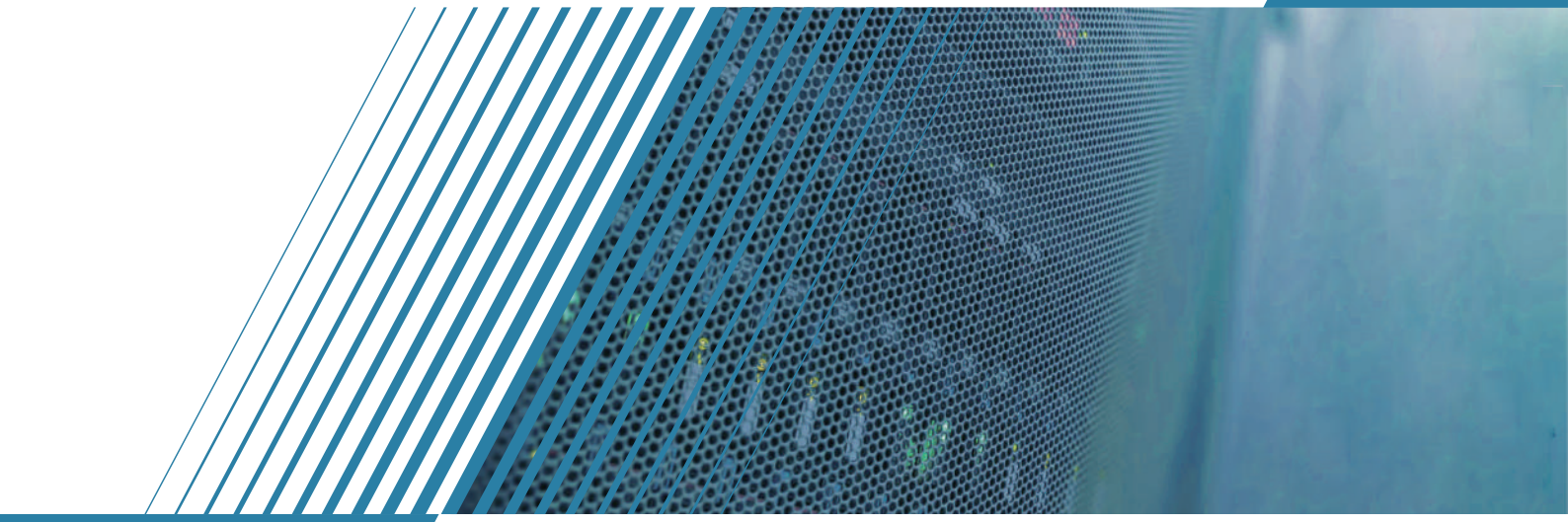
ATENCO POWER TECH CO. LTD



Solutions behind the power

1:1

93.5%*
AC efficiency
(6-10kVA)

≥0.99
Input PF (PFC)

0 ms
Transfer time

PF 0.9
Output factor
(Optional PF1)

40-70Hz
Auto-sensing

×4
Parallel redundancy
(6-10kVA)

Always Online. Zero Transfer Time.

VFI online double-conversion · 1-10kVA · Input 110-300VAC (1–3kVA) / 110–286VAC (6–10kVA) · Selectable 208/220/230/240VAC output

Cold start · Generator compatible · Max charger 6A (1-3kVA-L) / 10A (6-10kVA-L) · AC-mode efficiency up to 92 % (2-3kVA) / up to 93.5 % (6-10kVA)

Applications

VFI TYPE ON LINE · Tower · Datacenter · E-Medical · Industry · Transport · Emergency

