Features

• PVRSS Certified Rapid Shutdown Ready
• NEC 2017 compliant & UL listed Arc-Fault circuit protection
• 15-90° Mounting orientation for low profile roof installs
• Optional Ethernet Network Card enables remote FW upgrades
• Integrated AC & DC disconnect switches
• 3 MPPT’s with 2 inputs each for maximum flexibility
• Copper and Aluminum compatible AC connections
• NEMA Type 4X outdoor rated enclosure
• UL1741 SA Certified to CA Rule 21, including SA14 FW and SA15 VW
• Separable wirebox design for fast service
• Standard 10 year warranty
• Generous 1.5 DC/AC Inverter Load Ratio

Yaskawa Solectria Solar’s PVI 25TL-208 25kW (25kVA) three phase string inverters are designed for rooftop and carport applications. These high performance, advanced and reliable inverters are designed specifically for the North American environment and grid. High efficiency at 97.0% peak and 96.5% CEC, wide operating voltages, broad temperature ranges and a NEMA Type 4X enclosure enable this inverter platform to operate at high performance across many applications. The product ships with the Rapid Shutdown Ready wirebox, fully integrated and separable with touch-safe fusing, monitoring, and AC and DC disconnect switches. The integrated PLC transmitter in the Rapid Shutdown Ready wirebox enables PVRSS certified module-level rapid shutdown when used with the Tigo TS4-F/TS4-A-F products and APS RSD-S-PLC-A products. The Ethernet Network Card enables monitoring, controls and remote product upgrades.
## Specifications

**PVI 25TL-208 Commercial Transformerless String Inverter**

<table>
<thead>
<tr>
<th><strong>DC Input</strong></th>
<th><strong>AC Output</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maximum PV Power</strong></td>
<td>45 kW (17 kW per MPPT)</td>
</tr>
<tr>
<td><strong>Maximum DC Input Voltage</strong></td>
<td>1000 VDC</td>
</tr>
<tr>
<td><strong>Operating DC Input Voltage Range / MPPT Voltage Range</strong></td>
<td>200 - 850 VDC / 480 - 850 VDC</td>
</tr>
<tr>
<td><strong>Start-up DC Input Voltage / Power</strong></td>
<td>330 V / 80 W</td>
</tr>
<tr>
<td><strong>Number of MPP Trackers / Inputs</strong></td>
<td>3 MPPT / 6 Inputs (2 per MPPT)</td>
</tr>
<tr>
<td><strong>Maximum PV Short-Circuit Current (Isc x 1.25)</strong></td>
<td>135 A (45 A per MPPT)</td>
</tr>
<tr>
<td><strong>DC Disconnection Type</strong></td>
<td>Load-rated DC switch</td>
</tr>
<tr>
<td><strong>DC Surge Protection</strong></td>
<td>Type II MOV, 2800 V C, 20 kA I TM (8/20 μS)</td>
</tr>
<tr>
<td><strong>PVRSS Listed with</strong></td>
<td>AP Smart and Tigo</td>
</tr>
<tr>
<td><strong>Rated AC Output Power @ PF&gt;0.99</strong></td>
<td>25 kW</td>
</tr>
<tr>
<td><strong>Maximum AC Apparent Power (Selectable)</strong></td>
<td>25 kVA</td>
</tr>
<tr>
<td><strong>Rated Output Voltage / Range 1</strong></td>
<td>208 VAC / 183 - 228 VAC</td>
</tr>
<tr>
<td><strong>Grid Connection Type</strong></td>
<td>3-Phase / PE / N (Neutral Optional)</td>
</tr>
<tr>
<td><strong>Maximum AC Output Current @208 VAC</strong></td>
<td>69.5 A</td>
</tr>
<tr>
<td><strong>Rated Output Frequency / Range 1</strong></td>
<td>60 Hz / 57 - 63 Hz</td>
</tr>
<tr>
<td><strong>Power Factor</strong></td>
<td>&gt; 0.99 (±0.8 adjustable)</td>
</tr>
<tr>
<td><strong>Current THD at Rated Load</strong></td>
<td>&lt; 3%</td>
</tr>
<tr>
<td><strong>Maximum Fault Current Contribution (1 Cycle RMS)</strong></td>
<td>64.1 A (0.92 PU)</td>
</tr>
<tr>
<td><strong>Maximum OCPD Rating</strong></td>
<td>125 A</td>
</tr>
<tr>
<td><strong>AC Disconnection Type</strong></td>
<td>Load-break rated AC switch</td>
</tr>
<tr>
<td><strong>AC Surge Protection</strong></td>
<td>Type II MOV, 1240 V, 15 kA I p (8/20 μS)</td>
</tr>
</tbody>
</table>

### System and Performance

**Topology**
- Transformerless

**Efficiency / CEC Efficiency**
- Maximum: 97.0% / 96.5%
- Stand-by / Night Consumption: < 3 W

### Environment

**Enclosure Protection Degree**
- NEMA Type 4X

**Cooling Method**
- Variable speed cooling fans

**Operating Temperature Range**
- -22°F to +140°F / -30°C to +60°C

**Non-Operating Temperature Range**
- No low temp minimum to +158°F / +70°C maximum

**Operating Humidity**
- 0 to 100%

**Operating Altitude**
- 13,123.4 ft / 4000 m (derating from 9842.5 ft / 3000 m)

**Audible Noise**
- < 60 dBA @ 1 m and 25°C

### Display and Communication

**Modbus Protocol**
- Proprietary / SunSpec

**Revenue Grade Metering**
- Optional, External

**Remote Diagnostics**
- Standard with the Ethernet card

**Remote Firmware Upgrades**
- Standard with the Ethernet card

**Communication Interface**
- RS-485

### Mechanical

**Dimensions (W x H x D)**
- 39.4 x 23.6 x 10.24 in. (1000 x 600 x 260 mm)

**Weight**
- Inverter: 123.5 lbs / 56 kg; Wire-box: 33lbs / 15kg

**Mounting / Installation Angle**
- 15 to 90 degrees from horizontal (vertical or angled)

**AC Termination**
- M8 Stud Type Terminal Block

**DC Termination 5**
- Screw Clamp, Neg. Busbar / Wire range: #6 - #6 AWG Cu / A, Lugs not supplied

**Fused String Inputs (2 per MPPT) 6**
- 20A fuses provided (Fuse values up to 30A acceptable)

### Safety

**Certifications and Standards**

**Selectible Grid Standard**
- IEEE 1547, CA Rule 21, ISO-NE, HECO

**Smart-Grid Features**
- Volt-RideThru, Freq-RideThru, Ramp-Rate, Specified-PF, Volt-VAr, Freq-Watt, Volt-Watt

### Warranty

**Standard Terms / Extended Terms**
- 10 years / 15 and 20 years

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1) The “Output Voltage Range” and “Output Frequency Range” may differ according to the specific grid standard.
2) Active Power Derating begins; at 45°C when PF=1 and Vmp ≥ Vmin, and at 50°C when PF=1 and Vmp ≥ 700VDC.
3) See user manual for further requirements regarding non-operating conditions.
4) Shade Cover accessory required for installation angles of 75 degrees or less from horizontal.
5) RSD wire-box only includes fuses/fuseholders on the positive polarity, compliant with NEC 2017, 690.9 (C).
6) Fuse values above 20 A have additional spacing requirements. See user manual for details.

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