

TACOMA TW SERIES

Experience the pinnacle of power protection with the Tacoma TW series, featuring an online double-conversion UPS that sets the standard for safeguarding critical equipment. This advanced system seamlessly transitions to battery power during power disturbances, ensuring a clean and stable true sine wave output. The integrated intelligent battery management system actively monitors internal batteries, optimizing charging based on capacity conditions and offering battery life monitoring for timely replacement.

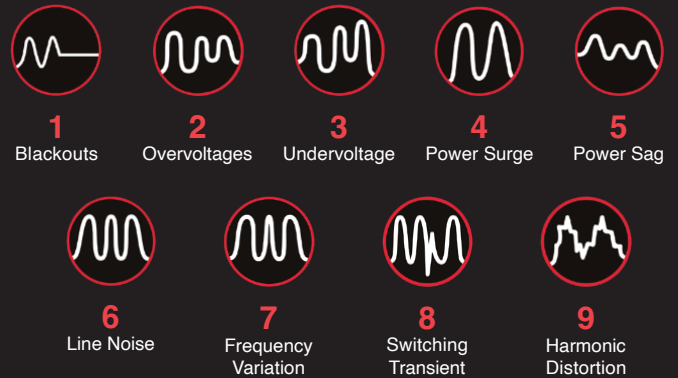
For those requiring extended power backup, select models offer the option of an external battery bank, providing a customizable solution to meet your specific needs. Step into a new era of power protection with the Tacoma TW series, where innovation converges with reliability to safeguard your critical systems with unparalleled precision and performance.



Series Highlights

- Pure sine wave output
- DSP control technology & active PFC
- 0.9 high output power factor
- Wide input voltage range (65-145Vac)
- 1% output voltage regulation
- Selectable output voltage & frequency
- Smart battery management
- Intelligent slot for an optional network card
- Optional external battery bank (n/a for "B" models)

Power Problems Solved



Main Features

True Double-Conversion Online Topology

The main supply is fed directly into the UPS and charges batteries within the UPS. The battery power is then converted back to the main power to feed the protected equipment.

DSP Controlled Technology

DSP (digital signal processor) controlled technology for high reliability, accuracy, and efficiency.

Zero Transfer Time

True online double-conversion topology for zero transfer time from Line Mode to Battery Mode in case of a power disturbance prevents malfunction of mission-critical equipment.

Pure Sine Wave Output

Best waveform for sensitive electronics. Benefits include a smoother waveform for low harmonic distortion.

Active PFC to Improve Power Factor

Active PFC (power factor correction) improves the power factor and power quality of the UPS by reducing harmonic distortion on the electrical system to improve energy efficiency and reduce energy loss. Additional benefits include active wave shaping of input current, low voltage drop, filtering high frequency switching, waveform control through feedback sensing from the power source, and regulation of output voltage based on feedback control.

1% Output Voltage Regulation

The UPS regulates the output voltage to be within 1% of the set output voltage. Voltages outside acceptable ranges can cause electronics and electrical components to overheat and may cause premature failure of the devices.

The voltage reference of this UPS is set to a fixed 1% output voltage regulation even when parameters such as ambient temperature change. A precise output voltage is important for sensitive electronic equipment such as ones that require calibration for accuracy and also sensitive electronics are more susceptible to damage when receiving power outside its input range.

Wide Input Voltage Range

Minimizes the need to switch over to battery power and frequency of battery charge and recharge cycles by correcting extreme voltage distortion for higher system reliability.

EMI / RFI Filter

EMI / RFI filter suppresses electromagnetic noise and radio frequency interference transmitted from AC power.

Smart Battery Management

Maximize battery performance and lifespan with an intelligent, multi-stage battery charging system to auto-sense the optimal battery charging performance based on battery levels. The advanced battery monitoring system will also detect and send notification when the battery lifespan is near for timely battery replacement.

Set Output Voltage and Frequency

Configure the output voltage to 100 / 110 / 120 / 125Vac and choose between 50Hz or 60Hz for optimal performance. This customizable feature ensures seamless compatibility and enhanced performance for sensitive electronics.

Overload Protection

Protects the UPS from an overload. If the circuit breaker trips, unplug a few electronics before resetting the circuit breaker and turning your unit back on.

Scalable Battery Runtime

Select models with external battery connectors have the option to scale the battery runtime with up to 3 (Standard Models) or 6 (Extended Runtime Models) external battery banks.

Emergency Power Off (EPO) / Remote On/Off (ROO)

Instantly shut off the UPS and prevent the UPS from supplying power such as in the event of an emergency.

Power Management Software

Monitor and control the UPS from your computer with the included user-friendly software to automate computer shutdown, monitor battery levels, set UPS parameters, receive alerts of abnormalities, and more.

LED & LCD Status Indicators

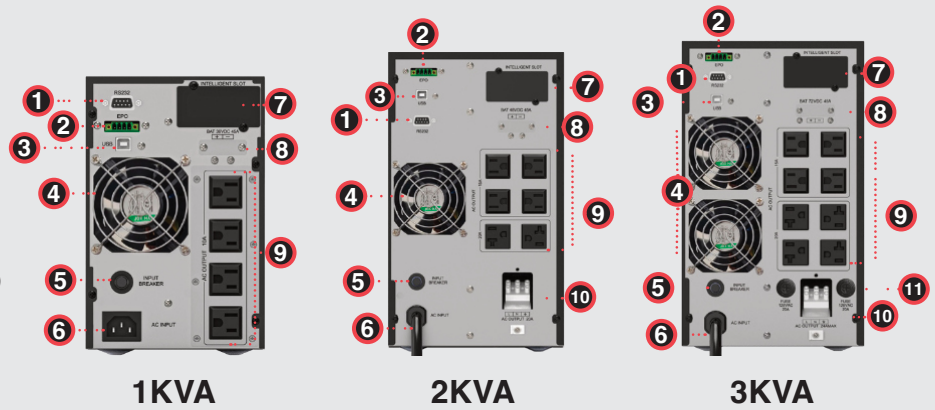
See real-time status information of your UPS working conditions and power conditions including the voltages, battery capacity, fault, and other important information.

