MST-Pro Series
10kVA ~ 120kVA
Online Double Conversion

Product
MST-Pro Series three phase UPS offers advanced technology that increase performance and reliability three high speed DSPs with completed digital control fully ensures high quality of power supply. High input power factor allows UPS a green energy saving power. It also offers humanisation design - full front access of service ability and user-friendly interface.

Feature
• Support all kinds of load with high overload capability
• Fully digital control with 3 DSPs including IGBT rectifier, inverter and charger
• Digital circulating current control technology, increasing the parallel reliability
• Wide input voltage window, compatible with different utilities
• Green power technology, high input power factor, low current THD, high efficiency
• Intelligent battery management, extending battery life
• Intelligent self-diagnose function, all kinds of fault protection and large capability of history record storage
• Full front maintenance
• Redundant design of power model fans, increasing the system reliability
• Modularised design of subsystems, convenient field maintenance
• High MTBF (Mean Time Before Failure) [>200,000h], low MTTR (Mean Time To Repair) [<0.5h]
• Large LCD display, friendly human machine interface Configured with top and bottom cable connection
• Parallel up to 6 units
• Variety of options including main and bypass back feed protection, battery leakage protection, battery start kit, output isolation transformer and lighting protection kit

Application
• ISP (Internet Service Provider)
• IDC (Internet Data Center)
• Computing Center
• Bank
• Server Center
• Precise equipment
<table>
<thead>
<tr>
<th>Model</th>
<th>MST-Pro10L</th>
<th>MST-Pro10S</th>
<th>MST-Pro15L</th>
<th>MST-Pro15S</th>
<th>MST-Pro20L</th>
<th>MST-Pro20S</th>
<th>MST-Pro30L</th>
<th>MST-Pro30S</th>
<th>MST-Pro40L</th>
<th>MST-Pro40S</th>
<th>MST-Pro60</th>
<th>MST-Pro90</th>
<th>MST-Pro120</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>10kVA</td>
<td>15kVA</td>
<td>20kVA</td>
<td>30kVA</td>
<td>40kVA</td>
<td>60kVA</td>
<td>90kVA</td>
<td>120kVA</td>
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</tbody>
</table>

**Input**

- Grid System: 3 Phases + Neutral + Ground
- Rated Input Voltage: 380/400/415VAC (Line-Line) as shown. 380/400/415VAC (L-L) for others.
- Rated Frequency: 50/60Hz
- Input Voltage Range: 304~478Vac (Line-Line), full load; 228V~304Vac (Line-Line), load decreases linearly according to the min phase voltage.
- Input Frequency Range: 40Hz~70Hz
- Input Power Factor: >0.99
- Input Current THD: <4% (full Linear Load) <3% (full Linear Load)

**Bypass**

- Rated Bypass Voltage: 380/400/415VAC (Line-Line)
- Rated Frequency: 50/60Hz
- Bypass Voltage Range: Selectable, default: 20%~+25%; Upper limit: +10%, +15%, +20%, +25%; Lower limit: -10%, -15%, -20%, -30%, -40%
- Bypass Frequency Range: Selectable, ±1Hz, ±3Hz, ±5Hz
- Bypass Overload: 125% Long term operation; 125%~130% for 10min; 130%~150% for 1min; >150%, last for more than 300ms

**Output**

- Rated Inverter Voltage: 380/400/415VAC (Line-Line)
- Rated Frequency: 50/60Hz
- Output Power Factor: 1 ±1.5%(0-100% linear load) ±1%
- Transient Response: <30ms for step load (20%-100%)
- Transient Recovery: <30ms for step load (0%-100%
- Output Voltage THD: <1% (linear load); <1.5% (non-linear load) according to IEC/EN62040-3
- Inverter Overload: <110%, 60min; <125%, 10min; <150%, 1min;
- Frequency Regulation: 50/60Hz±0.1%
- Synchronized Range: Settable, ±0.5Hz~±5Hz, default ±3Hz
- Synchronized Slew Rate: Settable, 0.5Hz/s ~ 3Hz/s, default 0.5Hz/s

**Battery and Charger**

- Battery Voltage: ±240VDC
- Charger Voltage precision: 1%
- Charger Power: max=20% System Power

**Efficiency**

- Normal Operation: 95%max >95% >96% >95%
- Battery Operation: 94.5%max >95% >96% >95%

**Display**

- Standard: LED + LCD
- Optional: LED + LCD + touch screen

**Environmental**

- Operation Temperature: 0 ~ 40 °C
- Storage Temperature: -40 ~ 70 °C
- Relative Humidity: 0 ~ 95% (Non condensing)
- Noise (1 meter): 58dB @ 100% load, 52dB @ 45% load

**Physical data**

- Weight: 31 kg (without battery) 51.5 kg (without battery)
- Dimension: 250*660*530 250*840*715 250*660*530 250*840*715 250*680*770 350*730*8135 250*680*770 350*730*8135 350*830*1400 250*840*770 350*730*8135 250*840*770 350*730*8135 350*830*1400 250*840*770 350*730*8135 350*830*1400 250*840*770 350*730*8135 350*830*1400
- Weigh(Kg): 31 51.5 (without battery) 31 51.5 (without battery) 50 89 (without battery) 52 89 (without battery) 61 140 170 231 226