KEEPING YOU IN CHARGE

WITH RELIABLE AND INNOVATIVE UPS AND ENERGY STORAGE SOLUTIONS
KEEPING YOU IN CHARGE

POWER SONIC HAVE BEEN DELIVERING QUALITY, DEPENDABLE AND SAFE BATTERY SOLUTIONS WORLDWIDE SINCE 1970.

To ensure business continuity and prevent downtime, Power Sonic offers an extensive portfolio of UPS and energy storage solutions, making sure your critical equipment is supported during power outages and surges. With years of experience and an array of solutions to offer, Power Sonic can help size and choose the right solution to best fit your specific needs.

Our range of solutions include batteries, three phase UPS, modular UPS, demand response modules and custom energy storage solutions.

KEY MARKETS INCLUDE

- Utilities and Infrastructure
- Oils & Gas
- Data Center
- Medical
- Industrial Automation
- Life Safety

power-sonic.com
The PowerSteady Series by Power Sonic delivers reliable and uninterruptible power protection and battery backup during outages.

With its compact, space saving design the line interactive UPS secures your data and your equipment by protecting against damaging power surges and spikes. Ideally suited for computer systems, home networking, gaming, home servers and other home and office electronics.
POWERSTEADY SERIES
400-3000 VA
LINE INTERACTIVE UPS

FEATURES

• Compact space saving design
• LCD display
• Line-interactive technology
• Automatic Voltage Regulation (AVR) with boost and buck function
• Microprocessor control
• Auto charging in off mode
• Auto-restart
• Cold Start Function
• Intelligent battery management
• Smart RS232/USB communication Interfaces
• RJ11/RJ45 protection

FURTHER INFORMATION
Please refer to our website www.power-sonic.com for a complete range of useful downloads, such as product catalogs, material safety data sheets.
# POWERSTEADY SERIES

## 400-3000 VA LINE INTERACTIVE UPS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>POWERSTEADY 400</th>
<th>POWERSTEADY 600</th>
<th>POWERSTEADY 800</th>
<th>POWERSTEADY 1000</th>
<th>POWERSTEADY 1200</th>
<th>POWERSTEADY 1500</th>
<th>POWERSTEADY 2000</th>
<th>POWERSTEADY 2400</th>
<th>POWERSTEADY 3000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Power</td>
<td>240W</td>
<td>360W</td>
<td>480W</td>
<td>600W</td>
<td>720W</td>
<td>900W</td>
<td>1200W</td>
<td>1440W</td>
<td>1800W</td>
</tr>
</tbody>
</table>

## INPUT
- **Voltage**: 110/120 VAC or 220/230/240 VAC
- **Voltage Range**: 81-145 VAC / 162-290 VAC
- **Frequency Range**: 60/50 Hz (auto sensing)

## OUTPUT
- **AC Voltage Regulation (Batt. Mode)**: ±10%
- **Frequency Range (Batt. Mode)**: 60 Hz or 50 Hz ±1 Hz
- **Transfer Time**: Typical 2-6 ms, 10 ms max.
- **Waveform (Batt. Mode)**: Simulated Sine Wave

## BATTERY
- **Battery Type & Number**:
  - 12V/4.5AH x 1
  - 12V/7AH x 1
  - 12V/9AH x 1
  - 12V/7AH x 2
  - 12V/9AH x 2
  - 12V/9AH x 2
  - 12V/9AH x 2
  - 12V/9AH x 4

- **Typical Recharge Time**: 6-8 hours recover to 90% capacity

## INDICATION
- **Display**: LCD

## PROTECTION
- **Full Protection**: Overload and overcharge protection

## ALARM
- **Battery Mode**: Sounding every 10 seconds
- **Low Battery**: Sounding every second
- **Overload**: Sounding every 0.5 seconds
- **Battery Replacement Alarm**: Sounding every 2 seconds
- **Fault**: Continuously Sounding

## PHYSICAL
- **Dimension WxDxH (mm)**:
  - 101 x 142 x 298
  - 149.3 x 162 x 338
  - 158 x 198 x 380
  - 213 x 145 x 436
- **Net Weight (kg)**:
  - 3.55
  - 4.25
  - 4.7
  - 7.8
  - 8
  - 10.1
  - 10.5
  - 19.8
  - 23

## OPERATING ENVIRONMENT
- **Humidity**: 0-90 % RH @ 0-40°C (non-condensing)
- **Noise Level**: Less than 40dB

## MANAGEMENT

---

**FURTHER INFORMATION**

Please refer to our website [www.power-sonic.com](http://www.power-sonic.com) for a complete range of useful downloads, such as product catalogs, material safety data sheets
The PowerPure RT Series is an online double conversion UPS providing stable sine-wave power for your mission critical equipment. It supports computers, servers, networks, VoIP and telecommunications.

With a 1.0 output power factor, the PowerPure RT Series UPS provides over 30% more power at the output in comparison to standard 0.7 power factor UPS systems and as such can support more critical equipment.
POWERPURE RT SERIES
1-2-3 kVA
ONLINE UPS

FEATURES
• True Online Double Conversion
• LCD Display with Multifunction Settings
• Output Power Factor 1.0
• Wide Input Voltage Range
• Power Shedding Function
• Cold Start Function
• Intelligent Battery Management
• Supports Generator Input
• Powerful Charger for More Efficient Battery Backup
• Eco Operation Mode for Energy Saving
• Hot-Swappable Battery
• Communication Software Supports Windows etc.
• Matching Battery Packs

FURTHER INFORMATION
Please refer to our website www.power-sonic.com for a complete range of useful downloads, such as product catalogs, material safety data sheets

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# PowerPure RT Series

**1-2-3 kVA ONLINE UPS**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>PowerPure RT 1</th>
<th>PowerPure RT 2</th>
<th>PowerPure RT 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHASE</td>
<td>Single phase with ground</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacity (VA/Watts)</td>
<td>1000VA /1000W</td>
<td>2000VA /2000W</td>
<td>3000VA / 3000W</td>
</tr>
</tbody>
</table>

## INPUT

<table>
<thead>
<tr>
<th>Nominal Voltage</th>
<th>200/208/220/230/240VAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Line Transfer</td>
<td>160Vac5% @100%-80% load; 140Vac5% @80%-70% load; 120Vac5% @70%-60% load; 110Vac5% @60%-0% load; (Ambient Temp. &lt;35°C)</td>
</tr>
<tr>
<td>Low Line Comeback</td>
<td>175Vac5% @100%-80% load; 155Vac5% @80%-70% load; 135Vac5% @70%-60% load; 125Vac5% @60%-0% load; (Ambient Temp. &lt;35°C)</td>
</tr>
</tbody>
</table>

