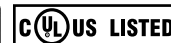



**Middle Atlantic Products**

EXCEPTIONAL SUPPORT &amp; PROTECTION™

# Hardwired Uninterruptible Power Supply



**Hardwired Uninterruptible Power Supply with Energy Saver design that is optimized to address the needs of A/V systems**

## Features

- Hardwired output via integral junction box
- Flex input
- Pure Sine Wave technology with Automatic Voltage Regulation to improve the quality of power provided to the A/V system
- Expansion battery option extends runtime in the event of sustained power outages
- Surge suppression utilizes a clean line-to-neutral design that does not pass noise contamination to ground
- Internet enabled with optional expansion card, which includes:
  - Real time UPS monitoring via the Web
  - Remote management and configuration of UPS via Web Browser or NMS (Network Management System)
  - Auto-shutdown to protect servers/workstations from data loss due to power failure
  - Schedule shutdown/start-up/reboot of the UPS
  - Event logging to trace UPS operational history
  - Data logging for analyzing power conditions
  - Event notification via email and SNMP traps
  - Supports TCP/IP, SNMP/HTTP, NTP, DNS, SMTP protocol
  - MIB (Management Information Base) provided
  - Quick installation and user friendly interface
  - User upgradeable firmware via FTP
  - Security management provided
- Control system integration via RS-232 and USB and analog I/O
- Load shedding allows extended run time for system-critical components by disconnecting power to less-critical components
- Line Interactive Technology
- Power Manager software allows extensive configuration and event notification capabilities
- Energy Saver design reduces power consumption by up to 75% when compared with traditional UPS designs
- UL Listed in the US and Canada



UPS-2200R-HH (front)



UPS-2200R-HH (Rear)



UPS-EBPR

**CUSTOMIZABLE SPECIFICATION CLIPS AVAILABLE AT MIDDLEATLANTIC.COM**

## Architects and Engineers' Specifications

Rackmount Uninterruptible Power Supply (UPS) shall be Middle Atlantic Products model # UPS-2200R-HH. UPS shall be line interactive with AVR. Unit shall measure 19.00" W x 3.50" H x 19.00" D and occupy 2 rackspaces. UPS shall have a rear mounting range of 19" to 32" and not require more than one person to mount. Unit shall operate on 120 VAC/60Hz current. Unit shall have a nominal output of 120V. Unit shall have a capacity of 2,150 VA and 1,650 W. Unit shall have (2) NEMA 5-20R receptacles on the rear of the unit. UPS-2200R-CH/HH shall have a hardwired J-Box output and one each critical/non-critical load NEMA 5-20R receptacle. Unit shall be IP enabled when used with optional IP Expansion card, model# UPS-IPCARD. Rackmount UPS shall include a 36" flex cable. UPS shall have surge suppression that utilizes a clean line-to-neutral design that does not pass noise contamination to ground. Rackmount UPS shall have a hot swappable battery that allows for a 8 minute run time at half load and a 16 minute run time at full load. Rear of unit shall have inputs that allow for the installation of up to 10 additional hot swappable batteries. Rackmount UPS shall be RoHS EU Directive 2002/95/EC compliant. Rackmount UPS shall utilize Middle Atlantic Power Manager™ software. Rackmount UPS shall be warrantied to be free from defects in materials and workmanship under normal use and conditions for a period of 3 years; battery shall be warrantied for a period of 2 years. Rackmount UPS shall be UL listed in US and Canada.

### UPS-IPCARD

Web based control shall be enabled on non-internet enabled Middle Atlantic Products UPS by UPS-IPCARD, which shall be installed into the Expansion Port on the rear of the UPS. This shall be compatible with UPS firmware v1.65 or greater, and provide full functionality when used on models with firmware v1.75 or greater.

### Expansion Battery

Rackmount expansion battery pack shall be Middle Atlantic Products model# UPS-EBPR. Expansion battery pack shall be suitable for use with UPS-2200R-HH/CH. UPS-EBPR shall measure 19.00" W x 3.50" H x 19.29" D and occupy 2 rackspaces. With \_\_\_ hot swappable batteries connected to the unit, there is a \_\_\_ minute run time at half load and a \_\_\_ minute run time at full load (refer to chart). Rackmount expansion battery pack shall be warrantied for a period of 2 years.

