

3:3



97%

VFI efficiency

≤2%

Input THDi

110/125/150%

Overload 60/10/1 min

20-50

DC string range

7"

Touchscreen HMI

99%*

ECO mode

Low THDi. High Efficiency.

≤2% input THDi • up to 97% VFI efficiency • 10–200 kVA • 3-level IGBT • Parallel Option • VRLA/LFP

DSP Control • Conformal-coated PCBs • Adaptive thermal/fan control

Applications



Government



Finance



Datacenter



Education



Transportation



Medical



Energy

TM33 Series is a three-phase VFI online UPS (10–200 kVA) with 3-level IGBT and DSP control for low input distortion and high efficiency, Parallel option with configurable DC strings (VRLA/LFP) to meet runtime targets; overload ride-through 110%/60 min, 125%/10 min, 150%/1 min.

Reliability features include conformal-coated PCBs, an isolated clean compartment, and adaptive fan control.

A 7" HMI and open protocols (SNMP/Modbus, optional cloud) streamline commissioning, monitoring, and diagnostics.

* ECO depends on mains quality/load; efficiency & THDi per datasheet test conditions.

SCAN THE CODE
TO LEARN MORE



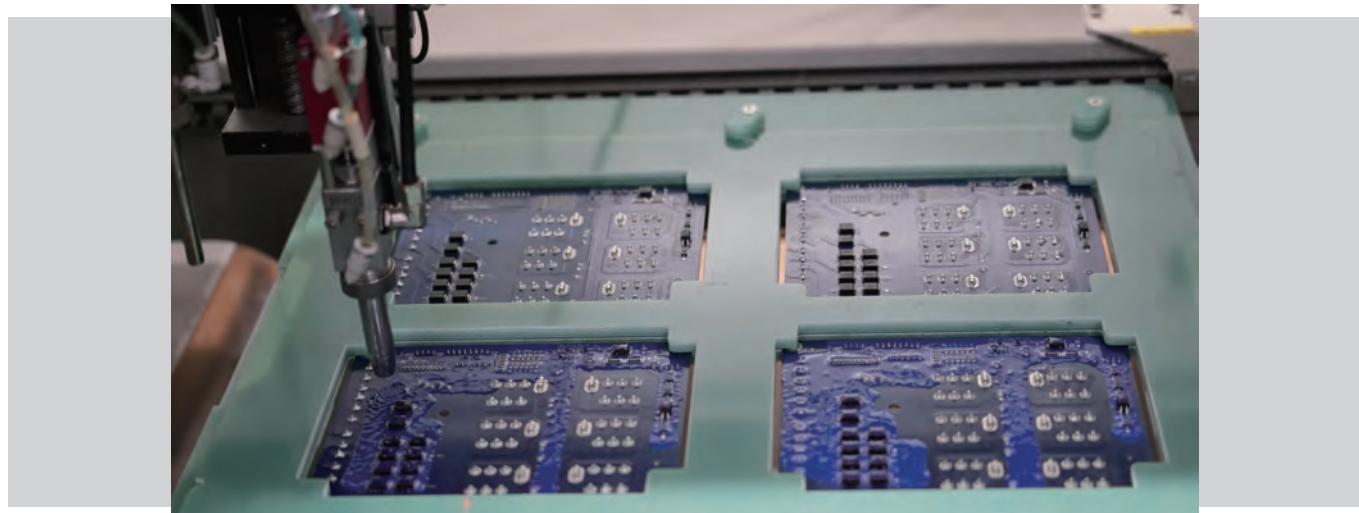
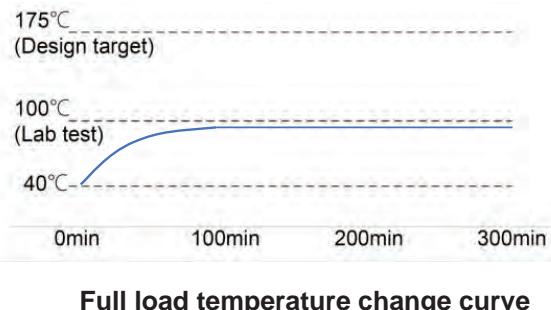
High Reliability

3-level IGBT topology raises efficiency and reduces THDi, delivering cleaner power to sensitive loads.

