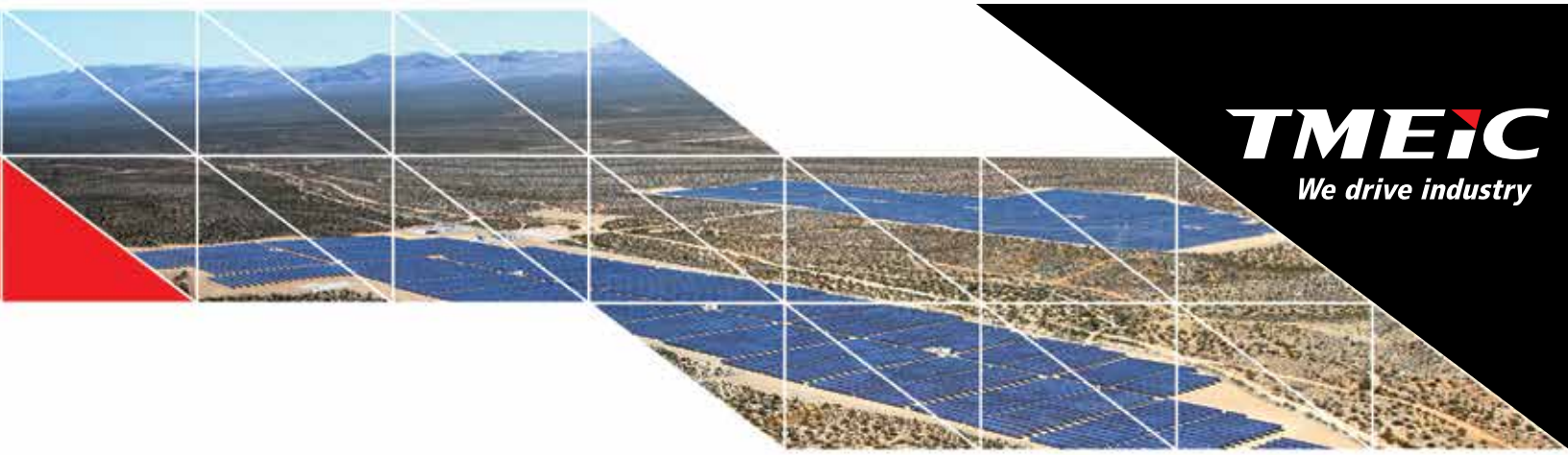

TMEiC
We drive industry

Solar Ware Ninja™

PV and Energy Storage Solutions

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Multiple Configurations for Maximum Flexibility

TMEIC's Solar Ware Ninja is the latest evolution of the highly successful Solar Ware family of inverters, joining over 43GW of TMEIC's globally installed photovoltaic inverters. Continuing the legacy of high efficiency, cutting-edge features, and unmatched reliability, the new Ninja modular inverter system is the culmination of input from utilities, developers, and technicians.

The Ninja is a global product, performing the duties of both generation and energy storage. The modular system introduces multiple layers of flexibility to allow designers an almost unlimited number of options for every project. The advanced controls system is packed with features to meet not only today's smart inverter requirements, but also new requirements as they are introduced. Like the award-winning Samurai series of inverters, the Ninja utilizes the same highly reliable IGBT based power conversion system.

Solar Ware Ninja™

		PV-PCS		
Type		PVU-L0800GR-2	PVU-L0840GR-2	PVU-L0880GR-2
Output side (AC)	Rated Power@25°C	800kW	840kW	880kW
	Rated Power@50°C	730kW	765kW	800kW
	Rated Voltage	600V +10%, -12%	630V +10%, -12%	660V +10%, -12%
	Rated Frequency	50Hz / 60Hz (+0.5Hz, -0.7Hz)		
	Rated Power Factor	>0.99		
	Reactive Capability	±421 kVAR	±442 kVAR	±464 kVAR
	Rated Current	702 Arms @50 °C		
	Maxium Current	770 Arms @25 °C		
	Maximum Efficiency	98.72%*		
	CEC Efficiency	98%*		
Input side (DC)	Maximum Voltage	1500 Vdc		
	MPPT Operation Range	875-1300VDC	915-1300VDC	960-1300VDC
Environ. Conditions	Ingress Protection Ratings	NEMA3R		
	Installation	Outdoor		
	Ambient Temperature Range	-25° to 50°C		
	Altitude	Full power up to 2000 meters. Consult TMEIC for altitude above 2000 meters		
Protective Functions	Input (DC) Side	DC Protection: Input Fuses (see below for available sizes), Ground Fault Detection, DC Reverse Current, Over Voltage, Over Current		
	Input Fuses	160 - 500A		
	Grid (AC) Side	AC protection and isolation: Fuse and Contactor, Anti-islanding, Over/Under Voltage, Over/Under Frequency, Over Current		
	Grid Assistance	Reactive/Active Power Control, Power Factor Control, Fault Ride Through (optional)		
Harmonic Distortion of AC Current		≤ 3% THD (at rated power)		
Communication		Modbus/TCP		
Fault Analysis		Fault Event Log, Waveform Acquisition via memory card		
Compliance		UL1741, UL1741SA / IEEE1547 / NEC2020 / IEC62109-1,2 / IEC61000-6-2,4 / IEC61727, IEC62116 / IEC61400, BDEW / IEC61683 / IEC60068		
Cooling Method		Heat Pipes and Forced Air Cooling		
Number of Inputs		Up to 6 inputs per inverter		
Standard Control Power Supply		Control Power Supply from Inverter output and Capacitor backup circuit (3 sec. compensation)		
Short Circuit Withstand Current		AC side : 65kA; DC side : 30kA		
Weight		<1000kgs		
Dimensions (H x W x D)		1991 X 1100 X 1100 mm (H x W x D)		
Floor Space		1875.5 sq. in. (1.21 m^2)		
Color		Cabinet: Munsell N7.0, Roof: Munsell N4.5		

