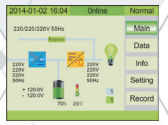
OTO Pro Series

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)

VFI TYPE ON LINE | TOWER | DATACENTRE | E-MEDICAL | INDUSTRY | TRANSPORT | EMERGENCY

OTO Pro Series

Model		OTO PRO 6K H	OTO PRO 6K S	OTO PRO 10K H	OTO PRO 10K S
Capacity		10kVA/10kW	15kVA/15kW	20kVA/20kW	
INPUT					
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%)			
FREQUENCY					
Frequency protection range		50/60Hz±10%			
OUTPUT					
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
EFFICIENCY					
Efficiency		up to 93.5%	up to 94.5%		
BATTERY					
Battery voltage	Standard unit	Chassis 1: ±120Vdc (20pcs 9Ah) (20pcs 7Ah、2×20pcs 7/9Ah optional)	±120Vdc (2×20pcs 9Ah) (2x20pcs 7Ah optional)		
		Chassis 2: ±96Vdc (16pcs 9Ah)			
	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			
PHYSICAL					
Dimension W×D×H	Standard unit	Chassis 1: 250×900×868mm	250×900×868mm		
		Chassis 2: 250×645×715mm			
	Long run unit	250×580×655mm			
Net weight	Standard unit	Chassis 1: 125kg (20pcs 9Ah)	180kg (2×20pcs 9Ah)	181kg (2×20pcs 9Ah)	
		Chassis 2: 78kg (16pcs 9Ah)			
	Long run unit	33kg	37kg	38kg	
ENVIRONMENTAL					
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	
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)			

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

OTO Pro Series

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

Specifications are subject to change without prior notice.
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.

Model	**OBO33E TC080120N**
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	4×20 PCS
Capacity	7Ah/9Ah (12V)
PHYSICAL	
Dimension W×D×H	250×900×868mm (With wheel)
Net weight	244kg/265kg
ENVIRONMENT	
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