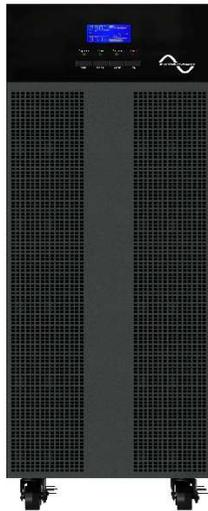




# TITANIUM SERIES UPS

(2-4kVA)



*True On-line Double Conversion Titanium Series UPS Series integrates DSP technology and a unique isolation transformer design to easily adapt to complicated loads. Small datacenters, Medical Lab equipment, light industrial facilities all require rugged UPS systems like the Titanium Series.*

## Engineered to support demanding applications

- Available sizes**  
 2kVA, 3kVA and 4kVA models available
- Variable Voltages (Input/Output)**  
 Variable voltages are available for the input (208/220/230/240VAC) and for the output (120/208/220/230/240VAC)
- Low Voltage and High Voltage Units**  
 The Titanium Series UPS systems will have low voltage units (2/3kVA), and high voltage units (2/3/4/5.2/6/8/10kVA)
- Isolated Transformer**  
 All Titanium UPS units include an internal isolation transformer. This rugged design ensured low Common Mode noise (>0.5V), and low Normal Mode noise (>10V) neutral to ground when tested to ANSI/IEEE C62.41
- Conformal Coated Boards**  
 Conformal coated boards allow for the Titanium Series to be used in "Light Industrial" applications. Boards that are conformal coated include the Main PCB, Comm., Charger and Control board.
- In-rush Capabilities**  
 The Titanium Series UPS systems include a high in-rush capability. Supporting an overload for 300% at 500mS will allow the user to properly size their UPS system.
- Customized Back Panels**  
 Back panels are "customized" per customer. Allows for specific designs to ensure all power requirements are supported.
- Extended Battery Cabinets**  
 Extended battery cabinets are optional. Allows user to have extended runtimes dependent on requirement.
- External Maintenance Bypass Systems**  
 External Maintenance Bypass Systems (MBS) are available in two types. Isolated and non-isolated version. Consult Factory for recommendations.
- Warranty**  
 Two (2) year warranty on the electronics, one (1) year warranty on the batteries.  
 For additional warranty options please call factory.