Mute Audible Alarm

Temporarily mute the audible alarm from your UPS by pressing the ON button when audible alerts are ongoing. The mute setting is reset once the UPS returns to a normal state for the next time unusual activity is detected.

Rear Panel Images

- 1 RS-232 Communication Port
- 2 EPO / ROO Port
- 3 USB Communication Port
- 4 Cooling Fan
- 5 Input Circuit Breaker
- 6 Inlet
- 7 Intelligent Slot
- 8 External Battery Connector (n/a for 'B' models)
- 9 Output Sockets
- 10 Output Terminal
- 11 Output Fuse (3KVA Only)



OVERVIEW									
Model	TAC-TW1KB	TAC-TW1K	TAC-TW1KL	TAC-TW2KB	TAC-TW2K	TAC-TW2KL	TAC-TW3KB	TAC-TW3K	TAC-TW3KL
Capacity	1000VA / 900W			2000VA / 1800W			3000VA / 2700W		
Phase	Single-phase								
Topology	Online double-conversion								
INPUT									
Nominal Voltage	100 / 110 / 120 / 125Vac								
Voltage Range	100 - 145Vac at full load / 65 - 145Vac at half load								
Frequency Range	50Hz system: 46 – 54Hz / 60Hz system: 56 – 64Hz								
Input Power Factor	≥0.99 at full load								
Bypass Voltage Range	95 – 130Vac (default) / 75 – 145Vac (max)								
OUTPUT									
Nominal Voltage	100 / 110 / 120 / 125Vac								
Frequency	Normal Mode: 50/60Hz ± 4Hz (synchronized to mains input) / Battery Mode: 50/60Hz ± 1%								
Voltage Regulation	≤1%								
Wave Form (On-Battery)	True sine wave								
THD	<2% at linear load								
Load Crest Ratio	3:1								
EFFICIENCY									
AC-AC	88%			89%			90%		
Battery Mode	85%			86%			87%		
ECO Mode	>95% at full load with batteries fully charged								
TRANSFER TIME									
Normal < > Battery	0ms								
Inverter < > Bypass	<4ms								
ECO -> Battery	10ms								
BATTERY & CHARGER									
Type	Sealed lead-acid								
Quantity & Size	2 x 12V / 7Ah	3 x 12V / 7Ah	N/A	4 x 12V / 7Ah	4 x 12V / 9Ah	N/A	6 x 12V / 7Ah	6 x 12V / 9Ah	N/A
Recharge Time	5 hours to 90% capacity for standard UPS (varies if external battery banks are used)								
Charging Current	1A	1A	4A	1A	1A	4A	1A	1A	4A
External Battery Bank Option	No	Yes, max. 3	Yes, max. 6	No	Yes, max. 3	Yes, max. 6	No	Yes, max. 3	Yes, max. 6
PROTECTION									
Full Protection	Yes								
EMI / RFI Filter	Yes								
Overload Protection	Yes								
Noise Level	Yes								
COMMUNICATION INTERFACE									
Standard Interface	HID USB, RS232, EPO / ROO								
Optional Interface	SNMP, AS400								
Software Compatibility	Windows 10/8/7/ Server 2012 R2 / 2008 R2, Linux 32-Bit / 64-Bit / Sun Solaris / IBM Aix / Compaq True64 / SGI IRIX / FreeBSD / HP-UX / mac								

Model	TAC-TW1KB	TAC-TW1K	TAC-TW1KL	TAC-TW2KB	TAC-TW2K	TAC-TW2KL	TAC-TW3KB	TAC-TW3K	TAC-TW3KL
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STATUS INDICATORS

Display	LED indicates UPS Mode & LCD indicates input/output measurements, battery capacity, faults, and more
Audible Alerts	Yes

ENVIRONMENT

Operating Temperature	32°F to 104°F / 0°C to 40°C
Cooling	Fans
Humidity	<97% non-condensing
Protection Class	IP20 rating, for indoor use in dry locations away from dust and direct sunlight
Noise Level	<50 dBA in Normal Mode

REGULATIONS

Standards	cTUVus, FCC Class A
Regulations	UL1778

PHYSICAL

Product Weight (lb/kg)	21.16 / 9.6	25.79 / 11.7	10.58 / 4.8	39.02 / 17.7	42.33 / 19.2	18.08 / 8.2	51.59 / 23.4	56.22 / 25.5	19.84 / 9.0
Dimensions (DWH) (in/mm)	12.80 x 5.67 x 8.82 / 325 x 144 x 224			14.49 x 7.48 x 12.72 / 368 x 190 x 323			14.49 x 7.48 x 12.72 / 368 x 190 x 323		

*'L' models are extended runtime models and have no internal batteries. External Battery Bank required.
 **If input is 60Hz, setting to 50Hz will derate the UPS by 40%.

Typical Applications

- Mid-size servers
- ATMs
- Lab equipment
- Networking devices
- Surveillance systems
- VoIP / PBX systems
- Security systems
- Gaming computers
- Slot machines