

OTOT Transformer-less Online Tower UPS, PF1, 3:3



Features

- High power density design
- N+X parallel redundancy, support maximum 4 units in parallel
- Online double conversion with DSP control
Input current harmonic: <3%
- Wide input voltage range: 208~478Vac
- Wide input frequency range 40~70Hz
- Optimization battery group, the quantity of battery 10~30kVA:
16/18/20pcs (30~50pcs supportable)
- 40kVA: 30~50pcs
- Maximum charging current up to 20A (Settable)
- Dual input source (Optional for standard unit)
- Colorful 2.4 inch TFT LCD display and 7 inch LCD display
• LCD are optional
- Versatile LCD human-computer interface
- Generator compatible
- ECO mode operation for energy saving
- Intelligent fan speed regulation
- Self-testing when UPS startup
- 50/60Hz frequency converter mode
- Cold start
The output can meet 100% unbalanced load
- Multiple protection function: short-circuit, overload, overheat, battery overcharge and overdischarge, output low voltage and fan fault alarm
- Multiple communication interface: USB, RS232, RS485, Parallel port, Dry contact, Intelligent slot, SNMP card (Optional), Dry contact card (Optional), Battery temperature sensor (Optional)



ON LINE



TOWER



DATA CENTRE



E-MEDICAL



INDUSTRY



TRANSPORT



EMERGENCY

OTOT Transformer-less Online Tower UPS, PF1, 3:3

| MODEL | OTOT10S | OTOT15S | OTOT20S | OTOT30S | OTOT40S |
|-------------------------------|---|--|-------------------|--|--|
| Capacity (VA/W) | 10k | 15k | 20k | 30k | 40k |
| INPUT | | | | | |
| Nominal Voltage (Vac) | 380/400/415 (3Ph+N+PE) | | | | |
| Operating Voltage Range (Vac) | 305~478 (Full load); 208~478 (50% load) | | | | |
| Power Factor | ≥0.99 | | | | |
| Harmonic Distortion (THDi) | ≤3% Linear load | | | | |
| Bypass Voltage Range (Vac) | Max.voltage: 220: +25% (Optional +10%, +15%, +20%) 230: +20% (Optional +10%, +15%) 240: +15% (Optional +10%) Min.voltage: -45% (Optional -20%, -30%) | | | | |
| Bypass Frequency Range (Hz) | 50/60±10% | | | | |
| OUTPUT | | | | | |
| Nominal Voltage (Vac) | 380/400/415 (3Ph+N+PE) | | | | |
| Voltage Regulation | ±1% | | | | |
| Output Frequency (Hz) | Line mode: ±1%/±2%/±4%/±5%/±10% of the rated frequency (Optional); Bat. mode: 50/60 (±0.1%) | | | | |
| Crest Factor | 3:1 | | | | |
| Harmonic Distortion (THDv) | ≤2% Linear load; ≤5% Non linear load | | | | |
| Overload | AC mode | ≤110% 60min, ≤125% 10min, ≤150% 1min, >150% immediately turn to bypass | | | |
| | Bat.mode | ≤110% 10min, ≤125% 1min, ≤150% 5s, >150% immediately shut down | | | |
| EFFICIENCY | | | | | |
| AC Mode | Up to 93.5% | Up to 94.5% | | Up to 95.2% | |
| ECO Mode | Up to 98.0% | Up to 98.2% | | Up to 98.6% | |
| BATTERY | | | | | |
| Battery Type | VRLA (Lead acid maintenance free battery) | | | | |
| Battery Voltage (Vdc) | Chassis 1: ±120 (20pcs 9Ah)(20pcs 7Ah, 2×20pcs 7/9Ah, 3×20pcs 7/9Ah optional) | ±120 (2×20pcs 9Ah) (2×20pcs 7Ah, 3×20pcs 7/9Ah optional) | | ±120 (3×20pcs 9Ah)(3×20pcs 7Ah optional) | ±180 (2×30pcs 9Ah)(2×30pcs 7Ah optional) |
| | Chassis 2: ±96Vdc (16pcs 9Ah) | | | | |
| Charging Current(Max.) (A) | 1.35 (2.7 Optional) | 2.7 | 4.05 | 2.7 | |
| ENVIRONMENTAL | | | | | |
| Operating Temperature (°C) | 0~40 | | | | |
| Storage Temperature (°C) | -25~55 (No battery) | | | | |
| Humidity Range | 0~95% (Non condensing) | | | | |
| Altitude (m) | <1000, derating required when>1000 | | | | |
| Noise Level (dB) | <55 | <58 | <61 | <64 | |
| PHYSICAL | | | | | |
| Dimension WxDxH (mm) | Chassis 1: 250×900×868 | 250×900×868 | | | |
| | Chassis 2: 250×645×715 | | | | |
| Weight (kg) | Chassis 1: 129 (20pcs 9Ah) | 186 (2×20pcs 9Ah) | 187 (2×20pcs 9Ah) | 236 (3×20pcs 9Ah) | 239 (2×30pcs 9Ah) |
| | Chassis 2: 80 (16pcs 9Ah) | | | | |
| 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) | | | | |