Overload tolerance: 110% for 60 min, 125% for 10 min, 150% for 1 min—rides through inrush/spikes without switching to bypass.

Thermal design keeps key components <100 °C at full load, extending service life.

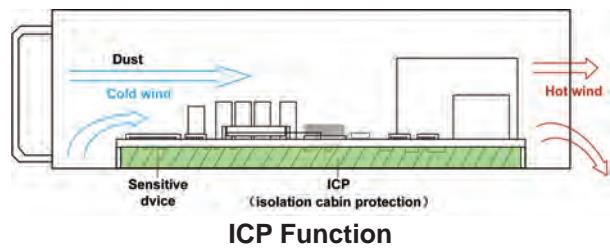
Conformal-coated PCBs (standard) resist humidity, dust, and corrosion for dependable operation in harsh sites.



Source-share mode lets the grid and battery power the inverter simultaneously, keeping the UPS online when grid capacity is weak or unstable.

Isolation Cabinet Protection (ICP) places dust-sensitive components in a sealed, independent compartment, improving reliability in harsh or dusty environments.

Adaptive fan control varies speed with component temperature and load, reducing noise, saving energy, and extending fan life.



ICP Function

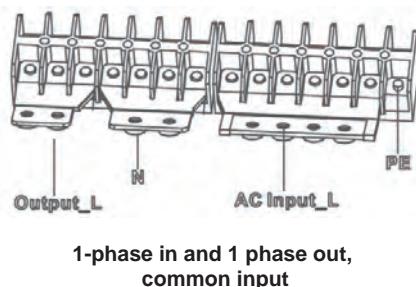
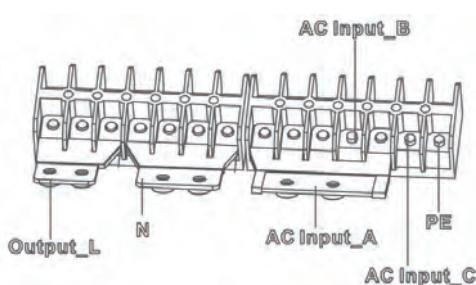
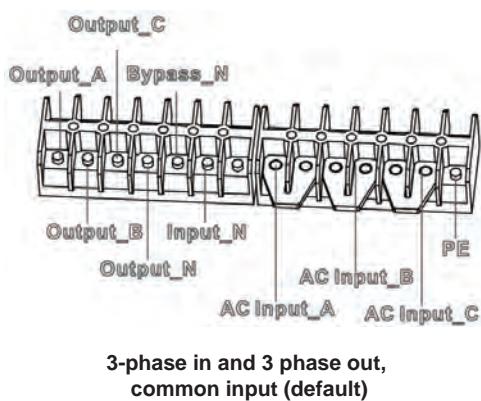
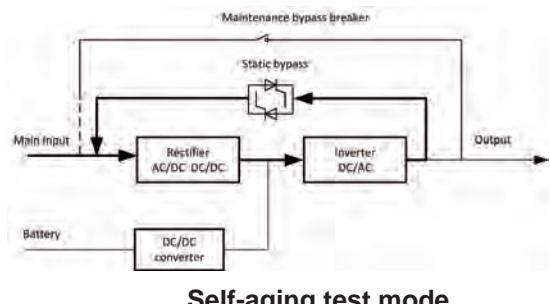
High Efficiency

Input PF up to **0.99** and input THDi $\leq 2\%$ at full load, reducing upstream distortion and grid stress.

Double-conversion efficiency up to **97%** lowers losses in normal mode.

ECO mode up to **99%** for maximum energy savings where mains quality allows.

