



ATENCO POWER TECH CO. LTD



*Solutions behind the power*

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**3:3 3:1 1:1**



<b>97%*</b> VFI efficiency	<b>≤2%</b> Input THDi
<b>N+1</b> Redundancy	<b>30kW in 2U</b> Ultra-high density
<b>Hot-swappable</b> Power module	<b>7"</b> Touchscreen HMI

## Modular. Scalable. Ultra-Efficient.

3-level IGBT VFI · 10-300 kVA · ≤2% input THDi · Up to 97% VFI efficiency · ECO up to 99%  
Hot-swappable modules · 30kW (2U) · 7" touchscreen HMI · Parallel-optional · VRLA/LFP battery

### Applications



Government



Finance



Datacenter



Education



Transportation



Healthcare



Energy

TM66 is a three-phase modular VFI UPS from 10-300kVA. 3-level IGBT + DSP deliver low input distortion and high efficiency, with hot-swappable power modules, high-density module: 30kW, 2U and N+1 scalability. A 7" HMI, ICP clean compartment, conformal-coated PCBs and adaptive fans improve reliability and serviceability. Open protocols (SNMP/Modbus) and a self-aging mode simplify commissioning, monitoring and diagnostics.

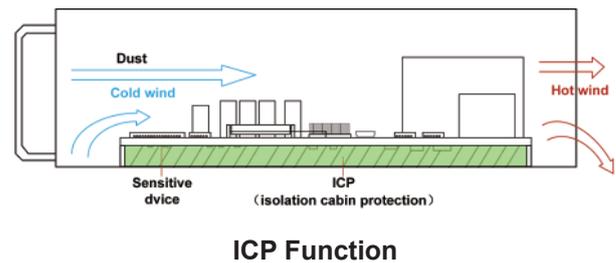
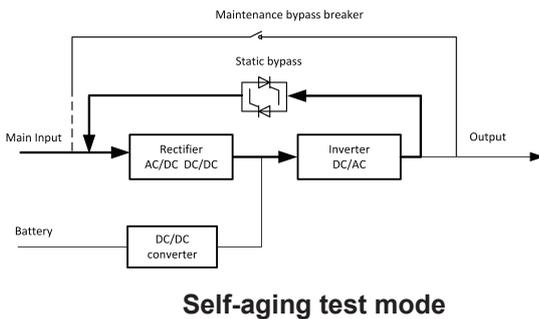
\* Efficiency & ECO depends on mains quality/load; efficiency & THDi per datasheet test conditions.



## High Reliability. High Efficiency.

- **3-level IGBT + DSP**, hardened mechanics, and smart thermal control—built for 24/7 critical loads.
- **Clean & efficient:**  $\leq 2\%$  input THDi, input PF up to 0.99, up to 97% VFI (99% ECO).
- **Overload tolerance:** 110% for 60 min; 125% for 10 min; 150% for 1 min.
- **Thermal & lifespan:** Key parts held  $<100^{\circ}\text{C}$  at full load; **self-aging mode** for no-load-bank commissioning.
- **Rugged build:** **Conformal coating on PCBs** and an **ICP** clean bay to shield sensitive electronics.
- **Weak-mains resilience:** Source-share mode lets grid and battery support the inverter together.

Note: Efficiency/ECO and THDi figures are per datasheet test conditions and depend on mains quality and load profile.



## 2U Power Module — compact design

- **Ultra-high density:** 30kW in 2U for maximum kVA per rack unit—ideal when space, cooling and service windows are tight.
- **Service-friendly footprint:** 400×495×86 mm (H≈2U), 12.65–13.95kg depending on module type.
- **Cleaner input, higher yield:** input THDi  $\leq 2\%$  (linear, full load) with input PF  $>0.99$ ; VFI efficiency up to 97%.
- **Battery-ready power stage:** charger capacity up to 50% of Pout; supports VRLA and LFP strings.
- **Built for harsh sites & fast commissioning:** single-board architecture to reduce MTTR; **self-aging test mode** for full-power commissioning without external load banks.