## Operating Voltage Range

- **Low Line Transfer**
  - 160Vac5% @100%-80% load;
  - 140Vac5% @80%-70% load;
  - 120Vac5% @70%-60% load;
  - 110Vac5% @60%-0% load; (Ambient Temp. <35°C)

- **Low Line Comeback**
  - 175Vac5% @100%-80% load;
  - 155Vac5% @80%-70% load;
  - 135Vac5% @70%-60% load;
  - 125Vac5% @60%-0% load; (Ambient Temp. <35°C)

## Operating Frequency Range

40-70Hz

## Power Factor

0.99@100% load (Nominal Input Voltage)

## Bypass Voltage Range

- **Bypass high voltage point**
  - 230-264: setting the high voltage point in LCD from 230Vac to 264Vac. (Default: 264Vac)

- **Bypass low voltage point**
  - 170-220: setting the low voltage point in LCD from 170Vac to 220Vac. (Default: 170Vac)

## Generator Input

Support

## OUTPUT

<table>
<thead>
<tr>
<th>Output Voltage</th>
<th>200/208/220/230/240Vac</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Factor</td>
<td>1.0</td>
</tr>
<tr>
<td>Voltage Regulation</td>
<td>±1%</td>
</tr>
<tr>
<td>Frequency</td>
<td>47.5-53Hz or 57-63Hz</td>
</tr>
<tr>
<td>(Synchronized Range)</td>
<td></td>
</tr>
<tr>
<td>Bat. Mode</td>
<td>(50/60±0.1)Hz</td>
</tr>
<tr>
<td>Crest Factor</td>
<td>3:1</td>
</tr>
</tbody>
</table>

## Harmonic Distortion (THDv)

- ≤2% THD with linear load
- ≤4% THD with non linear load

## Waveform

Pure Sinewave

## Transfer Time

- AC Mode <-> Batt. Mode: Zero
- Inverter <-> Bypass: 4ms (Typical)

## Efficiency

- **Line Mode**: 88% 92% 92%
- **Batt Mode**: 86% 88% 90%

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**FURTHER INFORMATION**

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## PowerPure RT Series

<table>
<thead>
<tr>
<th>MODEL</th>
<th>PowerPure RT 1</th>
<th>PowerPure RT 2</th>
<th>PowerPure RT 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHASE</td>
<td>Single phase with ground</td>
<td>Single phase with ground</td>
<td>Single phase with ground</td>
</tr>
<tr>
<td>Capacity (VA/Watts)</td>
<td>1000VA /1000W</td>
<td>2000VA / 2000W</td>
<td>3000VA / 3000W</td>
</tr>
<tr>
<td>Battery</td>
<td>12V9AH</td>
<td>12V9AH</td>
<td>12V9AH</td>
</tr>
<tr>
<td>Numbers</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Backup Time</td>
<td>Full load 3~5 minutes; estimated remaining time displayed on the LCD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Typical Recharge Time (Standard Model)</td>
<td>4 hours recover to 90% capacity (Typical)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charging Voltage</td>
<td>27.4 VDC ±1%</td>
<td>54.7 VDC ±1%</td>
<td>82.1 VDC ±1%</td>
</tr>
<tr>
<td>Charge Current</td>
<td>2A</td>
<td>12A max, can be setting by LCD</td>
<td>2A</td>
</tr>
</tbody>
</table>

### System Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>PowerPure RT 1</th>
<th>PowerPure RT 2</th>
<th>PowerPure RT 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overload @35°</td>
<td>Ambient Temp.&lt;35°C</td>
<td>Ambient Temp.&lt;35°C</td>
<td>Ambient Temp.&lt;35°C</td>
</tr>
<tr>
<td>Line Mode</td>
<td>105%~110%: UPS transfer to bypass after 10minutes when the utility is normal</td>
<td>110%~130%: UPS transfer to bypass after 1 minute when the utility is normal</td>
<td>110%~130%: UPS transfer to bypass after 1 minute when the utility is normal</td>
</tr>
<tr>
<td>Battery Mode</td>
<td>&gt;150%: UPS transfer to bypass immediately when the utility is normal</td>
<td>&gt;150%: UPS transfer to bypass immediately when the utility is normal</td>
<td>&gt;150%: UPS transfer to bypass immediately when the utility is normal</td>
</tr>
<tr>
<td>Ambient Temp.&lt;40°C</td>
<td>105%~110%: UPS transfer to bypass after 1 minute when the utility is normal</td>
<td>110%~130%: UPS transfer to bypass after 5 seconds when the utility is normal</td>
<td>130%~150%: UPS transfer to bypass immediately when the utility is normal</td>
</tr>
<tr>
<td>Short Circuit</td>
<td>Hold Whole System</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overheat</td>
<td>Line Mode: Switch to Bypass; Backup Mode: Shut down UPS immediately</td>
<td>Alarm and Switch off</td>
<td>Shut down UPS immediately</td>
</tr>
<tr>
<td>Low Battery Voltage</td>
<td></td>
<td>Line Failure, Battery Low, Overload, System Fault</td>
<td></td>
</tr>
<tr>
<td>EPO (optional)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audible &amp; Visual Alarms</td>
<td>USB (or RS232), SNMPcard (optional), Relay card (optional)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication Interface</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Environmental

<table>
<thead>
<tr>
<th>Feature</th>
<th>PowerPure RT 1</th>
<th>PowerPure RT 2</th>
<th>PowerPure RT 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature</td>
<td>0°C~40°C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-25°C~55°C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humidity Range</td>
<td>20-90 % RH @ 0-40°C (non-condensing)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Altitude</td>
<td>&lt; 1500m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Noise Level</td>
<td>Less than 50dBA at 1 Meter</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Physical

<table>
<thead>
<tr>
<th>Feature</th>
<th>PowerPure RT 1</th>
<th>PowerPure RT 2</th>
<th>PowerPure RT 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension W×H×D (mm)</td>
<td>440<em>86.5</em>305</td>
<td>440<em>86.5</em>460</td>
<td>440<em>86.5</em>600</td>
</tr>
<tr>
<td>Net Weight (kg)</td>
<td>11.3</td>
<td>19.1</td>
<td>26.2</td>
</tr>
</tbody>
</table>

### Standards

<table>
<thead>
<tr>
<th>Feature</th>
<th>PowerPure RT 1</th>
<th>PowerPure RT 2</th>
<th>PowerPure RT 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety</td>
<td>IEC/EN62040-1; IEC/EN60950-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMC</td>
<td>IEC/EN62040-2; IEC61000-4-2; IEC61000-4-3; IEC61000-4-4; IEC61000-4-5; IEC61000-4-6; IEC61000-4-8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Further Information**