Self-aging test mode enables full-power commissioning without external load banks, temporary cabling, or breakers, saving time and energy.



Flexible Design

Selectable I/O: **3/3, 3/1, or 1/1** with common-input wiring.

Single power board architecture for easier service and lower MTTR.

Built-in parallel slot supports up to **4 units** in parallel.

Standard models support external battery packs to extend backup time.

Four breakers (**input, output, bypass, and manual bypass**) are standard for enhanced system protection (standard type with additional **battery breaker**).

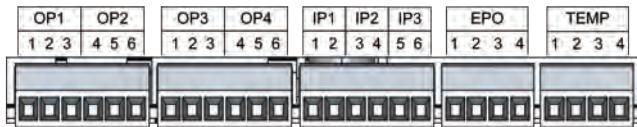
Cold start allows start-up from battery when mains is unavailable.

Optional internal battery models (inside the UPS) for **20 / 40 / 80 pcs** batteries, enabling longer runtime without external cabinets.

Convenient Management

Multiple communication interfaces—**RS232, USB, RS485, dry contacts, and Ethernet**—ensure compatibility with mainstream monitoring systems.

Programmable **dry contacts** provide 3 inputs + 4 outputs for alarms and remote control.

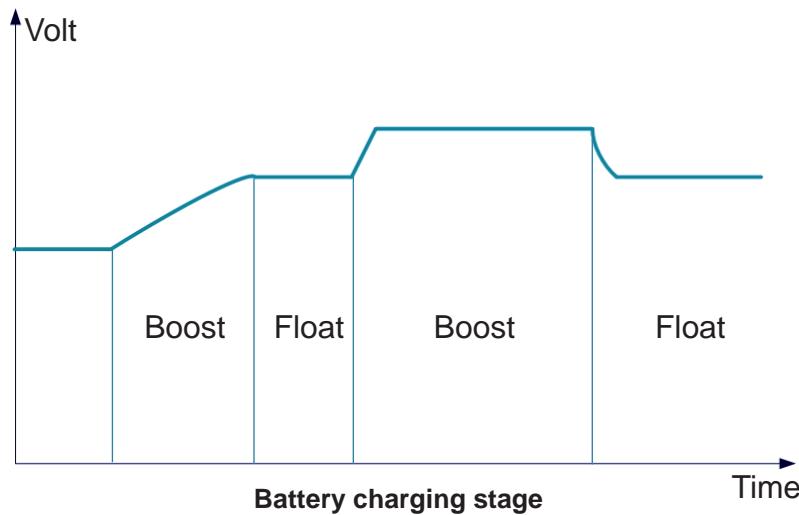


Dry contact

An intelligent slot optional supports **AS400 / RS485 / SNMP / Wi-Fi cards** for easy protocol and network expansion.

SNMP/MIB support enables centralized monitoring of multiple UPS units simultaneously.

Advanced Superior Charging Technology



Multi-stage Boost/Float charging optimizes recharge time and battery life.

Wide DC voltage range, configurable ± 120 to ± 300 Vdc (supports 20–50 battery blocks on 10 kVA models).

High-capacity charger rated up to **50% of Pout**, enabling faster recharge and longer-autonomy options.

Compatible with **lithium-ion (LFP)** and **VRLA lead-acid batteries**.

Reverse-polarity protection prevents installation damage.

Intelligent Screen

7-inch color touchscreen with LED status indicators for clear, at-a-glance operation; field-replaceable display module for easy service.



Onboard data storage for up to **100,000** event logs. Rear **physical ports** behind the panel provide convenient access to communication interfaces.

Multilingual UI (English, Spanish, Italian, French, Russian, etc.).

BMS integration shows real-time lithium-battery status; IoT (optional) enables cloud monitoring.



