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Model #: APS3636VR

PowerVerter APS Inverter/Charger - with Auto-Transfer Switching and Line Interactive Voltage Regulation

Highlights



- 36V DC or 120V AC input; 120V AC output (hardwired)
- 3600 watts continuous, 5400 watts OverPower and 7200 watts DoubleBoost inverter output
- 3 stage, 30 amp selectable wet/dry cell battery charger
- Auto Transfer Switching option for battery backup / UPS operation - includes wired APSRM4 remote control switch
- Automatic Voltage Regulation corrects brownouts and overvoltages without using battery power
- High reliability large-transformer design with protected DC and AC wiring terminals

Description

Tripp Lite's APS3636VR DC-to-AC inverter with automatic line-to-battery transfer and integrated charging system serves as an extended run UPS, a standalone power source or an automotive inverter. Supplies up to 3600 watts of continuous 120V AC power from any 36V battery or automotive DC source. OverPower inverter output feature temporarily provides up to 150% of the continuous output for 1-60 minutes and DoubleBoost inverter output feature delivers up to 200% of the continuous output for up to 10 seconds, providing the extra power needed to cold start heavy-duty tools and motorized equipment. When hardwire AC input is energized, commercial power passes through to connected equipment and the battery set is recharged via 3 stage, 30 amp charging system. In UPS mode, the APS system responds to blackouts and severe voltage fluctuations with a near instantaneous automatic transfer to battery-derived AC output. Includes a set of high current DC input terminals for simple installation (user supplies batteries and cabling - see owner's manual for recommendations). Passes sine wave utility or generator power during battery charging and UPS line power operation, plus efficient PWM sine wave AC output in inverter and UPS backup modes. Built-in Automatic Voltage Regulation (AVR) corrects line power AC brownouts and overvoltages without using battery power during battery charging and UPS standby modes. Reliable large transformer design, with frequency control powers resistive electronic loads or large inductive motors, compressors and other items with high current needs on startup. Included APSRM4 wired remote power switch with full status LEDs provides remote power inverter on/off switching and continuous status information (APSRM4 included). Supports an unlimited amount of runtime with any number of user-supplied batteries connected. Highly adaptable to a variety of applications and site conditions with adjustable charger settings for wet/gel battery types and selectable line to battery power transfer voltages.

Applications

Versatile inverter/charger system with auto-transfer switching serves as an automotive inverter for RVs, over-the-road trucking, conversion vans and fleet service vehicles; a standalone alternative power source for off-grid, alternative energy or export applications and as an uninterruptible power supply (UPS) for items compatible with a 16.6 millisecond transfer time.

Package Includes

- APS3636VR Inverter/Charger
- Instruction manual with warranty information
- Wired Remote Switch with full LED status indicators (model APSRM4)

Features

APS3636VR serves as an automotive or stationary DC-to-AC inverter with automatic line-to-battery transfer and integrated battery charger

Supports 120V AC output from a 120V AC line power source or 36V DC battery source

16.6 millisecond automatic transfer between line and battery power supports UPS protection during blackouts and severe voltage fluctuations for equipment compatible with a one cycle transfer time

3600 watts continuous AC output in inverter mode, 3600 watts continuous AC output in AC mode

Double Boost inverter output supports momentary startup loads up to 200% of the continuous rating for up to 10 seconds

OverPower inverter output supports longer duration overloads to 150% for 1-60 minutes under ideal battery and temperature conditions. (For best results, utilize OverPower usage for as short of a duration as possible, ensure battery bank and cabling is able to provide full nominal DC voltage under load and allow inverter/charger to fully cool before and after OverPower usage.)

3 stage, 30 amp battery charger with adjustable settings for wet/gel battery types offers fast, reliable battery recharging

Protected hardwire bolt-down input lugs safely accept heavy gauge input wiring from attached battery bank

Protected hardwire output passes 120V line power or inverter output through to connected equipment

Reliability enhanced large-transformer design with secure mounting flanges and protected DC wiring terminals

Moisture-resistant construction enables vehicular or marine operation in high humidity environments

3 position operating mode switch supports "AUTO" mode to enable automatic transfer between DC and AC modes, CHARGE-ONLY to maintain a full battery charge when AC is present without auto transfer and SYSTEM OFF settings

Set of six front panel LEDs display AC/DC operational modes, overload status, DC voltage level, shutdown status and system fault status

Set of 4 configuration dials support wet/gel battery charging profiles, adjustable 135/145V high voltage auto transfer during overvoltages and selectable 75/85/95/105V AC low voltage auto transfer during brownouts

Set of 4 additional configuration dials support 4 levels of charger limiting relative to output load size and a battery equalization program

Resettable 25A charger AC input breaker and resettable 30A AC output breaker and automatic 2 speed cooling fan protect the inverter from load and temperature related failures

Grounding lug properly connects the inverter/charger system to earth ground or vehicle grounding system