Please refer to our website [www.power-sonic.com](http://www.power-sonic.com) for a complete range of useful downloads, such as product catalogs, material safety data sheets.
FEATURES

- Online Double Conversion with DSP Control
- High Output Factor at 1.0PF
- Rack/Tower Configuration
- LCD Display with Multifunction Settings
- N+X Parallel Redundancy (up to 4 units can be set in parallel.)
- Cold Start Function
- Low Input Current Distortion
- Efficiency up to 93.5%
- Emergency Power Off
- Eco Operation Mode for Energy Saving
- Temperature Controlled Fan
- Intelligent Battery Management
- Matching battery Packs
- Hot swappable batteries

DETAILS

3. Parallel Port 1
4. EPO
5. PDU
6. Input Breaker
7. Intelligent Slot
8. Battery Slot
9. Parallel Port 2
10. USB
11. COM (RS232)
12. Terminal

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FURTHER INFORMATION

Please refer to our website www.power-sonic.com for a complete range of useful downloads, such as product catalogs, material safety data sheets
## Model: PowerPure RT Series
### 6-10 kVA Online UPS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>PowerPure RT 6</th>
<th>PowerPure RT 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>6kVA / 6kW</td>
<td>10kVA /10kW</td>
</tr>
</tbody>
</table>

### Type
- **Input**: Single phase + Ground
- **Power Factor**: ≥0.99

### INPUT
- **Rating Voltage**: 208/220/230/240Vac (can be set)
- **Rating Frequency**: 50Hz/60Hz (auto sensing)
- **Voltage Range**: 120–276Vac
- **Frequency Range**: 45–59Hz/54–66Hz

<table>
<thead>
<tr>
<th>Bypass voltage range</th>
<th>220Vac max : 10%, 15%, 20% or 25%, default : 25%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>230Vac max : +10% or 15%, default +15%</td>
</tr>
<tr>
<td></td>
<td>min : 20%, 30% or 45%, default 45%</td>
</tr>
</tbody>
</table>

### BATTERY
- **Battery Number**: 20pcs
- **Battery Type**: VRLA
- **Charge Model**: Boost charge or float charge auto switch
- **Charge Time**: Boost charge up to 20hr (Max)

### OUTPUT
- **Output Type**: Single phase + Ground
- **Output Precision**: ±0.1%
- **Voltage Distortion (THD)**: ≤2% at 100% linear load
- **Rating Voltage**: 208/220/230V/240Vac
- **Frequency Precision**: ±0.1%
- **Rating Frequency**: 50Hz/60Hz
- **Frequency Track Speed**: 1Hz/s

<table>
<thead>
<tr>
<th>Overload</th>
<th>105%–110%, 10min</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>±130%, 200ms</td>
</tr>
<tr>
<td>Efficiency at Normal</td>
<td>≥93%</td>
</tr>
<tr>
<td>Dynamic Respond</td>
<td>5.0%</td>
</tr>
<tr>
<td>DC Injection</td>
<td>≤500mV</td>
</tr>
</tbody>
</table>

### Switch Time
- **Between Normal mode and battery mode**: 0ms
- **Between inverter and bypass**: 0ms

### ENVIRONMENT & STANDARDS
- **Noise**: ≤55dB (1m)
- **Display**: LCD+LED
- **Safety**: Meeting IEC62040-1 GB4943.<
- **Max Input Voltage**: 320Vac, 1hr
- **EMS**: IEC 62040-2
- **MTBF**: 250,000hr 1 + 1 400,000hr 1 + 1
- **MTTR**: 30min
- **Isolation resistance**: > 2MΩ (500Vdc)
- **Isolation intension**: 2820Vdc, <3.5mA, 1min
- **Surge**: Meeting IEC60664-1 1.2/50us±8/20us 6kV/3kA.
- **Protection**: IP20
- **Parallel circumfluence**: 1 + 1×8%, N + 1×3%
- **Parallel equal current**: 1 + 1×8%, N + 1×10%

### PHYSICAL
- **Dimension W×H×D (mm)**: 440×86.5×625
- **Net Weight (kg)**: 13kg

### FURTHER INFORMATION
Please refer to our website www.power-sonic.com for a complete range of useful downloads, such as product catalogs, material safety data sheets.
Equipped with an IGBT rectifier, the PowerClever Series keeps your critical loads protected while its space-saving compact design and front access reduce mean time to repair.

The PowerClever Series has high input power which leads to reduced electricity pay-out, minimizes cable, switchboard, fuse and generator requirements, resulting in a reduction in investment cost.

Low input current total harmonic distortion (THDi) at less than 3% helps to avoid the disturbance and the need for expensive harmonic filters.
POWERCLEVER SERIES
10-120 kVA
10-30 kVA
ONLINE UPS

HIGHLIGHTS
- IGBT PWM Rectifier & Inverter Technology
- Low Input Current THD (<3%)
- High Input Power Factor (>0.99)

DSP POWER FACTOR CORRECTED IGBT RECTIFIER
- Equipped with its new IGBT rectifier PowerClever Series keeps your critical loads protected while its space-saving compact design and front access for maintenance successfully reduce mean time to repair (MTTR).
- Thanks to the wide variety of accessories and options PowerClever Series presents maximum flexibility advantage to users and optimizes total cost of ownership.

HIGH PERFORMANCE & LOW TOTAL COST OF OWNERSHIP
- IGBT based power factor correction technology provides input power factor close to 1 (≥ 0.99). The high input power leads to reduced electricity pay-out, minimizes cable, switchboard, fuse and generator requirements, thus reducing investment cost.
- Low input current total harmonic distortion (THDi) less than 3% helps to avoid the disturbance and expensive harmonic filters.
- Small footprint and easy maintenance.

FURTHER INFORMATION
Please refer to our website www.power-sonic.com for a complete range of useful downloads, such as product catalogs, material safety data sheets.
HIGH INPUT POWER FACTOR
• 0.99 Input power factor ensures clean and sinusoidal input current.
• The high input power leads to reduced electricity pay-out, minimizes cable, switchboard, fuse and generator requirements, thus reducing investment cost.

MAXIMUM AVAILABILITY
• Parallel configuration up to 8 units per redundancy (N+1) and power increase.
• Loop connection helps the UPS system to continue the operation when the connection cable is interrupted.

