



PS1504 New Shipboard 1.5KVA tower mil 167,901

Our warhorse, the PS1503SS and PS1503SS-H have been used in 1000's of jobs. The replacement unit has arrived. Our PS1504 with our shipboard modifications, Stainless steel, louvered wrapper and Full ruggedization if you like is better than the previous gen. Ask for the **PS1504SSAH** and you get a MIL-S-901D-gradeA and Mil-std-167 shock / vibration rated unit with Powerstar Premium batteries And it runs APC Powerchute© software for monitoring.

There are many variations of this model. The standard PS1504 uses a high impact styrene front panel. It is a slightly different cabinet size than the old PS1503 (SUA1500) cabinet. For those that need an identical cabinet size to the PS1503 we offer the PS1504SSA- The PS1504SSA uses a cabinet made by Powerstar in 304 grade Stainless steel (see picture) . This cabinet is Fit, Form, Function identical to the previous gen. PS1503/ PS1503SS. Please see the PS9620 Legacy card if you are using the DB9 port with Hi/ Lo alarm signaling for complete compatibility.

The PS1504 offers a 2 line Alphanumeric text readout on an LCD display on the front panel. It offers the new Microlink protocol on its Serial communication ports (USB or RS232) which can pass more information to the Powerchute console. Same great automatic configuration with Windows XP, Vista, Win 7 and above. Just connect the USB and Windows installs its own drivers to use a UPS.

120V 1050Watt 1500VA Shipboard UPS

230V European model available - PS1504itower

Next Generation UPS with higher efficiency and green mode

LCD easy to understand written text readout

in many languages on front panel for status

Line Interactive type UPS wired for Delta power

Finger guard protected Dual pole circuit breaker -No fuses to try to find while at sea

+120G circuit breaker available as option

Auto Boost and Trim voltage trim without using Inverter (and when ACMAINS is in proper range the Trim circuit is bypassed to improve efficiency to Energy Star® ratings

Smart UPS tests itself and batteries periodically

Auto restart after a full run upon AC MAINS restoration

Cold Start capable- Use this as a portable AC power source

Field replaceable batteries (*This UPS will pass AC power to the outputs without batteries installed*)

Output Power Capacity 1050 Watts / 1500 VA

Nominal Output Voltage 120V; 230V i MODEL

Output Voltage Distortion Less than 5% at full load - 98% efficient @ Full load

Crest Factor up to 5: 1 Waveform Type Full Sine wave

Transfer Time 2-4 (less than ¼ of cycle) Most electrical equipment is designed to survive a 200ms hit.

Your equipment will not notice this transfer.

Output Connections NOTE: We also can supply with *Military style* connectors.



(8) NEMA 5-15R
ms31xx connectors
Euro PS1504 i MODEL
8) IEC 320 C13

Input

Nominal Input Voltage 120V; Input voltage range for main operations 82 - 144V
Input Frequency 50/60 Hz +/- 3 Hz (auto sensing)
Input Connections NEMA 5-15P Cord Length 6-15 feet (1.83 meters) (L5-15P option)

Euro i MODEL Input

Nominal Input Voltage 230V; Input voltage range for main operations 160 - 286V
IEC 320 C14- Cord supplied

Batteries & Runtime

Battery Type Maintenance-free sealed Lead-Acid battery with suspended electrolyte: leak proof VRLA AGM. The battery pack is removed through the front panel. Remove 2 screws to remove Front panel. Then remove the battery bar. The pack then slides out and a large 2 pin connector is unplugged. This can be performed with the UPS still powering its load while on ACMAINS. **PowerStar Replacement Battery Cartridges** are supplied with a new harness/ connector. Powerstar offers 3 battery sets for the PS1504.

- Standard **PSrbc7** has a 0° to 40°C temp rating, 9 month shelf life without needing a refresh charge, and 5 year @25°C life rating. **NSN #6140014814471**
- Premium **PSrbc7h** has -20° to 50°C temp rating, 9 month shelf life without needing a refresh charge, and a **10 year**@25°C life rating. **NSN #6140015764249**
- eXtreme **PSrbc7x** has **-40° to 60°C** temp rating, 24 month shelf life without needing a refresh charge and **12+ year** @25°C life rating. **NSN # 6140016280216**