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OTOT Transformer-less Online Tower UPS, PF1, 3:3

| MODEL | OTOT10H | OTOT15H | OTOT20H | OTOT30H | OTOT40H |
|-------------------------------|--|--|---------|-------------|----------------------------|
| Capacity (VA/W) | 10k | 15k | 20k | 30k | 40k |
| INPUT | | | | | |
| Nominal Voltage (Vac) | 380/400/415 (3Ph+N+PE) | | | | |
| Operating Voltage Range (Vac) | 305~478 (Full load); 208~478 (50% load) | | | | |
| Power Factor | ≥0.99 | | | | |
| Harmonic Distortion (THDi) | ≤3% Linear load | | | | |
| Bypass Voltage Range (Vac) | Max.voltage: 220: +25% (Optional +10%, +15%, +20%) 230: +20% (Optional +10%, +15%) 240: +15% (Optional +10%) Min.voltage: -45% (Optional -20%, -30%) | | | | |
| Bypass Frequency Range (Hz) | 50/60±10% | | | | |
| OUTPUT | | | | | |
| Nominal Voltage (Vac) | 380/400/415 (3Ph+N+PE) | | | | |
| Voltage Regulation | ±1% | | | | |
| Output Frequency (Hz) | Line mode: ±1%/±2%/±4%/±5%/±10% of the rated frequency (Optional); Bat. mode: 50/60 (±0.1%) | | | | |
| Crest Factor | 3:1 | | | | |
| Harmonic Distortion (THDv) | ≤2% Linear load; ≤5% Non linear load | | | | |
| Overload | AC mode | ≤110% 60min, ≤125% 10min, ≤150% 1min, >150% immediately turn to bypass | | | |
| | Bat.mode | ≤110% 10min, ≤125% 1min, ≤150% 5s, >150% immediately shut down | | | |
| EFFICIENCY | | | | | |
| AC Mode | Up to 93.5% | Up to 94.5% | | Up to 95.2% | |
| ECO Mode | Up to 98.0% | Up to 98.2% | | Up to 98.6% | |
| BATTERY | | | | | |
| Battery Type | VRLA (Lead acid maintenance free battery) | | | | |
| Battery Voltage (Vdc) | 10~30kVA: ±96/108/120; battery quantity (16~20pcs, 16pcs default, 20pcs no power derating; 18pcs output power factor 0.8/0.9; 16pcs output power factor 0.7/0.8) | | | | 40kVA: ±180~300 (30~50pcs) |
| | ±180~300 (30~50pcs) | | | | |
| Charging Current(Max.)(A) | 14 | 16 | 18 | 20 | 20 |
| ENVIRONMENTAL | | | | | |
| Operating Temperature (°C) | 0~40 | | | | |
| Storage Temperature (°C) | -25~55 (No battery) | | | | |
| Humidity Range | 0~95% (Non condensing) | | | | |
| Altitude (m) | <1000, derating required when>1000 | | | | |
| Noise Level (dB) | <55 | <58 | <61 | <64 | <64 |
| PHYSICAL | | | | | |
| Dimension WxDxH (mm) | 250×580×655 | | | | |
| Weight (kg) | 35 | 39 | 40 | 43 | 46 |
| 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) | | | | |

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Battery Pack Specification

| MODEL | MP31 BT40120N | OTOT3320 BT80120N | OTOT3330 BT80120N | OTOT3340 BT60180N | OTOT3340 BT80240N |
|--------------------------------------|--|-------------------|---------------------------|-------------------|-------------------|
| BATTERY SYSTEM | | | | | |
| Battery Type | VRLA (Lead acid maintenance free battery) | | | | |
| Typical Battery Recharge Time(hours) | 6~8 (To 90% of full capacity) | | | | |
| Typical Battery Life (years) | 3~5, depend on discharging cycle and ambient temperature | | | | |
| System Voltage (Vdc) | ±120 | | ±180 | | ±240 |
| Battery Quantity (pcs) | 2×20 | 4×20 | | 2×30 | 2×40 |
| Capacity (Ah) | 7/9 | | | | |
| PHYSICAL | | | | | |
| Dimension WxDxH(mm) | 250×619×616 (With caster) | | 250×900×868 (With caster) | | |
| Weight (kg) | 122/134 | 244/265 | | 200/215 | 244/265 |
| ENVIRONMENTAL | | | | | |
| Operating Environment (°C) | 0~40 | | | | |
| Humidity Range | 0~95% (Non condensing) | | | | |
| Altitude | <1000, derating required when >1000 | | | | |
| Noise Level (dB) | <40 | | | | |
| STANDARDS | | | | | |
| Safety | IEC/EN 62040-1, IEC/EN 62477-1 | | | | |

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3. Remark: YDC3340 BT80240N "YDC3340" means series; "BT" means Battery Tower cabinet; "80" means battery number inside the cabinet; "240" means the battery system voltage; "N" means battery with neutral connection.

