The Memopower Plus double conversion true on-line series, featured with DSP-controlled technology, high input & output power factors, superior input voltage window for energy saving, estimated remaining time, ECO mode, is an ideal solution to your computer center, network center, communication system, automatic control system or other critical systems, which is demanding for a thorough protection.

**Features**
- True Online Double Conversion with DSP Control
- Patented Mimic LCD Display with Multifunction Parameter Settings
- High Output Power Factor at 0.9PF
- Unity Input Power Factor with Low Input Current Distortion
- Green Concept design with Superior Input Voltage Window for Energy Saving
- Support Generator Input
- Estimated Remaining Time displayed on the LCD.
- Support Economic(ECO) Operation Mode
- Power Shedding Function
- Matching Battery Pack with Powerful Charger Built-in
- Versatile Communication Interfaces Available
- Cold Start
- Communication Software

**Memopower Plus Online Tower UPS Series**

MP9101 | MP9102 | MP9103
**True Online Double Conversion with DSP Control**
With the advanced DSP Control technology, the Memopower Plus true online double conversion UPS not only corrects power disturbances in Mains but also achieves higher reliability and greater immunity from Utility power problems to the load connected.

**Patented Mimic LCD Display with Multi-function Parameter Settings**
With mimic LCD display, it is easy to get all precious read-out data about the status of the UPS; besides, you may easily set various parameters from the screen.

**Unity Input Power Factor with Low Input Current Distortion**
Thanks for DSP Control technology implemented, the UPS may reach Unity Power factor $\geq 99\%$ and low input current THD $<5\%$.

**Support Generator Input**
The UPS is designed to support generator set for emergency condition.

**Estimated Remaining Time displayed on the LCD.**
Estimated remaining time may be displayed on the LCD to enable user to know when time out reaches and shuts down his precious load in time.
Matching Battery Pack with Powerful Charger Built-in
To extend the UPS runtime, we also provide a series of matching battery pack with powerful charger built-in.

Extended Battery Pack (EBP)

<table>
<thead>
<tr>
<th>BATTERY BANK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>Bat. Type</td>
</tr>
<tr>
<td>Bat. Voltage</td>
</tr>
<tr>
<td>Max. Quantity</td>
</tr>
<tr>
<td>Max. Charge Current</td>
</tr>
<tr>
<td>Physical</td>
</tr>
<tr>
<td>Unit Dimensions</td>
</tr>
<tr>
<td>Weight (Kg)</td>
</tr>
</tbody>
</table>

UPS + Battery Packs Runtime Table

<table>
<thead>
<tr>
<th>Model</th>
<th>Internal Batteries</th>
<th>+ 1 EBP</th>
<th>+ 2 EBP</th>
<th>+ 3 EBP</th>
<th>+ 4 EBP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1K</td>
<td>5</td>
<td>22</td>
<td>41</td>
<td>65</td>
<td>87</td>
</tr>
<tr>
<td>2K</td>
<td>5</td>
<td>23</td>
<td>44</td>
<td>71</td>
<td>100</td>
</tr>
<tr>
<td>3K</td>
<td>3</td>
<td>17</td>
<td>31</td>
<td>52</td>
<td>69</td>
</tr>
</tbody>
</table>

NOTE: Battery times indicated above are for reference only, which might vary according to load configuration and battery charge.
UNIT: Minute

Communication Software
The communication software provided allows the control of the UPS and graceful Shutdown when Utility fails, such as:
- Remotely test the major operation functions of the UPS
- Communicate via SNMP/Web/Network adapter
- Access UPS functions via the Web
- Alert users via SMS messages against specific events

Cold Start
The UPS can be turned on without connecting to Utility.

High Output Power Factor at 0.9PF
The UPS provides output power factor at 0.9 when the input voltage is at 200Vac-290Vac at full load condition.

Versatile Communication Interfaces Available
The UPS is equipped with RS232, USB and additional communication slot to be connected with SNMP card, dry contact board for various application demands.

Support Economic (ECO) Operation Mode
The UPS may be set at ECO mode, which means line-interactive mode. It may automatically switch back when Utility is abnormal.