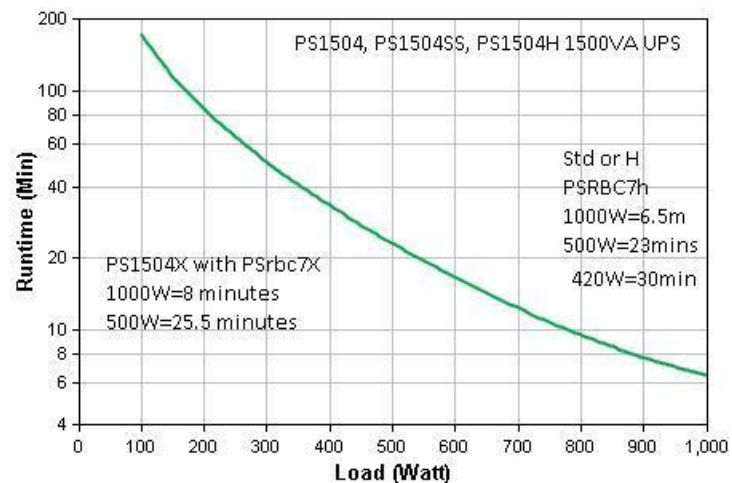
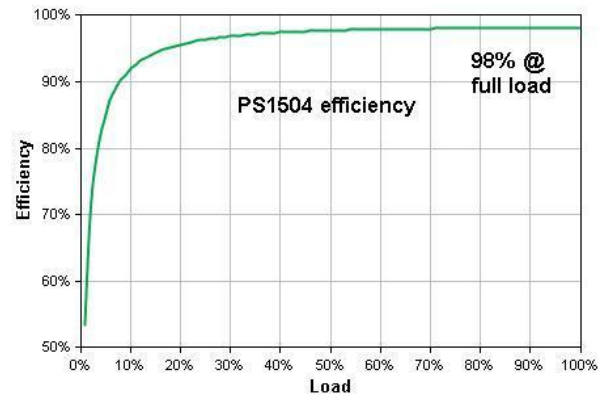
Typical recharge time 3 hour(s)

These typical runtimes were measured using the standard battery pack when new and fully charged. The eXtreme pack will increase these runtimes by 10% to 25%.

- Typical Backup Time at Full Load = 6.7 minutes (980 Watts)
- Typical Backup Time at half Load = 23 minutes (500 Watts)
- Typical Backup Time at **425 Watts= 30 minutes**
- Typical Backup Time at 260W= 1 hour
- Typical Backup Time at 180W= 90 minutes

Interface Port(s)

(1)USB serial control, (1) RS232 S20 port, (1) SmartSlot
USB- Powerchute™ software supplied for many operating systems Windows™XP and above will recognize this UPS when they are attached with USB. Windows™ PC will configure itself with its own drivers for graceful shutdown and UPS operation. Software also provided for UNIX, Linux.





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SmartSlot™ - (for optional SNMP Ethernet Network card PS9630) or environmental monitor card or multi I/O control card. (simple switching) or add a PS9620 Legacy Card for using previous generation software with this unit. See notes further down this brochure for more complete description.

RS232 S20 port (RJ50x) is a new generation port and is not fully compatible with previous generation software. (See PS9620 note for operation with Legacy software) DB9 dongle is supplied for S20 port. This is fully compatible with current generation PowerChute software and a DB9/RS232 computer port.

Control panel

- > 4-LED status lamps display **Output On Line**, **On Battery**, **Replace Battery**, and **Fault** Indicators. These are visible 80° off axis (seen from above or below or from either side). These & the beep alarm will draw your attention to the front panel text readout.
- > Audible Alarm BEEP when on battery: distinctive low battery alarm: configurable delays, *press any key to mute*
- > LCD Written Word status display (alphanumeric) with predictive battery failure, The LCD has a black background with Blue glowing letters. Load and battery information is shown. Also the LCD can display the menus while programming the UPS.

The LCD can show:

- Operating mode
- Switched Outlet status, On or Off (these are normally disabled from our factory) NOTE: *The Switched outlet relays only open one side of the line so this is not intrinsically safe way to turn off output for service work. It can be used to reboot modems, however.*
- Efficiency of the UPS
- Information about the load
- Battery capacity
- Estimated runtime
- Input and output voltage and frequency
- Information about the last transfer to battery power
- Self-test results
 - Current alarms

Test & Diags Use the Test & Diags menu to have the UPS perform a self test

If configured for Advanced Mode

Menu General Functions

Status View detailed information about the UPS:

- Energy meter
- Load current
- Status of the Switched Outlet Group
- Battery voltage

Test & Diags Perform a UPS alarm test or a runtime calibration test.

Log View the event log for information about any changes to the UPS and any faults.

About View information about the unit:

- Hardware version
- Software version
- NMC information (if applicable)

Protection

Surge energy rating 459 Joules

Filtering- Full time multi-pole noise filtering: 0.3% IEEE surge let-through: zero clamping response time: meets UL 1449

Dimensions (PS1504 or PS1504i Tower)

Maximum Height 8.62 inches (219 mm)

Maximum Width 6.73 inches (171 mm)

Maximum Depth 17.28 inches (439mm)

Net Weight 53lbs. (24kg)

Shipping Weight 59 lbs. (27.5 kg)

Shipping Height 15.00 inches

Shipping Width 13.00 inches

Shipping Depth 24 inches

Color- *Gun Metal Black with stainless steel outer wrap for non- rugged version. The PS1504SSA is all stainless steel and is only painted upon request.*