IOT function



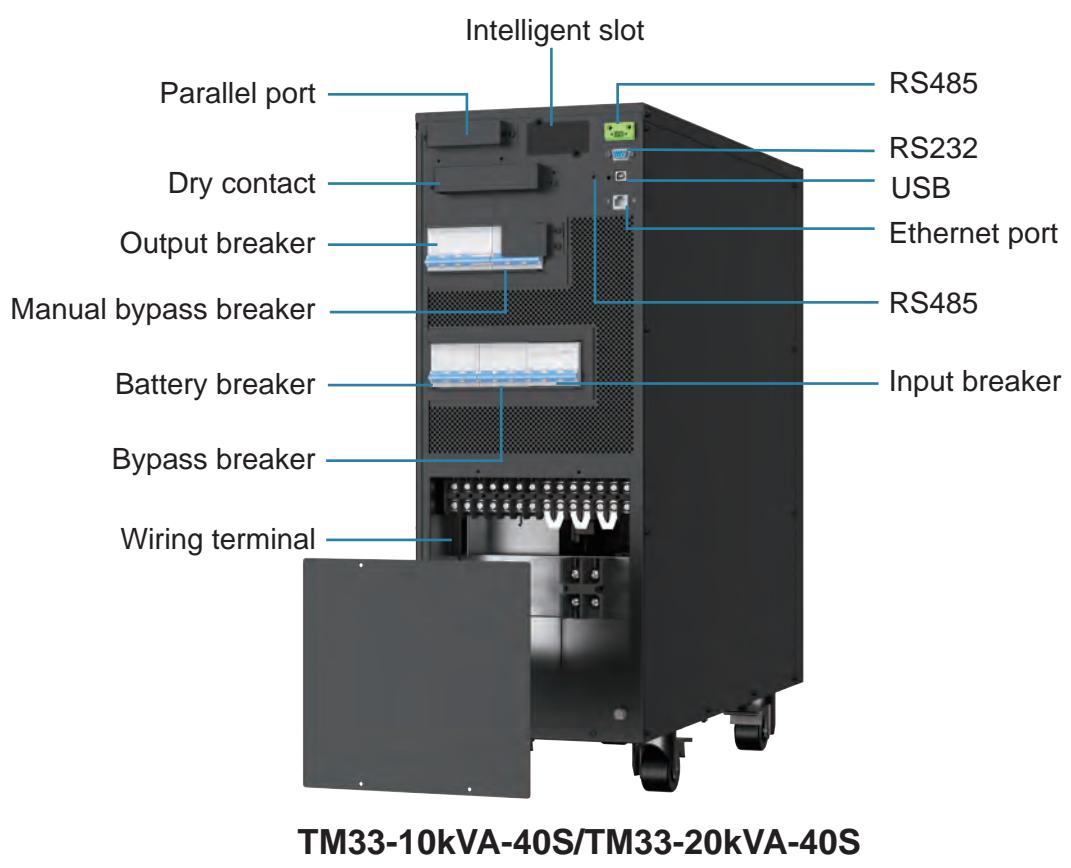
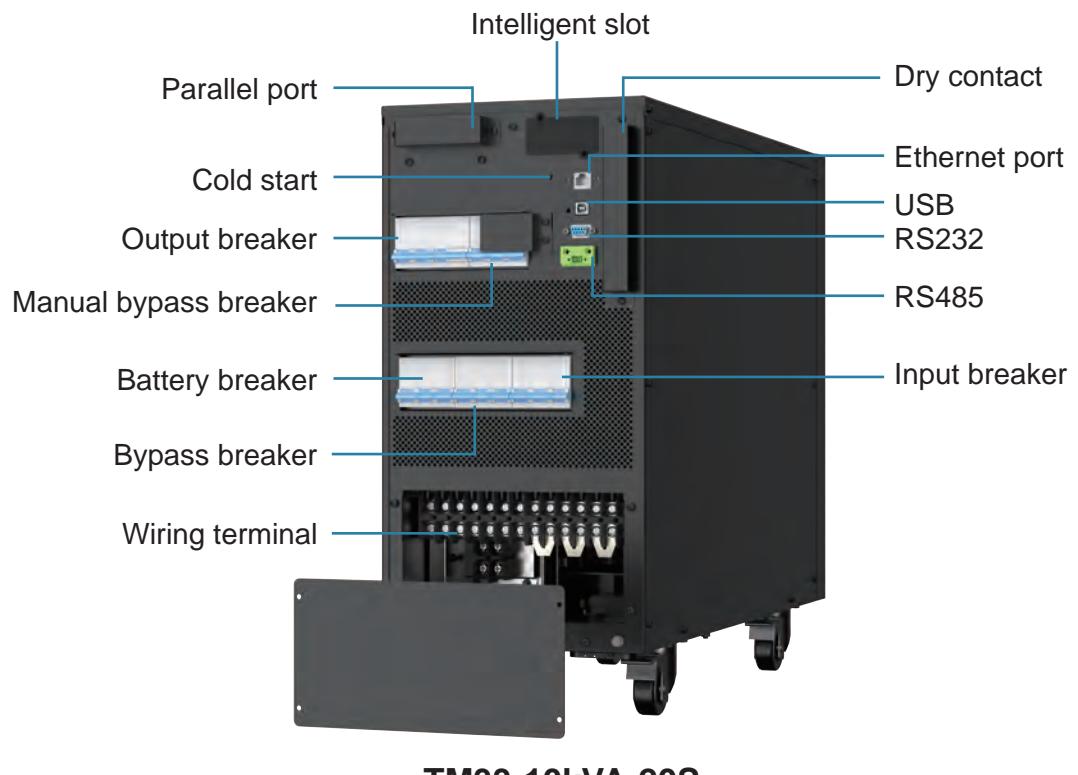
Main interface

