



SmartPro 120V 2.2kVA 1.92kW Line-Interactive Sine Wave UPS, 2U, Network Card Options, LCD Display, USB, DB9

MODEL NUMBER: **AL-84105**



Description

The AL-84105 SmartPro Line Interactive UPS with enhanced LCD interface offers network-grade power protection for critical server, network and telecommunications equipment. Line Interactive Uninterruptible Power Supply (UPS) with built-in Auto-Voltage Regulation (AVR) actively corrects brownouts and overvoltages back to usable levels while maintaining a full battery charge in case of power failure. This unique configuration excels in exceptionally poor-power environments with two separate levels of voltage boost to correct both slight undervoltages and severe brownout conditions.

Interactive LCD interface reports UPS operating mode, detailed UPS and site-power data, plus enables a variety of UPS setup and configuration options. Super-fast switchover from line to battery power occurs within milliseconds to maintain operation of connected equipment without interruption or reboot. 96% line-mode efficiency offers reduced heat emissions and operating costs. Network management interfaces support communications via USB, RS-232 and slot for network management accessory card. HID-compliant USB port enables integration with built-in power management and auto shutdown features of Windows and Mac OS X. Network communications ports enable detailed monitoring of equipment load levels, self-test data and utility power conditions. Includes PowerAlert monitoring software and complete cabling. Switched output load banks enable scheduled and real-time remote reboot and load shedding of select outlets. Emergency Power Off (EPO) interface. LCD display panel easily rotates for viewing in rackmount or tower configurations. Audible alarm with push-button momentary alarm-cancel and silent-mode configuration options. Programmable self-test. Field-replaceable, hot-swappable battery modules.

Features

- AL-84105 line interactive 2U rack/tower UPS with 2200VA / 2.2kVA / 1920W capacity
- Line interactive UPS with Automatic Voltage Regulation(AVR) corrects brownouts and overvoltages from 83 to 145V
- NEMA 5-20P input plug; 4 NEMA 5-15R & 4 NEMA 5-15/20R output receptacles, Two independently switchable output load banks
- Maintains uninterrupted operation of connected networking equipment during blackouts, surges, brownouts and overvoltages
- High 96% efficiency rating in line-power mode offers reduced power consumption and BTU emissions
- Internal batteries offer 12 minutes at 50% load(960W) and 4.5 minutes at 100% load(1920W)
- Hot-swappable, user-replaceable internal batteries can be replaced with no disruption to connected equipment
- Intelligent battery management system extends battery life

Highlights

- 2.2kVA / 2200VA / 1920W line interactive 2U rack/tower UPS, Sine Wave
- 120V output, Corrects brownouts and overvoltages from 83V to 145V
- 0.9 Power Factor, Interactive LCD interface
- 4 post compatible mounting accessories
- 96% line-mode efficiency, 2 switched load banks
- USB, RS232, EPO and slot for Network Card options
- 120V NEMA 5-20P input, 4 NEMA 5-15R & 4 NEMA 5-15/20R outlets

Package Includes

- AL-84105 UPS system
- PowerAlert Software with USB, Serial & EPO cabling
- 4 post rackmount installation kit
- Instruction manual

- Front panel LCD monitoring screen with MODE and ENTER buttons reports operating mode with 5-bar battery charge graphic, plus 7 selectable screens of detailed UPS and site power information
- LCD interface also supports a number of advanced user setup and operating preferences
- Ships with 4 post rackmount installation hardware; Optional AL-84125 enables 2 post rackmount/wallmount installation; Optional AL-84123 enables tower placement
- Built-in USB, RS-232 and slot for network management accessory cards; Compatible with UPS management card AL-84126
HID-compliant USB port enables integration with built-in power management and auto shutdown features of Windows and Mac OS X
- Included PowerAlert UPS monitoring software; Built-in Emergency Power Off(EPO) interface with cable

Specifications

OUTPUT	
Output Volt Amp Capacity (VA)	2200
Output kVA Capacity (kVA)	2.2
Output Watt Capacity (Watts)	1920
Output kW Capacity (kW)	1.92
Power Factor	.87
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	(4) 5-15R; (4) 5-15/20R
Load Management Receptacles	Two switchable single-outlet load banks
Output AC Waveform (AC Mode)	Pure Sine wave
Output AC Waveform (Battery Mode)	Pure Sine wave
INPUT	
Rated input current (Maximum Load)	16A (120V)
Nominal Input Voltage(s) Supported	120V AC
UPS Input Connection Type	5-20P
Input Circuit Breakers	20A
UPS Input Cord Length (ft.)	10
UPS Input Cord Length (m)	3.0

Recommended Electrical Service	20A 120V
Input Phase	Single-Phase
BATTERY	
Full Load Runtime (min.)	4.5 min. (1920w)
Half Load Runtime (min.)	12 min. (960w)
DC System Voltage (VDC)	48
Battery Recharge Rate (Included Batteries)	Less than 4.5 hours from 10% to 90% (typical, full load discharge)
Internal UPS Replacement Battery Cartridge	AL-84162
Battery Access	Front panel battery access door
Battery Replacement Description	Hot-swappable, user replaceable batteries
Expandable Runtime	No
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 108 and 96 are boosted by 12%
Severe Undervoltage Correction	Input voltages between 83 and 95 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.)	3.43 x 17.32 x 19.46
UPS Power Module Dimensions (hwd, cm)	8.71 x 43.99 x 49.43
Rack Height (U Spaces)	2
Minimum Required Rack Depth (inches)	24.5
Minimum Required Rack Depth (cm)	62.23
UPS Power Module Weight (lbs.)	57.6
UPS Power Module Weight (kg)	26.13
UPS Shipping Dimensions (hwd / in.)	7.9 x 21.7 x 24.2
UPS Shipping Dimensions (hwd / cm)	20.07 x 55.12 x 61.47
Shipping Weight (lbs.)	57.6
Shipping Weight (kg)	26.2
Cooling Method	Fan
UPS Housing Material	Steel
Minimum Required Rack Depth (mm)	622
Primary UPS Height (mm)	87
Primary UPS Width (mm)	440
Primary UPS Depth (mm)	494
Shipping Height (mm)	201
Shipping Width (mm)	551
Shipping Depth (mm)	615
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)	306
AC Mode Efficiency Rating (100% Load)	96%
COMMUNICATIONS	
Communications Interface	USB (HID enabled); 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, DB9 and EPO cabling included
WatchDog Compatibility	Supports Watchdog application, OS and hard-reboot restart options for remote applications
Network UPS Tools Compatibility	NUT compatible. See the full list of Tripp Lite NUT compatible UPS systems at http://www.networkupstools.org/stable-hcl.html?manufacturer=Tripp Lite
LINE / BATTERY TRANSFER	
Transfer Time	5 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	Tested to UL1778 (USA); Tested to CSA (Canada); Tested to NOM (Mexico); Meets FCC Part 15 Category A (EMI); ROHS (Restriction of Hazardous Substances)
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

