



AP-S20

AC POWER DISTRIBUTION & SURGE SUPPRESSOR UNIT

TECHNICAL DATA SHEET



PRODUCT SUMMARY

The AtlasIED AP-S20 AC Power Distribution & Surge Suppressor Unit has been designed to meet most installation requirements for AC power distribution and equipment power protection.

The AP-S20 features noise filtering for unwanted Radio Frequency Interference (RFI) that is commonly introduced into AC lines by nearby radio transmitters or wireless products. The benefit of these filters can be seen on video products or audibly by reducing static pops and external signal interference in sound reinforcement systems.

Unstable AC Mains voltage is one of the main reasons for equipment failure. The amount of energy that can be injected into the power system can be immense with voltages reaching 6kV or current peaks of 3000A. These spikes are very fast and usually only last for a very short period of time. The AP-S20's circuitry is very fast and can suppress unwanted energy within a nanosecond response and sustain the suppression up to 2 milliseconds, thus ensuring virtually trouble-free protection. If the suppression circuitry is damaged, the AC Protect LED will turn off to indicate a fault has occurred.

The AP-S20 offers power management control, noise filtering, and protection against abnormal voltages, spikes, and surges, making it the most compact, effective power management protection system on the market today.

KEY FEATURES

- 9 Total Outlets
 - 7 Rear Panel Switched Outlets
 - 1 Rear Panel Unswitched Outlet
 - 1 Front Panel Unswitched Convenience Outlet
- 12 gauge 9' (2.74m) Cord
- RFI Noise Filtering to Reduce Radio Frequency Interference
- Circuit Breaker Protection @ 20A
- Voltage Protection Rating
 - Clamping Voltage L-N: 400, L-G: 500, N-G: 400 / 3kA, 8/20 μ s
 - Max. Spike Clamping Voltage 6kV, 1.2/50 μ s
- AC Protect Active Indicator

AUDIO APPLICATIONS

The AP-S20 was designed to be flexible with features that allow it to be used in a variety of applications. The AP-S20 can be used solely for protection against voltage surges or for AC distribution. If fuzzy video or frequent static pops occur, the AC power conditioning may eliminate or reduce those inconveniences. The following are just a few examples of applications where the AP-S20 can be used:

- Restaurants
- Houses of Worship
- Schools
- Home Theaters
- Office Buildings
- Sports Bars

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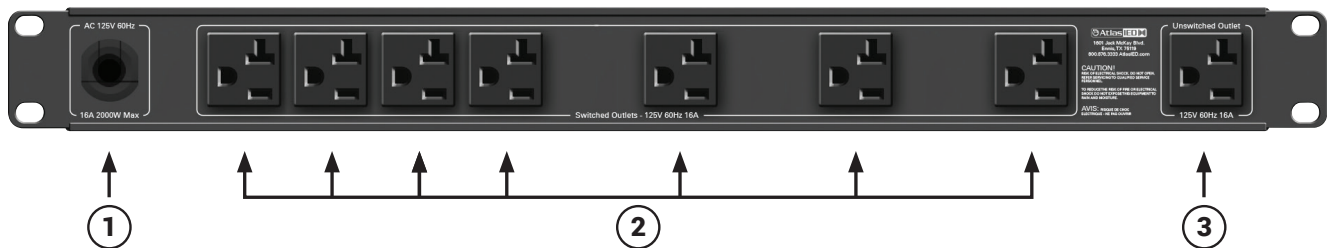
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FRONT PANEL DESCRIPTION



- 1. Unswitched AC Power Outlet** - The 120VAC 20A NEMA 5-20R outlet is always live when the AP-S20 power cord is plugged into an AC Mains power source and voltage is present. **Note:** The AC Mains power switch does not affect the Unswitched AC Outlet. The Unswitched Outlet is protected by the surge protection circuitry.
- 2. AC Mains Breaker** - The 120VAC 20A 2500W rated breaker will open if the combined draw of all AC outlets exceeds 20A. Note: The breaker is designed to exceed its rating for a short period of time. If the breaker is tripped, you must first remove the load from the AP-S20 and then push to reset.
- 3. Power Switch** - To turn the AP-S20 On or Off, press the switch to the ON or OFF position. This switch powers the "switched" outlets. The switch will illuminate Red when it is in the ON position.
- 4. Power AC Present LED** - This LED will illuminate Red when the AC Mains Power Switch is in the ON position.
- 5. AC Protect Active LED** - Although the Clamping Suppression circuit virtually assures protection from most transient voltage spikes and surges, nature has a way of occasionally creating electrical forces that are beyond the capabilities of any device to absorb without some degree of damage. In the rare instance that this occurs and the circuit has been damaged, the Green "AC Protect Active" LED indicator will turn Off, indicating that the AC Protect Circuitry is no longer protecting equipment connected to the Switched outlets. The unit will still operate as an AC distribution unit but the surge suppressor protection will not function until the unit is repaired. Note: Be advised that activation of this fault condition and the associated repair is not covered under warranty. If the AC Protect is disengaged, it is important to have all equipment that was connected to that AC Mains Line be inspected for proper operation.

