

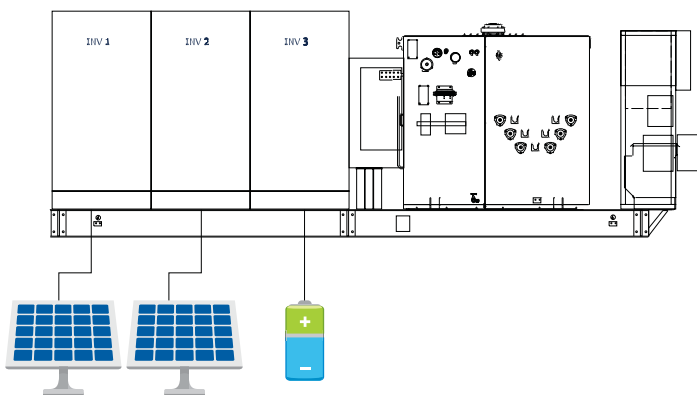
# Solar Ware Ninja™

**TMEiC**  
We drive industry

## 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 14GW 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.

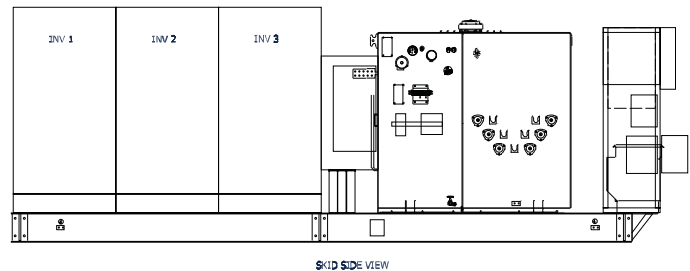
The Ninja is a global product, performing the duties of both generation and energy storage. The modular system introduces multiple layers of flexibility to allow designers an almost unlimited number of options for every project. The advanced controls system is packed with features to meet not only today's 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.



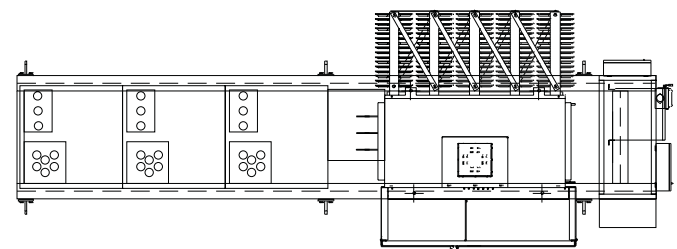
### Customizable Block

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
  - Multiple output options with various MPPT ranges
- DC Zone monitoring is standard
- UL or IEC certified global design
- PV or Energy Storage (bi-directional)
- Outdoor rated enclosure



SKID SIDE VIEW



PLAN VIEW PRELIMINARY CONCEPT

### 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 14GW of PV and ESS inverters globally
- Own exclusive use of Mitsubishi Electric's 3 level NPS technology
- Industry leading fleet availability

### TMEiC is Support

- Award winning service
- 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

# Solar Ware Ninja™

		PV-PCS			
Type		PVU-L0800GR	PVU-L0840GR	PVU-L0880GR	PVU-L0920GR
Output side (AC)	Rated Power@25°C	800kW	840kW	880kW	920kW
	Rated Power@50°C	730kW	765kW	800kW	840kW
	Rated Voltage	600V +10%, -12%	630V +10%, -12%	660V +10%, -12%	690V +10%, -12%
	Rated Frequency	50Hz / 60Hz (+0.5Hz, -0.7Hz)			
	Rated Power Factor	>0.99			
	Reactive Capability	+/- 421 kVAR	+/- 442 kVAR	+/- 464 kVAR	+/- 485 kVAR
	Rated Current	702 Arms @50 °C			
	Maximum Current	770 Arms @25 °C			
	Maximum Efficiency	98.9% *Tentative			
	CEC Efficiency	98.5% *Tentative			
Input side (DC)	Maximum Voltage	1500 Vdc			
	MPPT Operation Range	875-1300VDC	915-1300VDC	960-1300VDC	1005-1300VDC
Environ. Conditions	Ingress Protection Ratings	IP54 / NEMA3R			
	Installation	Outdoor			
	Ambient Temperature Range	-25° to 50°C			
	Maximum Altitude	>2000 m power derating (Max. 4000m)			
Protective Functions	Input (DC) Side	DC Protection: Fuses Ground Fault, DC Reverse Current, Over Voltage, Over Current			
	Grid (AC) Side	AC Protection: MCCB and Fuse 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, UL1745A / IEE1547 / NEC2017 / IEC62109-1,2 / IEC61000-6-2,4 / IEC61727, IEC62116 / IEC61400, BDEW / IEC61683 / IEC60068 *Tentative			
Cooling Method		Forced Air Cooling			
Number of Inputs		Standard 6 inputs for PV (maximum 8 per inverter)			
Standard Control Power Supply		Control Power Supply from Inverter output and Capacitor backup circuit (3 sec. compensation)			
Weight		<1000kgs *Tentative			
Dimensions (H x W x D)		1100 X 1100 X 1900 mm (L x W x H)			
Floor Space		1875.5 sq. in. (1.21 m <sup>2</sup> )			
Color		Cabinet: Sand White #Dic583			

[WWW.TMEIC.COM](http://WWW.TMEIC.COM)