**Product Model**

Growatt 2500TL-X | 3000TL-X | 3600TL-X
4500TL-X | 5000TL-X | 6000TL-X

**Leading - edge Technology**

- High Yields
  - Max. efficiency 98.7%
- Safe & Reliable
  - Type II SPD on DC side
- User Friendly
  - Touch key and OLED display
- Easy Maintenance
  - Free online service
- Support zero-expert application
  - Remote upgradable

**Efficiency**

- Max efficiency: 98.5%
- Euro weighted efficiency: 98%
- MPPT efficiency: 99.3%

**Protection Devices**

- DC reverse polarity protection
- DC switch
- DC surge protection
- Output over current protection
- Output over voltage protection function
- Ground fault monitoring
- Grid monitoring
- Integrated SA, pole selective leakage current monitoring unit

**General Data**

- Dimensions (W / H / D) in mm: 415/378/143
- Weight: 10.86kg/10.86kg/10.86kg
- Operating temperature range: -25°C to +60°C
- Nominal grid frequency: 50/60Hz
- Nominal AC output voltage: 220V/230V/240V
- Nominal AC output frequency: 50/60Hz
- Max. charging voltage: 42~59V
- Battery voltage range: 30V~46V
- Capacity of battery: 3~12kWh

**Features**

- DC connection: H4/MC4(opt), H4/MC4(opt)
- AC connection: H4/MC4(opt), H4/MC4(opt)
- Display: Transformerless, Transformerless
- Interfacing: USB & USB / WiFi & LAN / GPRS / 3G
- Warranty: 5 years / 10 years

**Certificates and Approvals**

- CE, IEC61704, G83, VDE0126-1-1, VDE-0100, EN50651, CQC, IEC61683, IEC60068, IEC61727, IEC61727

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**Datasheet**

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>Input Data (DC)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. recommended PV power (for module STC)</td>
<td>3100W</td>
<td>4200W</td>
<td>5040W</td>
<td>5880W</td>
<td>7000W</td>
</tr>
<tr>
<td>Max. DC voltage</td>
<td>500V</td>
<td>500V</td>
<td>550V</td>
<td>550V</td>
<td>550V</td>
</tr>
<tr>
<td>Start voltage</td>
<td>100V</td>
<td>100V</td>
<td>100V</td>
<td>100V</td>
<td>100V</td>
</tr>
<tr>
<td>MPP work voltage range/normal voltage</td>
<td>70V~550V/250V</td>
<td>70V~550V/250V</td>
<td>70V~550V/250V</td>
<td>70V~550V/250V</td>
<td>70V~550V/250V</td>
</tr>
<tr>
<td>Full load of DC voltage range</td>
<td>150V~500V</td>
<td>165V~500V</td>
<td>220V~500V</td>
<td>250V~500V</td>
<td>280V~500V</td>
</tr>
<tr>
<td>Max. input current of tracker A/ B</td>
<td>12.5A/12.5A</td>
<td>12.5A/12.5A</td>
<td>12.5A/12.5A</td>
<td>12.5A/12.5A</td>
<td>12.5A/12.5A</td>
</tr>
<tr>
<td>Number of independent MPP trackers / strings per MPP tracker</td>
<td>2/1</td>
<td>2/1</td>
<td>2/1</td>
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**Output (AC)**

- Rated AC output power: 2500W | 3000W | 3600W | 4200W | 5000W | 6000W |
- Max. AC apparent power: 22A | 24A | 24A | 24A | 24A |
- Max. output current: 12A | 14.5A | 20A | 22A | 25A |
- AC grid frequency: 50Hz/50Hz/50Hz | 50Hz/50Hz/50Hz | 50Hz/50Hz/50Hz | 50Hz/50Hz/50Hz |
- Adjustable power factor: 0.8 leading/0.8 lagging | 0.8 leading/0.8 lagging | 0.8 leading/0.8 lagging | 0.8 leading/0.8 lagging |
- THD: <3% | <3% | <3% | <3% | <3% |

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**Certificates and Approvals**

- CE, IEC61704, G83, VDE0126-1-1, VDE-0100, EN50651, CQC, IEC61683, IEC60068, IEC61727, IEC61727

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* For VDE-AR-N4105 output power is 4800W
* For AS4777, for max: 21.7kW