Power Shedding May Turn Off Uncritical Load in Battery Backup
The UPS will turn off the uncritical load connected with the specified sockets (Segment 1) when the UPS is on backup mode.

www.kstarnewenergy.com
## Memopower Plus Online Tower UPS Series

<table>
<thead>
<tr>
<th>Model</th>
<th>MP9101</th>
<th>MP9102</th>
<th>MP9103</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity (W/W)</td>
<td>1000VA/900W</td>
<td>2000VA/1800W</td>
<td>3000VA/2700W</td>
</tr>
</tbody>
</table>

### Input
- **Phase**: Single phase & Ground
- **Rated Voltage**: 200/208/220/230/240VAC
- **Frequency Range**: 45Hz-65Hz (auto detect)
- **Power Factor**: >0.85
- **Current THD**: <7% at 100% non-linear load
- **Bypass Voltage Range**: Max. voltage: +15% (optional), +5%, +10%, +25%
  - Min. voltage: -45% (optional), -20%, -30%
  - Frequency protection range: ±10%
- **ECO Range**: same as the bypass
- **Generator Input**: Support

### Output
- **Phase**: Single phase & Ground
- **Rated Voltage**: 200/208/220/230/240VAC
- **Power Factor**: 0.9
- **Voltage Regulation**: ±5%
- **Frequency**: Utility Mode: 50Hz or 60Hz (synchronized to Main), Battery Mode: 50/60Hz±0.02Hz
- **Crest Factor**: 3:1
- **THD**: ≤3% with linear load, ≤5% with non linear load
- **Waveform**: Pure Sine wave

### Efficiency
- **AC Mode (full load)**: up to 88%
- **ECO Mode (full load)**: >94%
- **Battery**:
  - **Voltage**: 36Vdc, 72Vdc, 72Vdc
  - **Capacity**: 7AH, 9AH
  - **Backup Time**: Full load = 5 min., Estimated remaining time displayed on the LCD
  - **Recharge time to 90%**: 5 hours
  - **Charging Current**: 1A
  - **Battery Socket**: Anderson like PowerPole Modular Connectors
  - **Transfer Time**: Utility to Battery: 0ms; Utility to bypass: <4ms

### Protection
- **Overload**: AC Mode: Loads 100% - 150%: last 30s, >150%: last 300ms then shut down UPS immediately.
  - Bat. Mode: Loads 100% - 150%: last 30s, >150%: last 300ms then shut down UPS immediately.
  - Bypass Mode: Load > 130%: 60s then shut down output
- **Short Circuit**: Hold Whole System
- **Overheat**: Line Mode: Switch to Bypass; Backup Mode: Shut down UPS immediately
- **Battery Low**: Alarm and Switch off
- **Self-diagnostics**: Upon Power On and Software Control
- **EPO (optional)**: Shut down UPS immediately
- **Battery**: Advanced Battery Management
- **Noise Suppression**: Complied with EN62040-2

### Alarms
- **Audible & Visual**: Line Failure, Battery Low, Overload, System Fault

### Display
- **Status LED & LCD**: Line Mode, Backup Mode, Eco Mode, Bypass Mode, Battery Low, Battery Bad, Overload & UPS Fault
- **Reading on the LCD**: Input Voltage, Input Frequency, Output Voltage, Output Frequency, Load Percentage, Battery Voltage, Inner Temperature & Remaining Battery Backup Time

### Physical
- **Dimension (WxHxD)mm**: 144x215x409, 199x337x466
- **Weight (kg)**: 13, 24.6, 25.5
- **Input Connection**: IEC320-C14-10A, IEC320-C20-16A, IEC320-C20-16A
- **Output Connection**: IEC320-C13-10A x 3, IEC C13-10A x 8, IEC320 C13-10A x 8 & C19-16A x 1
- **External Battery Connection**: Anderson like PowerPole Modular Connectors

### Communication Interface
- **Smart RS232/USB Port**: Supports Windows Family, Linux, FreeBSD, etc.
- **Communication Slot**: SNMP Card, Dry Contact Card, etc.

### Environment
- **Operating Temperature**: 0°C~40°C
- **Storage Temperature**: -25°C~+65°C
- **Humidity**: 0~95% non condensing
- **Altitude**: < 1500m (derating while >1500m)
- **Noise**: <50dB (at 1 meter)

### Safety Conformance
- CE, CB

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*KSTAR*

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*110-160V @<30%; 160-300V @<80% load; 200-230V @100% load.*

*Specifications subject to change without prior notice.*