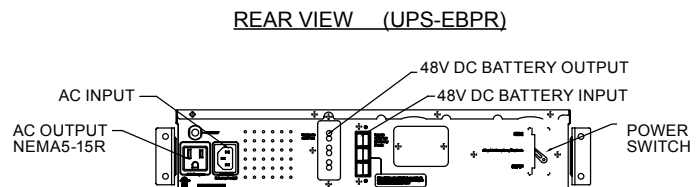
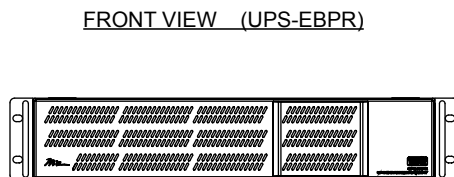
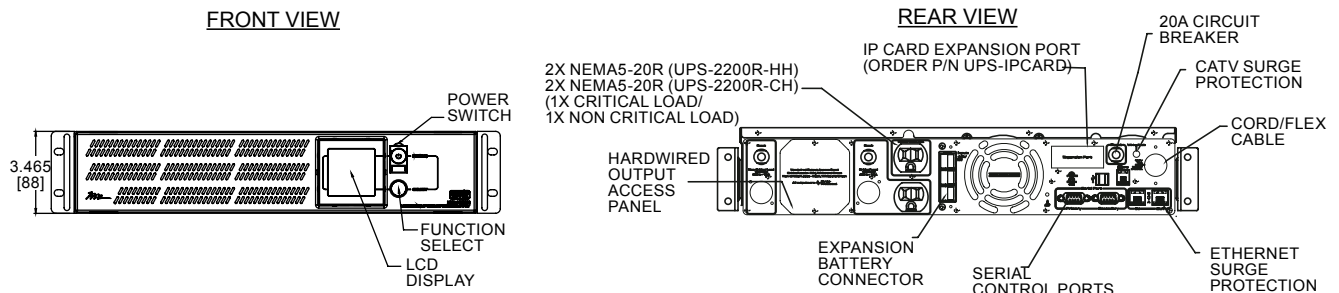
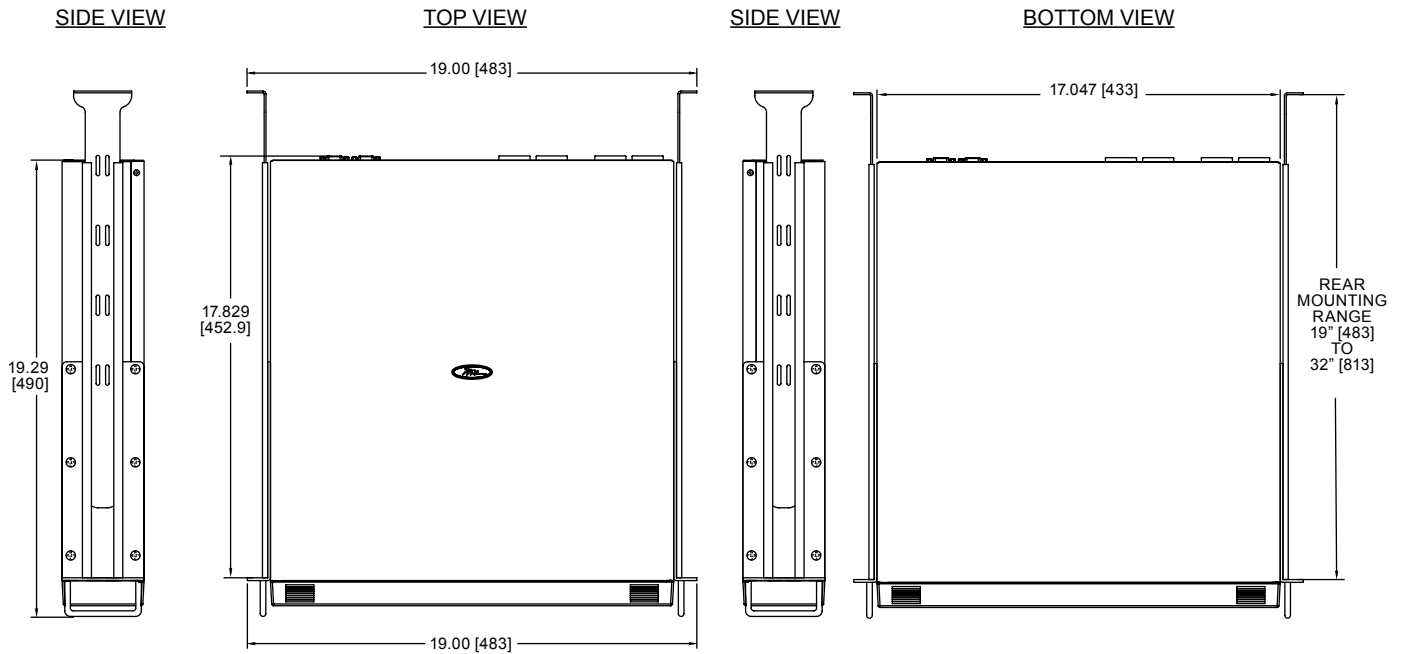
### Replacement Battery

Replacement Battery Pack for the UPS shall be Middle Atlantic Products model # UPS-RBP. Replacement battery pack shall be suitable for use with UPS-2200R-HH/CH. Replacement battery shall be warrantied to be free from defects in materials and workmanship under normal use and conditions for a period of 2 years.