STANDARD ELECTRICAL FEATURES
• Backfeed Protection
• Cold Start (Optional)
• Advanced Battery Management
• Short Circuit and Overload Protection
• Parallel Ready
• Redundant Power Supply
• Power Walk-in for Progressive Rectifier Start-up when the Mains is Restored
• Battery Temperature Sensor
• Static & Manual Bypass Operation

ADVANCED COMMUNICATION FEATURES
• 500 Real Time Event Log with Detailed Parameters
• User Friendly Multilingual 320x240 Graphic Display Provides Operation Information
• Monitoring and Shutdown Software
• RS232 Serial and RS485 Ports
• Modbus RTU (Optional)
• 2 Communication Slots
• Remote Emergency Power Off (Optional)
• Remote Display Panel (Optional)
• Dry Contact (Optional)
• SNMP (Optional)
• ProfiBUS (Optional)

FLEXIBILITY
• Temperature sensor for external battery cabinets for extended runtimes.
• External battery cabinets for different sizes of batteries to provide extended runtimes.
• Different sizes of 10-40kVA cabinets for larger capacity of internal batteries when long autonomy times are required.
• 3/1 Phase version is available for 10-30kVA power ratings.
• Frequency converter mode.
• Isolation transformers to vary neutral connectivity in the event of separate power sources or for galvanic isolation between input and output.
• Compatible version with EN 50171 for supplying power to emergency lighting systems.

FURTHER INFORMATION
Please refer to our website www.power-sonic.com for a complete range of useful downloads, such as product catalogs, material safety data sheets.
PO WERCLE VER  SER IES
10-120 kVA
ONLINE UPS

DETAILS

PO WERCLE VER  SERIES 10-60 kVA

1. Parallel Port Terminal
2. RS232 Terminal
3. Optional Card Slots
4. Manual DC Precharge Button (Automatic Precharge is Option)
5. Manual Bypass/Input/Output/Battery MCBs
6. External Battery Temperature Sensor Terminals

PO WERCLE VER  SERIES 80-120 kVA

1. RS232 Terminal
2. Optional Card Slots
3. DC Bus Ramping Up Button
4. Manual DC Precharge Button (Automatic Precharge is Option)
5. Manual Bypass/Input/Output/Battery MCBs

FURTHER INFORMATION
Please refer to our website www.power-sonic.com for a complete range of useful downloads, such as product catalogs, material safety data sheets

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### MODEL
<table>
<thead>
<tr>
<th>Capacity</th>
<th>10kVA</th>
<th>15kVA</th>
<th>20kVA</th>
<th>30kVA</th>
<th>40kVA</th>
<th>60kVA</th>
<th>80kVA</th>
<th>100kVA</th>
<th>120kVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Watt</td>
<td>9kW</td>
<td>13.5kW</td>
<td>18kW</td>
<td>27kW</td>
<td>36kW</td>
<td>54kW</td>
<td>72kW</td>
<td>90kW</td>
<td>108kW</td>
</tr>
</tbody>
</table>

### INPUT
- **Nominal Voltage**: 380/400/415 VAC 3P+N (Optional 220/380 VAC -37% +22% 3P+N+PE)
- **Voltage Tolerance**: -20% +15%
- **Frequency Tolerance**: 50-60 Hz ± 10% (Selectable)
- **Power Factor**: >0.99
- **Total Harmonic Distortion**: THDI <3%

### OUTPUT
- **Power Factor**: 0.9
- **Nominal Voltage**: 380/400/415 VAC 3P+N
- **Voltage Tolerance**: Static ±1, Dynamic ±3
- **Frequency Tolerance**: 50-60 Hz ±0.01% (Battery Mode)
- **Output THD**: Linear Load <1% / Non Linear Load <3%
- **Crest Factor**: 3:1
- **Overload Capacity**: At 125% Load 10min, at 150% Load 1min
- **Efficiency (Online Mode)**: Up to 93%
- **Efficiency (Eco Mode)**: Up to 99%

### BYPASS
- **Nominal Voltage**: 380/400/415 VAC 3P+N
- **Voltage Tolerance**: 15% (Configurable from 10% to 30%)
- **Frequency Tolerance**: ±5 (Selectable)

### BATTERY
- **Type**: VRLA / GEL
- **Quantity (12V DC VRLA)**: 60
- **Charge Value (C)**: 25% of Active Power (Nominal 0.1 C10, Adjustable)
- **Recharge Time**: 6-8 hours
- **Internal Battery**: 60 x 9Ah
- **External Battery Pack**: 6-8 hours

### ENVIRONMENT
- **Running Temperature**: For UPS D°C/+40°C For Battery +15°C/+25°C
- **Storage Temperature**: For UPS -15°C/+45°C For Battery 0°C/+30°C
- **Protection Class**: IP20
- **Humidity**: 0-95% Without Condensation
- **Altitude**: <1000m Correction Factor 1, <2000m Correction Factor >0.9, <3000m Correction Factor >0.84
- **Noise Level**: <53 dBA, <55 dBA, <60 dBA, <65 dBA, <72 dBA, <74 dBA, <75 dBA

### COMMUNICATION
- **Communication Port**: RS232 Standart, RS485 and SNMP Adapter Option

### STANDARDS
- **Quality**: ISO 9001, ISO 14001, ISO 18001, TSE-HYB
- **Performance**: EN62040-3 (VF1-SS-111, Bureau Veritas Certified)
- **EMC/LVD**: EN62040-2, EN62040-1, EN60950, (TÜV SÜD Certified)

### DIMENSIONS & WEIGHT

<table>
<thead>
<tr>
<th></th>
<th>Width</th>
<th>Depth</th>
<th>Height</th>
<th>Width</th>
<th>Depth</th>
<th>Height</th>
<th>Net Weight (kg)</th>
<th>Packaging Dimensions (mm)</th>
<th>Gross Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cabinet</td>
<td>460</td>
<td>805</td>
<td>1107</td>
<td></td>
<td>600</td>
<td>900</td>
<td>1400</td>
<td>140 141 145 164 165 195 357 376 395</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* under certain conditions
* 3 Phase in / 1 Phase Out Version is Available. (10 to 30kVA)

Further Information

Please refer to our website [www.power-sonic.com](http://www.power-sonic.com) for a complete range of useful downloads, such as product catalogs, material safety data sheets.
PowerLevel Series with Innovative 3 Level Technology is a true online double conversion, three-phase UPS system that provides one of the highest-level energy efficiencies in the industry.

With a three-level inverter and rectifier design, the PowerLevel Series brings the latest power conversion technology and delivers efficiency up to 96% at 50-75% load operation, which is the most common operating range.
POWERLEVEL SERIES
10-1000 kVA
ONLINE UPS

HIGH EFFICIENCY & LOW TOTAL COST OF OWNERSHIP
- Less energy consumption to supply the loads thanks to high efficiency up to 96%.
- Reduced energy loss.
- Reduced electricity consumption and air conditioning requirements.
- Reduction in operating cost of UPS.
- IGBT based power factor correction technology provides input power factor close to 1 (≥ 0.99). The high input power leads to lower electricity charge costs, reduces cable, switchboard, fuse and generator sizes, thus reducing investment cost.
- Low input current total harmonic distortion (THDi) less than 3% helps to avoid supply disturbance and expensive harmonic filters.
- Small footprint and easy maintenance.

