

UPR Series Power Conditioner

Rack mount Universal Precision Regulators for Shipboard & Tactical Applications

PURPOSE AND CAPABILITIES

Our UPR Series power conditioners are Power Factor Corrected (PFC) on the input to near unity. Therefore, when non-linear loads requiring *apparent* power are present, only *real* power is reflected on the input utility line, ensuring efficient use of electricity and preventing harmful load harmonics from re-entering your electrical system.

UPR units will support non-linear loads having power factors of 0.7 or worse. This means the *current* drawn by the load is either leading or lagging the *voltage* as it is used. This offset in *current* and *voltage* consumption, on the output, produces *apparent* power or Volt-Amperes (VA). Because of the PFC, the input power consumption is done more efficiently. The *actual* (real) power on the output, if measured strictly in watts, is the product of the *real current* and *voltage*, which will always be less than the input power. The advertised *apparent power* is the product of total RMS current and the voltage, which is measured in VA.

TRUE ON-LINE, DOUBLE-CONVERSION TECHNOLOGY

Unlike Standby (Off-Line) and Line-Interactive UPS products which only work part-time, this True On-Line design provides power 100% of the time in the form of a precise, digitally processed, output sine wave synthesized by an internal microprocessor.

FEATURES:

- Adjustable 5/8" Faceplate
- Fully isolated input
- Available in 1250VA, 1500VA, and 2000VA capacities
- Lightweight Aluminum Chassis (Steel also available)
- Inverter Powers Load Continuously
- Ruggedized UPS System without batteries
- Fully Regenerative™ True On-line, Low Distortion Sine Wave Output
- Inverter Powers Load Continuously
- Dipole breaker on front panel protects both sides of the line and permits testing
- Ruggedized internal structure provides resistance to shock and vibration damage
- Battery features disabled, but can be enabled by the user if optional Auxiliary Battery Trays are installed
- Fits most 19" rack applications
- Automatic Bypass
- Fully interactive software interface capability
- Software selectable output frequency allows operation at 50 or 60Hz
- Extended Input Operating Range +35/-20% of nominal
- Airflow Front-to-Rear (Rear to Front also available)
- Optional SNMP Network Agent Available
- Auto-Sense Input comes standard
- Cold Start feature allows system startup without AC input w/Aux Battery Tray installed
- Integral slide mounts and spacers tapped for *Jonathan* 145-QD slides
- High inrush input circuit

Product Datasheet



Front View

BENEFITS:

- Ruggedized COTS power conditioner
- MIL-STD-1399, Section 300B
- True On-Line Design
- Customizable to fit your specific application and requirements
- Electrically Isolated Input
- Battery backup runtime options available to meet your requirements

NOVA
POWER SOLUTIONS, INC.

NOVA Power Solutions, Inc. has supplied power protection and conditioning, and conversion products for shipboard, tactical and rugged industrial applications since 1988.

012.VAP.0510

Product Datasheet

STANDARD FEATURES:

- Auto-sense Wide Voltage Input
- Power Factor Corrected
- True On-Line, Sine wave Output
- Designed for Non-linear Loads
- Input Dipole Circuit Breaker
- Automatic Bypass
- Ruggedized components for resistance to shock and vibration
- Heavy-duty slide-mounts fit standard slide patterns
- Auxiliary Battery Input Connector
- Rear Mounted Ground Stud
- RS232 Communication & Open-Collector Signal Ports

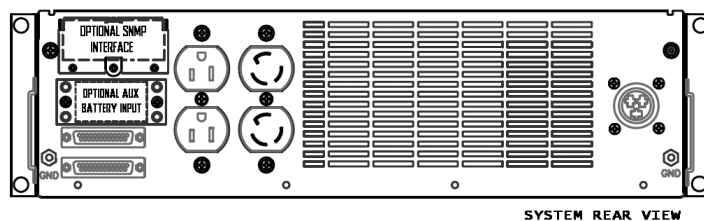
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Features and Specifications

ELECTRICAL	
Power Factor Corrected	IAW MIL-STD-1399, Section 300B
Input Voltage	115/220VAC +35%/-20% (without battery discharge)
Input Frequency	45 to 65Hz
Output Voltage	120VAC ± 3%
Output Frequency	Line Sync (software select), 50Hz or 60Hz (software select)
Crest Factor Ratio (Non-linear load and less than 5% THD)	Up to 4.8:1 (@50% Load) Up to 3.2:1 (@75% Load) Up to 2.4:1 (@100% Load)
Harmonic Distortion	5% Max. THD (@80% Non-linear load)
Dynamic Response	±4% for 100% Step Load Change, 500µs Recovery Time
Overload	110% for 10 minutes; 200% for 50ms
Efficiency	85% (@ 100% Load)
UPS Protection	Input and Output Short Circuit; Input and Output Overload; Excessive Battery Discharge
Non-linear load and less than 5% THD	
ENVIRONMENTAL	
Operating Temperature	32°F to 122°F (0°C to 50°C)
Humidity	0% to 95% Non-condensing
Altitude	Sea Level to 10,000 Feet
Audible Noise	39-42 dBA at Five Feet
MECHANICAL	
Dimensions	5 ¼" H x 19" W x 17" D
Weight	57lbs
Cooling	Low Velocity, Temperature Controlled Reversible Forced Air
Installation	Adjustable Face Plate
Battery	There are no internal batteries in this unit
Airflow	Front to Rear (Rear to Front also available)
Input	CPC 17 Locking Inlet, 6 Foot (minimum) power cord with NEMA Type 5-15P or 5-20P plug
Output	2pcs NEMA 5-15R/20R & 2pcs NEMA L5-15R/20R
STANDARDS	
	UL 1778 design; Mil-Std 1399 Section 300B, 167, 901D, & most elements of 810F (in a properly isolated rack)
MTBF	In Excess of 100,000 Hours (based on service records)
CONTROLS AND INDICATORS	
Sequenced LEDs	Battery Level, Load Level
Single LEDs	AC Input, Inverter On, Bypass On, On Battery, Fault, Cold Start, AC Output, Replace Battery
Front Panel Controls	Power On, Cold Start, Fault Silence, Battery Test, AC Output On-Off
Audible Alarms	Utility Interrupt, Inverter Failure, Overload, Low Battery
RS232 Data Interface (DB-25F):	Full Interactive, Remote Computer Monitoring and Control of UPS Functions. Compatible with Megatech & SEC protocols
Open-Collector (DB-25F):	Allows Alarm Function Monitoring
Optional SNMP Interface (RJ45):	Allows Full Control and Monitoring Over Network Connection. Compatible with OpenView™, NetView™ and CA Unicenter™ & Other UPS Software
OPTIONS	
CT-09A-2	USHA Mini SNMP Network Agent



Part Number	Nominal Apparent Power (VA)	Actual Output Power (W)	Dimensions	Weight
UPR1-1.25K-1G-SRNDTI-2	1250	875	5 ¼" x 19" x 17"	57lbs
UPR1-1.5K-1G-SRNDTI-2	1500	1050	5 ¼" x 19" x 17"	57lbs
UPR1-2.0K-1G-SRNDTI-2	2000	1400	5 ¼" x 19" x 17"	57lbs