Units per pallet=24

Operating Environment

32 - 104 °F (0 - 40 °C) (battery dependant) *This can be -15°to +50°C with our Premium battery or -40 to +60° with the eXtreme pack*

Operating Relative Humidity 0 - 95%

Operating Elevation 0-10000 feet (0-3000 meters)

Storage Temperature 5 - 113 °F (-15 - 45 °C)

Storage Relative Humidity 0 - 95%

Storage Elevation 0-50000 feet (0-15000 meters)

Audible noise at 1 meter from surface of unit 45.00 dBA

Online Thermal Dissipation-135 BTU /hr

2 year warranty on parts and Labor , 1 year on Batteries

RoHS 7b Exemption,REACH: Contains No SVHCs

cUL Listed,UL 1778

PS504iTower C-tick,CE,EN 50091-1,EN 50091-2,VDE

Mounting (option)

Powerstar builds mounting plates for hull or deck mounting. Padded steel plate with padded straps (hoops) wrap around UPS and hold it securely to the plate. The plate can be bolted or welded in place.

PS1504 Mounting foundation for the standard PS1504 with Styrene front panel.

PS1504SSA Mounting Foundation For the Grade A unit with the Powerstar made cabinet. This also fits the previous generation PS1503SS

Options for PS1504 standard unit;

- **Stainless steel louvered upper case.** The standard non ruggedized PS1504 uses a styrene front panel and steel chassis. See photo in blue below.
- **Front control panel tilted upward.** This option tilts the front panel upward ~30° for improved visibility of the Text Readout. Note: the LED Warning lamps are visible at up to 160° without the tilted panel. The Warning lamps will alert a tech (as will the Audible BEEP) to read the Text readout to observe the Alarm Text.
- **Master Bypass switch-** connects the input power directly to outlets. This unit can also be supplied with a **MB Master Bypass switch.** The MB switches the input power directly to the output ports. This bypasses



the entire UPS in case of total unit failure. (The Circuit Breaker is still left in the circuit in bypass mode.) The MB switch is a rotary knob with Green and Red lamp indicators showing switch position.

The SmartSlot can accept 1 of these cards:

- **PS9620** Legacy Card. DB9 serial port fills the one available Smart Slot. The Legacy card emulates the previous generation DB9 Smart UPS port including the APC style 'Dumb' mode Hi/LO signaling to show 'Loss of MAINS' and 'Low Battery'. This RS232 port supports the previous gen Powerchute software as well as legacy hand written software for the SUA series.
- **PS9630** SNMP Ethernet port- Monitor this unit via Ethernet and PowerChute® software. Shut down PC via Ethernet. It supports:
 - HTTP, HTTPS, IPv4, IPv6, NTP, SMTP, SNMP v1, SNMPv2c, SNMP v3,SSH V1,SSH V2,SSL, TCP/IP, Telnet
 - RJ-45 10/100 Base-T
 - Radius Authentication
- **PS9631 SNMP combo card** Ethernet & **PS9335th** Temperature / Humidity sensor & Dry Contact signaling. Report the temperature of the room the UPS is located in and report it back to the console running PowerChute®. This card also contains dry contacts for signaling outputs (Loss of MAINS, etc) and Inputs ie, Emergency shut down.
 - Expand # of dry contacts with **PS9810** (2outputs & 2 non-isolated inputs)
- **PS9613** Dry Contact card. 6 isolated Outputs and 4 opto-isolated Inputs. Shut down the UPS with an external contact closure low current low voltage. A source is available. Also signal external devices of Loss of MAINS, Low Battery, Unit ALARM (electronics failure, battery did not pass test, etc) This signaling is all performed with simple DC closures. <35Ma. This card also supports the **PS9810** dry contact expansion module & a **PS9335th** Temperature/ humidity probe.



Part number example **PS1504SSAhMB-9620**

SS= stainless steel

A= Mil-S-901D gradeA ruggedization

h= Premium battery set (10 year life)

MB= Master Bypass switch installed on rear

-9620= PS9620 Legacy card installed.

<http://www.powerstarinc.com>

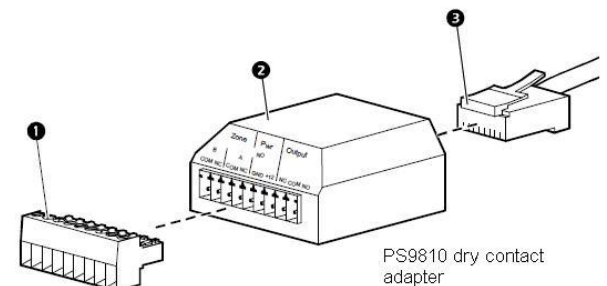
<http://www.globalspec.com/powerstar>

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Photos

PS1504SSA with Tilted front panel



US model standard model shown above

Standard model with SS cover shown in blue