INNOVATIVE 3 LEVEL TECHNOLOGY
- PowerLevel Series UPS with Innovative 3 Level Technology is a true on-line double conversion, three-phase UPS system that provides one of the highest level energy efficiencies in the industry.
- Three level inverter & rectifier design PowerLevel Series brings the newest power conversion technology and delivers efficiency up to 96% at 50-75% load operation which is the most common operating range.

HIGHLIGHTS
- True Three Level Rectifier and Inverter Technology
- Ultra High Energy Efficiency
- Full Rated Power Factor kVA=kW

FURTHER INFORMATION
Please refer to our website www.power-sonic.com for a complete range of useful downloads, such as product catalogs, material safety data sheets

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HIGH OUTPUT POWER FACTOR 1

- Output power factor of 1 (kVA=kW) rate provides up to 25% more active power than a traditional UPS.
- Suitable for modern power supply application with unit or capacitive power factor (e.g. new servers generation).
- No reduction in active power from 0.9 leading to 0.9 lagging.

MAXIMUM AVAILABILITY

- Parallel configuration up to 8 units per redundancy (N+1) and power increase.
- Loop connection helps the UPS system continue operation when the connection cable is interrupted.

FURTHER INFORMATION

Please refer to our website www.power-sonic.com for a complete range of useful downloads, such as product catalogs, material safety data sheets.
POWERLEVEL SERIES 10-1000 kVA
ONLINE UPS

FURTHER INFORMATION
Please refer to our website www.power-sonic.com for a complete range of useful downloads, such as product catalogs, material safety data sheets
FUERSTER INFORMATION
Please refer to our website www.power-sonic.com for a complete range of useful downloads, such as product catalogs, material safety data sheets

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# POWERLEVEL SERIES 10-1000 kVA ONLINE UPS

## MODEL

<table>
<thead>
<tr>
<th>Capacity</th>
<th>10kVA</th>
<th>15kVA</th>
<th>20kVA</th>
<th>30kVA</th>
<th>40kVA</th>
<th>60kVA</th>
<th>80kVA</th>
<th>100kVA</th>
<th>120kVA</th>
<th>160kVA</th>
<th>200kVA</th>
<th>250kVA</th>
<th>300kVA</th>
<th>400kVA</th>
<th>500kVA</th>
<th>600kVA</th>
<th>800kVA</th>
<th>1000kVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Watt</td>
<td>10kW</td>
<td>15kW</td>
<td>20kW</td>
<td>30kW</td>
<td>40kW</td>
<td>60kW</td>
<td>80kW</td>
<td>100kW</td>
<td>120kW</td>
<td>160kW</td>
<td>180kW</td>
<td>225kW</td>
<td>270kW</td>
<td>360kW</td>
<td>450kW</td>
<td>540kW</td>
<td>720kW</td>
<td>1000kVA</td>
</tr>
</tbody>
</table>

## INPUT

| Nominal Voltage | 400 VAC 3Phase +N |
| Voltage Tolerance | -20% + 15% |
| Frequency Tolerance | 50 / 60 Hz ± 10% (Selectable) |
| Power Factor | >0.99 |
| Total Harmonic Distortion | THDi <3% |

## OUTPUT

| Power Factor | 1.0 | 0.9 (1 Optional) |
| Nominal Voltage | 380/400/415 VAC 3Phase + N |
| Voltage Tolerance | Static ± 1, Dynamic ± 3 |
| Frequency Tolerance | 50Hz / 60Hz ± 0.01% (Battery Mode) |
| Output THD | Linear Load <1% / Non Linear Load <3% |
| Crest Factor | 3:1 |
| Overload Capacity* | At 125% Load 10min, at 150% Load 1min |
| Efficiency (Online Mode) | 96% |
| Efficiency (Eco Mode) | Up to 99% |

## BYPASS

| Nominal Voltage | 380/400/415 VAC 3Phase + N |
| Voltage Tolerance | 15% (Configurable from 10% to 30%) |
| Frequency Tolerance | ± 5 (Selectable) |

## BATTERY

| Type | VRLA / GEL / NICD / Li-Ion |
| Quantity (12V DC VRLA) | 60 |
| Charge Value (C) | 12.5% of Active Power (Nominal 0.1 C, Adjustable) |
| Recharge Time | 5 hours |
| Internal Battery | 64 x 7Ah or 9Ah |
| External Battery Pack | |

## ENVIRONMENT

| Running Temperature | For UPS 0°C~40°C for Battery 0°C~25°C |
| Storage Temperature | For UPS 15°C~45°C for Batteries -10°C~60°C |
| Protection Class | IP20 |
| Humidity | 0-95% Without Condensation |
| Altitude | <1000m, Correction Factor 1. <2000m, Correction Factor >0.92, <3000m; Correction Factor >0.84 |
| Noise Level | <53 dBA | <55 dBA | <60 dBA | <65 dBA | <72 dBA | <74 dBA | <75 dBA |

## COMMUNICATION

| Communication Port | RS232 Standard, RS485 and SNMP Adapter Option |

## STANDARDS

| Quality | RS232 Standard, RS485 and SNMP Adapter Option |
| Performance | EN62040-3 (VFI-SS-111, Bureau Veritas Certified) |
| EMC/LVD | EN62040-2 / EN62040-1 / EN60950, (TÜV SÜD Certified) |

## DIMENSIONS & WEIGHT

| Cabinet Width | 490 | 763 | 810 | 830 | 1250 | 2345 |
| Cabinet Depth | 805 | 771 | 820 | 870 | 845 | 485 |
| Cabinet Height | 1190 | 1555 | 1705 | 1800 | 2102 | 2003 |
| Net Weight (kg) / Gross Weight (kg) | 100 / 100 | 107 / 107 | 118 / 118 | 125 / 125 | 260 / 260 | 270 / 270 | 350 / 350 | 355 / 355 | 450 / 450 | 460 / 460 | 470 / 470 | 850 / 850 | 850 / 850 | 1740 / 1740 | 1740 / 1740 |

* under certain conditions
* 3 Phase in / 1 Phase Out Version is Available. (10 to 30kVA)

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FURTHER INFORMATION

Please refer to our website [www.power-sonic.com](http://www.power-sonic.com) for a complete range of useful downloads, such as product catalogs, material safety data sheets.
PowerLevel T3 Series is a true VFI online double conversion, three-phase UPS system with Innovative 3 Level Technology and is designed to provide high level of energy efficiency, together with reliable and robust protection, for the most demanding industrial and medical environments.

