



SmartPro® 120V 1.5kVA 1.35kW Line-Interactive Sine Wave UPS, 2U, Extended Run, Network Card Options, LCD, USB, DB9

MODEL NUMBER: **AL-84104**



Description

The AL-84104 SmartPro 120V 1.5kVA 1.35kW Line-Interactive Sine Wave UPS provides battery backup and AC power protection against blackouts, brownouts, power surges and line noise that can damage electronics or destroy data. Ideal for backing up servers and network storage devices, the AL-84104 switches to battery mode in milliseconds to keep your connected equipment running long enough to save files and shut down safely with no data loss.

Featuring eight NEMA 5-15R outlets (four switchable) and a 10-foot power cord with 120V NEMA 5-15P input, the AL-84104 has an internal battery that provides 14 minutes of support at half load and 4.9 minutes at full load. A front-panel LCD screen lets you monitor important data, such as load level, voltage, battery charge and estimated runtimes. Adding external battery packs, such as the AL-84132 (sold separately), provides extended runtime.

Automatic voltage regulation (AVR) maintains 120V nominal output over an input range of 83V to 145V without using battery power. EMI/RFI noise filtering improves your equipment's performance and prevents damage. A 570-joule surge suppression rating protects your equipment from harmful power surges. With Tripp Lite's included PowerAlert® software, the AL-84104 enables safe unattended system shutdown and file saves in case of a prolonged power failure.

Features

Protects Mission-Critical Rack-Mounted Equipment

- Provides fully regulated sine wave AC output for servers, network storage devices and telecom hardware
- Audible alarm signals loss of utility power, overload, low battery and fault conditions
- 8 NEMA 5-15R outlets
- 10 ft. power cord with 120V NEMA 5-15P input
- 0.9 power factor rating
- 570-joule surge suppression rating

Highlights

- Corrects under- and overvoltages from 83V to 145V
- 8 NEMA 5-15R outlets—4 switchable via network interface
- Network power management and control capability
- Expandable runtime with optional external battery packs
- 14 min. runtime at half load; 4.9 min. at full load

Package Includes

- AL-84104 SmartPro 120V 1.5kVA 1.35kW Line-Interactive Sine Wave UPS
- USB cable
- DB9 cable
- EPO cable
- PowerAlert software
- Mounting hardware
- Owner's manual

Reliable Battery Backup with Expandable Runtime

- Supports half load up to 14 min. and full load up to 4.9 min.
- Internal batteries designed for hot-swap field replacement
- 95% line-power efficiency rating saves money in energy costs
- Expandable runtime with optional external battery packs, such as the AL-84132

2 Load Banks with Switchable Outlets

- Can control 4 outlets remotely to reboot equipment or shed nonessential loads

Automatic Voltage Regulation(AVR)

- Maintains 120V nominal output over input range of 83V–145V without using battery power

EMI/RFI Line Noise Filtering

- Removes electromagnetic and radio frequency interference that can disrupt or damage equipment's performance

Interactive LCD Screen

- Front-panel LCD signals operating mode, load level, voltage, battery charge and estimated runtimes
- Rotates for easy viewing in rack-mount or tower configurations

Network Management Cards

- Compatible with Tripp Lite UPS management card options AL-84126

Communications Ports

- USB and DB9 ports combine with included PowerAlert software to monitor operating conditions, monitor AC power, and enable safe unattended system shutdown and file saves in case of a prolonged power failure
- EPO port supports emergency shutdown in large facilities

Versatile Installation Options

- Hardware included for 4-post mounting in 2U of EIA-standard 19 in. rack
- Mounts on wall or 2-post rack with optional AL-84125 accessory Mounts
- in upright tower position with optional AL-84123 accessory

Specifications

OUTPUT	
Output Volt Amp Capacity (VA)	1500
Output kVA Capacity (kVA)	1.5
Output Watt Capacity (Watts)	1350
Output kW Capacity (kW)	1.35
Output Capacity Details	Output is reduced to 1200 watts maximum when used with external battery packs
Power Factor	0.9

Nominal Output Voltage(s) Supported	110V; 115V; 120V
Nominal Voltage Details	120v nominal output in battery mode
Frequency Compatibility	60 Hz
Output Voltage Regulation (Line Mode)	-14%, +6%
Output Voltage Regulation (Battery Mode)	+/- 5%
Output Receptacles	(8) 5-15R
Load Management Receptacles	Two switchable two-outlet 5-15R load banks
Output AC Waveform (AC Mode)	Sine wave
Output AC Waveform (Battery Mode)	Pure Sine wave
INPUT	
Rated input current (Maximum Load)	12A
Nominal Input Voltage(s) Supported	120V AC
UPS Input Connection Type	5-15P
Input Circuit Breakers	15A
UPS Input Cord Length (ft.)	10
UPS Input Cord Length (m)	3.0
Recommended Electrical Service	15A 120V
Input Phase	Single-Phase
BATTERY	
Full Load Runtime (min.)	4.9 min. (1350w)
Half Load Runtime (min.)	14 min. (675w)
Expandable Battery Runtime	Extended runtime supported via optional external battery packs
External Battery Pack Compatibility	AL-84132 (limit 1); AL-84134 (multi-pack compatible); AL-84133 (multi-pack compatible)
DC System Voltage (VDC)	36
Battery Recharge Rate (Included Batteries)	Less than 4.5 hours from 10% to 90% (typical, full load discharge)
Internal UPS Replacement Battery Cartridge	AL-84161
Battery Access	Front panel battery access door
Battery Replacement Description	Hot-swappable, user replaceable batteries
Expandable Runtime	Yes
VOLTAGE REGULATION	

