5.5mm / ID 2.5mm) will be compatible with most of your devices. A high quality Samsung Lithium-Ion battery provides 3h backup time for a typical router.



DC SOLAR UPS



- 5W/1A DC Solar UPS
- 3W solar panel included
- Built-in light and two LED bulbs wired
- USB Charger 5VDC / 1A
- 4.4Ah Lithium-Ion Battery
- Battery life 5 times longer than typical Lead Acid

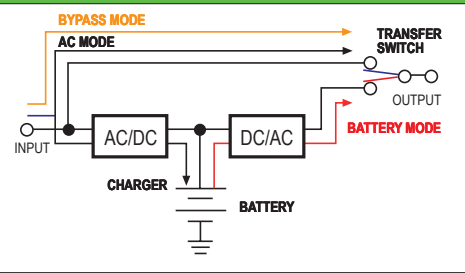
3W solar panel. The device has holes for wall montage, foldable legs and a hole for lopping a wrist strap.

With a fully charged battery you can use one LED bulb for 12h and both bulbs for 6h. You can use it to charge your phone, camera, navigation system, radio or speakers. The Solar Panel can recharge the battery within 9h, therefore it can provide energy to your devices for long weeks expeditions.

BlueWalker DC Solar UPS is a portable energy solution for camping, hiking, sailing and all other long remote journeys. It offers USB output (5VDC / 1A Charger), two detachable wired LED bulbs and in-built light. The high quality 4.4Ah battery can be charged by mini USB input or by

Offline (VFD) - Technology

VFD (Voltage and Frequency Dependent) UPSs, also known as “standby UPSs”, protect your equipment against power outages. The battery is protected against overload and overdischarge while output is secured from overload. PowerWalker VFD Series switch to battery mode when the input voltage is not within the acceptable nominal range. If the voltage returns to normal, the UPS will return to AC power. It is a simple, reliable, compact and affordable solution for protecting your PC.



