

TITAN CORE MODULAR SERIES

MODULAR ONLINE UPS 50-600KVA - 50KVA POWER MODULE



PRODUCT OVERVIEW

TITAN CORE MODULAR Series is a high-performance, scalable three-phase modular online UPS designed for mission-critical power protection. Built with hot-swappable power modules and intelligent parallel architecture, TITAN CORE enables rapid capacity expansion from 50kVA up to 600kVA, high availability, and simplified maintenance – ideal for data centers, enterprise facilities, and critical infrastructure.



TITAN CORE MODULAR

- Continuous clean power through true double-conversion topology
- N+1 / N+X redundancy for high availability
- Flexible scalability to match load growth without overinvestment
- Service-friendly design with front access and hot-swap modules
- High efficiency modes to reduce operating costs





KEY FEATURES

- **True Online Double Conversion (VFI)**
Continuous regeneration of clean power to protect sensitive loads.
- **Scalable Capacity: 50–600kVA**
Expand power by adding modules with minimal downtime.
- **Hot-Swappable 50kVA Modules**
Replace modules quickly to reduce MTTR and improve serviceability.
- **High Availability Architecture**
Supports N+1/N+X redundancy at module level for critical operations.
- **High Efficiency Operation**
Advanced power conversion and intelligent control reduce losses (typical high-efficiency mode available).
- **Wide Input Tolerance**
Stable operation in poor utility environments with reduced battery usage.
- **Strong Output Performance**
Low THDv, tight voltage regulation, and excellent transient response.
- **Advanced LCD + Monitoring**
User-friendly touch/LCD interface with alarms, logs, and system status.
- **Smart Battery Management**
Optimized charging, temperature compensation (optional), battery health monitoring (by design/options).
- **Rich Communication Options**
Standard/optional SNMP, Modbus (RS485), dry contacts, and monitoring software support.

TYPICAL APPLICATIONS

- Data Centers & Server Rooms
- Enterprise IT / Network Core
- Banking / Financial Systems
- Healthcare / Hospitals & Labs
- Industrial Automation & Control
- Security Command Centers
- Telecom & Critical Communications
- Government & Infrastructure

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TECHNICAL SPECIFICATIONS

MODEL		TCM 200/50A/4SB	TCM 300/50A/4SB	TCM 400/50A	TCM 500/50A	TCM 600/50A
Rated power		200kVA/200kW	300kVA/300kW	400kVA/400kW	500kVA/500kW	600kVA/600kW
Module		TC-PM50A				
Module rated power		50KVA/50KW				
Main input	Input	3P+N+PE				
	Rate Voltage	380/400/415VAC (L-L)				
	Input PF	>0.99				
	Current distortion	THDi<2%				
	Voltage range	304~478VAC(L-L) Full load; 304~228VAC (L-L) Power derate from 100% to 50%				
	Freq range	40~70Hz				
Battery	Rate Voltage	3 wires: ± 240 VDC (30-50 batteries settable) 2 wires: 480VDC (30-50 batteries settable)				
	Charging capacity	20%*Pout				
	Charging accuracy	$\pm 1\%$				
Bypass	Rate Voltage	380/400/415VAC(L-L)				
	Voltage range	Range: -40% - +25% , Settable, default -20%~+15% ;				
	Freq range	Settable, ± 1 Hz, ± 3 Hz, ± 5 Hz)				
	Overload	110%, long time operation 110%<load<125%, 10 mins 125%<load<150%, 1 min >150%,1 second				

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TECHNICAL SPECIFICATIONS

MODEL		TCM 200/50A/4SB	TCM 300/50A/4SB	TCM 400/50A	TCM 500/50A	TCM 600/50A
Inverter	Rate Voltage	380/400/415VAC (L-L)				
	Rate frequency	50/60Hz				
	Output PF	1				
	Voltage accuracy	±1.0%				
	Output THDu	<1% (linear load) ,<5% (non-linear load according to IEC 62040-3)				
	Overload	110%,1 hour; 125%,10 mins; 150%,1 min; >150%,200ms				
	Frequency accuracy	0.10%				
	Synchronize window	Settable, ±0.5Hz-±5Hz, default ±3Hz				
	Slew rate	Settable, 0.5Hz/S-3Hz/S, default 0.5Hz/S				
	Crest factor	3:1				
Phase accuracy	120°±0.5°					
Certifications		CE				
Country of Origin		Malaysia				
Warranty		2 Years				

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TECHNICAL SPECIFICATIONS

MODEL		TCM 200/50A/4SB	TCM 300/50A/4SB	TCM 400/50A	TCM 500/50A	TCM 600/50A
System	Efficiency-normal mode	Up to 96.5%				
	Display	LED + touch LCD				
	Certification- Safety	IEC62040-1, IEC60950-1				
	Certification- EMS	IEC62040-2; IEC61000-4-2(ESD); IEC61000-4-3(RS); IEC61000-4-4 (EFT); IEC61000-4-5 (Surge)				
	IP degree	IP20				
	Noise (1 meter)	68dB @ 100% load, 65dB @ 45% load				
	Operation temperature	0-40°C				
	Humidity	0-95%(non condensing)				
	Altitude	<1000m, 1000~2000m, power derates 1% every 100m				
	Configuration	USB, RS232, RS485, Dry contact, Cold start, Air filter				
	Optional	SNMP card,AS400 card,Parallel kit, SPD, Top air outlet				
Cable connection	Top & Bottom entry, front access					
Dimension	cabinet (W*D*H)mm	600*750*1600	600*850*2000	600*1000*2000	1200*850*2000	
	module(W*D*H)mm	440*475*140				
Weight (kg)		4-module cabinet	6-module cabinet	8-module cabinet	10/12-module cabinet	
		170	230	350	450	
		23kg (power module)				

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SYSTEM CONFIGURATION

- **UPS frame/cabinet:** supports multiple 50kVA hot-swap power modules
- **Capacity range:** 50kVA to 600kVA (depending on cabinet/module configuration)
- **Redundancy:** N+1 / N+X (depending on installed modules and load)
- **Battery:** External battery strings / battery cabinets

50kVA Power Module

Power Module Rating: 50kVA (typical)

Designed for hot swap insertion and removal while system remains online (when redundancy permits).

MODULE ADVANTAGES

- Fast replacement to minimize downtime
- Simplified spares strategy (common module)
- Enables phased CAPEX growth (pay-as-you-grow)

OPTIONS & ACCESSORIES

- SNMP / Network Monitoring Card
- Modbus (RS485 / TCP)
- Dry Contact Interface
- External Battery Cabinet
- Maintenance Bypass Switch / Cabinet
- Harmonic Mitigation / Additional Filters (project-based)
- Seismic / IP-rated enclosure options (project-based)

MODEL RANGE (CAPACITY SUMMARY)

- TITAN CORE Modular UPS: 50kVA to 600kVA
- Power Module: 50kVA hot-swappable module
- Redundancy: N+1 / N+X (configuration dependent)

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ORDERING INFORMATION

Ordering Code	Rated Power	Power Module	Module Rating
TCM 200/50A-4SB	200kVA / 200kW	TC-PM50A	50kVA / 50kW
TCM 300/50A-4SB	300kVA / 300kW	TC-PM50A	50kVA / 50kW
TCM 400/50A	400kVA / 400kW	TC-PM50A	50kVA / 50kW
TCM 500/50A	500kVA / 500kW	TC-PM50A	50kVA / 50kW
TCM 600/50A	600kVA / 600kW	TC-PM50A	50kVA / 50kW

