UPS Series

uninterruptible power supply

uninterruptible power supply with energy saver design that is optimized to address the needs of A/V systems

- Pure Sine Wave technology with Automatic Voltage Regulation to improve the quality of power provided to the A/V system
- Surge suppression utilizes a clean line-to-neutral design that does not pass noise contamination to ground
- Models with bank control available
- Individual outlet control available
- Internet enabled models available, which include:
 - 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
- 9' SignalSAFE™ power cord minimizes stray magnetic fields
- · UL Listed in the US and Canada











UPS Series

basic dimensions

Rackmount Uninterruptible Power Supply (UPS) shall be Middle Atlantic Products model # UPS- __ R__ (refer to chart). 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 __ VA and __ W (refer to chart). Unit shall have (8) NEMA 5- __ receptacles on the rear of the unit (refer to chart). Unit shall have a priority outlet bank consisting of 4 outlets dedicated to ensure maximum run time of critical components. Unit shall have a non-critical outlet bank consisting of 4 outlets dedicated to load shedding, or individual outlet control, depending on model. Unit shall be IP enabled, depending on model, or when used with option IP Expansion card, model# UPS-IPCARD. Rackmount UPS shall (refer to chart) SignalSAFE™ power cord with NEMA (refer to chart) plug. 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 __ minute run time at half load and a __ (refer to chart) 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-1000 Series											
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	22dBA	11dBA	0	11dBA	22dBA							

UPS-2200 Series											
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-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.

UPS-RLCARD

Remote shutdown of the UPS shall be enabled on non-internet enabled Middle Atlantic Products UPS by UPS-RLCARD, which shall be installed into the Expansion Port on the rear panel of the UPS. This shall be compatible with UPS firmware v1.65 or greater. A user supplied remote push button and external +12VDC source shall be connected to the DB-9 connector on the UPS-RLCARD to activate the remote shutdown feature.

Expansion Battery

Rackmount expansion battery pack shall be Middle Atlantic Products model# UPS-EBPR. Expansion battery pack shall be suitable for use with both UPS-1000R and UPS-2200R. UPS-EBPR shall measure 19.00" W x 3.50" H x 19.29" D and occupy 2 rackspaces. UPS-EBPR shall require 22.66" useable depth. 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

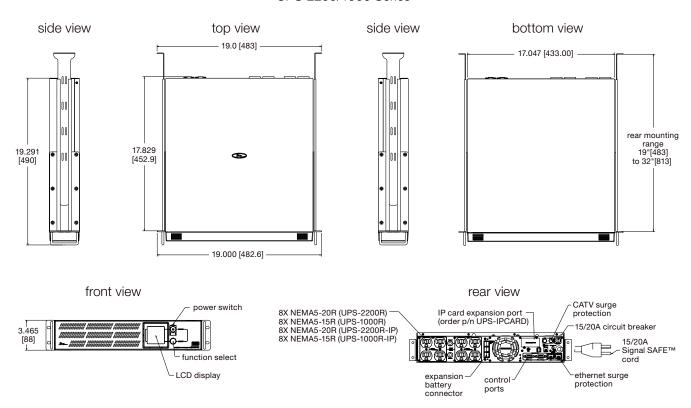
Replacement Battery Pack for the UPS shall be Middle Atlantic Products model # UPS-RBP. Replacement battery pack shall be suitable for use with both UPS-1000R__ and UPS-2200R__. Replacement battery shall be warrantied to be free from defects in materials and workmanship under normal use and conditions for a period of 2 years.



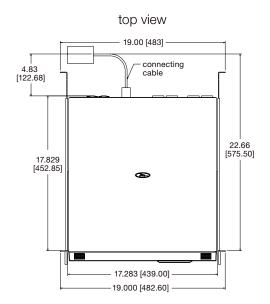
UPS Series basic dimensions

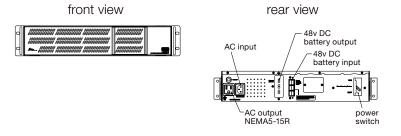
all dimensions in inches unless otherwise noted [all dimensions in brackets are in millimeters]

UPS-2200/1000 Series



UPS-EBPR Series





Model#	Capacity	Outlet Control	Internet enabled
UPS-1000R	1000VA	critical / non-critical bank	w/ optional UPS-IPCARD
UPS-1000R-IP	1000VA	critical / non-critical bank	yes
UPS-1000R-8	1000VA	individual outlet	w/ optional UPS-IPCARD
UPS-1000R-8IP	1000VA	individual outlet	yes
UPS-2200R	2150VA	critical / non-critical bank	w/ optional UPS-IPCARD
UPS-2200R-IP	2150VA	critical / non-critical bank	yes
UPS-2200R-8	2150VA	individual outlet	w/ optional UPS-IPCARD
UPS-2200R-8IP	2150VA	individual outlet	yes

what **great systems** are built on.



