Prostar High Frequency UPS

Jupiter Series
- (10kVA-20kVA) 3:1 PF: 0.8
- (10kVA-30kVA) 3:3 PF: 0.8
- (40kVA-120kVA) 3:3 PF: 0.9
**Function Features**

**PHT3110~PHT3330**

01 **Online double conversion technology with DSP control**

Jupiter series is applied online double conversion technology to effectively insulate against network disturbances and enable higher load uptime. A Digital Signal Processor (DSP) control provides an improved solution with high performance.

02 **ECO mode operation for energy saving**

Offers efficiency as high as 97% to cut energy usage and cost. UPS power application via static bypass, timely returning to online double conversion when the need arises.

03 **Emergency power off (EPO) function**

This feature can secure the personnel and equipment in case of fires or other emergencies.

04 **Wide input voltage range (190V-520V)**

Jupiter series (PHT3110~PHT3330) can still provide stable power to connected devices under unstable power environments.

05 **50/60 Hz Frequency Converter Mode**

Lock output frequency at 50Hz or 60Hz to suit power sensitive equipments.

**Applied Scope**

- Government Department
- Bank Securities
- Office Automation
- Instrument And Equipment
- Server Room
- Scientific Research Institutions
- Medical Equipment
- Industrial Automatic
**Jupiter Series**

### 10KVA~20KVA 3P/1P

- True double-conversion
- Output power factor 0.8
- Generator compatible
- Active power factor correction in all phases
- 50Hz/60Hz frequency converter mode
- Maintenance bypass available
- 3-stage extendable charging design for optimized battery performance
- SNMP+USB+RS232 multiple communications

### Technical Specification

<table>
<thead>
<tr>
<th>10KVA–20KVA 3P/1P</th>
<th>PHT3110</th>
<th>PHT3115</th>
<th>PHT3120</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model</strong></td>
<td>10KVA/8KW</td>
<td>15KVA/12KW</td>
<td>20KVA/16KW</td>
</tr>
<tr>
<td><strong>Capacity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Phase</strong></td>
<td>3-phase in / 1-phase out</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Battery Voltage</strong></td>
<td>192V</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Size D X W X H (mm)</strong></td>
<td>419X190X318</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Net Weight (Kgs)</strong></td>
<td>15</td>
<td>17</td>
<td>23</td>
</tr>
</tbody>
</table>

#### Input

- **Input Voltage:** 3 x 400 VAC (3-phase+N)
- **Voltage Range:** 190-520 VAC (3-phase) @ 50% load ; 305-520 VAC (3-phase) @ 100% load
- **Frequency Range:** 56Hz ~ 64 Hz @ 60Hz
- **Power Factor:** 0.99 @ 100%

#### Output

- **Output Voltage:** 208/220/230/240VAC
- **AC Voltage Regulation (Batt. Mode):** 1%
- **Frequency Range (Synchronized Range):** 46Hz ~ 54 Hz @ 50Hz or 56Hz ~ 64 Hz @ 60Hz
- **Frequency Range (Batt. Mode):** 50 Hz ~ 0.2 Hz or 60Hz ~ 0.2 Hz
- **Current Crest Ratio:** 3:1 (Max.)
- **Harmonic Distortion:** 3% THD (Linear Load); 5% THD (Non-linear Load)
- **Transfer Time:**
  - AC Mode to Batt. Mode: 0 ms
  - Inverter to Bypass: 0 ms
- **Waveform (Batt. Mode):** Pure Sine Wave
- **Efficiency:**
  - **AC Mode:** > 91%
  - **Battery Mode:** > 89%
  - **ECO Mode:** > 97%

#### Battery

- **Battery Type:** Depending on applications
- **Battery Numbers:** 16Pcs
- **Charging Current (Max.):** 2A Default, 1A/2A/4A/6A Selectable
- **Charging Voltage:** 218.4 VDC ± 1% ; 273 VDC ± 1%

#### Display

- **LCD Display:** UPS status, Load level, Battery level, Input/Output voltage, Discharge timer, Fault conditions

#### Warning Sound

- **Battery Mode:** Sounding every 4 seconds
- **Low Battery:** Sounding every second
- **Overload:** Sounding twice every second
- **Fault:** Continuously sounding