## Specifications:

| MODEL                                    |   | 2kVA(L)  | 2kVA(H)              | 3kVA(L)        | 3kVA(H)              | 4kVA (H) |
|--|---|--|----------------------|----------------|----------------------|----------|
| <b>CAPACITY*</b>                         |   | 2kVA / 2kW                                       | 2kVA / 2kW           | 3kVA / 3kW     | 3kVA / 3kW           | 4kVA/4kW |
| <b>INPUT</b>                             |   |  |                      |                |                      |          |
| Nominal Voltage/ Low-High / Range        | (L) 120VAC - (H) 208 /220 /230 / 240 VAC / +28% / -15% @ full load  |  |                      |                |                      |          |
| Frequency Range                          | 46Hz ~ 54 Hz @ 50Hz system, 56Hz ~ 64 Hz @ 60Hz system  |  |                      |                |                      |          |
| Phase                                    | 1 Phase with Neutral  |  |                      |                |                      |          |
| Power Factor                             | ≥ 0.99 at 100% Load   |  |                      |                |                      |          |
| <b>OUTPUT</b>                            |   |  |                      |                |                      |          |
| Phase                                    | 1 Phase with Neutral  |  |                      |                |                      |          |
| Output Voltage / Low-High                | (L) 104/110/115/120, (H) 208 /220 / 230 / 240   |  |                      |                |                      |          |
| AC Voltage Regulation                    | ± 1% (Normal)   |  |                      |                |                      |          |
| Frequency Range (Sync Range)             | 46Hz ~ 54 Hz @ 50Hz system, 56Hz ~ 64 Hz @ 60Hz system, (Batt Mode) +/- 0.1% Hz   |  |                      |                |                      |          |
| Overload                                 | AC Mode/  | 100%~110%: 1 hour; 110%~130%: 1min; >130% : 1sec |                      |                |                      |          |
|  | Battery Mode  | 100%~110%: 30sec; 110%~130%: 10sec; >130% : 1sec |                      |                |                      |          |
| Current Crest Ratio                      | 3:1 max   |  |                      |                |                      |          |
| Voltage THD                              | ≤ 2 % @ 100% Linear Load; ≤ 4 % @ 100% Non-linear Load (PF≥0.8)   |  |                      |                |                      |          |
| Step Load Response                       | +/- 4% 50% step load, +/-6% 100% step load, Return +/-3% of nominal (11 cycles)   |  |                      |                |                      |          |
| Common Mode Noise                        | < 0.5 VRMS  |  |                      |                |                      |          |
| Normal Mode Noise                        | < 10% V   |  |                      |                |                      |          |
| <b>EFFICIENCY</b>                        |   |  |                      |                |                      |          |
| AC Mode                                  | 90%   |  |                      |                |                      |          |
| Battery Mode                             | 88%   |  |                      |                |                      |          |
| ECO Mode                                 | 97%   |  |                      |                |                      |          |
| <b>BATTERY</b>                           |   |  |                      |                |                      |          |
| Voltage (VDC)                            | 240, Nominal, 270 Float   |  |                      |                |                      |          |
| Battery Backup Time Full Load (Internal) | 2kVA = 25 min batt backup, 3kVA = 15 min batt backup, 4kVA = 11 min batt backup at @ 100% full load   |  |                      |                |                      |          |
| Quantity                                 | 20  |  |                      |                |                      |          |
| Recharge Time                            | 7 hours to 90%  |  |                      |                |                      |          |
| <b>PHYSICAL</b>                          |   |  |                      |                |                      |          |
| Standard Model                           | Dimension, W x D x H (In.)  | 9.8" x 28.2" x 32.5"                             | 9.8" x 28.2" x 32.5" |                | 9.8" x 28.2" x 32.5" |          |
|  | Net Weight (lbs)  | 266  | 266                  | 266            | 266                  |          |
| <b>BYPASS</b>                            |   |  |                      |                |                      |          |
| Input Voltage                            | 110 ~276 VAC  |  |                      |                |                      |          |
| Output Voltage                           | 110 ~ 276 VAC   |  |                      |                |                      |          |
| Transformer Voltage Regulation           | +/- 3%  |  |                      |                |                      |          |
| Overload Conditions                      | Continuous below 130%, 1 minute at 130%, 1 cycle at 1000%   |  |                      |                |                      |          |
| <b>ENVIRONMENT</b>                       |   |  |                      |                |                      |          |
| Operation Temperature                    | 0 ~ 40°C (the battery life will down when > 25°C)   |  |                      |                |                      |          |
| Operation Humidity                       | <95 % and non-condensing  |  |                      |                |                      |          |
| Operation Altitude                       | 2000 ft.  |  |                      |                |                      |          |
| Heat Dissipation (BTU/Hr)                | 1264  | 1264   | 1264                 | 1264           | 1686                 |          |
| Acoustic Noise Level (Front of Unit)     | 55-60dB @ 1 Meter   | 60dB @ 1 Meter                                   | 60dB @ 1 Meter       | 60dB @ 1 Meter | 60dB @ 1 Meter       |          |
| <b>MANAGEMENT</b>                        |   |  |                      |                |                      |          |
| Smart RS-232 or USB                      | Supports Windows® 2000/2003/XP/Vista/2008/7/8/10, Linux, Unix, and MAC  |  |                      |                |                      |          |
| Optional SNMP                            | Power management from SNMP manager and web browser  |  |                      |                |                      |          |
| MODBUS Card                              | Power Management with MODBUS communication  |  |                      |                |                      |          |
| <b>AGENCIES</b>                          |   |  |                      |                |                      |          |
| RoHS                                     | All units are RoHS compliant  |  |                      |                |                      |          |
| Safety Agencies                          | UL1778 5 <sup>th</sup> Edition, CSA22.2 No.107.3, IEC 62040-2:2018  |  |                      |                |                      |          |
| EMC                                      | FCC Part 15J, Class A, EN 55022 Class A / CISPR 22, IEC 61000-3-2, IEC 61000-4-2, Electrostatic Discharge, IEC61000-4-3 Level 3 Radiated Electromagnetic Filed immunity. (Additional EMC Agencies listed in User's Manual). |  |                      |                |                      |          |