UPS Series basic dimensions

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

Naminal Input Millings			UPS-1000R Series	UPS-2200R Series			
Input		Nominal Input Voltage	120 V	120 V			
Input Protection Type		Input Voltage Range	80VAC - 145VAC	80VAC - 145VAC			
Cord Length / Cord Type / Pflug Type	Input	Input Frequency	60 Hz +/- 3 Hz (auto sensing)	to sensing) 60 Hz +/- 3 Hz (auto sensing)			
Career Mode Consumption		Input Protection Type	Resettable thermal fuse	Resettable thermal fuse			
Nominal Output Voltage		Cord Length / Cord Type / Plug Type	9 ft. / 14/3 / NEMA 5-15P	9 ft. / 12/3 / NEMA 5-20P			
Capacity (Nat)		Green Mode Consumption	Less than 9W at full battery capacity	Less than 9W at full battery capacity			
Output		Nominal Output Voltage	120 V	120 V			
Waveform Pure Sine Weve Pure Sine Weve Pure Sine Weve		Capacity (VA)	1000VA	2150VA			
Output On Line Output Frequency 57 - 63 Hz for 60 Hz nominal 57 - 63 Hz for 60 Hz nominal Output On Battery Output Frequency 60 Hz +/1 Hz 60 Hz +/1 Hz 60 Hz +/1 Hz Transfer Time (Typical) 4 ms typical line to battery / battery to line 4 ms typical line to battery / battery to line Overload Protection (on line mode) 100%st Loads + 110% warning, 120 sec shutdown 110%st Loads + 110% warning, 30 sec shutdown 1125%st Load varning, 10 sec shutdown 1125%st Load varning, 10 sec shutdown 1125%st Load varning, 10 sec shutdown 1125%st Loads + 110% warning, 30 sec shutdown 1110%st Loads + 110% warning, 30 sec shutdown 110%st Loads + 110% warning, 30 sec shut		Capacity (Watts)	750W	1650W			
Output		Waveform	Pure Sine Wave	Pure Sine Wave			
Transfer Time (Typical)		On Line Output Frequency	57 - 63 Hz for 60 Hz nominal	57 - 63 Hz for 60 Hz nominal			
Overload Protection (on line mode)	Output	On Battery Output Frequency	60 Hz +/1 Hz	60 Hz +/1 Hz			
Note Land Protection (on line mode) 110%s Loads + 125% warning, 40 sec shutdown 125%s Loads + 125% warning, 10 sec shutdown 125%s Loads warning, 10 sec shutdown 125%s Loads warning, 10 sec shutdown 125%s Loads + 110% warning, 30 sec shutdown 110%s Loads + 110% warning, 30 sec shutdown 110%s Loads + 125% warning, 10 sec shutdown 125%s Loads + 125% warning, 10 sec shutdow		Transfer Time (Typical)	4 ms typical line to battery / battery to line	4 ms typical line to battery / battery to line			
110%S_Load<.125% warning, 10 sec shutdown 110%S_Load<.125% warning, 10 sec shutdown 125%S_Load warning, 3 sec shutdo			110%≤ Load< 125% warning, 40 sec shutdo	wn 110%≤ Load< 125% warning, 40 sec shutdown			
Distortion (THD)			110%≤ Load< 125% warning, 10 sec shutdo	wn 110%≤ Load< 125% warning, 10 sec shutdown			
Hybical 120V power with 2%-4% THD Battery Backup THD 1.9% 2.0%	Total Harmonic	Total System Load	0% 20%	60% 100%			
with 2%-4% THD Battery Backup THD 1.9% 1.3% 1.5% 5.2% Surge Protection & Lightning / Surge Protection & Filtering Lightning / Surge Protection Lightning / Surge Protection Lightning / Surge Protection Lightning / Surge Protection Surge Protection Lightning / Surge Protection Lightning / Surge Protection Lightning / Surge Protection Lightning / Surge Protec		Utility Mains* THD	2.0% 2.0%	2.0% 2.0%			
Surge Protection & Filtering Lightning / Surge Protection (Max energy 10 / 1000 μs) (Max energy 10 / 1000 μs) RJ11 / RJ45 Protection Sidactorx1 Clamp Voltage 275V Fuse (.75A / 250V) x 2 Sidactorx1 Clamp Voltage 275V Fuse (.75A / 250V) x 2 Physical Output Receptacles (8) NEMA 5-15R (8) NEMA 5-20R Dimensions (in.) 19.00" [423] W x 3.50" [89] H x 19.29" [490] D 19.00" [423] W x 3.50" [89] H x 19.29" [490] D Weight (lb.) 68 lbs. 77 lbs. Battery Rating 12V / 9.0 AH x 4 12V / 9.0 AH x 4 Auto Charger 1A 1A Hot Swappable External Battery Yes Yes Run Time at Half Load 26 minutes 13 minutes Run Time at Full Load 13 minutes 6.4 minutes Warning Diagnostics Control Panel LCD Display Indicators, Power On LCD Display Indicators, Power On Diagnostics Audible Alarms On Battery, Low Battery On Battery, Low Group of the Very Condition of the Very Con	with 2%-4% THD	Battery Backup THD	1.9% 1.3%	1.5% 5.2%			