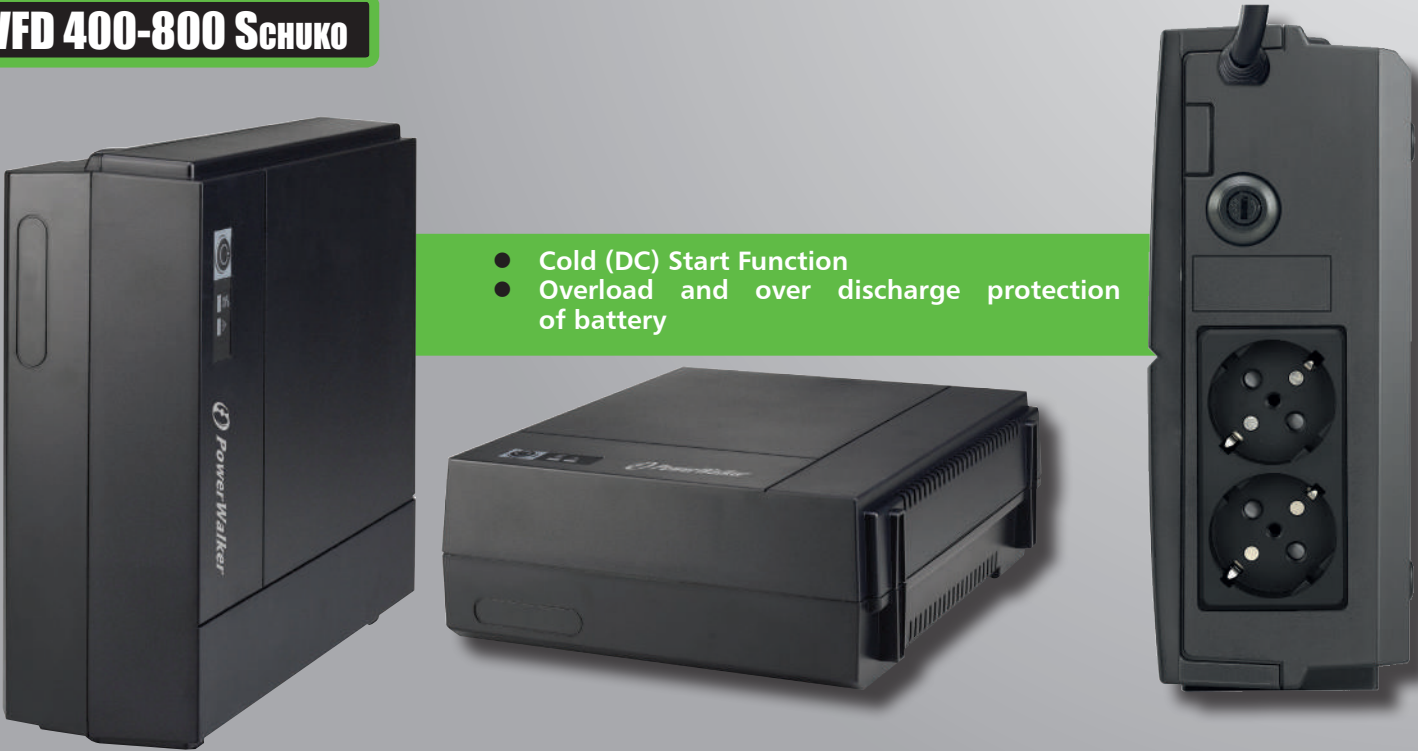
VFD 600-1000

- Surge protection on phone line and modem
- Schuko type sockets
- Highly compact and lightweight



VFD 400-800 Schuko

- Cold (DC) Start Function
- Overload and over discharge protection of battery

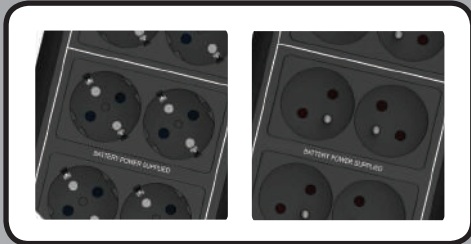


VFD 600-800 APFC

- Supports full rating APFC power supplies
- Most economic back up solution
- Easy user-replaceable battery design
- Wall-mountable



PowerWalker VFD APFC is equipped with 6 outlets (French or Schuko). All outlets have surge protection, four of which are additionally protected by battery backup for more flexibility. This model can be used like a power strip. A special battery compartment enables an easy replacement of the internal battery. The UPS supports APFC loads, offering smooth and secure switching between line mode and battery mode, critical for sensitive PC's power supply. The UPS can also work in vertical position.



APFC - Technology

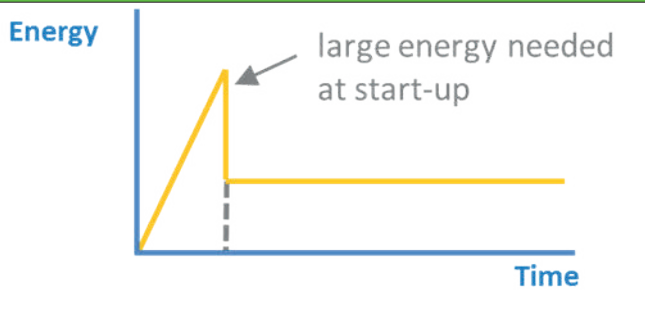
Nowadays, most IT devices are equipped with APFC (Active Power Factor Correction) power supplies. The purpose of the APFC is to reduce reactive power, which is not directly responsible for performing the work, but it causes losses.

APFC bases on switching capacitors to the circuit when the power factor drops, each capacitor must be energized at the moment of switching on and hence consumes more energy.

Due to the fact that loads with APFC draw higher energy at start-up, UPSs without support for APFC loads must be oversized. Depending on the architecture of the load it might require 2-5 times oversizing the power.

By the construction, all UPSs with pure sine wave output will support APFC loads, that includes all online models. Special “APFC support” can be implemented in VFD and VI

models to boost the performance with APFC loads. With PWM control, some of our UPSs purposely provide more energy at the start-up of APFC loads without tripping overcurrent breaker. Without the need to oversize the UPS, the user may enjoy up to 50% energy saving and 34% cost saving compared to non-APFC-supported UPS.