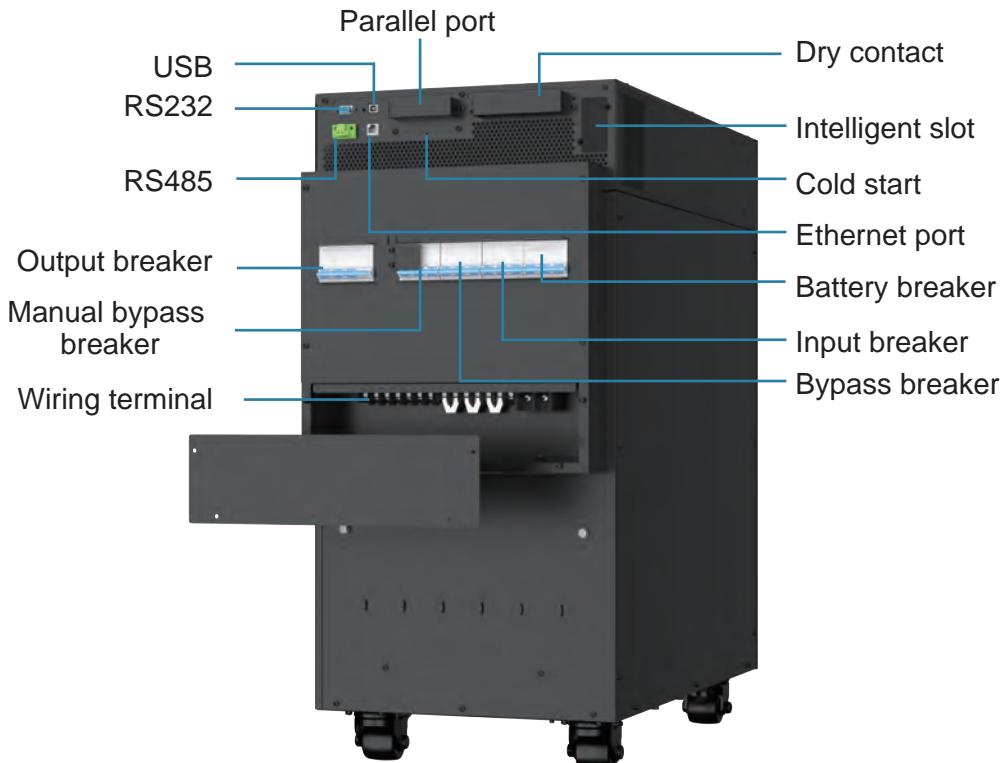
Secure access with role-based passwords for User, FAE, and Engineer levels.