#### Environment

- **Temperature and Humidity:** 0-90 % RH @ 0-40 °C (Non-condensing)
- **Operation Altitude:** <1000m
- **Acoustic Noise Level:** Less than 58dB @ 1 Meter ; Less than 60dB @ 1 Meter

#### Management

- **Smart RS-232 or USB:** Windows 2000/2003/XP/Vista/2008 ; Windows 7/8 ; Linux ; Unix ; MAC
- **Optional SNMP:** Power management from SNMP manager and web browser

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Remarks: Products specifications are subject to change without notice.
### Technical Specification

#### 10KVA～30KVA 3P/3P

**Model** | PHT3310(B) | PHT3315(B) | PHT3320(B) | PHT3330(B)  
---|---|---|---|---
**Capacity** | 10KVA/8KW | 15KVA/12KW | 20KVA/16KW | 30KVA/24KW  
**Phase** | 3-phase in / 3-phase out  
**Battery Voltage** | 192A Default, 192V/240V Selectable | 240V  
**Long-run Model** | Size D X W X H (mm) | 592X250X826 | 815X250X826 |  
**Net Weight (Kgs)** | 38 | 40 | 40 | 64  
**Standard Model** | Size D X W X H (mm) | 815X250X826 | 815X300X1000 |  
**Net Weight (Kgs)** | 109 | 164 | 164 | 234  

**Input**

| Input Voltage | 3 x 400 VAC (3-phase+N)  
**Voltage Range** | 190-520 VAC (3-phase) @ 50% load ; 305-478 VAC (3-phase) @ 100% load  
**Frequency Range** | 46Hz ~ 54 Hz @ 50Hz or 56Hz ~ 64 Hz @ 60Hz  
**Power Factor** | 0.99 @ 100%  

**Output**

| Output Voltage | 3 x 400 VAC (3-phase+N)  
**AC Voltage Regulation (Batt. Mode)** | 1%  
**Frequency Range (Synchronized Range)** | 46Hz ~ 54 Hz @ 50Hz or 56Hz ~ 64 Hz @ 60Hz  
**Frequency Range (Batt. Mode)** | 50 Hz ~ 0.1 Hz or 60Hz ~ 0.1 Hz  
**Current Crest Ratio** | 3:1 (Max.)  
**Harmonic Distortion** | 2 % THD (Linear Load); 5 % THD (Non-linear Load)  
**Transfer Time** | AC Mode to Batt. Mode: 0 ms  
**Inverter to Bypass** | 0 ms  
**Waveform (Batt. Mode)** | Pure Sine Wave  

**Efficiency**

| AC Mode | > 90.5% | > 91% | > 91% | > 91.3%  
**Battery Mode** | > 86% | > 87% | > 87% | > 88%  
**ECO Mode** | > 96% | > 96% | > 96% | > 96%  

**Battery**

| Long-run Model | Battery Type | Depending on applications  
**Battery Numbers** | 16pcs(16-20 adjustable) | 20pcs  
**Charging Current(Max.)** | 4A | 4A | 4A | 12A  
**Charging Voltage** | 273 VDC | 1%  
| Standard Model | Battery Type | 12V 9AH  
**Battery Numbers** | 16pcs (16-20 adjustable) | 16pcs (16-20 adjustable) | 20pcsX3 strings  
**Typical Recharge Time** | 9 hours recover to 90% capacity  
**Charging Current(Max.)** | 1A | 2A | 2A | 4A  
**Charging Voltage** | 273 VDC | 1%  

**Environment**

| Temperature and Humidity | 0-95 % RH @ 0-40 °C (Non-condensing)  
**Operation Altitude** | <1000m  
**Acoustic Noise Level** | Less than 60dB @ 1 Meter  
Less than 65dB @ 1 Meter

Remarks: Products specifications are subject to change without notice.
Jupiter series (PHT3340~PHT33120) is providing output power factor up to 0.9 with higher performance and efficiency.

Online double conversion technology with DSP control
Jupiter series is applied online double conversion technology to effectively insulate against network disturbances and enable higher load uptime. A Digital Signal Processor (DSP) control provides an improved solution with high performance.

Advanced control with Adaptive Feed Forward Cancellation (AFC) technology for very low harmonic distortion.
By cancelling input current and output voltage harmonics, the harmful effects of harmonic injection into the power network is eliminated and it will enhance load integrity.