With its three-level inverter and rectifier technology, combined with an embedded isolation transformer, the PowerLevel T3 Series is one of the most reliable systems for data security and other critical applications.
POWERLEVEL T3 SERIES
10-200 kVA
ONLINE UPS

HIGHLIGHTS
• True Three Level Rectifier and Inverter Technology
• Ultra High Output Galvanic Isolation Transformer Embedded
• Robust and Reliable Design

HIGHEST RELIABILITY WITH EMBEDDED ISOLATION TRANSFORMER
• PowerLevel T3 Series is a true VFI on-line double conversion, three-phase UPS system with Innovative 3 Level Technology and engineered to provide high level of energy efficiency and reliable and robust protection for most demanding industrial and medical environments.
• Three level inverter and rectifier technology and with embedded isolation transformer makes PowerLevel T3 Series one of the most reliable systems for data security and other critical applications.

COMPACT DESIGN
• Designed with an Integrated transformer ensuring galvanic isolation on the output for ultimate safety.
• Easy to install and service and can be integrated into harsh commercial and industrial environments.
• Compact footprint with matching battery cabinets.

LOW TOTAL COST OF OWNERSHIP
• Less energy consumption thanks to high efficiency.
• Reduced energy loss.
• Reduced electricity consumption and air conditioning requirements.
• Reduction in operating cost of UPS.
• IGBT based power factor correction technology provides input power factor close to 1 (≥ 0.99). The high input power leads to lower electricity charges/costs, reduces cable, switchboard, fuse and generator sizes, thus reducing investment cost.
• Low input current total harmonic distortion (THDI) less than 3% helps to avoid supply disturbance and expensive harmonic filters.
• Small footprint and easy maintenance.

FURTHER INFORMATION
Please refer to our website www.power-sonic.com for a complete range of useful downloads, such as product catalogs, material safety data sheets.
HIGH OUTPUT POWER FACTOR 1
- Output power factor of 1 (kVA=kW) rate provides up to 25% more active power than a traditional UPS.
- Suitable for modern power supply application with unit or capacitive power factor (e.g. new servers generation).
- No reduction in active power from 0.9 leading to 0.9 lagging.

MAXIMUM AVAILABILITY
- Parallel configuration up to 8 units per redundancy (N+1) and power increase.
- Loop connection helps the UPS system continue operation when the connection cable is interrupted.

STANDARD ELECTRICAL FEATURES
- Embedded Output Galvanic Isolation Transformer
- Dual Input
- Common Battery option
- Frontal Access for Input/Output Cabling
- Backfeed Protection
- Cold Start (Optional)
- Advanced Battery Management
- Short Circuit and Overload Protection
- Parallel Ready
- Redundant Power Supply
- Power Walk-in for Progressive Rectifier Start-up when the Mains is Restored
- Battery Temperature Sensor
- Static & Manual Bypass Operation

ADVANCED COMMUNICATION FEATURES
- 500 Real Time Event Log with Detailed Parameters
- User Friendly Multilingual 320 x 240 Graphic Display Provides Operation Information
- Monitoring and Shutdown Software
- RS232 Serial and RS485 Ports
- Modbus RTU (Optional)
- 2 Communication Slots
- Remote Emergency Power Off (Optional)
- Remote Display Panel (Optional)
- Dry Contact (Optional)
- SNMP (Optional)
- Profibus (Optional)

FLEXIBILITY
- Optional IP31, IP41, Protection degree for harsh environments.
- Optional tropicalization and anti-corrosion protection for electronic boards.
- Optional temperature sensor for external battery cabinets for extended runtimes.
- External battery cabinets for different sizes of batteries to provide extended runtimes.
- Adaptability to the mains without neutral.

FURTHER INFORMATION
Please refer to our website www.power-sonic.com for a complete range of useful downloads, such as product catalogs, material safety data sheets.
FURTHER INFORMATION

Please refer to our website www.power-sonic.com for a complete range of useful downloads, such as product catalogs, material safety data sheets.
POWERLEVEL T3 SERIES

POWERLEVEL T3 SERIES 100-120 kVA

POWERLEVEL T3 SERIES 160-200 kVA

FURTHER INFORMATION
Please refer to our website www.power-sonic.com for a complete range of useful downloads, such as product catalogs, material safety data sheets.
# POWERLEVEL T3 SERIES

## MODEL

<table>
<thead>
<tr>
<th>Capacity</th>
<th>10kVA</th>
<th>15kVA</th>
<th>20kVA</th>
<th>30kVA</th>
<th>40kVA</th>
<th>60kVA</th>
<th>80kVA</th>
<th>100kVA</th>
<th>120kVA</th>
<th>160kVA</th>
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</tr>
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<tbody>
<tr>
<td>Power Watt</td>
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<td>40kW</td>
<td>60kW</td>
<td>80kW</td>
<td>100kW</td>
<td>120kW</td>
<td>160kW</td>
<td>200kW</td>
</tr>
</tbody>
</table>

## INPUT

<table>
<thead>
<tr>
<th>Voltage Range</th>
<th>380/400/415 VAC 3 Phase +N (Optional 220/380 VAC -37% +22% 3P+N+PE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Factor</td>
<td>At Full Load &gt;0.99</td>
</tr>
<tr>
<td>Frequency Range</td>
<td>45 - 65 Hz (Selectible)</td>
</tr>
<tr>
<td>Total Harmonic Distortion (THDI)</td>
<td>&lt;3%</td>
</tr>
</tbody>
</table>

## OUTPUT

<table>
<thead>
<tr>
<th>Voltage Range</th>
<th>380/400/415 VAC 3 Phase + N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage Tolerance</td>
<td>Static ±1, Dynamic ±3</td>
</tr>
<tr>
<td>Efficiency</td>
<td>94.5%</td>
</tr>
<tr>
<td>Frequency Tolerance</td>
<td>50Hz / 60Hz ± 0.01% (Battery Mode)</td>
</tr>
<tr>
<td>THD (THDv)</td>
<td>Linear Load &lt;2% / Non Linear Load &lt;5%</td>
</tr>
<tr>
<td>Crest Factor (CF)</td>
<td>3.1</td>
</tr>
<tr>
<td>Overload Capacity*</td>
<td>At 125% Load 10min, at 150% Load 1min</td>
</tr>
</tbody>
</table>

## BATTERY

<table>
<thead>
<tr>
<th>Quantity (12V DC VRLA)</th>
<th>60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charge Capacity</td>
<td>12.5% of Active Power (Nominal 0.1 C10, Adjustable)</td>
</tr>
</tbody>
</table>