Maintenance reminders function prompt inspections and part checks at preset service intervals.

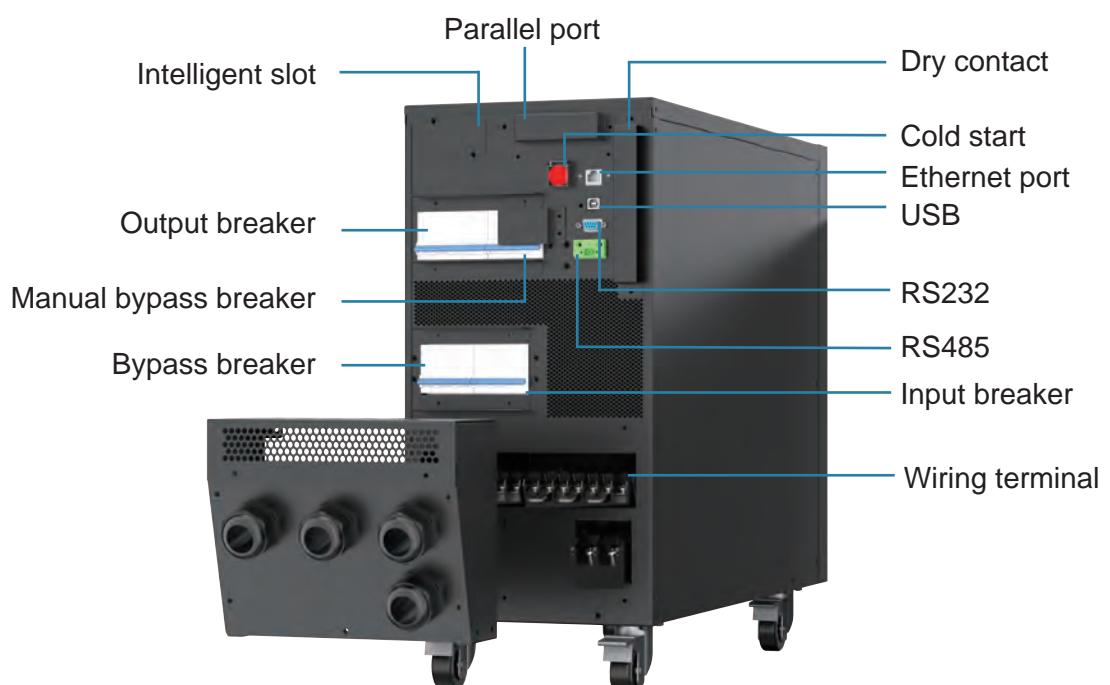
Comprehensive alarms and protections help prevent faults and extend equipment life.