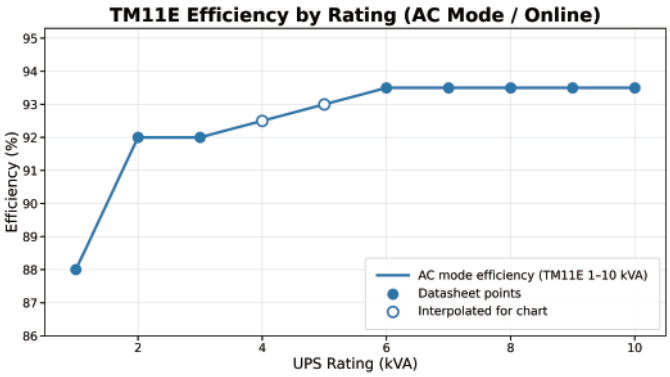
TM11E is a transformer-less, true online (VFI) tower UPS for 1-10kVA. ≥0.99 input PF, and 0 ms transfer for sensitive loads. Runtime scales from internal batteries (1-10kVA) to external strings, Parallel up to 4 units (6-10kVA). Standard USB/RS-232 and EPO are built in; SNMP/relay/RS-485 cards are optional.
Low distortion & efficiency: THDv ≤3% (linear) / ≤5% (non-linear) on 1-3kVA, and ≤2% / ≤5% on 6-10kVA.
Power architecture: 6-10kVA models offer a settable DC bus (±96/±108/±120V; 16/18/20 blocks) and robust overload handling (110% for 60 min, 125% for 10 min, 150% for 1 min), plus comprehensive protections and LCD/LED status for quick diagnostics.

Performance may vary by configuration and environment.

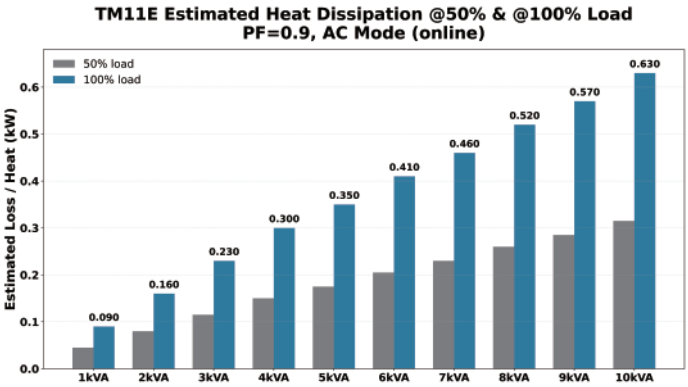
SCAN THE CODE
TO LEARN MORE

TM11E Features

- **True online double-conversion (VFI)**
- **Transformer-less tower UPS (1-10kVA)**
- **Input voltage range:**
  1-3kVA: 110-300Vac (176-264 Vac @ 100% load)
  6-10kVA: 110-286Vac
- **Output PF = 0.9** (Optional PF 1.0)
- **High input PF ≥ 0.99 (PFC)**
- **0 ms transfer time (AC mode → Battery mode)**
- **Up to 93.5% AC efficiency (6-10kVA)**
- **Parallel redundancy up to 4 units (6-10kVA) (optional)**
- **Generator compatible** and **ECO mode**



Performance



- **Input frequency range:** 40-70Hz, **auto-sensing**
- **Selectable output voltage:** 208/220/230/240Vac
- **Voltage regulation:** ±1%
- **Output waveform:** Pure sinewave
- **Crest factor:** 3:1
- **THDv (power quality):**
  1-3 kVA: ≤3% (linear) / ≤5% (non-linear)
  6-10 kVA: ≤2% (linear) / ≤5% (non-linear)
- **Overload capability (6-10kVA): ≤110% for 60min; ≤125% for 10min; ≤150% for 1min; >150% → bypass immediately**

Scalability, Battery Charging

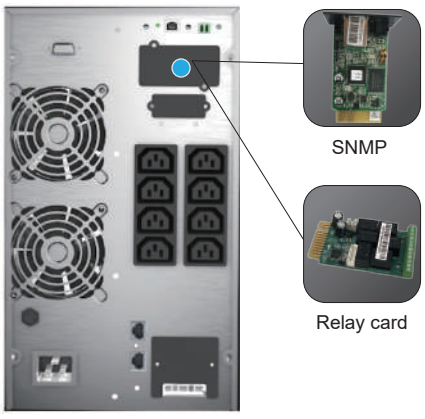
- Scale from **internal batteries (1-10kVA)** to **external strings**
- **Charging / recharge (to 90% capacity):**
  1-3kVA: 4hours; **6-10kVA**: 6-8hours
- **Charging current**:
  1-3kVA: up to 6A (long-run models)
  6-10kVA: default 1.35A, **max 10A** (configurable)
- **6-10kVA DC bus / battery system (settable)**: ±96 / ±108 / ±120Vdc (16/18/20 blocks)

