### 700W True Sine Wave DC-AC Power Inverter

**TS-700 Series**

- **Features:**
  - True sine wave output (THD<3%)
  - High surge power up to 1400W
  - High efficiency up to 91%
  - Power ON-OFF switch
  - Standby saving mode can be selectable
  - Front panel indicator for operation status
  - Built-in fan ON-OFF control function
  - Protections: Bat. low alarm / Bat. low shutdown / Over voltage / Over temp. / Output short / Reverse polarity / Overload
  - Application: Home appliance, power tools, office and portable equipment, vehicle and yacht etc.
  - 3 years warranty

### SPECIFICATION

<table>
<thead>
<tr>
<th>MODEL</th>
<th>RATED POWER (Typ.)</th>
<th>MAXIMUM OUTPUT POWER (Typ.)</th>
<th>AC VOLTAGE</th>
<th>FREQUENCY</th>
<th>WAVEFORM</th>
<th>AC REGULATION (Typ.)</th>
<th>SAVING MODE (Typ.)</th>
<th>FRONT PANEL INDICATOR</th>
<th>BAT. VOLTAGE</th>
<th>VOLTAGE RANGE (Typ.,Note,1,3)</th>
<th>DC CURRENT (Typ.)</th>
<th>NO LOAD DISSIPATION (Typ)</th>
<th>OFF MODE CURRENT DRAW</th>
<th>EFFICIENCY (Typ.,Note,4)</th>
<th>BATTERY TYPES</th>
</tr>
</thead>
<tbody>
<tr>
<td>TS-700-112</td>
<td>700W</td>
<td>800W for 180 sec. / 1050W for 10 sec. / surge power 1400W for 30 cycles</td>
<td>100 / 110 / 115 / 120VAC selectable by setting button S.W</td>
<td>60 ± 0.1Hz</td>
<td>50/60Hz selectable by setting button S.W</td>
<td>± 3.0%</td>
<td>Default disabled. Load ≤ 5W will be changed to standby mode</td>
<td>Battery voltage level, output load level, saving mode, fault and operation status</td>
<td>12V</td>
<td>10.5 ~ 15VDC / 21 ~ 30VDC / 42 ~ 60VDC</td>
<td>38A</td>
<td>≤ 6W @ standby saving mode</td>
<td>≤ 1mA</td>
<td>91%</td>
<td>Open &amp; sealed Lead Acid</td>
</tr>
<tr>
<td>TS-700-124</td>
<td></td>
<td></td>
<td>200 / 220 / 230 / 240VAC selectable by setting button S.W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Battery voltage level, output load level, saving mode, fault and operation status</td>
<td>24V</td>
<td>21 ~ 30VDC / 42 ~ 60VDC</td>
<td>19A</td>
<td></td>
<td></td>
<td>90%</td>
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<tr>
<td>TS-700-148</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Battery voltage level, output load level, saving mode, fault and operation status</td>
<td>48V</td>
<td>12V / 24V / 48V / 75A</td>
<td>38A</td>
<td></td>
<td></td>
<td>91%</td>
</tr>
<tr>
<td>TS-700-212</td>
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<td></td>
<td></td>
<td></td>
<td>Battery voltage level, output load level, saving mode, fault and operation status</td>
<td>48V</td>
<td>80 / 110 / 120VAC</td>
<td>19A</td>
<td></td>
<td></td>
<td>91%</td>
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<tr>
<td>TS-700-224</td>
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<td>Battery voltage level, output load level, saving mode, fault and operation status</td>
<td>48V</td>
<td>80 / 110 / 120VAC</td>
<td>38A</td>
<td></td>
<td></td>
<td>91%</td>
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<tr>
<td>TS-700-248</td>
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<td></td>
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<td></td>
<td>Battery voltage level, output load level, saving mode, fault and operation status</td>
<td>48V</td>
<td>80 / 110 / 120VAC</td>
<td>38A</td>
<td></td>
<td></td>
<td>91%</td>
</tr>
</tbody>
</table>

### OUTPUT PROTECTION

- **Over Temperature:** 80°C ± 5°C, 75°C ± 5°C
- **Output Short:** Protection type: Shut down o/p voltage, re-power on to recover, by internal RTH3 detect on heatsink of power diode
- **Output Load:** 105 ~ 115% load for 180 sec., 115% ~ 150% load for 10 sec.
- **GFCI Protection:** Optional (Only type F) / None

### ENVIRONMENT

- **Working Temp., Note, 4:** 0 ~ +40°C @ 100% load; +60°C @ 50% load
- **Working Humidity:** 20% ~ 90% RH non-condensing
- **Storage Temp., Humidity:** -30 ~ +70°C; -22 ~ +158°F; 10 ~ 95% RH non-condensing
- **Vibration:** 10 ~ 50Hz, 3G 10min./cycle, 60min. each along X, Y, Z axes

### SAFETY & EMC

- **Safety Standards:** Design refer to UL458 / None
- **LVD:** None / EN60950-1
- **Withstand Voltage:** Bat I/P - AC O/P: 3.0KVAC / AC O/P - FG: 1.5KVAC
- **Isolation Resistance:** AC O/P-FG, Bat I/P-FG: 1000 Ohms / 500VDC / 25°C / 70% RH
- **EMC Emission:** Compliance to FCC class A / Compliance to EN55032 class A / 72/245/CEE, 95/54/CE, E-Mark
- **EMC Immunity:** None / Compliance to EN61000-4-2,3,8

### OTHERS

- **MTBF:** 74.4K hrs min. / MIL-HDBK-217F (25°C)
- **Dimension:** 295*184*70mm (L*W*H)
- **Packing:** 3.8Kg; 2pcs/8.6Kg/1.27CUFT

### NOTE

1. Efficiency is tested by 530W, linear load at 13V, 26V, 52V input voltage.
2. All parameters not specified above are measured at rated load, 25°C of ambient temperature and set to factory setting.
3. Input derating capacity referenced by curve 2.
4. Output derating capacity referenced by curve 1.
5. The tolerance of each voltage value by models is: ±112/212 ~ ±0.5V; ±124/224 ~ ±1V; ±148/248 ~ ±2V
6. THD is tested by 700W, linear load at 13.26,52V input voltage.

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**Mechanical Specification**

- **O/P Wattage:** 700W
- **Bat. Voltage:** 48VDC
- **Output:** 1:110VAC 2:230VAC
- **12:12VDC**
- **24:24VDC**
- **48:48VDC**
- **1:110VAC**
- **2:230VAC**

**AC Output Receptacles (optional)**

<table>
<thead>
<tr>
<th>Receptacle type</th>
<th>Type-A</th>
<th>Type-B</th>
<th>Type-C</th>
<th>Type-D</th>
<th>Type-E</th>
<th>Type-F</th>
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</thead>
<tbody>
<tr>
<td>Country</td>
<td>USA</td>
<td>EUROPE</td>
<td>AUSTRALIA</td>
<td>U.K</td>
<td>JAPAN</td>
<td>GFCI</td>
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<tr>
<td>Certificate</td>
<td>FC</td>
<td>CE</td>
<td>CE</td>
<td>CE</td>
<td>FC</td>
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</tbody>
</table>

**Derating Curve**

- **Derating Curve 1**
- **Derating Curve 2**

**Type-A**

- **Type-B**

**Type-C**

- **Type-D**

**Type-E**

- **Type-F**

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**WARNING:**

- **Reverse Polarity Will Damage The Unit.**

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