REAR PANEL DESCRIPTION



- 1. AC Mains Input** - Connect the 12 gauge 9' (2.74m) power cord to a 20A 120VAC outlet to provide power to the AP-S20.
- 2. Switched AC Power Outlets** - Seven 120VAC 20A NEMA 5-20R outlets are live when the front panel power switch is activated.
- 3. Unswitched AC Power Outlet** - The 120VAC 20A NEMA 5-20R outlet is always live when the AP-S20 power cord is plugged into an AC mains power source and voltage is present. **Note:** The AC mains power switch does not affect the Unswitched AC Outlet. The Unswitched Outlet is protected by the surge protection circuitry.

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INSTALLATION

Before installing, read the entire manual to ensure proper understanding of operation and that all features are being utilized. The AP-S20 can be placed on a shelf or rack mounted in a standard 19" width rack. When rack mounted, placement within the rack is flexible, however the AP-S20 should be within 6' of a dedicated 20A AC outlet. When rack mounting, use rack rail type screws of 10/32" x 1". Always make sure the 20A outlet is properly inspected by a certified electrician prior to connecting the AP-S20. Make sure to inspect the equipment that will be connected to the AP-S20 to ensure it does not exceed 20A total amperage draw.

AUDIO SPECIFICATIONS / PERFORMANCE

System	
Model	AP-S20
Type	AC Power Distribution & Surge Suppressor
Load Rating	20A
Safety Listings	UL 60950-1 Standard

Front Panel	
Outlets	1 Unswitched, Note: All Outlets are Surge and RF Protected
Activation Switch	Rocker, Illuminates Red when in the ON position
Indicators	AC Power ON (Red), AC Protect Active ON (Green)
AC Mains Circuit Breaker	20A Resettable

Rear Panel	
AC Outlets	NEMA 5-20R, 8 Outlets Total: 7 Switched, 1 Unswitched
AC Mains Power Cord	9' (2.74m), 12 Gauge, AC Plug NEMA 5-20P

Technical	
Current Rating	Limited to 16A 2000W Continuous
Current Protection	20A AC Mains Breaker
Operating Voltage	102VAC - 132VAC
MOV - New Generation	Qty. 3 Hot to Neutral, Hot to Ground, Neutral to Ground
Clamping Voltage	L-N: 400, L-G: 500, N-G: 400 / 3KA, 8/20 μ s
Max. Spike Clamping Voltage	6kV, 1.2/50 μ s
Max. Spike Clamping Resp. Time	<1 nanosecond
Maximum Surge Current	45000A, 8/20 μ s
Energy Rating @ 2ms	900 Joules, 8/20 μ s
Noise Attenuation RFI	40dB @ 10kHz - 100MHz
Temperature Range	5° to 35°C
Humidity Range	5% to 95% Relative Humidity

Mechanical	
Color	Black
Rack Mount Requirements	1 RU, 19"

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AUDIO SPECIFICATIONS / PERFORMANCE (CONTINUED)

Dimension and Weight

Dimensions - Unit	19" W x 1.75" H x 3.75" D (482.6mm x 44.5mm x 95.5mm)
Dimensions - Shipping	20.5" W x 3.5" H x 8.5" D (520.7mm x 88.9mm x 215.9mm)
Weight - Unit	5.5 lbs (2.49kg)
Weight - Shipping	6.12 lbs (2.78kg)

Package Contents

AP-S20 Unit	Qty 1
Owner's Manual Insert	Qty 1

Warranty Coverage

Warranty Period	1 Year
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PRODUCT IMAGES