MODEL	VFD 600	VFD 1000	VFD 400 IEC	VFD 600 IEC	VFD 800 IEC	VFD 600 APFC	VFD 800 APFC
Power (VA)	600 VA	1000 VA	400 VA	600 VA	800 VA	600VA	800VA
Power (W)	300 W	600 W	240 VA	360 W	480 W	300W	420W
INPUT							
Voltage Range	170-280Vac		180-270Vac			170-270 Vac	
Frequency Range			50Hz			50Hz/60Hz	
OUTPUT							
Voltage	230Vac ±10%						
Frequency Regulation (Battery Mode)	±1Hz						
Transfer Time							
AC mode to Battery mode	2-6 ms		Typical 2-6 ms			2-8ms typical ,12ms Max	
Waveform (Battery Mode)	Pulse Width Modulated						
BATTERY							
Type	12V / 7Ah						
Quantity	1x 12V / 7Ah	2x 12V / 7Ah	1x 12V / 4.5Ah	1x 12V / 7Ah	1x 12V / 9Ah	1x 12V / 5Ah	1x 12V / 7Ah
Recharge Time	10h to 90% after complete discharge		8 hours recover to 90% capacity			10 hours max. (Recharge to 90% Capacity)	
CONNECTIONS							
Output	2x Schuko	3x Schuko	2x IEC or 2x Schuko or 2x French			6x Schuko or French (2 for surge only, 4 for battery backup)	
Protection Port	RJ11 in/out						

AVR 600-1200



AVR - Technology

Automatic Voltage Regulators (AVRs) are systems designed to ensure a steady and constant power supply to connected loads. It automatically adjusts the input voltage to an appropriate level, decreasing the voltage during surges and increasing it when there is a drop in the power line.

There are many factors contributing to the need for an AVR, but the main reason is to prevent damage to electrical devices that are sensitive to fluctuating voltage. This not only concerns professional equipment, but also includes everyday home electronics such as TVs, monitors, gaming consoles etc.

AVRs not only mitigate potential damages caused by a poor power line, but also prolong the life of connected equipment.

- Stabilizes the AC mains voltage
- Surge protection for phone line and modem
- Compact and light weight



AVR 1500-3000 SIV



- Selectable input voltage range
- Time Delay function eliminates transients that can affect connected equipment
- Microprocessor Control guarantees high reliability

PowerWalker AVR 1500/2000/3000 SIV is designed to automatically maintain an allowed voltage range to protect sensitive electronics from brownouts, under/over-voltages as well as provides surge and spike suppression. The unit is also protected against overload and overheating.

Equipped with a microprocessor controller, it allows quick response for detecting and regulating voltage. It also provides input voltage range selection to fit all kinds of equipment from electronic devices to sensitive computers. Equipped with time-delay function, PowerWalker AVR SIV will protect connected devices from power-back surges or compressor against any consecutive starts. AVR SIV is also available with French outlet.



