# **SOLECTRIA® PVI-25TL-208**

## 25 KW, 208 VAC, 1000 VDC STRING INVERTERS

#### Features

- Certified to IEEE 1547-2018
  and UL 1741SB
- Wirebox models with built-in SunSpec compliant transmitter for Module-Level Rapid Shutdown for simple, safe NEC compliance
- UL Listed as a PV Rapid Shutdown System with APsmart
- Integrated UL-listed Arc-Fault protection
- 15-90° mounting angle allows low-profile rooftop installations
- 3 MPPT's with 2 inputs each for PV array flexibility
- Industry-leading DC/AC ratio of 1.8
- Integrated AC and DC disconnects
- Remote firmware
  upgrades and diagnostics
- NEMA 4X outdoor-rated enclosure with proven performance
- Copper and Aluminum compatible AC connections
- Compatible with Bifacial
  PV Modules



Rapid Shutdown Ready Wirebox



Yaskawa Solectria Solar's PVI-25TL-208 25kW (25kVA) three phase string inverters are designed for rooftop and carport applications



### PVI-25TL-208 DESIGN

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 Sunspec compliant PLC transmitter in the wirebox enables PVRSS certified module-level rapid shutdown when used with APsmart products.

The Ethernet Network Card enables monitoring, controls and remote product upgrades.



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#### SPECIFICATIONS

| PVI-25TL-208 Commercial Transformerless String Inverter<br>(Listing File Model: PVI 25TL-208) |   |  |  |  |
|---|---|--|--|--|
|   | Maximum PV Power                                      | 45 kW (17 kW per MPPT)   |  |  |
| DC Input  | Maximum Input Voltage                                 | 1000 VDC   |  |  |
|   | DC Voltage Ranges: Operating / Maximum Power (MPPT)   | 200 - 950 VDC / 480 - 850 VDC  |  |  |
|   | Start-up DC Input Voltage / Power                     | 330 V / 80 W   |  |  |
|   | Number of MPPT Trackers/Inputs                        | 3 Trackers / 2 Fused-Inputs each   |  |  |
|   | Maximum Available PV Current (Isc x 1.25)             | 135 A (45 A per MPPT)  |  |  |
|   | DC Surge Protection                                   | Type II MOV, 2800 V <sub>c</sub> , 20 kAl <sub>τM</sub> (8/20 μs)                                  |  |  |
| AC Output   | Rated AC Real Power / Apparent Power / Output Current | 25 kW / 25 kVA / 69.5 A  |  |  |
|   | Nominal Output Voltage / Range                        | 208 VAC / -12% to +10%   |  |  |
|   | Nominal Output Frequency / Range                      | 60 Hz / 57-63 Hz   |  |  |
|   | Power Factor  | Unity, > 0.99 (Adjustable 0.8 leading to 0.8 lagging)  |  |  |
|   | Fault Current Contribution (1 Cycle RMS)              | 64.1 A   |  |  |
|   | Total Harmonic Distortion (THD) @Rated Load           | < 3%   |  |  |
|   | Grid Connection Type                                  | 3-Ph/PE/N (neutral conductor optional)   |  |  |
|   | Maximum OCPD Device                                   | 125 A  |  |  |
|   | AC Surge Protection                                   | Type II MOV, 1240 VC, 15 kA ITM (8/20 μs)  |  |  |
| Efficiency  | Maximum Efficiency / CEC Efficiency                   | 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 <sup>1</sup>              | -22°F to +140°F / - 30°C to +60°C  |  |  |
|   | Storage Temperature Range                             | -40°F to +158°F / -40°C to +70°C   |  |  |
|   | Operating Humidity                                    | 0 to 100%  |  |  |
|   | Operating Altitude                                    | 13,123.4 ft / 4000 m (derating from 9842.5 ft / 3000 m)  |  |  |
|   | Modbus Protocol                                       | Proprietary / SunSpec  |  |  |
|   | SolrenView Web-based Monitoring Service               | Optional   |  |  |
| Display and   | Revenue Grade Metering                                | Optional, external   |  |  |
| Communication   | Communication Interface                               | RS-485   |  |  |
|   | Remote Firmware Upgrades                              | Ethernet network card required   |  |  |
|   | Remote Diagnostics                                    | Ethernet network card required   |  |  |
| Safety  | Certifications and Standards                          | IEEE 1547-2018, UL 1741-SB, UL1741-SA, UL1699B, UL1998,  |  |  |
|   | Cale shakle Crid Chan dand                            | CSA-C22.2 NO.107.1-01, FCC Part 15 (Subpart B, Class A)  |  |  |
|   | Selectable Grid Standard                              | IEEE 1547, CA Rule 21, ISO-NE, HECO  |  |  |
|   | Smart-Grid Features                                   | Volt-RideThru, Freq-RideThru, Ramp-Rate, Specified-PF,<br>Volt-VAr, Freq-Watt, Volt-Watt. Watt-VAr |  |  |
| Warranty  | Standard Terms  | 10 years   |  |  |
| Mechanical  | Acoustic Noise Rating                                 | < 60 dBA @ 1m and 25°C   |  |  |
|   | Dimensions (H x W 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 <sup>2</sup>            | 15 to 90 degrees from horizontal (vertical or angled)  |  |  |
|   | AC Termination  | M8 Stud Type Terminal Block  |  |  |
|   |   | (Wire range: #6 - 3/0 AWG Cu / Al, Lugs not supplied)  |  |  |
|   | DC Termination  | Screw Clamp, Neg. Busbar Wire range: #14 - #6 AWG Cu   |  |  |

| Wirebox Specifications |                                 |  |   |  |
|------------------------|---------------------------------|--|---|--|
| Wirebox Fused Inputs   |                                 | 25 A Fuse Included (15 - 30 A accepted) <sup>2</sup>                 |   |  |
| Wirebox<br>Versions    | APsmart<br>Transmitter Built-In | Inverter Model: PVI-25TL-208WB-APS<br>(only positive polarity fused) | MLRSD Compatibility:<br>APsmart RSD-S and RSD-D |  |

1) Active Power Derating begins at 45°C when PF=1 and Vmp  $\geq$  Vmin, and at 50°C when PF=1 and Vmp  $\geq$  700 Vdc.

2) Shade Cover accessory required for installation angles of 75 degrees or less from horizontal.

Yaskawa Solectria Solar does not supply optional fuse sizes.



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