

STORAGE

PCS Ready Power Converter Stations



PCS Ready

Bidirectional converter, optimized for integration of the latest ESS devices into electrical grids
With quick dynamic response, featured to provide advanced active power management under highly demanding environments (Ramp Rate, Frequency Response, Energy Shifting..)

Fast Dynamic Response

Provides advanced power management, including:

- Load Leveling
- Frequency Regulation
- Capacity Firming
- Peak Shaving
- Voltage Support
- Islanding- Grid Forming
- Black Start
- Grid Inertia

Harsh Environments

Filters to avoid dust entrance combined with top-quality components that enable us to work in any possible scenario:
Effective operating conditions in remote high-altitude.
Coating on internal components and electronics to resist corrosive saline conditions.
Sealing elements and standard IP54 enclosure.
Protection against rain and humidity.

Shaping the energy of tomorrow



		BESS Voltages up to 1250 Vdc		
	PCS REFERENCES	PCS-3M-WD3-V690	PCS-3M-WD3-V620	PCS-3M-WD3-V530
AC	Nominal AC voltage [Vac] (1)	690 ±15%	620 ±15%	530 ±15%
	Rated AC power [kW/kVA] @ 95°F/35°C @Vdc min (2)	4.761	4.349	3.717
	Rated AC power [kW/kVA] @ 122°F/50°C @Vdc min (2)	4.266	3.897	3.331
	Maximum output current @ 95°F/35°C @Vdc min (2)	4.591	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	SoC Voltage range @ full power [Vdc] (2)	987-1250	887-1250	758-1250
	Max. DC voltage [Vdc]	1,500		
	Rated input current at V_{DC_min} [A] @35°C	3 x 1600		
	Rated input current at V_{DC_min} [A] @50°C	3 x 1440		
	Withstand current [A] (6)	3 x 80kA/50ms 3 x 120kA/4ms		
	Number of Separate DC Inputs	3		
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)	Optional (8)		
Cabinet	Dimensions [WxDxH]	5212 x 2190 x 2460 mm		
	Weight	~7 tn		
	Type of Ventilation	Forced air cooling		
Environment	Degree of Protection (9)	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)		
Storage and transport humidity	From 5% to 85%			
Certifications & Standards (10)	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			
Notes	(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) Battery short-circuit isolation must be provided on the battery side with ultra-fast battery fuses. String or group fuses, e.g. fuse type aR/aBat & DC time constant $\tau (L/R) \leq 1\text{ms}$ (9) Lower protection -IP54- is also available (10) Other applicable standards/grid codes are possible			