## ENVIRONMENT

<table>
<thead>
<tr>
<th>Running Temperature</th>
<th>For UPS 0°C/+40°C For Battery +15°C/+25°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Temperature</td>
<td>For UPS -15°C/+45°C For Battery 0°C/+30°C</td>
</tr>
<tr>
<td>Protection Class</td>
<td>IP20</td>
</tr>
<tr>
<td>Humidity</td>
<td>0-95% Without Condensation</td>
</tr>
<tr>
<td>Altitude</td>
<td>&lt;1000m, Correction Factor 1. &lt;2000m, Correction Factor 0.92, &lt;3000m; Correction Factor 0.84</td>
</tr>
<tr>
<td>Noise Level</td>
<td>&lt;53 dBA</td>
</tr>
</tbody>
</table>

## COMMUNICATION

| Communication Port | RS232 Standard, RS485 and SNMP Adapter Option |

## STANDARDS

<table>
<thead>
<tr>
<th>Quality</th>
<th>ISO 9001, ISO 14001, ISO 18001, TSE-HYB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance</td>
<td>EN62040-3 (VFI-SS-111, Bureau Veritas Certified)</td>
</tr>
<tr>
<td>EMC/LVD</td>
<td>EN62040-2, EN62040-1, EN60950, (TÜV SÜD Certified)</td>
</tr>
</tbody>
</table>

## DIMENSIONS & WEIGHT

<table>
<thead>
<tr>
<th>Cabinet Depth (mm)</th>
<th>Width</th>
<th>Depth</th>
<th>Height</th>
<th>Net Weight (kg)</th>
<th>Packaging Depth (mm)</th>
<th>Width</th>
<th>Depth</th>
<th>Height</th>
<th>Gross Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>517</td>
<td>517</td>
<td>1466</td>
<td>1510</td>
<td>1750</td>
<td>862.1</td>
<td>620</td>
<td>870</td>
<td>1980</td>
<td>698</td>
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<tr>
<td>1382</td>
<td>1630</td>
<td>1935</td>
<td>1745</td>
<td>1832</td>
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<td>1630</td>
<td>1630</td>
<td>1830</td>
<td>1980</td>
<td>2120</td>
<td>1630</td>
<td>1830</td>
<td>1980</td>
<td>2120</td>
<td>2120</td>
</tr>
</tbody>
</table>

* under certain conditions

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**FURTHER INFORMATION**

Please refer to our website [www.power-sonic.com](http://www.power-sonic.com) for a complete range of useful downloads, such as product catalogs, material safety data sheets.
The PowerModular Series is a scalable, redundant modular UPS system designed to cost effectively provide high level availability for high density data centres and critical applications.

Modular Architecture can scale power and runtime as demand grows or as higher levels of availability are required.

Scalable up to the highest active power rating available through two dimensional modularity: Vertical and Horizontal.
**POWERMODULAR SERIES**

**10-2080 kVA**

**MODULAR ONLINE UPS**

**HIGHLIGHTS**
- High Performance, Modular 3-Phase Power Protection
- Scalable up to 2080kVA, with 96% High Efficiency

**MODULAR UPS DESIGN FOR HIGH DENSITY DATA CENTERS**
- PM Series is a scalable, redundant Modular UPS system designed to cost effectively provide high level availability for high density data centers and critical applications.
- True Online Double Conversion and advanced DSP control technology.
- Modular Architecture can scale power and runtime as demand grows or as higher levels of availability required.
- Combines the modular design with the N+X parallel redundancy technology.
- The maximum capacity of a single cabinet is 520kVA. Cabinets can operate in parallel configuration to build a system of up to 2080kVA.

**SCALABLE MODULAR ARCHITECTURE**
Scalable up to the highest active power rating available through two dimensional modularity: Vertical and Horizontal.
- Capacity of single power module is 10-15-20-25-30-40-50kVA
- The height of single hot swappable power module is 3U
- Standard 1.4m cabinet can hold up to 5 of power modules
- Standard 2m cabinet can hold up to 13 of power modules
- The single UPS cabinet capacity can reach 520kVA and UPS cabinets can operate in parallel configuration to build a system of up to 2080kVA
  (see SIZE diagram on following page)

<table>
<thead>
<tr>
<th>Modules</th>
<th>Output Power</th>
<th>Dimensions (W x H x D)</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM 3310-RM</td>
<td>10kVA 3/3 Module</td>
<td>443 x 131 x 580mm 3U</td>
<td>26kg</td>
</tr>
<tr>
<td>PM 3315-RM</td>
<td>15kVA 3/3 Module</td>
<td>443 x 131 x 580mm 3U</td>
<td>30kg</td>
</tr>
<tr>
<td>PM 3320-RM</td>
<td>20kVA 3/3 Module</td>
<td>443 x 131 x 580mm 3U</td>
<td>31kg</td>
</tr>
<tr>
<td>PM 3325-RM</td>
<td>25kVA 3/3 Module</td>
<td>443 x 131 x 580mm 3U</td>
<td>31kg</td>
</tr>
<tr>
<td>PM 3330-RM</td>
<td>30kVA 3/3 Module</td>
<td>443 x 131 x 580mm 3U</td>
<td>32kg</td>
</tr>
<tr>
<td>PM 3340-RM</td>
<td>40kVA 3/3 Module</td>
<td>443 x 131 x 580mm 3U</td>
<td>33kg</td>
</tr>
<tr>
<td>PM 3350-RM</td>
<td>50kVA 3/3 Module</td>
<td>443 x 131 x 580mm 3U</td>
<td>33kg</td>
</tr>
</tbody>
</table>

**FURTHER INFORMATION**
Please refer to our website [www.power-sonic.com](http://www.power-sonic.com) for a complete range of useful downloads, such as product catalogs, material safety data sheets.
STANDARD ELECTRICAL FEATURES

- Output Power Factor: 0.9 (Optional 1.0)
- Hot Swappable Maintenance (UPS & Battery)
- Separated Bypass
- Maintenance Bypass
- Parallelable up to 4 Cabinets
- Common Battery
- Control of On/Off State of each Module
- Freely Set the Charge Current
- Intelligent Charging
- Mid or Small Power Distributing System
- Selectable Battery Voltage 3 Input 3 Output ±216VDC/±228VDC/±240VDC (32/34/36/38/40pcs)

ADVANCED COMMUNICATION FEATURES

- RS232 (USB)
- RS485 Communication Interface
- SNMP Card (Optional)
- Relay Card (Optional)
- Centralized Monitor Module that is Hot Swappable
- Single Module LCD Display
- Control Monitoring with 5” Color LCD Graphic Display

HOT SWAPPABLE BATTERY MODULES

Plug and play battery modules ensures uninterrupted power to protected equipment while batteries are being replaced.
Allows quick and easy battery replacement.
- Each Battery Module Consists of 18 pcs 7Ah/9Ah
- Only 3U Height
- Simply Plug into UPS System

N+X PARALLEL REDUNDANCY

PowerModular series UPS adopts N+X parallel redundancy design, users can set different redundancy according to the importance of the load. While the number of redundancy modules are more than two, the availability of UPS system will achieve 99.999% and the MTBF will be more than 15,000 hours which can satisfying the reliability requirement of critical load.
The UPS redundancy degree can be set through the LCD, when the load exceeds the set value, the UPS will alarm in time.