Module lineup

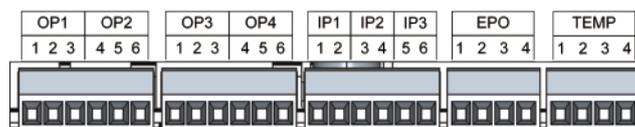
MOD10E / MOD20E / MOD25E / MOD30E (30 kW headline module shown). See cabinet model matrix for slot counts and N+1 capacities.

## Flexible Architecture

- Hot-swappable **10-30kW / 2U** modules scale **10–300kVA** with **N+1/N+X** redundancy-add/replace without downtime.
- I/O options to fit the site: **3/3** standard; **1/1** and **3/1** optional for legacy or mixed distributions.
- Battery flexibility: **VRLA or LFP** with configurable DC strings; sized charging capacity; external battery cabinets supported.
- Install anywhere: compact footprint, **front-access** service, **top/bottom cable entry**; cabinets can be **paralleled** for capacity or redundancy.
- Reliability aids: **clean compartment (ICP)** for dust-sensitive parts + **conformal-coated PCBs**.

## Convenient Management

- **7" color touchscreen** with guided setup, clear alarms, and fast diagnostics.
- Open integrations: **SNMP, Modbus (TCP/RTU)**, dry contacts; optional cloud gateway for fleet monitoring.
- **Self-aging test mode** for full-power commissioning without external load banks; staged ramps with logged results.
- Operational control: **EPO**, role-based access, event/alarm history, and exportable logs.
- Works with site **BMS/EMS** and environmental sensors for end-to-end visibility.



Dry contact

## Advanced, Superior Charging

- **High-capacity, module-level charger** with charge-share—fast battery recovery after outages without overshooting input limits.
- **Smart profiles:** CC/CV with **temperature compensation** for VRLA; **BMS handshake** (CAN/Modbus) for LFP to protect cells and balance charging.
- **Configurable charge current limits** by bank/capacity to match Ah, utility or genset constraints; **scheduled windows** and **AC input current limit** to avoid upstream trips.
- **Health & longevity:** periodic battery self-test, soft-start charging, and protective derating at high ambient to preserve battery life.
- **Service visibility:** on-screen charge status and alarms, plus remote monitoring via SNMP/Modbus.

## Intelligent Screen

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

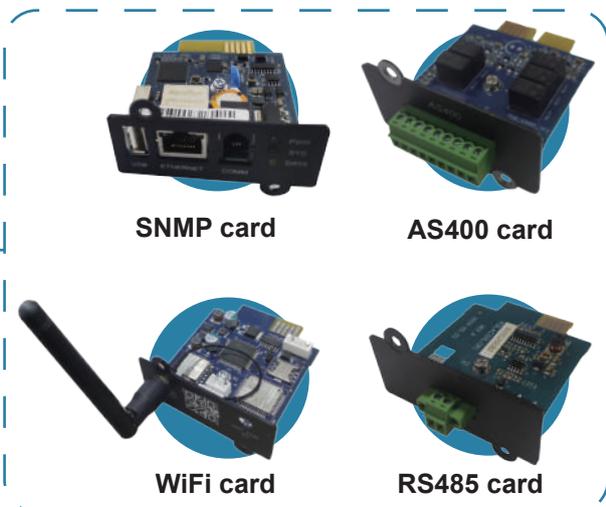
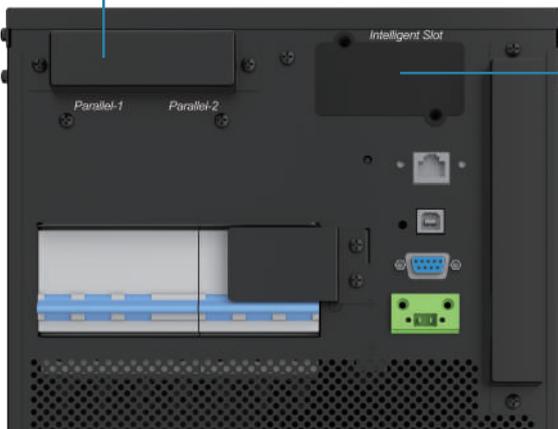
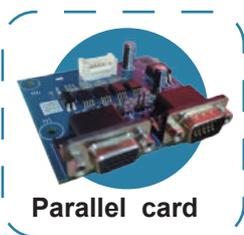
Onboard data storage for up to **100,000** event logs. Rear **physical ports** behind the panel provide convenient access to communication interfaces.