& Filtering RJ11 / RJ45 Protection Sidactorx1 Clamp Voltage 275V Fuse (.75A / 250V) x 2 Sidactorx1 Clamp Voltage 275V Fuse (.75A / 250V) x 2 Physical Output Receptacles (8) NEMA 5-15R (8) NEMA 5-20R Dimensions (in.) 19.00" [423] W x 3.50" [89] H x 19.29" [490] D 19.00" [423] W x 3.50" [89] H x 19.29" [490] D Weight (lb.) 68 lbs. 77 lbs. Battery Rating 12V / 9.0 AH x 4 12V / 9.0 AH x 4 Auto Charger 1A 1A Hot Swappable External Battery Yes Yes Run Time at Half Load 26 minutes 13 minutes Run Time at Full Load 13 minutes 6.4 minutes Warning Diagnostics Control Panel LCD Display Indicators, Power On LCD Display Indicators, Power On LCD Display Indicators, Power On Environmental Operating Temperature 32°F to 104°F (0°C to 40°C) 32°F to 104°F (0°C to 40°C)	Surge Protection	Lightning / Surge Protection					
Physical Dimensions (in.) 19.00" [423] W x 3.50" [89] H x 19.29" [490] D 19.00" [423] W x 3.50" [89] H x 19.29" [490] D Battery Weight (lb.) 68 lbs. 77 lbs. Battery Rating 12V / 9.0 AH x 4 12V / 9.0 AH x 4 Auto Charger 1A 1A Hot Swappable External Battery Yes Yes Run Time at Half Load 26 minutes 13 minutes Run Time at Full Load 13 minutes 6.4 minutes Warning Diagnostics Control Panel LCD Display Indicators, Power On LCD Display Indicators, Power On Battery, Low Battery On Battery, Low Battery On Battery, Low Battery Operating Temperature 32°F to 104°F (0°C to 40°C) 32°F to 104°F (0°C to 40°C)		RJ11 / RJ45 Protection					
Battery Rating 12V / 9.0 AH x 4 12V / 9.0 AH x 4 Battery Auto Charger 1A 1A Hot Swappable External Battery Yes Yes Run Time at Half Load 26 minutes 13 minutes Run Time at Full Load 13 minutes 6.4 minutes Warning Diagnostics Control Panel LCD Display Indicators, Power On LCD Display Indicators, Power On Audible Alarms On Battery, Low Battery On Battery, Low Battery Operating Temperature 32°F to 104°F (0°C to 40°C) 32°F to 104°F (0°C to 40°C)		Output Receptacles	(8) NEMA 5-15R	(8) NEMA 5-20R			
Rating 12V / 9.0 AH x 4 12V / 9.0 AH x 4 Battery Auto Charger 1A 1A Hot Swappable External Battery Yes Yes Run Time at Half Load 26 minutes 13 minutes Run Time at Full Load 13 minutes 6.4 minutes Warning Diagnostics Control Panel LCD Display Indicators, Power On LCD Display Indicators, Power On LCD Display Indicators, Power On LCD Display Indicators, Power On Audible Alarms On Battery, Low Battery On Battery, Low Battery Environmental Operating Temperature 32°F to 104°F (0°C to 40°C) 32°F to 104°F (0°C to 40°C)	Physical	Dimensions (in.)	19.00" [423] W x 3.50" [89] H x 19.29" [490]	D 19.00" [423] W x 3.50" [89] H x 19.29" [490] D			
Battery Auto Charger 1A 1A 1A Hot Swappable External Battery Yes Yes Yes Run Time at Half Load 26 minutes 13 minutes Run Time at Full Load 13 minutes 6.4 minutes 6.4 minutes Control Panel LCD Display Indicators, Power On LCD Display Indicators, Power On LCD Display Indicators, Power On Audible Alarms On Battery, Low Battery Operating Temperature 32°F to 104°F (0°C to 40°C) 32°F to 104°F (0°C to 40°C)		Weight (lb.)	68 lbs.	77 lbs.			
Battery Hot Swappable External Battery Yes Yes Yes Run Time at Half Load 26 minutes 13 minutes Run Time at Full Load 13 minutes 6.4 minutes Control Panel LCD Display Indicators, Power On LCD Display Indicators, Power On Audible Alarms On Battery, Low Battery Operating Temperature 32°F to 104°F (0°C to 40°C) 32°F to 104°F (0°C to 40°C)		Rating	12V / 9.0 AH x 4	12V / 9.0 AH x 4			
Run Time at Half Load 26 minutes 13 minutes Run Time at Full Load 13 minutes 6.4 minutes Warning Diagnostics Audible Alarms On Battery, Low Battery Operating Temperature 32°F to 104°F (0°C to 40°C) 32°F to 104°F (0°C to 40°C)		Auto Charger	1A	1A			
Run Time at Full Load 13 minutes 6.4 minutes Warning Diagnostics Audible Alarms On Battery, Low Battery Operating Temperature 32°F to 104°F (0°C to 40°C) 32°F to 104°F (0°C to 40°C)	Battery	Hot Swappable External Battery	Yes	Yes			
Warning Diagnostics Audible Alarms Operating Temperature Control Panel LCD Display Indicators, Power On On Battery, Low Battery On Battery, Low Battery 32°F to 104°F (0°C to 40°C) 32°F to 104°F (0°C to 40°C)		Run Time at Half Load	26 minutes	13 minutes			
Diagnostics Audible Alarms On Battery, Low Battery Operating Temperature 32°F to 104°F (0°C to 40°C) Environmental		Run Time at Full Load	13 minutes	6.4 minutes			
Diagnostics Audible Alarms On Battery, Low Battery Operating Temperature 32°F to 104°F (0°C to 40°C) Environmental	Warning	Control Panel	LCD Display Indicators, Power On	LCD Display Indicators, Power On			
Environmental		Audible Alarms	On Battery, Low Battery	On Battery, Low Battery			
	Environmental	Operating Temperature	32°F to 104°F (0°C to 40°C)	32°F to 104°F (0°C to 40°C)			
	Environmental	Operating Relative Humidity	0 to 95% Non-Condensing	0 to 95% Non-Condensing			