Monitoring, Interfaces & Protections

- **Standard interfaces**: USB / RS-232 / EPO
- **Optional cards**: SNMP / Relay / RS-485
- **LCD/LED status monitoring**
- **Protections include**: short-circuit, overload, over-temperature, battery overcharge/over-discharge, fan fault, output low voltage
- **Startup & cooling features**: cold start (DC start), self-test at startup, intelligent fan speed regulation

Optional Accessories

- External Battery Cabinets for extended backup time
- Maintenance Bypass Switch
- SNMP Card TM220 – Remote monitoring with email alerts (1-3kVA)
- SNMP Card TM550 – Remote monitoring with email alerts (6-10kVA)

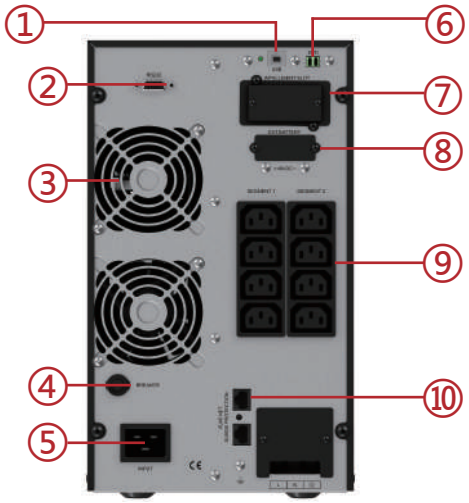


Rear panel

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.

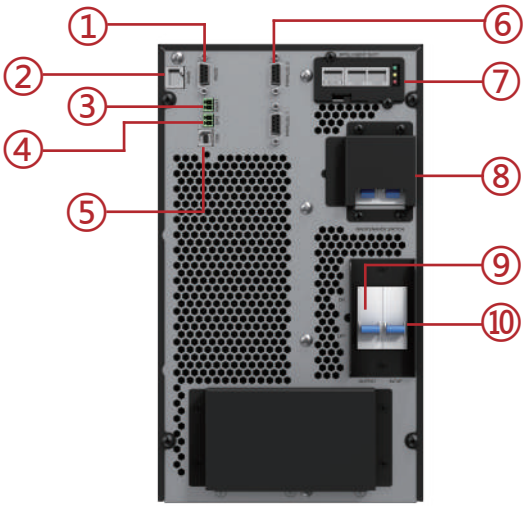
Rear Panel

TM11E 1kVA L /S I TM11E 2kVA L /S I TM11E 3kVA L /S



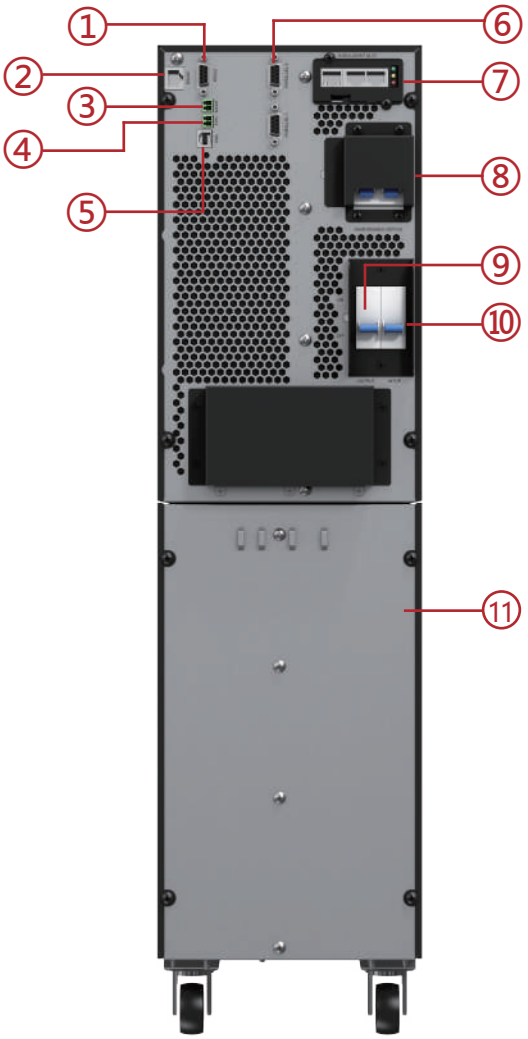
1. USB Port
2. RS232
3. Fan
4. Breaker
5. Main Input Socket
6. EPO “Emergency Power Off”
7. SNMP Intelligent Slot
8. External Battery Connector
9. Output Socket
10. RJ45 NET Surge Protection