FURTHER INFORMATION

Please refer to our website www.power-sonic.com for a complete range of useful downloads, such as product catalogs, material safety data sheets
INDEPENDENT CONTROL SYSTEM
Every power module is equipped independent control system, and control itself independently according to the sharing message, and the fault module separates from the system automatically.

HIGH EFFICIENCY AND LOW TOTAL COST OF OWNERSHIP
Designed for highly economical energy consumption and is a perfect fit in your data center and server room. Offering efficiency of up to 96%, THDi of 2% and unity Input Power Factor without harmonic filters PowerModular Series delivers:
- Significant energy savings
- Lower cooling costs
- Smaller generator sizing
- High input power factor (>0.99) and low input Total Harmonic Distortion (THDi<2%) minimizes installation costs by enabling the use of smaller generators and cabling.
- Fully-rated power kVA equals kW feature option reduces cost by eliminating the need for an oversized UPS for Power Factor Corrected (PFC) loads.

FURTHER INFORMATION
Please refer to our website www.power-sonic.com for a complete range of useful downloads, such as product catalogs, material safety data sheets
## POWERMODULAR SERIES

### 10-2080 kVA MODULAR ONLINE UPS

**Model**

| Model       | PM3310-100kVA | PM3320-100kVA | PM3325-150kVA | PM3330-150kVA | PM3330-200kVA | PM3330-250kVA | PM3330-300kVA | PM3340-200kVA | PM3340-250kVA | PM3340-320kVA | PM3340-520kVA | PM3340-800kVA | PM3340-1040kVA | PM3340-1560kVA |
|-------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| **Capacity** |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| UPS Cabinet | 10~100 kVA    | 20~100 kVA    | 20~200 kVA    | 25~250 kVA    | 30~300 kVA    | 40~200 kVA    | 40~320 kVA    | 40~520 kVA    | 800 kVA       | 1040 kVA      | 1560 kVA      |               |               |               |
| PM Module   |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| **Input**   |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Phase       | 3 Phase 4 Wires and Ground |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Rated Voltage | 380/400/415 VAC |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Voltage Range | 208~478 VAC or 120 VAC~276 VAC |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Frequency Range (Hz) | 40~70 Hz |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Power Factor |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Bypass Voltage Range | Max. Voltage: ±15% (Optional: +5%, +10%, +25%) Min. Voltage: -45% (Optional: -20%, -30%) | Frequency Protection Range: ±10% |               |               |               |               |               |               |               |               |               |               |               |               |
| Current Harmonic | <2% (100% Non-Linear Load) |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Generator Input | Support |               |               |               |               |               |               |               |               |               |               |               |               |               |
| **Output**  |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Phase       | 3 Phase 4 Wires and Ground |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Rated Voltage | 220/240 VAC 380/400/415 VAC |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Power Factor | 1 |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Voltage Precision | ±1% |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Output Frequency | ±1%, ±2%, ±4%, ±5%, ±10% of the Rated Frequency (Optional) (50/60±0.2) Hz | 3:1 |               |               |               |               |               |               |               |               |               |               |               |               |
| Crest Factor | 3:1 |               |               |               |               |               |               |               |               |               |               |               |               |               |
| THD         | ±1% With Linear Load ±4% With Non-Linear Load | 96% |               |               |               |               |               |               |               |               |               |               |               |               |
| Efficiency  |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| **Communication** |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| UPS Cabinet | RS232, RS485, Intelligent Slot x 2 (SNMP Card, Relay Card, Dry Contact Optional) |               |               |               |               |               |               |               |               |               |               |               |               |               |
| PM Series UPS Module | RS3232 |               |               |               |               |               |               |               |               |               |               |               |               |               |
| **Battery** |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Voltage     | ±192V / ±204V / ±216V / ±228V / ±240V DC, Battery Quantity (Optional) |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Charge Current (A) | UPS Cabinet 60A Max | 30A Max | 60A Max | 60A Max | 60A Max | 60A Max | 60A Max | 60A Max | 60A Max | 60A Max | 60A Max | 60A Max | 60A Max | 60A Max |
| Crest Factor | Module | Depends on the Capacity of External Batteries |               |               |               |               |               |               |               |               |               |               |               |               |               |
| THD         | Backup Time | Utility to Battery: 0ms, Utility to Bypass: 0ms | 6A/10A/(20A Optional) Max (Charge Current can be Set According to Battery Capacity Installed) |               |               |               |               |               |               |               |               |               |               |               |               |
| Protection  |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Overload    | Normal Mode | Load ±110%. Last 60min, ±125%. Last 10min, ±150%. Last 1min, ±150%. Shut Down UPS Immediately | Battery Mode | Load ±110%. Last 10min, ±125%. Last 1min, ±150%. Last 1s ±150%. Shut Down UPS Immediately |               |               |               |               |               |               |               |               |               |               |               |               |
| **Operating** |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Temperature | 0°C ~ 40°C |               |               |               |               |               |               |               |               |               |               |               |               |               |
| **Environment** |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Humidity    | 0 ~ 95% Non-Condensing |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Storage Temperature | -25°C ~ 55°C |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Noise       | Number of Modules ≤5 | <55 dBA (1m) | Number of Modules ≤5 | <65 dBA (1m) |               |               |               |               |               |               |               |               |               |               |               |
| Altitude    | <1500m |               |               |               |               |               |               |               |               |               |               |               |               |               |
| **Dimensions & Weight** |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| Unit Dimensions (WxDxH) (mm) | UPS Cabinet 600 x 840 x 1400 | 600 x 840 x 1400 | 600 x 1100 x 2000 | 600 x 1100 x 2000 | 600 x 840 x 1400 | 600 x 1100 x 2000 | 860 x 600 x 2000 | 860 x 1200 x 2000 | 860 x 1800 x 2000 | 860 x 3000 x 2000 | 1100 x 4800 x 2000 | Module 443 x 580 x 131 (3U) |               |               |
| Weight (kg) | UPS Cabinet 170 | 170 | 270 | 275 | 152 | 280 | 205 | 310 | 514 | 1600 | 1810 | 2800 | Module 443 x 580 x 131 (3U) |               |               |               |
| **Industry Standard** | CE, IEC 62040-2, IEC 62040-3, IEC61000-4, IEC60950-1 |               |               |               |               |               |               |               |               |               |               |               |               |               |

**Further Information**

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