

Global Network

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TMEiC
We drive industry

SOLAR WARE Samurai Series

Up to 2700kW, 1500V



The world's first 1500VDC
PV inverter certified to UL1741

SOLAR WARE® SAMURAI

Three Power Classes

- 2700 kW – 2700 kVA (1500 V)
- 2500 kW – 2500 kVA (1500 V)
- 1833 kW – 2000 kVA (1000 V)

1500Vdc Series

- UL 1741 Certified
- Reduces cable mass to minimize cost & enhance flexible plant design
- Reduces combiner box and number of inverters
- Fewer cables needed between combiner box & inverter

Award Winning Central Inverters for the Solar Industry

- Advanced multilevel inverter - 56% of switching loss reduction
- Maximized and optimized efficiency at high load
- Wide MPPT range allowing for best in class DC/AC Ratios
- Flexible DC-input configuration to meet complex array configuration

Maximize Revenue & Improve ROI

- High-yield power generation – Maximum efficiency of 99%
- High-efficiency in any weather
- Realize large capacity with fewer inverters
- Reduce site work and BOS investment

Grid Connection Features

TMEIC developed the grid connection features working with Japanese power companies. All of TMEIC's utility scale inverters include the latest interconnection technology. These features include:

- Power factor control
- Reactive/Active power control
- TMEIC's proprietary anti-islanding technique utilizes a slip mode frequency shift method
- Advanced Fault Ride Through Features

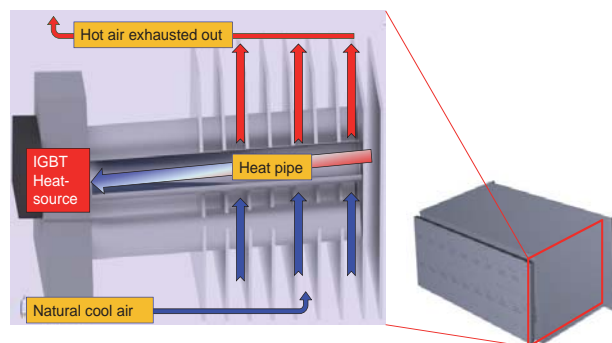
Advanced Hybrid Cooling System

The first heat pipe air-cooled PV inverter

Utilizing TMEIC heat pipe technology, the inverter runs without fan operation up to 50% load. Heat-pipe cooling significantly simplifies thermal management, because it uses fewer parts and only a slow-speed fan with a heat pipe heat sink. TMEIC's advanced hybrid cooling solution:

- Simple & Robust
- High Reliability
- Significantly reduces O&M costs
- Small Footprint

The Fan-less mode runs when the inverter is below 50% load @ 50°C. Natural convection provides necessary cooling. Cool air enters from the bottom, flows through the heat pipe, and hot air is exhausted from the top.



SPECIFICATIONS

Type		PVL-L0833GR	PVL-L1833GRQ	PVL-L1833GRM	PVH-L2500GR	PVH-L2700GR
Output side (AC)	Rated Power	833 kW	1667 kW	1833 kW/2000 kVA	2500 kW/2500 kVA	2700 kW/2700 kVA
	Rated Voltage (3-phase)	418V +10%, -12%	418V +10%, -12%	418V +10%*1	550V +10%*1	600V +10%*1
	Rated Frequency	60/50 Hz (+0.5 Hz, -0.7 Hz)	60/50 Hz (+0.5 Hz, -0.7 Hz)	60/50 Hz (+0.5 Hz, -0.7 Hz)	60/50 Hz	60/50 Hz
	Power Factor	0.91 Lead/Lag	0.91 Lead/Lag	0.92 Lead/Lag	0.92 Lead/Lag*4	0.926 Lead/Lag*4
	Rated Current	1265 Arms	2533 Arms	2762 Arms	2624 Arms	2598 Arms
	Maximum Current	1438 Arms	2877 Arms	2762 Arms	2624 Arms	2598 Arms
	Maximum Eff.	99%	99%	99%	98.8%	98.8%
	CEC Efficiency	98.5%	98.5%	98.5%	98.5%	98.5%
Environ. Conditions	Maximum Voltage	1000 Vdc	1000 Vdc	1000 Vdc	1500 Vdc	1500 Vdc
	MPPT Operation Range	605 Vdc ~ 950 Vdc*2	605 Vdc ~ 950 Vdc*2	605 Vdc ~ 950 Vdc	800 Vdc ~ 1300 Vdc	875 Vdc ~ 1300 Vdc
	Ingress Protection Ratings	NEMA3R	NEMA3R	NEMA3R	NEMA3R	NEMA3R
	Installation	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor
Protective Functions	Amb. Temp. Range	-20°~55°C (-4°~131°F) Derate from 50°-55° C*3				
	Max. Altitude	2000 m (contact TMEIC for ratings above 2000 m)				
	Input (DC) Side	Ground Fault, DC Reverse Current, Over Voltage, Over Current				
User Interface	Grid (AC) Side	Anti-islanding, Over/Under Voltage, Over/Under Frequency, Over Current				
	Grid Assistance	Reactive/Active Power Control, Power Factor Control, Fault Ride Through (optional)				
Fault Analysis	User Interface	LCD (3.8 inch, QVGA) with Touch-Screen				
	Communication	Modbus/TCP				
Compliance	UL1741/CSA; 107.1/IEEE1547; NEC standard					
Cooling Method	Advanced Hybrid Cooling					
Standard Number of Inputs	1	1	1	1	1	
Standard Control Power Supply	Control Power Supply from Inverter output and Capacitor backup circuit (3 sec. compensation)					
Weight	7940 lbs (3600kg)	11,500 lbs (5200 kg)	11,500 lbs (5200 kg)	13,228 lbs (6000 kg)	13,228 lbs (6000 kg)	
Dimensions (H x W x D)	92 x 118 x 46 inch (2286 x 3000 x 1150 mm)	92 x 197 x 46 inch (2286 x 5000 x 1150 mm)	92 x 197 x 46 inch (2286 x 5000 x 1150 mm)	92 x 197 x 46 inch (2286 x 5000 x 1150 mm)	92 x 197 x 46 inch (2286 x 5000 x 1150 mm)	
Floor Space	5,348 sq. in. (3.45m ²)	8,914 sq. in. (5.75 m ²)	8,914 sq. in. (5.75 m ²)	8,914 sq. in. (5.75 m ²)	8,914 sq. in. (5.75 m ²)	
Color	Cabinet: Sand White #Dic583, Roof: Gray #Munsel N4.5					

Notes:

- *1 Full power available at and above nominal voltage. Derate will apply below nominal voltage.
- *2 Transition from constant DC voltage mode to MPPT mode occurs between 595V and 605V.
- *3 Contact a TMEIC Sales Manager for detailed temperature-related derates.
- *4 Available PF range with reduction in active power.