

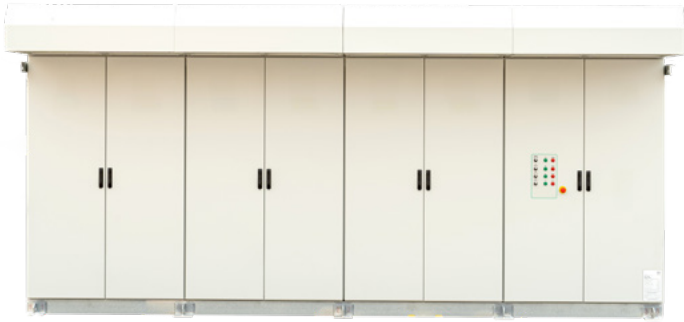
Photovoltaic Inverter (PVI)

Complete photovoltaic inverter stations for challenging grid codes
utility-scale solar plants



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- Advanced control and power capabilities, designed to meet complex technical requirements and the most challenging grid codes.
- Optimal design for AC-coupled solar + storage applications.
- Easy integration to the grid and low power consumption.
- Ancillary services capabilities (FRS, VRS, RR, ...) based on the most advanced control algorithms, including the virtual battery mode for spinning reserve.

Fast Dynamic Response

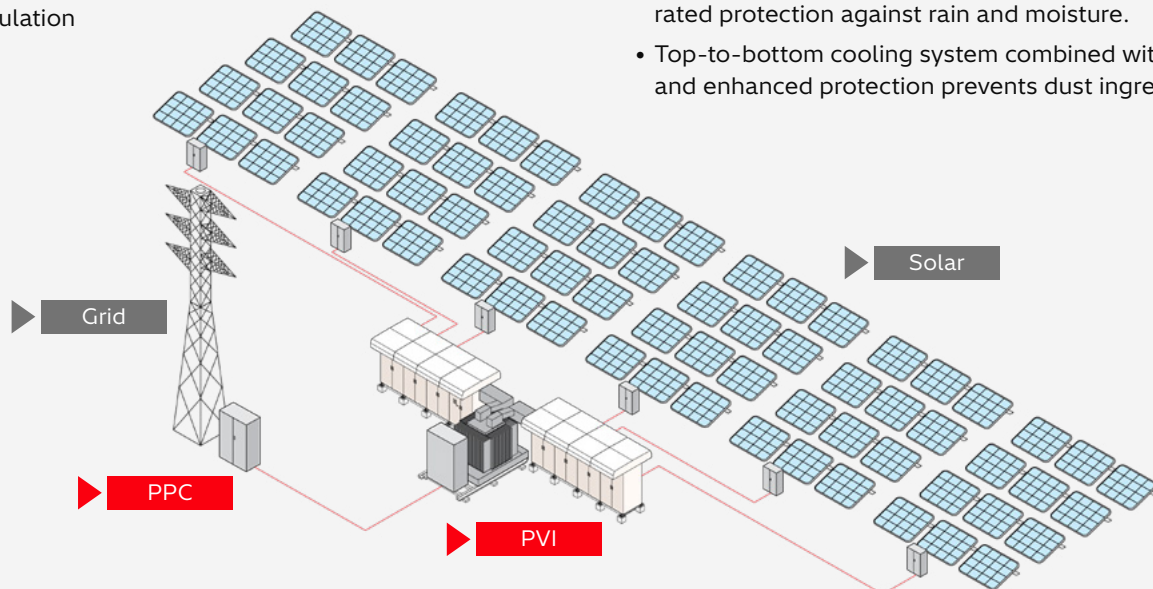
Provides advanced power management, including:

- Voltage Support
- Islanding
- Grid Inertia
- Limited Frequency Regulation
- Limited Capacity Firming
- Ramp rate

Harsh Environments

Platform reliability under extreme conditions:

- Ability to perform in high altitude mountain regions up to 4000 MASL.
- Internal electronics and components are coated for resistance to corrosive, salt-intensive conditions.
- Sealing elements and standard enclosures with IP65 rated protection against rain and moisture.
- Top-to-bottom cooling system combined with filters and enhanced protection prevents dust ingress.



Model		TECHNICAL SPECIFICATIONS PVI		
	PVI REFERENCES	PVI-3M-WD3-V690	PVI-3M-WD3-V620	PVI-3M-WD3-V530
AC	Nominal AC voltage [Vac] (1)	690 ±15%	620 ±15%	530 ±15%
	Rated AC power [kW/kVA] @ 95°F/35°C (2)	4.761	4.349	3.717
	Rated AC power [kW/kVA] @ 122°F/50°C (2)	4.266	3.897	3.331
	Maximum output current @ 95°F/35°C (2)	4.524	4.536	4.465
	Total Current Demand Distortion (TDD)		<3%	
	Power factor (3)		Adjustable	
	Efficiency Maximum / Euroeta / CEC [%] (4)	98,6 / 98,3 / 98,5 (5)	98,5 / 98,3 / 98,4 (5)	98,5 / 98,3 / 98,4 (5)
DC	MPP Voltage range @ full power [Vdc] (2)	987-1250	887-1250	758-1250
	Max. DC voltage [Vdc]		1500	
	Number of MMPT Inputs		3	
	Rated input current at Vdc_min [A] @35°C		3 x 1600	
	Rated input current at Vdc_min [A] @50°C		3 x 1440	
	Max. Short circuit input current [A] (6)		3 x 4800	
	Number of DC Inputs		3 Busbar with up to 12	
COMMON FEATURES				
Protections	General AC Protection & Disconn		AC circuit breaker	
	General DC Protection & Disconn		DC load break switch	
	DC Overvoltage Protection		SPD (type 2)	
	Ground-fault monitoring		Yes	
	Insulation monitoring		Yes	
	Lightning protection		Optional (SPD type 1+2)	
	DC Input fuse protection (7)		Fuses	
Cabinet	Dimensions [WxDxH]		5212 x 2190 x 2460 mm	
	Weight		~7 tn	
	Type of Ventilation		Forced air cooling	
Environment	Degree of Protection (8)		IP65	
	Operation ambient temperature		From -4°F to 140°F (-20°C to 60°C), derating >95°F (35°C)	
	Maximum relative humidity		100%	
	Max. altitude above sea level		4000 masl, derating >1000 masl	
	Storage and transport temperature		From -40°F to 149°F (-40°C to 65°C)	
Certifications & Standards (9)	Storage and transport humidity		From 5% to 85%	
	IEEE 1547-2018, UL 1741 - SA & SB, IEC 62477			
	IEC 62109-1, IEC 62109-2, IEC62109			
	IEC 61000-3-4, IEC 61000-3-11, IEC 61000-3-12, IEC 61000-6-4			
	IEC 60529			
	CE Marking			
	NEC Compliance			

(1) Other voltage configurations are possible under request.

(2) Values at nominal AC voltage and $\cos\phi=1$, $f=60\text{Hz}$. Consult for derating curves.

(3) Consult for capability curves.

(4) Self-consumption is not considered in the efficiency measurement.

(5) Depending on the transformer model required, standby losses and auxiliary power consumption may vary.

(6) Higher values under request

(7) Different DC fuse sizes are available

(8) Lower protection -IP54- is also available

(9) Other applicable standards/grid codes are possible