

Multi PCSM

IEC

Easy maintenance.

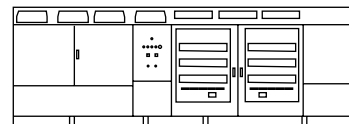
Integrated MV solution in the same enclosure.

Up to 4 independent DC inputs.

Advanced grid support.

Compatible with all battery technologies.





COMMON FEATURES

AC	Current Harmonic Distortion (THDi)	<3% per IEEE 519
	Power Factor (cos phi) ^[2]	0.5 leading ... 0.5 lagging
	Reactive Power Compensation	Four quadrant operation
DC	Maximum DC Voltage	1500 V
	DC Voltage Ripple	<3%
	Max. DC Short Circuit Current per Input (kA)	500 kA with a time constant of 1 ms
	Battery Technology	All type of batteries (BMS required)
CABINET	Dimensions [WxDxH] (ft)	21.3 x 6.5 x 7.5
	Dimensions [WxDxH] (m)	6.5 x 2.0 x 2.3
	Weight (lbs)	30865
	Weight (kg)	14000
	Type of Ventilation	Forced air cooling
ENVIRONMENT	Degree of Protection	IP55
	Operating Temperature Range ^[4]	From -25 °C to +60 °C, >40 °C power derating
	Operating Relative Humidity Range	From 4% to 100% non-condensing
	Storage Temperature Range	From -40 °C to +60 °C
CONTROL INTERFACE	Communication Protocol	Modbus TCP
	Power Plant Controller	Optional. Third party SCADA systems supported.
	Keyed ON/OFF Switch	Standard
PROTECTIONS	Ground Fault Protection	Insulation monitoring device
	Humidity Control	Active heating
	General AC Protection & Disconn.	MV switchgear (2L+V)
	General DC Protection & Disconn.	High-speed fuses, Motorized DC disconnect switches ^[6]
	Overvoltage Protection	Type II for AC and Type I+II for DC
CERTIFICATIONS & STANDARDS	Safety	IEC 62109-1 / IEC 62109-2 / IEC 62477-2

REFERENCES		FP4200MH2	FP4203MH2	FP4207MH2	FP4200MH4	FP4203MH4	FP4207MH4
AC	AC Output Power (kVA/kW) @40 °C ^[1]	4200					
	AC Output Power (kVA/kW) @50 °C ^[1]	3900					
	Operating Grid Voltage (kV)	34.5 kV ±10%	33 kV ±10%		34.5 kV ±10%	33 kV ±10%	
	Operating Grid Frequency (Hz)	60 Hz	50 Hz		60 Hz	50 Hz	
DC	DC Voltage Range ^[3]	934 V - 1500 V					
	Max. DC Continuous Current per Input (A)	2295			1148		
	Number of Separate DC Inputs	2			4		
EFFICIENCY & AUX. SUPPLY	Efficiency (Max) (η) (preliminary)	97.80% including MV transformer					
	Euroeta (η) (preliminary)	97.51% including MV transformer					
ENVIRONMENT	Max. Altitude (above sea level) ^[5]	2000 m	1000 m	2000 m		1000 m	2000 m
REFERENCES		FP4105MH2			FP4105MH4		
AC	AC Output Power (kVA/kW) @40 °C ^[1]	4105					
	AC Output Power (kVA/kW) @50 °C ^[1]	3810					
	Operating Grid Voltage (kV)	34.5 kV ±10%					
	Operating Grid Frequency (Hz)	60 Hz					
DC	DC Voltage Range ^[3]	913 V - 1500 V					
	Max. DC Continuous Current per Input (A)	2295			1148		
	Number of Separate DC Inputs	2			4		
EFFICIENCY & AUX. SUPPLY	Efficiency (Max) (η) (preliminary)	97.76% including MV transformer					
	Euroeta (η) (preliminary)	97.50% including MV transformer					
ENVIRONMENT	Max. Altitude (above sea level) ^[5]	2000 m					
REFERENCES		FP4010MH2			FP4010MH4		
AC	AC Output Power (kVA/kW) @40 °C ^[1]	4010					
	AC Output Power (kVA/kW) @50 °C ^[1]	3720					
	Operating Grid Voltage (kV)	34.5 kV ±10%					
	Operating Grid Frequency (Hz)	60 Hz					
DC	DC Voltage Range ^[3]	891 V - 1500 V					
	Max. DC Continuous Current per Input (A)	2295			1148		
	Number of Separate DC Inputs	2			4		
EFFICIENCY & AUX. SUPPLY	Efficiency (Max) (η) (preliminary)	97.75% including MV transformer					
	Euroeta (η) (preliminary)	97.48% including MV transformer					
ENVIRONMENT	Max. Altitude (above sea level) ^[5]	2000 m					

NOTES

- [1] Values at 1.00-Vac nom and cosφ=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.