Space-saving compact design
The use of transformerless technology allows a considerable reduction of the weight and volume of the units.

Complete of communication ports
Provide variety of communication ports, such like USB, RS-232, RS-485, AS-400, SNMP card, parallel kit.

Designed for a variety of different loads
Strong load and overload capacity, good load compatibility, can be applied to a variety of different types of load.

Front access makes maintenance and replacement easily
Front panel operation design, LCD panel multifunction button operation, friendly man-machine interface, adjjoin will and equipment installation available, reduce the installation space of the UPS limit, convenient maintenance and replacement.

Parallel redundant operation with up to 4 units
Up to 4 units in parallel can be operated without additional hardware, to accommodate increases in power demand as well as to attain power redundancy with high system integrity.
## Technical Specification

<table>
<thead>
<tr>
<th>Model</th>
<th>PHT3340</th>
<th>PHT3360</th>
<th>PHT3380</th>
<th>PHT33100</th>
<th>PHT33120</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>40KVA/36KW</td>
<td>60KVA/54KW</td>
<td>80KVA/72KW</td>
<td>100KVA/90KW</td>
<td>120KVA/108KW</td>
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<tr>
<td>Phase</td>
<td>3-phase in / 3-phase out</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Battery Voltage</td>
<td>744V</td>
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<tr>
<td>Size D X W X H (mm)</td>
<td>770X450X1100</td>
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<td></td>
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<tr>
<td>Net Weight (Kgs)</td>
<td>122</td>
<td>162</td>
<td>231</td>
<td>264</td>
<td>287</td>
</tr>
</tbody>
</table>

### Input
- **Input Voltage**: 3 x 380 VAC (3-phase+N) / 3 x 400 VAC (3-phase+N)
- **Voltage Range**: +15% or -20%
- **Frequency**: 50/60Hz ~ 5Hz
- **Power Factor**: 1.0
- **Total Harmonic Distortion (THD)**: < 2.5% @ 100% Load
- **Current Limitation**: High overload : PFC Limit (Discharging batteries)

### Inverter Output
- **Nominal Voltage**: 3 x 400 VAC (3-phase+N) / 3 x 380 VAC (3-phase+N)
- **Precision**: Stationary: 1%
- **Frequency**: 50/60Hz Synchronous ~ 5% with mains absent ~ 0.05%
- **Max. Synchronous Speed**: 1.0Hz/s
- **Waveform**: Pure Sine Wave
- **Harmonic Distortion (THDv)**: < 1% (Linear load); < 2.5% (Non-linear load)
- **Phase Displacement**: 1° (Balanced load); 120° 2° (Imbalances 50% of the load)
- **Dynamic Recovery Time**: 10ms. at 98% of the static value
- **Overload Capacity**: Phase overload:125% for 10 min.,150% for 60s; Total overload:112% for 10 min.,135% for 60s
- **Crest Factor**: 3:1
- **Imbalance Voltage**: <1%
- **Current Limitation**: 300%

### Static Bypass
- **Type**: Static Bypass Switch
- **Voltage**: 3 x 400 VAC (3-phase+N) / 3 x 380 VAC (3-phase+N)
- **Frequency**: 50/60Hz
- **Activation Criterion**: Microprocessor control
- **Transfer Time**: 0ms
- **Overload Time**: 200% for 10s
- **Transfer to Bypass**: Immediate, for overloads above 150%
- **Retransfer**: Automatic after alarm clear

### Maintenance Bypass
- **Type**: Without interruption
- **Voltage**: 3 x 400 VAC (3-phase+N) / 3 x 380 VAC (3-phase+N)
- **Frequency**: 50/60Hz
- **Overall Efficiency (AC Mode)**: 92.5% 93% 94% 93.5% 94%

### Battery
- **Battery Type**: Depending on applications
- **Battery Numbers**: 2 x 31Pcs
- **Max. Charging Current**: 47A 70.5A 188A

### Environment
- **Temperature and Humidity**: 0-95 % RH @ 0- 40 °C (Non-condensing)
- **Operation Altitude**: <1000m

### Management
- **SNMP Optional SNMP**: Power management from SNMP manager and web browser

 Remarks: Products specifications are subject to change without notice.

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**Prostar Science & Technology Development Co., Ltd.**