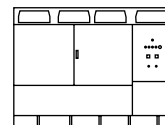


Multi PCSK

Modularity.
Easy maintenance.
Up to 4 independent DC inputs.
Advanced grid support.
Compatible with all battery technologies.



Freemaq Multi PCSK



Preliminary

690 V

FRAME		2	3	4	
REFERENCES		FP2510K2	FP3765K3	FP5020K2	FP5020K4
AC	AC Output Power (kVA/kW) @35 °C ^[1]	2510	3765	5020	
	AC Output Power (kVA/kW) @40 °C ^[1]	2400	3600	4800	
	AC Output Power (kVA/kW) @50 °C ^[1]	2180	3270	4360	
	Max. AC Output Current (A) @35 °C	2100	3150	4200	
	Operating Grid Voltage (kV)	690 V ±10%			
	Operating Grid Frequency (Hz)	50 / 60 Hz			
	Current Harmonic Distortion (THDi)	<3% per IEEE 519			
	Power Factor (CosPhi) ^[2]	0.5 leading... 0.5 lagging			
	Reactive Power Compensation	Four quadrant operation			
	DC	DC Voltage Range Full Power ^[3]	976 V – 1500 V		
Maximum DC Voltage		1500 V			
DC Voltage Ripple		<3%			
Max. DC Continuous Current (A)		1312	1312	2624	1312
Max. DC Short Circuit Current (kA)		500 kA with a time constant of 1 ms			
Battery Technology		All type of batteries (BMS required)			
EFFICIENCY & AUX. SUPPLY	Efficiency (Max) (η)	98.84%	98.87%	98.94%	
	CEC (η)	98.34%	98.49%	98.51%	
CABINET	Dimensions [WxDxH] (ft)	9.8 x 6.5 x 7.5			
	Dimensions [WxDxH] (m)	3.0 x 2.0 x 2.3			
	Weight (lbs)	8600	9700	10365	
	Weight (kg)	3900	4400	4700	
	Type of Ventilation	Forced air cooling			
	ENVIRONMENT	Degree of Protection	NEMA 3R / IP55		
Operating Temperature Range ^[4]		From -25 °C to +60 °C, >35 °C power derating			
Operating Relative Humidity Range		From 4% to 100% non-condensing			
Storage Temperature Range		From -40 °C to +60 °C			
Max. Altitude (above sea level) ^[5]		2000 m / >2000 m power derating (max. 4000 m)			
CONTROL INTERFACE		Communication Protocol	Modbus TCP		
	Power Plant Controller	Optional			
	Keyed ON/OFF Switch	Standard			
PROTECTIONS	Ground Fault Protection	Insulation monitoring device			
	Humidity Control	Active heating			
	General AC Protection & Disconnection	Circuit breaker			
	General DC Protection & Disconnection	High-speed fuses, Motorized DC disconnect switches ^[6]			
	Overvoltage Protection	Type 2 for AC and Type 1+2 for DC			
CERTIFICATIONS & STANDARDS	Safety	UL 1741 / CSA 22.2 No.1071-16 / IEC 62109-1 / IEC 62109-2 / IEC 62477-1			
	Installation	NEC 2023			
	Utility Interconnect ^[7]	UL 1741 SA & SB / IEEE 1547.1 / IEC 62116 / G99 / VDE 4110-4120-4130 / CEI 0-16 / NTS 2.1 / EN 50549			

NOTES

- [1] Values at 1.00-Vac nom and CosPhi=1.
Consult Power Electronics for derating curves and overload capability in grid forming mode.
- [2] Consult P-Q charts available: $Q(kVar) = \sqrt{(S(kVA))^2 - P(kW)^2}$.
- [3] Consult Power Electronics for derating curves. In the event of overvoltage in the grid, the minimum DC voltage will vary proportionally with the AC voltage.
- [4] Optional available for temperatures down to -35 °C.
- [5] Consult Power Electronics for altitudes above 1000 m.
- [6] Battery short circuit disconnection must be done on the battery side.
- [7] Consult Power Electronics for other applicable standards / grid codes.