UPS Structure



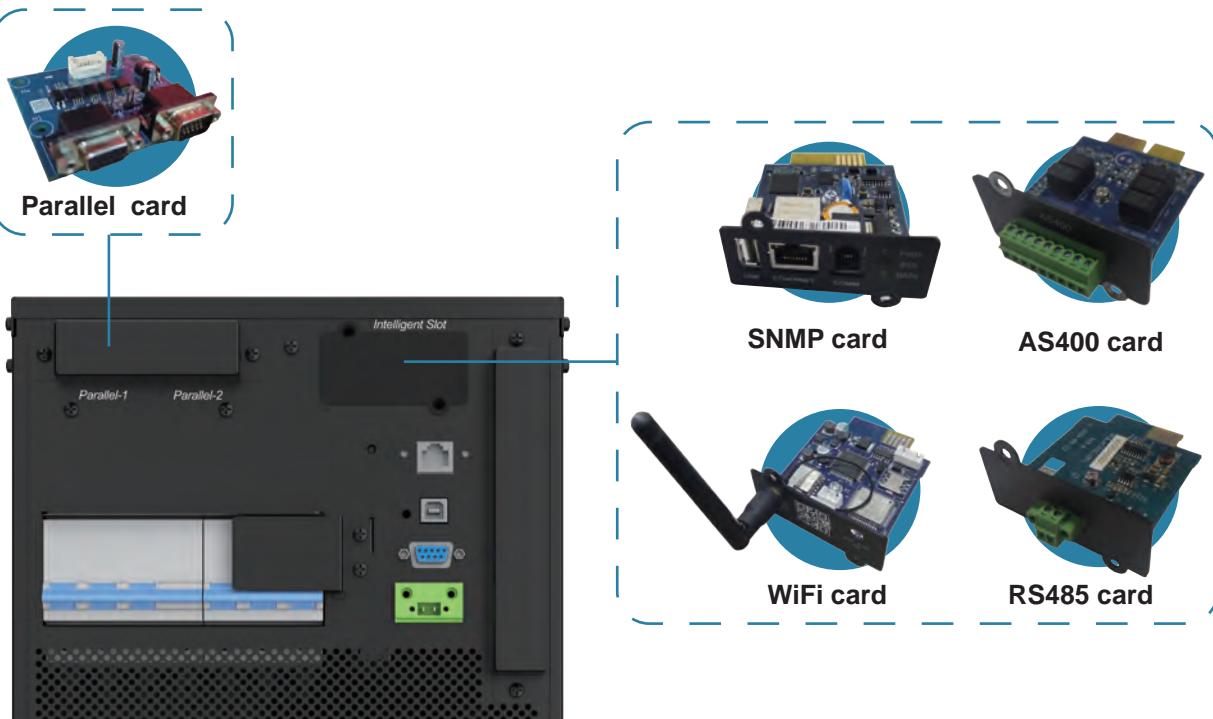


**TM33-10kVA-80S/TM33-20kVA-80S/
TM33-30kVA-80S**



**TM33-10kVA-L/TM33-20kVA-L/
TM33-30kVA-L**

Accessories



TM33 10-200kVA Technical Specifications

Internal battery mode	TM33-10kVA-20S	TM33-10kVA-40S	TM33-10kVA-80S	TM33-20kVA-40S	TM33-20kVA-80S	TM33-30kVA-80S						
External battery model	TM33-10kVA-L			TM33-20kVA-L		TM33-30kVA-L						
Capacity	10kVA			20kVA		30kVA						
MAIN INPUT												
Input	3P5W (3P+N+PE)											
Rate Voltage	380/400/415VAC (L-L); 220/230/240VAC (L-N)											
Rate Freq.	50/60 Hz											
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%											
FREQUENCY												
Frequency range	40~70 Hz											
OUTPUT												
Rate Voltage	380/400/415VAC (L-L); 220/230/240VAC (L-N)											
Rate Freq.	50/60 Hz											
Output PF	1											
BATTERY												
Rate Voltage	±120VDC		±240VDC									
Model	Internal BAT	UPS with internal batteries, 12VDC/7~9Ah										
	External BAT	UPS for external batteries, Settable										
Quantity	Internal BAT	20PCS	40PCS	80PCS	40PCS	80PCS						
	External BAT	Depend on external battery										
Charging capacity	Internal BAT	Max. 50% *Pout										
	External BAT											
Charging accuracy	±1%											
BYPASS												
Rate Voltage	380/400/415VAC (L-L); 220/230/240VAC (L-N)											
Voltage range	Range: -40% ~ +25%, Settable, default -20% ~ +15%											
Frequency range	50/60Hz, Settable: ±1Hz, ±3Hz, ±5Hz											
INVERTER												
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	0.1%											
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°											
SYSTEM												
Efficiency	Up to 97%											
Display	LED + 7 inch touch LCD											
Certification - Safety	IEC 62040-1, IEC 60950-1											
Certification - EMS	IEC 62040-2, IEC 61000-4-2(ESD); IEC 61000-4-3(RS); IEC61000-4-4(EFT); IEC 61000-4-5(Surge)											
Certification - Perf.	IEC 62040-3											
IP degree	IP20											
ACCESSORIES												
Configuration	USB, RS232, RS485, Dry contact, Air filter, Cold start											
Option	SNMP card, AS400 card, Parallel kit											
ENVIRONMENT												
Environment	0°C~40°C (operation); -25°C~70°C (storage); 0°C-95°C (Humidity, non-condensing)											
PHYSICAL												
Dimension WxDxH	Internal BAT	250*645*556 mm	250*694*724 mm	400*770*854 mm	250*694*724 mm	400*770*854 mm						
	External BAT	250*745*556 mm										
Net weight	Internal BAT	90 kg	139 kg	245 kg	140 kg	248 kg						
	External BAT	30.8 kg			31.8 kg	32.35 kg						