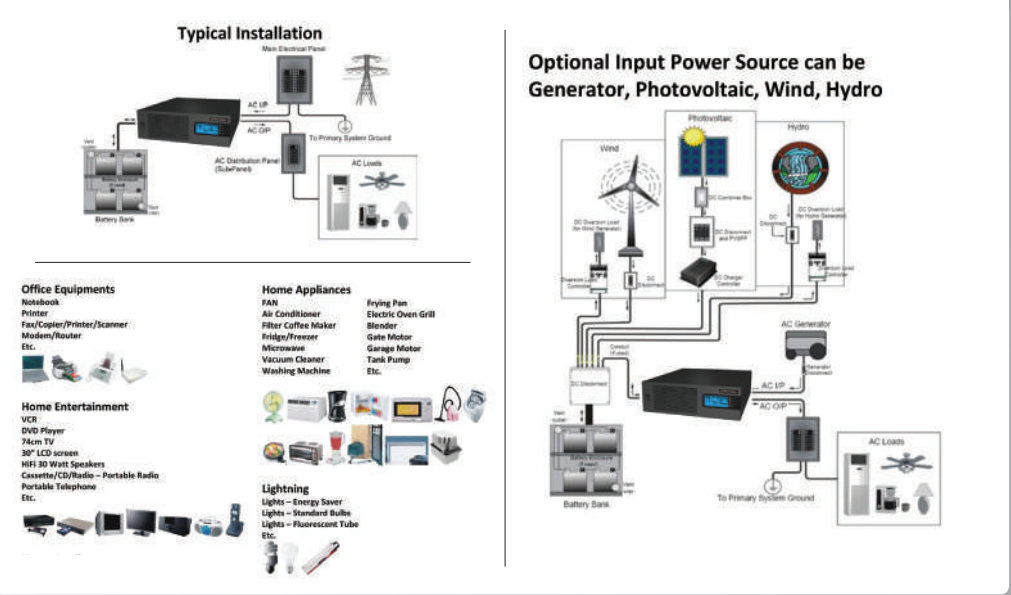
Schuko and French outlet available

Inverter - Technology

Traditionally inverters are designed to convert DC power into standard AC power to provide backup power with an external battery solution. Modern inverters are sometimes called "charger systems" as they are also able to convert AC power to DC power to charge the batteries. In fact, an inverter can be described as an offline UPS with external batteries and slightly longer transfer time.

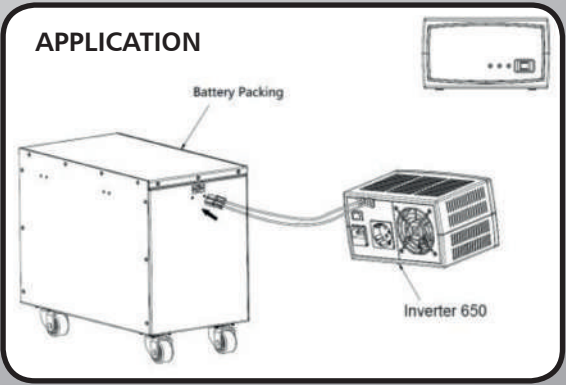
When encountering a utility failure, an inverter will transfer from Line Mode (or Charging Mode) to Inverter Mode (or Battery Mode). Inverters are frequently used in semi-industrial environments and in special applications where very long backup time for small load is required. Among advantages of inverters are very low own power consumption and strong chargers designed to work with big batteries.

Application Examples



INVERTER 650 SW

PowerWalker Inverter SW is a lightweight home solution for long power failures. Although not apparent, it offers advanced functions like Pure Sine Wave output delivering high-quality protection for your home appliance. It is paired with dedicated battery packs, available with different battery sizes, which can supply energy for long hours of work in case of power failure.



- Pure Sine Wave for wide range of applications and harsh environment
- Compact and lightweight
- Smart battery charger to extend battery life with intelligent fan control for reduced noise level
- Dedicated Battery Packs available with 55Ah and 100Ah batteries



Inverter

Inverters with pure sine wave

INVERTER 700-1200 PSW



- Pure Sine Wave inverter
- Selectable input voltage range for home appliances and personal computers
- Smart battery charger for optimized battery performance with selectable charging current

PowerWalker Inverters with Pure Sine Wave (PSW) are technologically more advanced than Inverter 1000-2000 series. It's not only the easy to notice LCD panel, but also adjustable charging current.

The key benefit of sine wave output is compatibility with all motor-based loads like compressors, pumps, various home

appliances or garage doors. With pure sine wave output a typical power supply will work more efficient and last longer.

Inverters also play an integral part in portable power solutions: a set of high capacity batteries and an inverter could be deployed to remote location and turned on without AC (cold start) providing power to the load.

INVERTER 3000-5000 PSW



- Pure Sine Wave for wide range of applications and harsh environments
- LCD display for status view and Inverter settings
- Highly efficient (>90%) DC-to-AC conversion and PFC charger design



Schuko version



French version



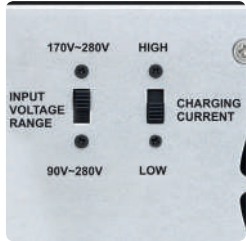
Inverter 700/1200 PSW



AC OUTPUT



AC OUTPUT



MODEL	PowerWalker PWB12
Nominal voltage	12V
Charging temperature range	0 to 40 degC
Discharge temperature range	-20 to 55 degC
Storage temperature range	-15 to 50 degC
Capacity affected by temperature	105% @ 40 degC 100% @ 25 degC 86% @ 0 degC
Float charging voltage	13.5 to 13.8V
Recommended float charging voltage	13.6V
Cycle use charging voltage	14.4 to 15.0V
Recommended cycle use charging voltage	14.7V
Float charging temperature coefficient	-18mV/degC
Cycle use charging temperature coefficient	-30mV/degC
Month self discharge	2% @ 20 degC
Terminal	T2 (250)

PowerWalker PWB12 battery series is designed to work with UPSs and Inverters. It is a high quality valve-regulated lead acid battery with high corrosion resistance and special exhaust structure. The sealing technology provides safe operation and the high discharge capacity secures long batteries life time and a reliable backup.