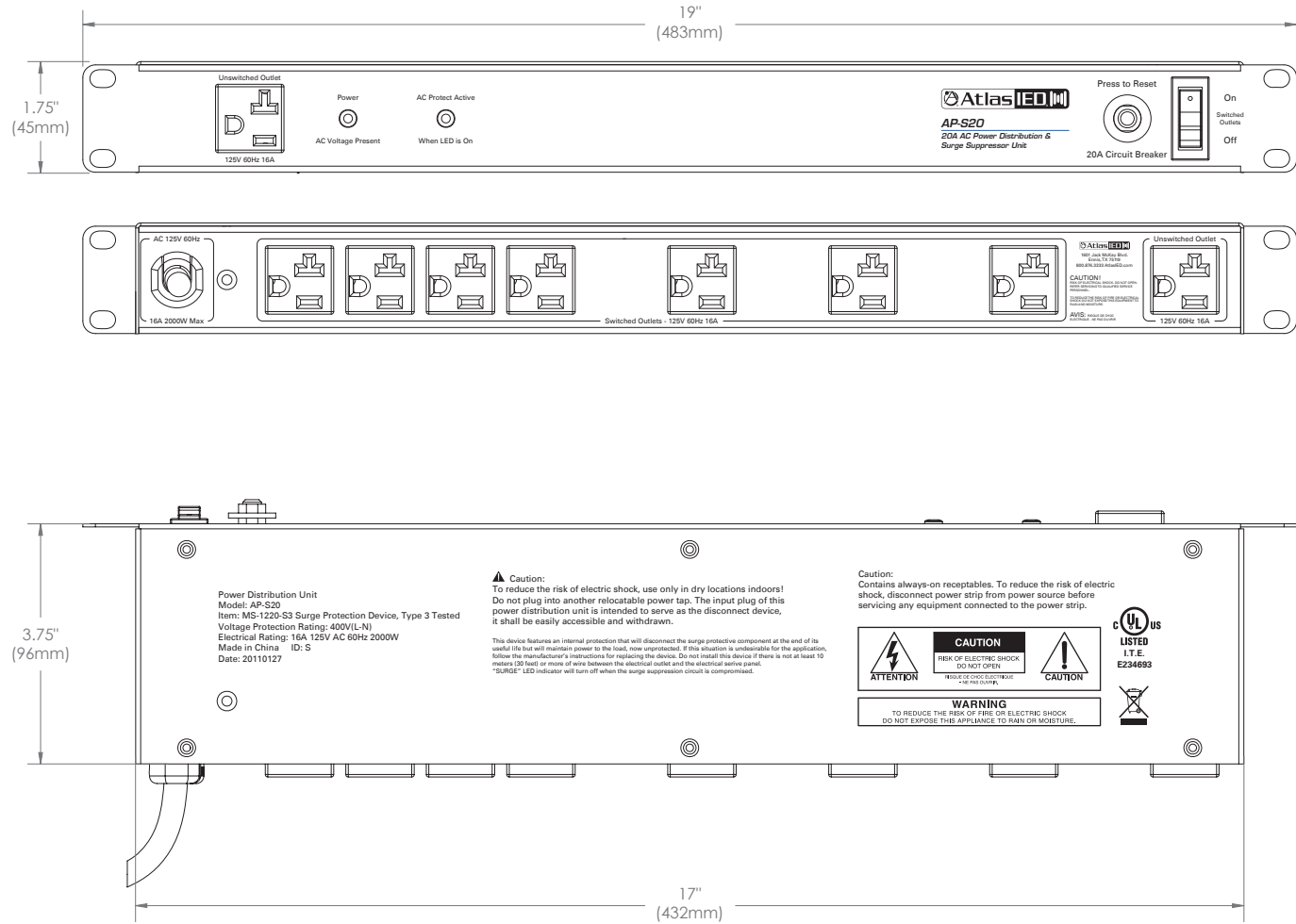
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DIMENSIONAL DRAWINGS



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ARCHITECT AND ENGINEER SPECS

Power conditioner shall be AtlasIED model AP-S20. Power conditioner shall have 9 total outlets, 8 rear panel outlets (7 switched and 1 unswitched) and 1 front panel, unswitched outlet. Power conditioner shall include Radio Frequency and Electromagnetic filtering to reduce noise in AC lines. Power conditioner shall have circuit breaker protection at 20A. Finish shall be textured black epoxy and dimensions shall be 19" W x 1.75" H x 3.75" D (482.6mm x 44.5mm x 95.5mm) to mount into 1RU of space.

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