



*Solutions behind the power*

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**1:1**



<p><b>95.5%</b> Online efficiency*</p>	<p><b>THDv≤1.5%</b> (linear)</p>
<p><b>3-Level</b> IGBT inverter</p>	<p><b>PF=1.0</b> kVA=kW</p>
<p><b>110/125/150%</b> Overload (60/10/1 min)</p>	<p><b>4× (N+X)</b> Parallel Redundancy 6/10kVA</p>

## Unity Power. Three-Level IGBT.

6-10kVA · Efficiency up to 95.5% · 0 ms transfer · Input PF >0.99 · THDi <3% · 110-300Vac · 40-70Hz · ±1% regulation · Crest 3:1

Max 10A charger · 192/216/240 VDC · RS-232/USB/RS-485/EPO · Maintenance bypass switch · Low noise (≤45 dB @ 6kVA)

### Applications

ON LINE	Tower	Datacenter	Finance	E-Medical	Industry	Transport	Emergency	Education

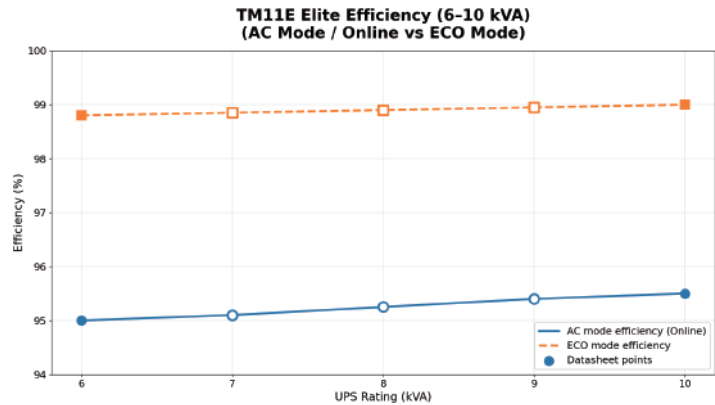
**Tower TM11E Elite** is a transformer-less, **true online (VFI)** tower UPS delivering **unity power** with low distortion for edge racks, labs, and control rooms. A **three-level IGBT** inverter and **±1% voltage regulation** keep outputs clean even on weak mains. **Wide input (110-300 Vac)** with **40-70Hz** sensing and **0 ms transfer** ride through sags and frequency drift. Runtime scales from internal strings to external cabinets, with **high-current charging** to accelerate recovery, and **N+X to 4 units** for growth or parallel redundancy.

\*Performance may vary by configuration and environment.

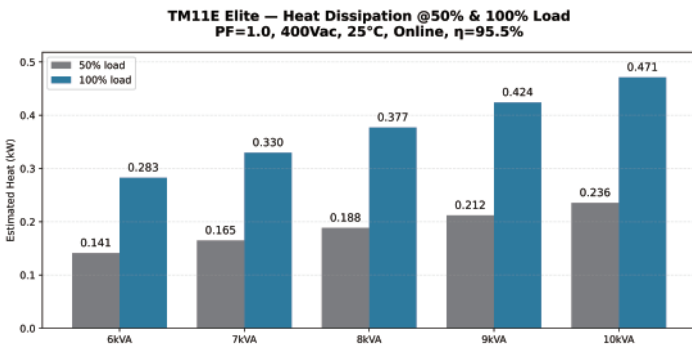
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- N+X parallel redundancy (up to 4 units)
- True online, full digital control
- Wide input 110-300Vac
- Generator compatible
- Built-in maintenance switch
- Multiple I/O: RS-232/USB/RS-485/EPO
- Max charging current up to 10A
- Cold-start
- Intelligent fan speed regulation
- Low noise ( $\leq 45$  dB @ 6kVA)
- Multi-protection (short-circuit, overload, overheat, battery over-/over-discharge, output low voltage, fan fault)



## Performance



- VFI (online double conversion) with PF = 1.0
- Efficiency up to 95% (online)
- Input PF > 0.99
- Input THDi < 3%; 40-70Hz
- Selectable output 208/220/230/240 Vac (default L+L+G; L+N+G variants)
- Voltage regulation  $\pm 1\%$ ; crest factor 3:1
- Transfer time (AC→BAT, INV→BYP): 0 ms
- Overload behavior (typ.): online 110%/60 min, 125%/10 min, 150%/1 min; bypass 105-130% alarm then timed limits; battery 110%/10 min, 125%/1 min, 150%/10 s, >150% 0.5 s shutdown
- Acoustics:  $\leq 48$  dB @ 6 kVA,  $\leq 52$  dB @ 10 kVA (1 m)

## Scalability, Battery & Charging

- N+X to 4 units (6-10kVA) for redundancy or capacity growth
- Charging current: 8A (6kVA) / 10A (10kVA)
- Battery DC Voltage (model-dependent): 216V default; 36pcs internal 9Ah
- Internal options: packs listed as 9Ah external cabinets for extended runtime (per SKUs)

## Optional Accessories

- Communication cards: SNMP / dry-contact (standard and mini versions)
- Dual intelligent slots support touch LCD



Note: Specifications are model-specific. Optionals (e.g., parallel kit, bigger charger, communications cards, accessories) are not supplied by default and vary by SKU/order.  
Final deliverables and configurations are defined only by ATENCO's formal quotation and the customer's confirmed model/options.

