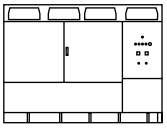
PCSK

Modularity.
Easy maintenance.
Advanced grid support.
Compatible with all battery technologies.



Freemaq PCSK



720 V

REFERENCES		FP4998K	FP5150K
AC	AC Output Power @30 °C [1]	5360 kVA / 4999 kW	5360 kVA / kW
	AC Output Power @35 °C [1]	5150 kVA / 4999 kW	5150 kVA / kW
	AC Output Power @40 °C [1]	4940 kVA / kW	
	AC Output Power @50 °C [1]	4520 kVA / kW	
	Max. AC Output Current @30 °C	4298 A	
	Operating Grid Voltage	720 V ±10%	
	Operating Grid Frequency	60 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	
	Overload Capability	166% - 100 ms / 150% - 5 s / 120% - 8 s / 110% - 15 s	
DC	DC Voltage Range [3]	1019 V – 1500 V	
	Maximum DC Voltage	1500 V	
	DC Voltage Ripple	<3%	
	Max. DC Continuous Current	5367 A	
	Max. DC Short Circuit Current	500 kA with a time constant of 1 ms	
	Battery Technology	All type of batteries (BMS required)	
EFFICIENCY & AUX. SUPPLY	Efficiency (Max) (η)	98.95%	
	Euroeta (η)	98.51%	
	CEC (η)	98.08%	
CABINET	Footprint dimensions [WxDxH]	9.8 x 6.5 x 7.5 ft	
	Footprint dimensions [WxDxH]	3.0 x 2.0 x 2.3 m	
	Weight	10365 lbs	
	Weight	4700 kg	
	Type of Ventilation	Forced air cooling	
ENVIRONMENT	Degree of Protection	NEMA 3R / IP55	
	Operating Temperature Range	From -40 °C to +60 °C, >30 °C power derating (optional below -25 °C)	
	Operating Relative Humidity Range	From 4% to 100%	
	Storage Temperature Range	From -40 °C to +60 °C	
	Max. Altitude (above sea level)	2000 m / >2000 m power derating (max. 4000 m)	
CONTROL	Communication Protocol	Modbus TCP	
	Grid Forming (VISMA) / Black Start Capable	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 [4]	
	Overvoltage Protection	Type II for AC and Type I+II for DC	
STANDARDS	Safety	UL 1741 / CSA 22.2 No.107.1-16 / IEC 62109-1 / IEC 62109-2 / IEC 62477-1	
	Installation	NEC 2023	
	Utility Interconnect [5]	UL 1741 SA & SB / IEEE 1547.1 / IEC 62116 / G99 / VDE 4110-4120-4130 / CEI 0-16 / NTS 2.1 / EN 50549 / IEEE 2800	

NOTES

[1] Values at 1.00·Vac nom and CosPhi=1. Consult Power Electronics for derating curves.
[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] Battery short circuit disconnection must be done on the battery side.
[5] Consult Power Electronics for other applicable standards / grid codes.

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