Design life is 3-5 years. The batteries feature low month self-discharge and low temperature coefficients, which means the battery will last long in good shape serving its purpose for the user.

MODEL	AVR 600	AVR 1000	AVR 1200	AVR 1500/SIV	AVR 2000/SIV	AVR 3000/SIV
Power [VA]	600VA	1000VA	1200VA	1500 VA	2000 VA	3000 VA
Power [W]	360W	600W	720W	1200 W	1600 W	2400 W
INPUT						
Voltage Range	180-264Vac			110 VAC - 280 VAC or 150 VAC - 270 VAC (Selectable)		
Frequency	50Hz			60 Hz or 50 Hz		
OUTPUT						
Voltage	230Vac ±10%			230Vac ±10%		
Voltage Regulator (AVR)	±8%			±10%		
Frequency	50Hz			50Hz		
PROTECTION						
Protection	Output Overload, Short-circuit, overheating			Over-voltage, under-voltage, over-heat, over-current, surge, spike suppression		
CONNECTIONS						
Output	3x Schuko			2x Schuko or French		1x Schuko or French and Terminal
Protection Port	RJ11 in/out					

MODEL	INVERTER 1000	INVERTER 2000	700 PSW	1200 PSW	3000 PSW	5000 PSW
Power	1000VA / 600W	2000VA / 1200W	700VA / 500W	1200VA / 840W	3000VA / 2400W	5000VA / 4200W
INPUT						
Voltage	220/230/240VAC		230VAC		220/230/240VAC	
Voltage Range	170-280VAC (Narrow Range) 90-280VAC (Wide Range) (Selectable)					
OUTPUT						
Voltage	230VAC					
Voltage Regulation (Battery Mode)	+ 10 % / -18%		5%		10%	
Frequency	50 or 60Hz					
Freq. Regulation (Battery Mode)	± 0.5 Hz					± 0.1 Hz
Waveform	Pulse Width Modulated		Pure Sine Wave			
CHARGER						
Charger algorithm	Three stage profile (CC/CV/Floating) CC=Constant Current CV=Constant Voltage					
Charger current	10A ± 1A		10A or 15A (selectable)	10A or 20A (selectable)	20A ± 2A	25A @ 180~280V 20A @ 125~180V
DC Voltage	12V	24V	12V		24V	48V
Overcharge Protection	16V ± 0.4V	30V ± 0.8V	15V		30V	60V
Charger Power Factor						>0.95
DETAILS						
Typical Transfer Time	20 ms		10 ms (for PCs) 20 ms (for other)		10ms (Input Setting NOR)	10ms
Max. Transfer Time	40 ms					
Protection	Discharge, Overcharge, Overload, Short Circuit					
Outlets	Schuko or French				Terminal outlet	

Batteries

PWB12



7Ah, 9Ah, 12Ah, 55Ah available



ISO14001



ISO9001



PRODUCT HIGHLIGHT

VI CSW

Line Interactive 600VA-1500VA
Pure Sine Wave
USB Human Interface Device
USB charging ports



VI R1U

Line Interactive Slim 1U UPS
USB with Human Interface Device (HID)
Pure Sine Wave output
Auto-dimming screen (UPS is woken up with mute button)



VFI TG

with Internal Batteries

VFI TGS

for External Batteries

Online 1000VA-3000VA
USB Human Interface Device



VFI CPG 3/3

Online up to 200kW
Power Factor 1.0
Parallel operation
Improved battery management
Built-in backfeed protection



VFI TGB PF1

Online 6000VA-10000VA
Power Factor 1.0
High Efficiency
Parallel Operation



VFI CPH 3/3 & 3/1

Stand-alone or modular operation
Available as 3/3 and 3/1 (In/Out)
Fits 19 inch rack cabinet
Scalable up to 200kW



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