TM11E 6kVA L I TM11E 10kVA L



1. RS232
2. RS485
3. Service/Maintenance interlock
4. EPO “Emergency Power Off”
5. USB Port
6. Parallel
7. SNMP Intelligent Slot
8. Maintenance Switch
9. Output Socket
10. Input Socket
11. Bulit in Battery space

TM11E 6kVA S I TM11E 10kVA S



TM11E 1-3kVA Technical Specifications

ATENCO POWER TECH CO. LTD

		TM11E											
Model		TM11E 1kVA L		TM11E 1kVA S		TM11E 2kVA L		TM11E 2kVA S		TM11E 3kVA L		TM11E 3kVA S	
Capacity		1000VA/900W				2000VA/1800W				3000VA/2700W			
INPUT													
Nominal voltage		208/220/230/240Vac											
Input voltage range		110～300Vac (176～264Vac @ 100% load)											
Power factor		≥0.99											
FREQUENCY													
Frequency range		40～70Hz (50/60Hz Auto-Sensing)											
OUTPUT													
Output voltage		208/220/230/240Vac											
Voltage regulation		±1%											
Power factor		0.9											
Output frequency	Line mode	46~54Hz or 56~64Hz											
	Bat. mode	(50/60±0.1%)Hz											
Crest factor		3:1											
Harmonic distortion (THDv)		≤3% Linear load ≤5% Non linear load											
Transfer time	AC mode to Bat.mode	0ms											
	Inverter to Bypass	4ms (Typical)											
Output waveform		Pure Sinewave											
EFFICIENCY													
AC mode		88%				92%				92%			
Battery mode		85%				88%				89%			
BATTERY													
Battery number		2	3	2	3	4	6	4	6	6	8	6	8
Capacity (Standard unit)		9Ah/12V (7Ah/12V optional)											
Typical recharging time		4 hours (To 90% of full capacity)											
Charging voltage		27.4Vdc±1%	41.1Vdc±1%	27.4Vdc±1%	41.1Vdc±1%	54.8Vdc±1%	82.2Vdc±1%	54.8Vdc±1%	82.2Vdc±1%	82.2Vdc±1%	109.6Vdc±1%	82.2Vdc±1%	109.6Vdc±1%
Charging current (Max.)		6A		1.4A		6A		1.4A		6A		1.4A	
INDICATORS													
LED display		Line mode, Bat.mode, ECO mode, Bypass mode, Battery low voltage, Overload & UPS fault											
LCD display		Input voltage, Input frequency, Output voltage, Output frequency, Load percentage, Battery voltage, Inner temperature& Remaining battery backup time											
ALARM													
Battery mode		Beeping every 4 seconds											
Battery low		Beeping every second											
Overload		Beeping twice every second											
Fault		Continously beeping											
PHYSICAL													
Dimension W×D×H		144×293×209mm			144×399 ×209mm	191×460×337mm							
Net weight		4.1kg	9.3kg		12.5kg	10kg		19.5kg	24.5kg	10kg		24.5kg	29.5kg
ENVIRONMENT													
Operating temperature		0°C~40°C											
Storage temperature		−25°C~55°C											
Humidity range		20~95%RH @ 0~40°C (Non condensing)											
Altitude		＜1500m, derating required when＞1500m											
Noise level		＜50dB at 1 Meter											
STANDARDS													
Safety		IEC/EN 62040-1, IEC/EN 62477-1											
EMC		IEC/EN 62040-2 (IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11, IEC 61000-2-2)											

