

Venus Series Single-phase String Inverters

PV-3000 / 3680 / 4000 / 4600 / 5000TL-DS

- ◇ Exquisite
- ◇ Trustworthy
- ◇ Intelligent
- ◇ Profitable



FEATURES

- Components from world class suppliers
- Automotive class PCB technology
- Optimized thermal design
- Silicone Rubber Gaskets & Seals
- Integrated enclosure design
- Integrated air valve
- 1000 hours of neutral salt spray testing
- User friendly interface
- Intelligent monitoring system

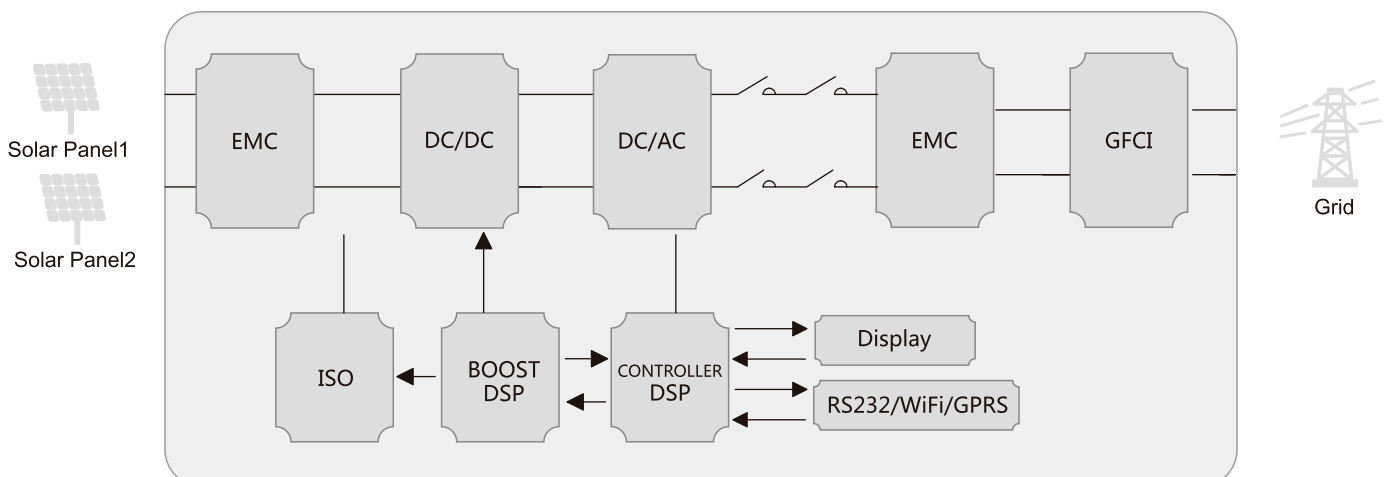
ADVANTAGES

- Longer MTBF (Mean Time Between Failures)
- Higher quality guaranteed
- Lower heat generation
Faster heat dissipation
- High performance sealing
- High performance sealing possible
Less chance of moisture invasion
- Reduction of condensation
- Suitable for harsh environments
- Easy to operate
- Easy to manage and maintain

BENEFITS

- More electricity output
Less down time
- Reliable and stable under severe conditions
- Lower internal operation temperature
Longer component life
- Reliable and stable under severe conditions
- Suitable for humid operation environments
- Operationable in more applications: fishing ponds, agricultural area, greenhouses, coastal areas
- Easy installation and maintenance possible
- Data analysis
Less maintenance

CIRCUIT DIAGRAM



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TECHNICAL DATA

MODEL	PV-3000TL-DS	PV-3680TL-DS	PV-4000TL-DS	PV-4600TL-DS	PV-5000TL-DS
Input (DC)					
Max. DC Power	3200W	4000W	4500W	5000W	5500W
Max. Input Voltage	600V	600V	600V	600V	600V
MPP Operation Voltage Range/Nominal Input Voltage	100V-550V/380V	100V-550V/380V	100V-550V/380V	100V-550V/380V	100V-550V/380V
Startup Voltage	80V	80V	80V	80V	80V
Max. Input Current per String	10A/10A	10A/10A	10A/10A	10A/10A	10A/10A
Short-circuit Current	12A/12A	12A/12A	12A/12A	12A/12A	12A/12A
Number of Independent MPP Inputs	2	2	2	2	2
Max. Inverter Backfeed Current to Array	0A	0A	0A	0A	0A
Output (AC)					
Rated Power	3000W	3680W	4000W	4600W	5000W
Max. Apparent AC Power	3000VA	3680VA	4000VA	4600VA	5000VA
Nominal AC Voltage	220V/230V/240V	220V/230V/240V	220V/230V/240V	220V/230V/240V	220V/230V/240V
Nominal AC Voltage Range	180V-277V	180V-277V	180V-277V	180V-277V	180V-277V
AC Power Frequency	50Hz/60Hz/±5Hz	50Hz/60Hz/±5Hz	50Hz/60Hz/±5Hz	50Hz/60Hz/±5Hz	50Hz/60Hz/±5Hz
Max. Output Current	13.6A	16.7A	18.2A	20.9A	22.7A
Power Factor	0.8 ind...0.8 cap				
Total Harmonic Distortion (THD)	<3%	<3%	<3%	<3%	<3%
Feed-in Phases/Connection Phases	L+N+PE	L+N+PE	L+N+PE	L+N+PE	L+N+PE
Inrush Current(peak and duration)	62.5A peak@7.12ms	63.1A peak@6.90ms	78.1A peak@7.06ms	78.8Apeak@7.12ms	84.4Apeak@6.86ms
Max. Output Fault Current	14.6A	17.7A	19.2A	21.9A	23.7A
Max. Output Over Current Protection	17.7A	21.7A	23.7A	27.2A	29.5A
Efficiency					
Max. Efficiency	97.3%	97.4%	97.5%	97.6%	97.6%
European Weighted Efficiency	96.8%	96.9%	97.0%	97.1%	97.1%
Protective Devices					
DC Reverse Polarity Protection	Yes				
DC Switch	Optional				
AC Over Current Protection	Yes				
Ground Fault Monitoring	Yes				
Grid Monitoring	Yes				
Residual Current Monitoring Unit	Yes				
General Data					
Dimensions (W / H / D)	368*403*150mm				
Weight	15.8 kg				
Operating Temperature Range	-25°C...+60°C				
Noise Emission (typical)	<=30dB(A)				
Max. Operating Altitude	>2000m derating				
Standby Losses	<3W				
Topology	Transformerless				
Cooling Concept	Natural Convection				
Degree of Protection (according to IEC 60529)	IP 65				
Relative Humidity	0-95%, no condensation				
DC Connection Type	MC/Amphenol/Phoenix				
AC Connection Type	Plug-in Connector				
Display	LCD Light				
Interface	RS 232 (WiFi/GPRS Optional)				
Warranty	5/10 years(Optional)				
Certificates and approvals	IEC62109-1/-2, EN61000-6-2, EN61000-6-3, CE, AS4777.2-2015, VDE4105, EN50438, VDE0126, C10/11, IEC61727, IEC62116, IEC61683, IEC60068, CQC				

*The AC voltage and frequency range may vary due to local regulations.