Statement: The products will continue to be innovative and optimized, which may lead to asynchronous updates of the actual product and promotional materials. Therefore, this document is for reference only and does not constitute any offer or commitment.

TM33 10-200kVA Technical Specifications

Internal battery mode		TM33-40kVA-80S		/			
External battery model		TM33-40kVA-L	TM33-60kVA-L	TM33-100kVA-L	TM33-120kVA-L	TM33-150kVA-L	TM33-200kVA-L
Capacity		40kVA	60kVA	100kVA	120kVA	150kVA	200kVA
MAIN INPUT							
Input				3P5W (3P+N+PE)			
Rate Voltage				380/400/415VAC (L-L); 220/230/240VAC (L-N)			
Rate Freq.				50/60 Hz			
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%			
FREQUENCY							
Frequency range				40~70 Hz			
OUTPUT							
Rate Voltage				380/400/415VAC (L-L); 220/230/240VAC (L-N)			
Rate Freq.				50/60 Hz			
Output PF				1			
BATTERY							
Rate Voltage				±240VDC			
Model	Internal BAT			UPS with internal batteries, 12VDC/7~9Ah			
	External BAT			UPS for external batteries, Settable			
Quantity	Internal BAT	80PCS		/			
	External BAT			Depend on external battery, 40 PCS (default, 30-50 PCS, selected)			
Charging capacity				Max. 20% *Pout			
Charging accuracy				±1%			
BYPASS							
Rate Voltage				380/400/415VAC (L-L); 220/230/240VAC (L-N)			
Voltage range				Range: -40% ~ +25%, Settable, default -20% ~ +15%			
Frequency range				50/60Hz, Settable: ±1Hz, ±3Hz, ±5Hz			
INVERTER							
Voltage accuracy				±1.0%			
Output THD _u				<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				0.1%			
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°			
SYSTEM							
Efficiency				Up to 97%			
Display				LED + 7 inch touch LCD			
Certification - Safety				IEC 62040-1, IEC 60950-1			
Certification - EMS				IEC 62040-2, IEC 61000-4-2(ESD); IEC 61000-4-3(RS); IEC61000-4-4(EFT); IEC 61000-4-5(Surge)			
IP degree				IP20			
ACCESSORIES							
Configuration				USB, RS232, RS485, Dry contact, Air filter, Cold start			
Option				SNMP card, AS400 card, Parallel kit			
ENVIRONMENT							
Environment				0°C~40°C (operation); -25°C~70°C (storage); 0°C-95°C (Humidity, non-condensing)			
PHYSICAL							
Dimension WxDxH	Internal BAT	400*800*950 mm		/			
	External BAT	250*728*650 mm		500*850*1350 mm		500*900*1300 mm	
Net weight	Internal BAT	270 kg		/			
	External BAT	66 kg	72 kg	91 kg	100 kg	143 kg	

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