* When output voltage is 208Vac,need to derate to 80% of the unit capacity

TM11E 6-10kVA Technical Specifications

ATENCO POWER TECH CO. LTD

		TM11E			
Model		**TM11E 6kVA L**	**TM11E 6kVA 16X9**	**TM11E 10kVA L**	**TM11E 10kVA 20X9**
Capacity		6000VA/5400W		10000VA/9000W	
INPUT					
Nominal voltage		208/220/230/240Vac			
Input voltage range		110~286Vac			
Power factor		≥0.99			
Bypass voltage range		Max.voltage: 220V: +25% (Optional +10%, +15%, +20%) 230V: +20% (Optional +10%, +15%) 240V: +15% (Optional +10%) Min.voltage: −45% (Optional −20%, −30%)			
FREQUENCY					
Frequency range		40~70Hz (50/60Hz Auto-Sensing)			
OUTPUT					
Output voltage		208/220/230/240Vac			
Voltage regulation		±1%			
Power factor		0.9			
Output frequency	Line mode	±1%/±2%/±4%/±5%/±10% of the rated frequency (Optional)			
	Bat. mode	(50/60±0.1%)Hz			
Crest factor		3:1			
Harmonic distortion (THDv)		≤2% Linear load ≤5% Non linear load			
Transfer time	AC mode to Bat.mode	0ms			
	Inverter to Bypass	0ms			
Output waveform		Pure Sinewave			
Overload	Line mode	Load≤110% last 60min; ≤125% last 10min; ≤150% last 1min; >150% turn to bypass mode immediately			
	Bypass mode	40A (Breaker)		63A (Breaker)	
Efficiency		up to 93.5%			
BATTERY					
Battery voltage		±96/±108/±120Vdc (Settable)	±120Vdc	±96/±108/±120Vdc (Settable)	±120Vdc
Capacity (Standard unit)		9Ah/12V (7Ah/12V optional)			
Typical recharging time		6~8 hours (To 90% of full capacity)			
Charging current		1.35A default; Max.current 10A (Charging current can be set according to battery capacity)			
INDICATORS					
LED display		Line mode, Bat.mode, ECO mode, Bypass mode, Battery low voltage, Overload & UPS fault			
LCD display		Input voltage, Input frequency, Output voltage, Output frequency, Load percentage, Battery voltage, Inner temperature & Remaining battery backup time			
ALARM					
Battery mode		Beeping every 4 seconds			
Battery low		Beeping every second			
Overload		Beeping twice every second			
Fault		Continously beeping			
PHYSICAL					
Dimension W×D×H		H: 191×460×337mm; S: 191×460×720mm (With wheel)			
Net weight		12.5kg	70kg	14kg	71.5kg
ENVIRONMENT					
Operating temperature		0°C~40°C			
Storage temperature		−25°C~55°C			
Humidity range		20～95%RH @ 0~40°C (Non condensing)			
Altitude		＜1500m, derating required when＞1500m			
Noise level		＜55dB at 1 Meter		＜58dB at 1 Meter	
STANDARDS					
Safety		IEC/EN 62040-1, IEC/EN 62477-1			
EMC		IEC/EN 62040-2 (IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11, IEC 61000-2-2)			

* When output voltage is 208Vac, need to derate to 80% of the unit capacity

TC 1-3kVA battery pack specification

Tower Cabinet					
Model	TC04024C-B	TC06036C-B	TC08048C-B	TC12072C-B	TC16096C-B
BATTERY SYSTEM					
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 discharing cycle and ambient temperature				
System voltage	24Vdc	36Vdc	48Vdc	72Vdc	96Vdc
Charging current (Max.)	1.4A				
Battery quantity	4	6	8	12	16
Capacity	9Ah/12V (7Ah/12V optional)				
PHYSICAL					
Dimension W×D×H	144×399×209mm		191×460×337mm		
Net weight	13.5kg	18.5kg	28.5kg	38.5kg	47.5kg
ENVIRONMENT					
Safety	CE				
Operating environment	0°C~40°C				
Relative humidity	0~95% (Non condensing)				
Noise level	＜40dB at 1 Meter				

Model remark: TC08048C ; "TC" means Tower cabinet; " 08" means battery number inside the cabinet;
"048" means the battery system voltage.

TC 6-10kVA battery pack specification

	TC40120N/TC40120N-B
BATTERY SYSTEM	
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 discharing cycle and ambient temperature
System voltage	±120Vdc
Battery quantity	2×20 PCS
Capacity	9Ah (12V)
PHYSICAL	
Dimension W×D×H	250×619×616mm (With wheel)
Net weight	134kg
ENVIRONMENT	
Safety	CE
Operating environment	0°C~40°C
Relative humidity	0~95% (Non condensing)
Noise level	＜40dB at 1 Meter

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

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