## UPS basic dimensions

All dimensions in inches unless otherwise noted [All dimensions in brackets are in millimeters]



General Information	
Model No.	UPS-2200R-CH Series
Input	
Nominal Input Voltage	120 V
Input Voltage Range	80VAC – 145VAC
Input Frequency	60 Hz +/- 3 Hz (auto sensing)
Input Protection Type	Resettable thermal fuse
Cord Length / Cord Type / Plug Type	9 ft. / 12/3 / NEMA 5-20P
Output	
Green Mode Consumption	Less than 9W at full battery capacity
Nominal Output Voltage	120 V
Capacity (VA)	2150VA
Capacity (Watts)	1650W
Waveform	Pure Sine Wave
On Line Output Frequency	57 - 63 Hz for 60 Hz nominal
On Battery Output Frequency	60 Hz +/- .1 Hz
Transfer Time (Typical)	4 ms typical line to battery / battery to line
Overload Protection (on line mode)	100%≤ Load < 110% warning, 120 sec shutdown 110%≤ Load < 125% warning, 40 sec shutdown 125%≤ Load warning, 10 sec shutdown
Overload Protection (on battery mode)	100%≤ Load < 110% warning, 30 sec shutdown 110%≤ Load < 125% warning, 10 sec shutdown 125%≤ Load warning, 3 sec shutdown

Total Harmonic Distortion (THD)		
Total System Load	60%	100%
Utility Mains* THD	2.0%	2.0%
Battery Backup THD	1.5%	5.2%

\*typical 120V power with 2%-4% THD

Surge Protection and Filtering	
Lightning / Surge Protection	L-N = > 381 J (127J x 3) Clamp voltage 270V (Max energy 10 / 1000 μs)
RJ11 / RJ45 Protection	Sidactorx1 Clamp Voltage 275V Fuse (.75A / 250V) x 2
Physical	
Output Receptacles	(2) NEMA 5-20R Receptacles, J-Box
Dimensions (in.)	19.00" [423] W x 3.50" [89] H x 19.29" [490] D
Weight (lb.)	77 lbs.
Battery	
Rating	12V / 9.0 AH x 4
Auto Charger	1A
Hot Swappable External Battery	Yes
Run Time at Half Load	13 minutes
Run Time at Full Load	6.4 minutes
Warning Diagnostics	
Control Panel	LCD Display Indicators, Power On
Audible Alarms	On Battery, Low Battery
Environmental	
Operating Temperature	32°F to 104°F ( 0°C to 40°C)
Operating Relative Humidity	0 to 95% Non-Condensing

Communication	UPS-2200R-HH Series
Software	Middle Atlantic Power Manager™
Management	
Self-Test	Manual Self-Test via front panel
Auto-Charger/ Auto-Restart	Yes
COM Interface	Primary: - RS232 Communication + Control - Analog Status Notification + Control  Secondary: - Analog status notification only
Built-in USB Interface	Yes

Utility Voltage (AC)	≤ 80	81-105	106-133	133-147	>147
Fans Engaged	Front & Rear	Rear only	None	Rear Only	Front & Rear
dBA above Ambient	27dBA	14dBA	0	14dBA	27dBA

UPS-2200R Series																
Load (VA)	120	240	360	480	600	720	840	960	1080	1200	1320	1440	1560	1680	1800	1920
Load (W)*	90	180	270	360	450	540	630	720	810	900	990	1080	1170	1260	1350	1440
Load (A)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Number of expansion batteries	ESTIMATED RUN TIME (Minutes)															
UPS only	102	51	34	26	20	17	15	13	11	10	9	9	8	7	7	6
1	561	283	190	143	114	94	80	69	60	53	47	42	37	33	29	26
2	1020	515	345	260	207	171	145	125	109	96	84	75	66	58	51	45
3	1479	747	501	377	300	249	211	181	158	139	122	108	95	84	74	64
4	1938	979	657	494	394	326	276	238	207	181	160	141	124	109	96	84
5	2397	1211	813	611	487	403	341	294	256	224	197	174	153	135	118	103
6	2856	1443	968	728	580	480	407	350	305	267	235	207	182	161	141	122
7	3315	1676	1124	845	674	557	472	406	353	310	272	240	212	186	163	142
8	3774	1908	1280	962	767	635	537	463	402	352	310	273	241	212	185	161
9	4233	2140	1435	1079	860	712	603	519	451	395	348	306	270	237	208	181
10	4692	2372	1591	1196	954	789	668	575	500	438	385	339	299	263	230	200

\*Assuming a Power Factor of .75