Voltage Regulation Description	Automatic voltage regulation (AVR) maintains line power operation with an input voltage range of 83 to 145
Overvoltage Correction	Input voltages between 127 and 145 are reduced by 12%
Undervoltage Correction	Input voltages between 95 and 108 are boosted by 12%
Severe Undervoltage Correction	Input voltages between 83 and 94 are boosted by 24%
USER INTERFACE, ALERTS & CONTROLS	
Front Panel LCD Display	Front panel LCD information and configuration screen offers detailed UPS and site power status and operating data, plus configuration of voltage, operating mode, alarm function and a variety of additional options (see manual for detailed LCD configuration and monitoring options)
Switches	3 pushbutton switches control OFF / ON power status, MODE selection and MUTE / ENTER control functions
Alarm Cancel Operation	Power-fail alarm can be temporarily silenced using alarm-cancel switch; silent mode alarm configuration option available
Audible Alarm	Audible alarm indicates UPS startup, power-failure, low-battery, overload, UPS fault and remote shutdown conditions
SURGE / NOISE SUPPRESSION	
UPS AC Suppression Joule Rating	570
UPS AC Suppression Response Time	Instantaneous
EMI / RFI AC Noise Suppression	Yes
PHYSICAL	
Included Mounting Accessory Description	4 post rackmount installation accessories included
Installation Form Factors Supported with Optional Accessories	2 post rackmount (AL-84125); Tower (AL-84123)
Primary Form Factor	Rackmount
UPS Power Module Dimensions (hwd, in.)	3.45 x 17.3 x 13.45
UPS Power Module Dimensions (hwd, cm)	8.76 x 43.94 x 34.16
Rack Height (U Spaces)	2
Minimum Required Rack Depth (inches)	20
Minimum Required Rack Depth (cm)	50.80
UPS Power Module Weight (lbs.)	46.5
UPS Power Module Weight (kg)	21.09
UPS Shipping Dimensions (hwd / in.)	8.5 x 23.4 x 19.9
UPS Shipping Dimensions (hwd / cm)	21.59 x 59.44 x 50.55
Shipping Weight (lbs.)	51.3
Shipping Weight (kg)	23.3

Cooling Method	Fan
UPS Housing Material	Steel
Minimum Required Rack Depth (mm)	508
Primary UPS Height (mm)	88
Primary UPS Width (mm)	439
Primary UPS Depth (mm)	342
Shipping Height (mm)	216
Shipping Width (mm)	594
Shipping Depth (mm)	505
ENVIRONMENTAL	
Operating Temperature Range	+32 to +104 degrees Fahrenheit / 0 to +40 degrees Celsius
Storage Temperature Range	+5 to +122 degrees Fahrenheit / -15 to +50 degrees Celsius
Relative Humidity	0 to 95%, non-condensing
AC Mode BTU / Hr. (Full Load)	237
AC Mode Efficiency Rating (100% Load)	95%
COMMUNICATIONS	
Communications Interface	USB; DB9 Serial; EPO (emergency power off); Slot for SNMP/Web interface
Network Management Cards	AL-84126
Network Monitoring Port Description	Supports detailed monitoring of UPS and site power conditions
PowerAlert Software	Included
Communications Cable	USB and DB9 cabling included
WatchDog Compatibility	Supports Watchdog application, OS and hard-reboot restart options for remote applications
LINE / BATTERY TRANSFER	
Transfer Time	4 milliseconds (AC to battery mode), 1 millisecond (Battery to AC mode)
Low Voltage Transfer to Battery Power (Setpoint)	83
High Voltage Transfer to Battery Power (Setpoint)	145
SPECIAL FEATURES	
Grounding Lug	Back panel grounding lug
Cold Start (Startup in Battery Mode During a Power Failure)	Cold-start operation supported
High Availability UPS Features	Hot swappable batteries

Green Energy-Saving Features	Greater than 95% efficiency - GREEN UPS; Individually controllable load banks
CERTIFICATIONS	
UPS Certifications	Meets FCC Part 15 Category A (EMI); ROHS (Restriction of Hazardous Substances); Tested to CSA (Canada); Tested to NOM (Mexico); Tested to UL1778 (USA)
WARRANTY	
Product Warranty Period (Worldwide)	2-year warranty, 3 year with registration. Note: Registration is required for 3-year warranty.
Connected Equipment Insurance (U.S., Canada & Puerto Rico)	\$250,000 Ultimate Lifetime Insurance