# TM11E Elite 6-10kVA Technical Specifications

TM11E Elite Series	
Model	TM11E-6K-EL-S / TM11E-6K-36X9   TM11E-10K-EL-S / TM11E-10K-36X9
Capacity	6000VA/6000W   10000VA/10000W
Topology	Double Conversion On-Line
Cooling	Fan cooled
Installation Type	Tower
<b>INPUT</b>	
Nominal voltage	208/220/230(Default)/240Vac
Input voltage range	110-300Vac(110-176Vac @ 50% load / 176-300Vac @ 100% load)
Frequency range	40-70Hz
Harmonic distortion(THDi)	<3%
Power factor	>0.99
Input Connection	Terminal(L+N+G)
<b>OUTPUT</b>	
Output Power	6kW   10kW
Power factor	1
Output Waveform	Pure Sinewave
Online Efficiency (up to)	95%   95.5%
Economy mode efficiency	98.8%   99%
Output voltage	208/220/230(Default)/240Vac
Voltage Regulation	±1%
Output Voltage Regulation (Dynamic)	±5%
Harmonic distortion(THDv)	< 1% (Full Linear load) < 3% (Full nonlinear load)
Output Frequency	50/60Hz ± 10%(Line mode); 50/60Hz(default) ±0.1%(Battery mode)
Over Load Capability (Online mode)	105%~110%: UPS transfer to bypass after 60 minutes when the utility is normal 110%~125%: UPS transfer to bypass after 10 minutes when the utility is normal 125%~150%: UPS transfer to bypass after 1 minute when the utility is normal >150%: UPS transfer to bypass after 0.5 second when the utility is normal
Over Load Capability (Battery mode)	105%~110%: UPS after 10 minute shut down 110%~125%: UPS after 1 minute shut down 125%~150%: UPS after 10 second shut down >150%: UPS after 0.5 second shut down
Over Load Capability (Bypass mode)	105%~130%: Only Overload alarm 130%~150%: UPS after 10 minute shut down 150%~200%: UPS after 1 minute shut down >200%: after 0.5 second shut down
Current Crest Ratio	Breaker 40A   Breaker 63A
Output Connection	03:01 Terminal (L+N+G)
<b>BYPASS</b>	
Voltage range	208/220Vac Max.voltage: +25% (optional +10%,+15%,+20%) 230Vac Max.voltage: +20% (optional +10%,+15% ) 240Vac Max.voltage: +15% (optional +10% ) Min. voltage: -45% (optional -10%,-20%,-30%)
Frequency range	Frequency Protection Range: ±10%
ECO Range	Rated Voltage ± 10%
<b>BATTERY</b>	
Capacity (Standard unit)	7Ah/12V (9Ah/12V optional)   9Ah/12V (7Ah/12V optional)
Nominal DC Voltage	216Vdc
Number (PCS)	36
Charge Current (max.)	8A   10A
<b>COMMUNICATION</b>	
Control panel LCD+LED	Segment code screen
Communication Interface	USB, RS232, RS485 port, Intelligent slot, Parallel port (optional), SNMP card (optional), Relay card (optional)
Emergency Power Off (EPO)	Yes
<b>ENVIRONMENT</b>	
Operating temperature	0°C~40°C
Storage temperature	-25°C~55°C
Humidity range	0~95%RH (Non -condensing)
Operating altitude	0~1000 meters Normally operate; 1000~3000 meters Derating
Protection Class	IP20
Noise level	≤45dB   ≤50dB
<b>STANDARDS</b>	
Safety	EN IEC 62040-1:2019 + A11:2021
EMC	IEC 62040-2:2016, EN IEC 62040-2:2018
<b>PHYSICAL</b>	
Dimension W×D×H	250*643*715mm (With wheel)
Net weight	TDB   TDB

# TC 6-10kVA battery pack specification

TC40120N / TC40120N-B	
<b>BATTERY SYSTEM</b>	
Battery type	VRLA (Lead acid maintenance free battery)
Typical battery recharging time	6~8 hours (To 90% of full capacity)
Typical battery life	3~5 years, depend on discharging cycle and ambient temperature
System voltage	±120Vdc
Battery quantity	2×20 PCS
Capacity	9Ah (12V)
<b>PHYSICAL</b>	
Dimension W×D×H	250×619×616mm (With wheel)
Net weight	134kg
<b>ENVIRONMENT</b>	
Safety	CE
Operating environment	0°C~40°C
Relative humidity	0~95% (Non condensing)
Noise level	< 40dB at 1 Meter

Model remark: TC40120N-B; "TC" means Tower cabinet; "40" means battery number inside the cabinet; "120" means the battery system voltage; "N" means battery with neutral connection; "B" means the cabinet with internal battery.

*Disclaimer: Products are continuously improved and updated. As a result, actual product specifications may differ from promotional or technical materials due to asynchronous revisions. This document is provided for reference only and does not constitute an offer, warranty, or commitment.*

