

# OTOP Series



Segment LCD



TFT colourful LCD



7 inch colourful LCD



Battery cabinet  
(Optional)



Optimized battery configuration  
7Ah/9Ah (12V)

## Features

- N+X parallel redundancy, support maximum 4 units in parallel
- Online double conversion with DSP control
- Optimization battery group, the quantity of battery: 16/18/20pcs (32~40pcs supportable)
- Wide input voltage range: 208~478Vac
- Wide input frequency range: 40Hz~70Hz
- Input current harmonic: <3%
- Dual input source (Optional)
- Maximum charging current up to 18A (Settable)
- Support 3/1 and 1/1 operation
- Generator compatible
- ECO mode operation for energy saving
- Design with maintenance switch
- Cold start function
- Intelligent fan speed regulation
- Self-testing when UPS startup
- 50/60Hz frequency converter mode
- Colorful 2.4 inch TFT LCD display and 7 inch LCD display LCD are optional
- Multiple protection function: short-circuit, overload, overheat, battery overcharge and overdischarge, output low voltage and fan fault alarm
- Multiple communication interface: RS232/RS485/USB/EPO/Dry contact port (Relay card/SNMP card/Parallel cable/Battery temperature sensor optional)



ON LINE



TOWER



DATA CENTRE



E-MEDICAL



INDUSTRY



TRANSPORT



EMERGENCY

# OTOP Series

Model	OTOP 10k H	OTOP 10k S	OTOP 15k H	OTOP 15k S	OTOP 20k H	OTOP 20k S
Capacity	10kVA/10kW		15kVA/15kW		20kVA/20kW	
<b>INPUT</b>						
Nominal voltage	380/400/415Vac (3PH+N+PE) 220/230/240Vac (L+N+PE)					
Operating voltage range	208~478Vac; 120~276Vac					
Operating frequency range	40~70Hz (50/60Hz Auto-Sensing)					
Power factor	≥0.99					
Harmonic distortion (THDi)	≤3% Linear load					
Bypass voltage range	Max.voltage: 220V: +25% (Optional +10%, +15%, +20%) 230V: +20% (Optional +10%, +15%) 240V: +15% (Optional +10%) Min.voltage: -45% (Optional -10%, -20%, -30%)					
<b>FREQUENCY</b>						
Frequency protection range	50/60Hz±10%					
<b>OUTPUT</b>						
Output voltage	220/230/240Vac (L+N+PE)					
Voltage regulation	±1%					
Power factor	1.0					
Output frequency	Line mode	±1%/±2%/±4%/±5%/±10% of the rated frequency (Optional)				
	Bat. mode	(50/60±0.1%)Hz				
Transfer time	AC mode to Bat.mode	0ms				
	Inverter to Bypass	0ms				
Output waveform	Pure Sinewave					
Crest factor	3:1					
Harmonic distortion (THDv)	≤2% Linear load ≤5% Non linear load					
Overload	AC mode	Load≤110%: last 60min turn to bypass; ≤125%: last 10min turn to bypass; ≤150%: last 1min turn to bypass; ≥150%: turn to bypass mode immediately				
	Bat.mode	Load≤110%: last 10min; ≤125%: last 1min; ≤150%: last 5s; ≥150%: shut down UPS immediately				
	Bypass mode	Breaker 2×32A	Breaker 2×50A		Breaker 2×63A	
<b>EFFICIENCY</b>						
Efficiency	up to 93.5%			up to 94.5%		
<b>BATTERY</b>						
Battery voltage	Standard unit	Chassis 1: ±120Vdc (20pcs 9Ah) (20pcs 7Ah·2×20pcs 7/9Ah optional) Chassis 2: ±96Vdc (16pcs 9Ah)		±120Vdc (2×20pcs 9Ah) (2x20pcs 7Ah optional)		
	Long run unit	±96Vdc~±120Vdc (16~20pcs, 16pcs default, Standard unit and 20pcs no power derating; 18pcs output power factor 0.9; 16pcs output power factor 0.8) ±192/204/216/228/240Vdc (32/34/36/38/40pcs supportable)				
Charging current	14A (Max.)	1.35A (2.7A optional)	16A (Max.)	2.7A	18A (Max.)	2.7A
Charging current can be set according to battery capacity						
<b>PHYSICAL</b>						
Dimension W×D×H	Standard unit	Chassis 1: 250×900×868mm Chassis 2: 250×645×715mm		250×900×868mm		
	Long run unit	250×580×655mm				
Net weight	Standard unit	Chassis 1: 125kg (20pcs 9Ah) Chassis 2: 78kg (16pcs 9Ah)		180kg (2×20pcs 9Ah)		181kg (2×20pcs 9Ah)
	Long run unit	33kg		37kg		38kg
<b>ENVIRONMENTAL</b>						
Operating temperature	0°C~40°C					
Storage temperature	-25°C~55°C					
Humidity range	0~95% (Non condensing)					
Altitude	<1500m, derating required when>1500m					
Noise level	<55dB at 1 Meter				<58dB at 1 Meter	
<b>STANDARDS</b>						
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)					

1. Specifications are subject to change without prior notice

2. Data above are typical values for reference only, not as a basis for engineering design

# OTOP Series

Tower Cabinet	
Model	OBO31E TC040120N
<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	7Ah/9Ah (12V)
<b>PHYSICAL</b>	
Dimension W×D×H	250×619×616mm (With wheel)
Net weight	122kg/134kg
<b>ENVIRONMENT</b>	
Safety	CE
Operating environment	0°C~40°C
Relative humidity	0~95% (Non condensing)
Noise level	<40dB at 1 Meter

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Remark: TM31E TC040120N "TM31E" means series; "TC" means Tower cabinet; "40" means battery number inside the cabinet; "120" means the battery system voltage; "N" means battery with neutral connection.

Tower Cabinet	
Model	OBO33E TC080120N
<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	4×20 PCS
Capacity	7Ah/9Ah (12V)
<b>PHYSICAL</b>	
Dimension W×D×H	250×900×868mm (With wheel)
Net weight	244kg/265kg
<b>ENVIRONMENT</b>	
Safety	CE
Operating environment	0°C~40°C
Relative humidity	0~95% (Non condensing)
Noise level	<40dB at 1 Meter

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3. Remark: TM33E TC080120N "TM33E" means series; "TC" means Tower cabinet; "80" means battery number inside the cabinet; "120" means the battery system voltage; "N" means battery with neutral connection