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

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



## Accessories



# TM66 Elite Technical Specifications

Power Module	MOD10E			MOD20E			MOD25E			MOD30E		
Model	TM66-20/10E	TM66-40/10E	TM66-60/10E	TM66-40/20E	TM66-80/20E	TM66-120/20E	TM66-50/25E	TM66-100/25E	TM66-150/25E	TM66-120/30E	TM66-150/30E (5+1)	TM66-300/30E
UPS Rate Power	20kVA	40kVA	60kVA	40kVA	80kVA	120kVA	50kVA	100kVA	150kVA	120kVA	150kVA	300kVA
<b>INPUT</b>												
Input	3P5W (3P+N+PE)											
Rate Voltage	380/400/415VAC (L-L)											
Input PF	>0.99											
Current distortion	THDi<2% (100% Linear load)											
Voltage range	MOD10-25E: 304~478VAC (L-L) Full load; 304~228VAC (L-L) Power derate from 100% to 50%											
	MOD30E: 328~478VAC (L-L) Full load; 324~228VAC (L-L) Power derate from 100% to 50%											
Frequency range	40~70Hz											
<b>BATTERY</b>												
Rate voltage	MOD10E all is : ±120VDC(default 20pcs,20-50pcs selected)											
	MOD20-30E : ±240VDC(default 40pcs,30-50pcs selected)											
Charging capacity (max.)	50%*Pout ( Limited by input current)											
Charging accuracy	±1%											
<b>INVERTER</b>												
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	0.1%											
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°											
<b>BYPASS</b>												
Rate voltage	380/400/415VAC(L-L)											
Voltage range	Range: -40%~ +25% , Settable, default -20%~+15%											
Frequency range	Settable · ±1Hz · ±3Hz · ±5Hz)											
Overload	110%, long time operation; 110%<load<125%, 10 mins; 125%<load<150%, 1 min											
<b>SYSTEM</b>												
Efficiency-normal mode	Up to 97%											
Display	LED + 7-inch 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 db (1 meter)	65dB @ 100% load, 62dB @ 45% load											
Operation temperature	0~40°C (operation); -25~70°C (storage)											
Humidity	0-95%( non condensing)											
Configuration	USB, RS232, RS485, Dry contact, Cold start, Air filter, Ethernet port											
Optional	SNMP card, AS400 card, SPD, Parallel kit											
<b>MODULE PHYSICAL</b>												
Dimension W×D×H	400*495*86mm											
Net weight	12.65kg			13.85kg						13.95kg		

## TM66 Cabinet Dimension/Weight

Cabinet	2-Slots	2-Slots with 4 breakers	4 slot Cabinet (10kVA power module)	4-Slots
	TM66-20/10E; TM66-40/20E; TM66-50/25E		TM66-40/10E	TM66-80/20E; TM66-100/25E
Body dimension (W*D*H)	442*711*307mm (7U)	442*711*396mm (9U)	442*710*485mm (11U)	442*661*705mm (16U)
MAX dimension (W*D*H)	442*751*307mm	442*751*485mm	442*751*575mm	442*841*797mm
Weight (kg) Cabinet	39kg	45kg	52kg	64kg

Cabinet	6-Slots	6-Slots with 4 breakers	10-Slots	10 slot Cabinet (10kVA power module)
	TM66-60/10E; TM66-120/20E; TM66-150/25E; TM66-150/30E (5+1)		TM66-100/10E; TM66-200/20E; TM66-250/25E; TM66-300/30E	
Body dimension (W*D*H)	442*661*906mm (20U)	442*661*1239mm (28U)	600*850*2000mm	
MAX dimension (W*D*H)	442*841*976mm	442*7841*1331mm	600*850*2000mm	
Weight (kg) Cabinet	88kg	96kg	143kg	158kg

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