# TITANIUM SERIES UPS

**1P 2-4KVA FEATURES** 





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)

#### • High Voltage Units

The Titanium Series UPS systems will have high voltage units (2/3/4kVA). 208V/220/230/240VAC

#### 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.

#### • Internal; Maintenance Bypass

The Titanium Series UPS includes an internal maintenance bypass. If batteries require replacement switch to MBS mode.

#### • In-rush Capabilities

The Titanium Series UPS systems include a high in-rush capability. Supporting an overload for 300% at 163mS 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

Three (3) year warranty on the electronics and batteries. For additional warranty options please call factory.

## Specifications:

MODEL		2kVA(L)	2kVA(H)	3kVA(L)	3kVA(H)	4kVA (H)
CAPACITY*		2kVA / 2kW	2kVA / 2kW	3kVA / 3kW	3kVA / 3kW	4kVA/4kW
INPUT						
Nominal Volt	age/ Low-High / Range	(L) 120VAC - (H) 208 /2	20/230/240VAC/·	+28% / -15% @ full lo	ad	
Frequency Ra	inge	46Hz ~ 54 Hz @ 50Hz s	ystem, 56Hz ~ 64 Hz	@ 60Hz system		
Phase		Two Phases or One Phase + Neutral				
Power Factor		≧ 0.99 at 100% Load				
OUTPUT						
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				
EFFICIENCY		[				
AC Mode		90%				
Battery Mode		88%				
ECO Mode		97%				
BATTERY						
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 7 hours to 90%				
Recharge Tin	16	7 hours to 90%	PHYSICAL			
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	
BYPASS		200	200	200		
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%				
ENVIRONM	NT			-		
Operation Te		0 ~ 40°C (the battery lif	e will down when > 2	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
MANAGEME	, ,					
Smart RS-232		Supports Windows® 20	00/2003/XP/Vista/20	08/7/8/10. Linux. Un	ix, and MAC	
Optional SNMP		Power management from SNMP manager and web browser				
MODBUS Card		Power Management with MODBUS communication				
AGENCIES	-					
RoHS		All units are RoHS compliant				
Safety Agencies		TUV certified to comply to UL1778 5 <sup>th</sup> Edition, CSA22.2 No.107.3-14 UPS Safety Standards				
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).				