UPS Series basic dimensions

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

		UPS-1000R Series	UPS-2200R Series			
Communication	Software	Middle Atlantic Power Manager™	Middle Atlantic Power Manager™			
	Self-Test	Manual Self-Test via front panel	Manual Self-Test via front panel			
	Auto-Charger/ Auto-Restart	yes	yes			
Management	agement COM Interface	Primary: - RS232 Communication + Control - Analog Status Notification + Control Secondary: - Analog status notification only	Primary: - RS232 Communication + Control - Analog Status Notification + Control Secondary: - Analog status notification only			
		Secondary: - Analog status notification only	Secondary Analog status notification only			
	Built-in USB Interface	yes	yes			

Estimated Run Times UPS-1000R Series											
Load (VA)	120	240	360	480	600	720	840	960			
Load (W)*	84	168	252	336	420	504	588	672			
Load (A)	1	2	3	4	5	6	7	8			
# of expansion batteries	expansion batteries Estimated Run Time (Minutes)										
UPS only	102	51	34	26	20	17	15	13			
1	561	283	190	143	114	94	80	69			
2	1020	515	345	260	207	171	145	125			
3	1479	747	501	377	300	249	211	181			
4	1938	979	657	494	394	326	276	238			
5	2397	1211	813	611	487	403	341	294			
6	2856	1443	968	728	580	480	407	350			
7	3315	1676	1124	845	674	557	472	406			
8	3774	1908	1280	962	767	635	537	463			
9	4233	2140	1435	1079	860	712	603	519			
10	4692	2372	1591	1196	954	789	668	575			

*Assuming a Power Factor of .7

					Esti	mated Ru	n Times	UPS-220	00R Series	3						
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
# of expansion batteries							Est	imated Run	Time (Minu	ites)						
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



