# TITANIUM SERIES 10kVA/10kW





# Improve System Performance with a Precision Voltage Regulator!

We take for granted that electrical power is abundant, stable, and free of disturbances. But power issues are the cause of a great deal of "Smart Home" downtime.

By using a **Titanium Series Double Conversion / On-Line UPS** to power your entire system, you can provide disturbance free, stable power to your electronics to extend their life, improve their performance, and reduce down-time.

A Double Conversion / On-Line UPS takes unstable AC power from either the grid or a secondary source, converts it to DC, then regenerates a very *Low THD AC Sine Wave* with +/-1% accuracy for both Voltage and Frequency. It not only provides continuous power when switching to/from a secondary power source (no more system reboots!), but it also acts as a full-time **Voltage Regulator** to provide the clean power your electronics are designed to accept. And it does this 24/7/365!

By using multiple UPSs in your home, you can completely isolate electrical loads to ensure there is no cross contamination. Use one UPS for **AV/IT/Security** electronics, and an additional UPSs for **Lighting/Shade** systems and other critical loads.

360 Power Quality has been providing robust power solutions to the Medical and Industrial community for years. This quality product is now available through Apex Technologies. We are here to help you design a solid power foundation using Titanium Series Voltage Regulating UPSs!

 Flexible Input Voltage with wide range Titanium UPSs can accept Input Voltages of either 208V or 240V and outputs 120V and 240V simultaneously! Input voltage range of up to -54% to +25% of nominal depending on loading.

### Built-in Isolation Transformer

- All Titanium UPS units include an internal **Isolation Transformer**. Isolation Transformers establish a Neutral-Ground bond down-stream of the Main Breaker Panel to eliminate NG Voltage/Noise. This provides error free operation of digital electronics, and a <u>lower noise floor</u> for all connected devices. Isolation Transformers also isolate loads, so lighting/shade system noise does not get into the AV system.
- High Current In-rush Capabilities
   The Titanium Series UPS can supply high "in-rush" currents of 125A @ 120V for 100ms to connected electronics, allowing loads like audio power amplifiers to take advantage of the benefits of being power by the UPS.

### • Standard SNMP Card

All Titanium Series UPS' come equipped with an SNMP card standard. This allows for remote management via standard network connection.

#### Conformal Coated Boards

Conformal coated printed circuit boards extend temperature specification and eliminate corrosion for long, trouble free operation.

#### • Extended Battery Cabinets

Custom (non-matching) Extended Battery Cabinets are available in multiple sized. Allows user to have extended runtimes of up to 24-hours at full load. Consult your Representative for sizing.

#### • External Maintenance Bypass Systems

External Maintenance Bypass Systems (MBS) are available in two types: Isolated and Non-Isolated versions. Consult your Representative for recommendations.

#### • Warranty

**THREE** (3) year warranty on the UPS electronics and batteries. For additional warranty option, consult your Representative.

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Model Number	Input Voltage	Output Voltages
TI-H100-50R	<b>240V</b> Single Phase (L1, L2, GND)	240V and 120V (L1, L2, N, GND)
TI-H100-51R	<b>208V</b> Single Phase (L1, L2, GND)	240V and 120V (L1, L2, N, GND)

# Specifications:

10kVA/10kW

INPUT		BATTERY		
Nominal Voltage and Phases		208V or 240V Split/Single Phase. Other input voltages can be programmed. Consult Apex for details.	Voltage (VDC)	240, Nominal, 270 Float
Input Voltage Range		-54% to +25% (< 50% Load) -26% to +15% (>= 80% Load)	Battery Backup Time (Internal - 100% Load)	2 min.
Frequency Range		46-64Hz 50/60Hz	Quantity	20
Power Factor		1:1	Recharge Time	7 hours to 90%
OUTPUT			PHYSICAL	
		(2) Independent 120V Phases - 240V Across both	Dimensions (WxDxH)	9.8" x 28.2" x 32.5"
Voltage and Phases		Phases. Other output voltages can be programmed. Consult Apex for details.	Net Weight	301 lbs.
AC Voltage Regulation		± 1% (Normal)	BYPASS	
Frequency Rang	e (Sync Range)	46Hz ~ 54 Hz @ 50Hz system, 56Hz ~ 64 Hz @ 60Hz system, (Batt Mode) +/- 0.1% Hz	Input Voltage	110 ~276 VAC
	Overload	100%~110%: 1 hour; 110%~130%: 1min; >130%: 1sec	Output Voltage	110 ~ 276 VAC
Overload	Battery Mode	100%~110%: 30sec; 110%~130%: 10sec; >130%: 1sec	Transformer Voltage Regulation	+/- 3%
Current Crest Ratio		3:1 max	Overload Conditions	1 cycle at 1000%, 300% for 100ms, below 130%, 1 minute at 130%
Voltage THD		$\leq 2$ % @ 100% Linear Load; $\leq 4$ % @ 100% Non-linear Load (PF $\geq 0.8$ )	EFFICIENCY	
Step Load Response		+/- 4% 50% step load, +/-6% 100% step load, Return +/-3% of nominal (11 cycles)	AC Mode	90%
Common Mode Noise		< 0.5 VRMS	Battery Mode	88%
Normal Mode Noise		< 10% V	ECO Mode	97%
ENVIRONMENT		MANAGEMENT		
Operation Temperature		0 - 40- degrees C	Smart RS-232 or USB	Supports Windows® 2000/2003/XP/Vista/2008/7/8/10, Linux, Unix, and MAC
Operation Humidity		Less than 95% (non-Condensing)	MODBUS/Relay	Available
Operation Altitu	de	2000 ft.	AGENCIES	
Heat Dissipation	(BTU/Hr.)	4215 (BTU/Hr.)	RoHS	RoHS compliant
Acoustic Noise Level (Front of Unit)		60dBA @ 1 meter	Safety Agencies	TUV certified to comply to UL1778 5 <sup>th</sup> Edition, CSA22.2 No.107.3-14 UPS safety standards

# **Project Data Intake:**

Dealer Name:				
Project Name:				
Service Voltage at site:	240V Split Phase 208V Split Phase 208V 3-Phase			
Output Voltage Required:	🗌 240V Split Phase 📃 Other			
Approximate Electrical Load:				
Required Run Time on Battery:				
Secondary Power Source?	Generator Solar Other:			

## **UPS - Internal Battery Backup Times**

Load	Wattage	Run Time -
Percentage		Minutes
10%	1kW	79
25%	2.5W	25
50%	5kW	11
100%	10kW	2

Note: Custom Battery Cabinets to extend full-load run time to 8, 16, or 24 hours are available! Contact your Representative so we can design a custom solution.