Note: Standard configuration not limited configuration. Contact TMEIC for detailed information.
*CEC efficiency based on testing done on 840kW inverter

		ESS-PCS		
Type		BSU-L0640GR	BSU-L0800GR	BSU-L0840GR
Output side (AC)	Rated Power@25°C	640kW	800kW	840kW
	Rated Power@50°C	550kW	730kW	765kW
	Rated Voltage	480V +10%, -12%	600V +10%, -12%	630V +10%, -12%
	Rated Frequency	50Hz / 60Hz (+0.5Hz, -0.7Hz)		
	Rated Power Factor	>0.99		
	Reactive Capability	±448 kVAR	±560 kVAR	±588 kVAR
	Rated Current	702 Arms @50 °C		
	Maxium Current	770 Arms @25 °C		
	Maximum Efficiency	98.72%*		
	CEC Efficiency	98%*		
Input side (DC)	Maximum Voltage	1500 Vdc		
Environ. Conditions	Ingress Protection Ratings	NEMA3R		
	Installation	Outdoor		
	Ambient Temperature Range	-25° to 50°C		
	Altitude	Full power up to 2000 meters. Consult TMEIC for altitude above 2000 meters		
Protective Functions	Input (DC) Side	DC Protection: Input Fuses, Ground Fault Detection, DC Reverse Current, Over Voltage, Over Current		
	Input Fuses	Up to 1100A		
	Grid (AC) Side	AC protection and isolation: Fuse and Contactor, Anti-islanding, Over/Under Voltage, Over/Under Frequency, Over Current		
	Grid Assistance	Reactive/Active Power Control, Power Factor Control, Fault Ride Through (optional)		
Harmonic Distortion of AC Current		≤ 5% THD (at rated power)		
Communication		Modbus/TCP		
Fault Analysis		Fault Event Log, Waveform Acquisition via memory card		
Compliance		UL1741, UL1741SA / IEEE1547 / NEC2020 / IEC62109-1,2 / IEC61000-6-2,4 / IEC61727, IEC62116 / IEC61400, BDEW / IEC61683 / IEC60068		
Cooling Method		Heat Pipes and Forced Air Cooling		
Number of Inputs		1 per Inverter		
Standard Control Power Supply		Control Power Supply from Inverter output and Capacitor backup circuit (3 sec. compensation)		
Short Circuit Withstand Current		AC side : 65kA; DC side : 100kA		
Weight		<1000kgs		
Dimensions (H x W x D)		1991 X 1100 X 1100 mm (H x W x D)		
Floor Space		1875.5 sq. in. (1.21 m^2)		
Color		Cabinet: Munsell N7.0, Roof: Munsell N4.5		

Note: Standard configuration not limited configuration. Contact TMEIC for detailed information.
*CEC efficiency based on testing done on 840kW inverter

Customizable Block

Up to 6 Ninja units on the same skid. Able to combine PV and ESS inverters in the same lineup. A skid controller will manage output of the Ninja power station.

- Fully Modular design means:
  - Completely independent inverters for increased availability
  - Individual MPPT for greater energy yield
  - Latest generation of Smart Inverter controls platform
  - 640kW-5280kW integrated skid sizes
- DC Zone monitoring is standard
- UL or IEC certified global design
- PV or Energy Storage (bi-directional)
- Outdoor rated enclosure

TMEIC is Bankable

- Stable, with multi-billion $USD revenue
- Diversified, with decades of power electronics experience in a variety of heavy industries, including metals, oil & gas, mining, and container cranes industries
- Manufacturing in the US and several other locations

TMEIC is Reliable

- Over 43GW of PV and ESS inverters globally
- Own exclusive use of Mitsubishi Electric's 3 level NPS technology
- Industry-leading fleet availability

TMEIC is Support

- Interconnect Application and Modeling Support
- 24/7 US-based hot line
- Over 30 years PV inverter manufacturing and R&D experience
- Comprehensive customer training programs
- Authorized Service Provider program available

Round The Clock

For Service Call
877-280-1835

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+1 540-283-2010

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