Automatic overload and thermal shutoff safely turns off inverter as excessive loads or overheating conditions develop

Front panel remote control connector enables remote off/on switching (APSRM4 remote control switch with status LED display and 50 ft cable included). APSRM4 accessory also includes user configurable jacks to support inverter shutoff or startup as a vehicle ignition is engaged

Load sensing control dial enables adjustable load threshold required to automatically turn the inverter on and off in DC mode as load conditions change

Specifications

SYSTEM OVERVIEW	
Voltage compatibility	36VDC / 120VAC
Frequency compatibility	60 Hz
OUTPUT	
Output watts	3600W (continuous) / 7200W (peak)
Output nominal voltage	120V (AC) / 36V (DC Charger)
Output voltage regulation	LINE POWER (AC): Maintains 120V nominal sine wave output from line power source. INVERTER POWER (AC): Maintains PWM sine wave output voltage of 120 V AC (+/-5%).
Output frequency regulation	60 Hz (+/- 0.3 Hz)
Outlet quantity / type	Hardwire
Overload protection	Includes 25A input breaker dedicated to the charging system and 30A output breaker for AC output loads.
Continuous output capacity (watts)	3600
Peak output capacity (watts)	7200
INPUT	
Input connection type	DC INPUT: Set of DC bolt-down terminals. AC INPUT: Hardwire via built in junction box with cover plate
Input cord length	DC INPUT: User supplies cabling. 8 gauge or larger (see manual). AC INPUT: user supplies hardwire input cabling

Recommended electrical service	DC INPUT: Requires 36VDC input source capable of delivering 114A for the required duration (when used at full continuous capacity - DC requirements increase during Over-Power and Double-Boost operation). For automotive applications, professional hardwire
Maximum input amps / watts	DC INPUT: Full continuous load - 114A at 36VDC. AC INPUT: 54 amps at 120VAC with full inverter and charger load (20A max charger-only / combined input load to support charger and AC output is automatically controllable to 66%-33%-0% based on AC output load
BATTERY	
Expandable battery runtime	Runtime is expandable with any number of user supplied wet or gel type batteries
DC system voltage	36V
Battery recharge rate	30A
VOLTAGE REGULATION	
Voltage regulation description	Includes automatic voltage regulation to correct brownouts and over-voltages back to usable levels
Overvoltage correction	Over-voltages starting at 127 are automatically reduced by 10%
Brownout correction	Brownouts starting at 103 are automatically boosted by 10%
LEDS ALARMS & SWITCHES	
Front panel LEDs	Set of 6 LEDs offer continuous status information on load percentage (6 levels reported) and battery charge level (7 levels reported). See manual for sequences.
Switches	3 position on/off/remote switch enables simple on/off power control plus "auto/remote" setting that enables distant on/off control of the inverter system when used in conjunction with optional External switch for wired remote control of APS unit (APSRM4) accessory when used in inverter mode. In AC uninterruptible power mode, "auto/remote" setting enables automatic transfer from line power to battery power - to maintain continuous AC power to connected loads.
PHYSICAL	
Shipping Dimensions (HWD/in)	13.5 x 15 x 21.5
Shipping Dimensions (HWD/cm)	34.3 x 38.1 x 54.6
Unit weight (lbs)	61
Unit weight (kg)	27.7
Unit Dimensions (HWD/in)	7.25 x 8.5 x 16.25
Unit Dimensions (HWD/cm)	18.4 x 21.6 x 41.3
Material of construction	Polycarbonate
Form factors supported	Mounting slots enable permanent placement of inverter on any horizontal surface (see manual for additional mounting information)
Cooling method	Multi-speed fan
ENVIRONMENTAL	
Relative Humidity	0-95% non-condensing
LINE / BATTERY TRANSFER	
Transfer time from line power to battery mode	16.6 milliseconds (typical - compatible with many computers, servers and networking equipment - verify transfer time compatibility of loads for UPS applications)
Low voltage transfer to battery power	In AC "auto" mode, inverter/charger switches to battery mode as line voltage drops to 75V (user adjustable to 85, 95V - see manual)

High voltage transfer to battery power	In AC "auto" mode, inverter/charger switches to battery mode as line voltage increases to 135V (user adjustable to 145 - see manual)
WARRANTY	
Product warranty	1 year (Outside the U.S. and Canada, call for warranty information)
SPECIAL FEATURES	
Load Sensing	Optional load sense function enables automatic inverter shutoff and startup as connected equipment is powered off and on. Front panel load sense potentiometer can be set to shutoff or turn on inverter power in response to loads of any level, up to 150 watts.
BATTERY PACK ACCESSORY (optional)	
Battery Pack Accessory (optional)	98-121 sealed lead acid battery (optional)

More information, including related products, owner's manuals, and additional technical specifications, can be found online at www.tripplite.com/products/model.cfm?txtModelID=173.