

PVI 50TL & PVI 60TL

3-Ph Transformerless Commercial String Inverters

Features

- 55 & 66kVA Active Power ratings allow 0.91 PF leading/lagging
- NEC 2014 compliant (arc fault and rapid shutdown)
- Compliant with UL 1741SA
- 3 MPPTs with 5 inputs each
- Integrated DC and AC disconnects
- AC terminals compatible with copper and aluminum conductors
- Modbus communications
- Internal data logger
- 0 - 90° installation orientation
- Remote firmware upgrades
- Remote diagnostics

Options

- H4 wiring box
- Shade cover
- DC combiners bypass
- Web-based monitoring



Yaskawa Solectria Solar's PVI 50TL and PVI 60TL are grid-tied, transformerless three-phase inverters designed for ground mount, rooftop and carport arrays and can be installed from 0 - 90 degrees. The PVI 50/60TL inverters are NEC 2014 compliant and are the most reliable, efficient and cost effective in their class. They come standard with AC and DC disconnects, three MPPTs, a 15-position string combiner, remote diagnostics, remote firmware upgrades and various protection features. Options include H4 wiring box, shade cover, DC combiner fuse bypass, and web-based monitoring.

PVI 50TL & PVI 60TL

Specifications

	PVI 50TL	PVI 60TL
DC Input		
Absolute Maximum Open Circuit Voltage		1000 VDC
Maximum Power Input Voltage Range (MPPT)	480-850 VDC	540-850 VDC
Operating Voltage Range		200-950 VDC
MPP Trackers		3
Maximum Operating Input Current	36 A per MPPT (108 A)	38 A per MPPT (114 A)
Maximum Available PV Current (Isc x 1.25)		60 A per MPPT (180 A)
Maximum PV Power	75 kW (25 kW per MPPT)	90 kW (30 kW per MPPT)
Start Voltage		330 V
AC Output		
Nominal Output Voltage		480 VAC, 3-Ph/PE/N
AC Voltage Range (Standard)		-12/+10%
Continuous Output Power	50 kW	60 kW
Maximum AC Apparent Power	55 kVA	66 kVA
Maximum Output Current	66.2 A	79.4 A
Nominal Output Frequency		60 Hz
Output Frequency Range		57-63 Hz
Power Factor		Unity, >0.99 (Adjustable 0.8 leading to 0.8 lagging)
Fault Current Contribution (1 Cycle RMS)		55 A
Total Harmonic Distortion (THD) @ Rated Load		<3%
AC Surge Protection		Type II MOV, 1240Vc, 15kA I _{tm} (8/20μ)
Performance		
Peak Efficiency		99.0%
CEC Efficiency		98.5%
Tare Loss		< 2 W
Ambient Temperature Range	-22°F to +140°F (-30°C to +60°C); Derating occurs over +122°F (+50°C)	
Storage Temperature Range	No low temp minimum to +158°F (+70°C)	
Relative Humidity (non-condensing)		0-95%
Audible Noise		< 60 dba @ 1 m at room temperature
Operating Altitude	13,123 ft (4,000 m) Derating occurs from 9,842.5 ft (3,000 m)	
Safety Listings & Certifications	UL 1741:2010, UL1699B, CSA-C22.2 #107.1, IEEE1547; FCC Part 15; UL 1741SA, CA Rule 21	
Testing Agency	ETL	
Mechanical		
15 Fused Positions (5 positions per MPPT)	15 A standard (20, 25, 30 A accepted*)	
AC/DC Disconnect	Standard, fully-integrated	
Enclosure Rating	NEMA Type 4X	
Enclosure Finish	Polyester Powder Coated Aluminum	
Mounting Method**	0-90° from horizontal (vertical, angled, flat)	
Dimensions (H x W x D)	39.4 in. x 23.6 in. x 10.2 in (1000 x 600 x 260 mm)	
Weight	Inverter: 123.5 lbs (56 kg); Wiring Box: 33 lbs (15 kg)	
Communications		
Data Logger Hardware	Standard, Internal	
SolrenView Web-Based Monitoring Service	Optional	
Revenue Grade Metering	Optional, External	
Communication Interface	RS-485 Modbus RTU	
Remote Firmware Upgrades	Standard	
Remote Diagnostics	Standard	
Features & Protections		
Arc-Fault Detection	Standard	
Smart Grid Features	L/HVRT, L/HFRT, Soft Start, Volt-Var, Frequency-Watt and Volt-Watt, Soft-Start, Soft-Step	
Warranty		
Standard	10 year	
Optional	15 or 20 year; Extended Service Agreement	

*Yaskawa Solectria Solar does not supply the optional fuses

**Shade cover accessory required for installation of 75° or less

SOLECTRIA SOLAR

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