

TITTAN PLUS

10 kVA ~ 30 kVA (3:3)

PF 0.9



Features

- DSP digital control technology
- Active power factor correction (APFC), input power factor up to 0.99
- Output power factor 0.9
- Cold start
- Dual input
- Wide input voltage range (190 V ~ 485 V)
- Auto sensing frequency
- 50 / 60 Hz frequency conversion mode
- Work efficiency up to 98% in ECO mode
- Auto control fan speed when loads varies
- Auto power ON/OFF according to the load capacity set by users
- Flexible battery configuration for using 14/16/18/20 pcs batteries
- Compact internal layout, miniaturized the complete unit for small footprint
- LCD+LED display, multi-functional keys operation, friendly human-machine interface
- Powerful background software for parameters configuration and online updating
- Doubling the battery charging speed, 90% capacity restored in 4 hours (standard model UPS)
- Linear derating in low voltage input, reducing battery discharging times, extending the service life of battery
- Advanced battery management (ABM), automatic floating / equalizing charge control, charger dormancy control
- Configurable switching time from battery mode to mains mode when mains power is restored, reducing the impact on power grid or generator
- Effective software and hardware protection function, powerful self-diagnostic function, abundant historical records
- Standard emergency power off (EPO)
- Standard maintenance bypass
- Standard RS232/USB communication port
- Optional RS485 / SNMP / AS400 communication port and SMS alarms
- Optional N+X redundancy parallel up to 6 units
- Optional battery temperature compensation, EMD environmental sensors

Rear Panel

1. Mains Input
2. DC Input
3. Bypass Input
4. Output
5. Mains Input Breaker
6. Bypass Input Breaker
7. Maintenance Bypass
8. Fan
9. RS232
10. USB
11. EPO
12. Battery Temperature Compensation (Optional)
13. Intelligent Slot 1 (SNMP / AS400 / RS485 Optional)
14. Intelligent Slot 2 (Optional)
15. Parallel Card (optional)
16. Battery Breaker



Specifications

MODEL	TITTAN+ 10	TITTAN+ 15	TITTAN+ 20	TITTAN+ 30
Capacity	10 kVA / 9 kW	15 kVA / 13.5 kW	20 kVA / 18 kW	30 kVA / 27 kW
INPUT				
Rated voltage	360 V / 380 V / 400 V / 415 Vac			
Voltage range	277 ~ 485 Vac (no derating); 190 ~ 277 Vac (linear derating between 50% and 100% load)			
Rated frequency	50 / 60 Hz (auto-sense)			
Frequency range	40 ~ 70 Hz			
Power factor	≥ 0.99			
Total harmonic distortion (THDI)	≤ 5%			
Bypass voltage range	- 40% ~ + 15% (settable)			
OUTPUT				
Voltage	360 V / 380 V / 400 V / 415 Vac (settable)			
Voltage regulation	± 1%			
Frequency	45 ~ 55 Hz or 55 ~ 65 Hz (synchronized range); 50 / 60 Hz ± 0.1 Hz (battery mode)			
Waveform	Sinusoidal			
Crest factor	3:1			
Total harmonic distortion (THDV)	≤ 2% (linear load); ≤ 5% (non-linear load)			
Transfer time	Mains mode to battery mode: 0 ms; Inverter mode to bypass mode: 0 ms			
Inverter overload capability	102% ~ 125%: transfer to bypass in 10 mins; 125% ~ 150%: transfer to bypass in 1 min; > 150%: transfer to bypass in 0.5 s			
Bypass overload capability	102% ~ 125%: shut down in 20 mins; 125% ~ 150%: shut down in 2 mins; > 150%: shut down in 1 s			
BATTERIES				
DC voltage	Standard model: 240 Vdc; Long time model: 192 Vdc (168V / 192V / 216V / 240V optional)			
Inbuilt battery of standard model	20 × 7 Ah	40 × 7 Ah	40 × 9 Ah	60 × 9 Ah
Charging current	Long time model: 7 A supplied (additional 7 A is optional) Standard model: 1 A, 2 A, 3.5 A settable			
Recharge time	Standard model: 90% capacity restored in 4 hours; Long time model: depend on the capacity of battery			
SYSTEM				
Efficiency	≥ 93%, ECO mode 98%			
Display	LCD + LED			
Alarm	Battery mode, low battery, fans fault etc.			
Max. parallel numbers	6			
Communications	RS232 / USB (standard), RS485 / dry contacts / SNMP (optional)			
EMI	IEC / EN62040-2			
EMS	IEC61000-4-2 (ESD)			
	IEC61000-4-3 (RS)			
	IEC61000-4-4 (EFT)			
	IEC61000-4-5 (surge)			
OTHERS				
Humidity	20 ~ 90% RH @ 0 ~ 40°C (non-condensing)			
Noise level	≤ 60 dB (1 m)	≤ 65 dB (1 m)		
Dimensions (W × D × H) (mm)	350 × 655 × 732 (H)			
	350 × 785 × 858 (S)	350 × 785 × 1078 (S)		
Packaged dimensions (W × D × H) (mm)	472 × 780 × 920 (H)			
	472 × 910 × 1050 (S)	472 × 910 × 1260 (S)		
Net weight (kg)	55 (H), 115 (S)	60 (H), 155 (S)	61 (H), 175 (S)	65 (H), 235 (S)
Gross weight (kg)	65 (H), 125 (S)	70 (H), 170 (S)	71 (H), 190 (S)	75 (H), 250 (S)

- Derate capacity to 90% when the output voltage is adjusted to 360 Vac.
- All specifications subject to change without notice.
- S means standard model, H means long time model.
- Custom-made specifications are acceptable.