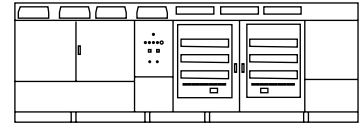


HEM

IEC

Easy maintenance.
Advanced grid support.
Integrated MV solution in the same enclosure.
Bus Plus. Combines Solar and Storage.





COMMON FEATURES

AC	Current Harmonic Distortion (THDi)	< 3% per IEEE 519	
	Power Factor (cos phi) ^[3]	0.5 leading ... 0.5 lagging adjustable / Reactive power injection at night	
DC	Maximum DC Voltage	1500 V	
	Number of Inputs	Up to 40	
	Max. DC Continuous Current (A) ^[5]	4590	
	Max. DC Short Circuit Current (A) ^[5]	6940	
	Number of Freemaq DC/DC ^[5]	Up to 4	
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 ^[6]	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	
	Keyed ON/OFF Switch	Standard	
PROTECTIONS	Ground Fault Protection	GFDI and isolation monitoring device	
	Humidity Control	Active heating	
	General AC Protection & Disconn.	MV switchgear (2L+V)	
	General DC Protection & Disconn.	Fuses, Motorized DC disconnect switches	
	Overvoltage Protection	Type 2 protection for AC and DC	

CERTIFICATIONS & STANDARDS	Safety	IEC 62109-1 / IEC 62109-2		
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REFERENCES	FS4200MH	FS4202MH	FS4206MH	
AC	AC Output Power (kVA/kW) @40°C ^[1]	4200		
	AC Output Power (kVA/kW) @50°C ^[1]	3900		
	Operating Grid Voltage (kV) ^[2]	34.5 kV ±10%	33 kV ±10%	
	Operating Grid Frequency (Hz)	60 Hz	50 Hz	
DC	DC Voltage Range ^[4]	934 V - 1500 V		
EFFICIENCY	Efficiency (Max) (η) (preliminary)	97.8% including MV transformer		
	Euroeta (η) (preliminary)	97.51% including MV transformer		
ENVIRONMENT	Max. Altitude (above sea level) ^[7]	2000 m	1000 m	2000 m

REFERENCES	FS4105MH	
AC	AC Output Power (kVA/kW) @40 °C ^[1]	4105
	AC Output Power (kVA/kW) @50 °C ^[1]	3810
	Operating Grid Voltage (kV) ^[2]	34.5 kV ±10%
	Operating Grid Frequency (Hz)	60 Hz
DC	DC Voltage Range ^[4]	913 V - 1500 V
EFFICIENCY	Efficiency (Max) (η) (preliminary)	97.76% including MV transformer
	Euroeta (η) (preliminary)	97.50% including MV transformer
ENVIRONMENT	Max. Altitude (above sea level) ^[7]	2000 m

REFERENCES	FS4010MH	
AC	AC Output Power (kVA/kW) @40 °C ^[1]	4010
	AC Output Power (kVA/kW) @50 °C ^[1]	3720
	Operating Grid Voltage (kV) ^[2]	34.5 kV ±10%
	Operating Grid Frequency (Hz)	60 Hz
DC	DC Voltage Range ^[4]	891 V - 1500 V
EFFICIENCY	Efficiency (Max) (η) (preliminary)	97.75% including MV transformer
	Euroeta (η) (preliminary)	97.48% including MV transformer
ENVIRONMENT	Max. Altitude (above sea level) ^[7]	2000 m

NOTES

[1] Values at 1.00·Vac nom and cosφ=1.
Consult Power Electronics for derating curves.

[2] Consult Power Electronics for other configurations.

[3] Consult P-Q charts available: $Q(kVar)=\sqrt{(S(kVA))^2-P(kW)^2}$.

[4] 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.

[5] Consult Power Electronics for Freemaq DC/DC connection configurations.

[6] Optional available for temperatures below to -25 °C.

[7] Consult Power Electronics for altitudes above 1000 m.