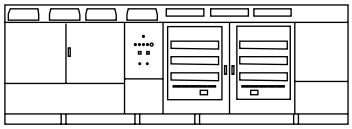
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Easy maintenance.
Advanced grid support.
Integrated MV solution in the same enclosure.
Econ Mode. Remove no-load losses.
Bus Plus. Combines Solar and Storage.



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REFERENCES		FS4999MH	FS5000MH	FS5001MH	FS5002MH
AC	AC Output Power @30 °C [1]	4999 kVA / kW	5030 kVA / kW		
	AC Output Power @35 °C [1]	4999 kVA / kW	5000 kVA / kW		
	AC Output Power @40 °C [1]	4860 kVA / kW	4780 kVA / kW		
	AC Output Power @50 °C [1]	4430 kVA / kW	4345 kVA / kW		
	Operating Grid Voltage	33 kV ±10%	34.5 kV ±10%	33 kV ±10%	30 kV ±10%
	Rated Impulse Withstand Voltage	150 kV	145 kV	150 kV	145 kV
	Operating Grid Frequency	50 Hz	60 Hz	50 Hz	
DC	DC Voltage Range [2]	976 V – 1500 V	934 V – 1500 V		
	Max. DC Continuous Current [3]	5222 A	5491 A		
	Max. DC Short Circuit Current [3]	8000 A			
ENVIRONMENT	Degree of Protection	IP55			
	Max. Altitude (above sea level) [4]	1000 m	2000 m	1000 m	
PROTECTIONS	General AC Protection & Disconnection	36 kV MV switchgear (2L+V)			
COMMON FEATURES					
	Current Harmonic Distortion (THDi)	<3% per IEEE 519			
	Power Factor (CosPhi) [5]	0.5 leading ... 0.5 lagging adjustable / Reactive power injection at night			
DC	Maximum DC Voltage	1500 V			
	Number of Inputs	Up to 40			
	Number of Freemaq DC/DC [3]	Up to 4			
EFFICIENCY	Efficiency (Max) (η)	98.08% including MV transformer			
	Euroeta (η)	97.20% including MV transformer			
CABINET	Footprint dimensions [WxDxH]	21.3 x 6.5 x 7.5 ft			
	Footprint dimensions [WxDxH]	6.5 x 2.0 x 2.3 m			
	Weight	30865 lbs			
	Weight	14000 kg			
	Type of Ventilation	Forced air cooling			
ENVIRONMENT	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			
CONTROL	Communication Protocol	Modbus TCP			
PROTECTIONS	Ground Fault Protection	GFDI and insulation monitoring device			
	Humidity Control	Active heating			
	General DC Protection & Disconnection	Fuses, Motorized DC disconnect switches			
	Overvoltage Protection	Type II protection for AC and DC			
STANDARDS	Safety	IEC 62109-1 / IEC 62109-2			
	Utility Interconnect [6]	IEC 62116 / G99 / VDE 4110-4120-4130 / CEI 0-16 / NTS 2.1 / EN 50549			

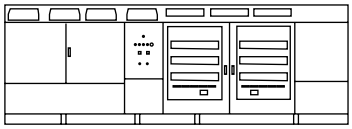
NOTES

[1] Values at 1.00·Vac nom and CosPhi=1. Consult Power Electronics for derating curves.
[2] Consult Power Electronics for derating curves above 1300 Vdc. In the event of overvoltage in the grid, the minimum DC voltage will vary proportionally with the AC voltage.
[3] Consult Power Electronics for Freemaq DC/DC connection configurations.
[4] Consult Power Electronics for altitudes above 1000 m.
[5] Consult P-Q charts available: $Q(kVAr)=\sqrt{(S(kVA)^2-P(kW)^2)}$.
[6] Consult Power Electronics for other applicable standards / grid codes.

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REFERENCES		FS5003MH	FS5006MH	FS5075MH	FS5076MH
AC	AC Output Power @30 °C [1]	5030 kVA / kW		5260 kVA / kW	
	AC Output Power @35 °C [1]	5000 kVA / kW		5075 kVA / kW	
	AC Output Power @40 °C [1]	4780 kVA / kW		4860 kVA / kW	
	AC Output Power @50 °C [1]	4345 kVA / kW		4430 kVA / kW	
	Operating Grid Voltage	20 kV ±10%	33 kV ±10%	34.5 kV ±10%	33 kV ±10%
	Rated Impulse Withstand Voltage	125 kV	150 kV	145 kV	150 kV
	Operating Grid Frequency	50 Hz	60 Hz		50 Hz
DC	DC Voltage Range [2]	934 V – 1500 V		976 V – 1500 V	
	Max. DC Continuous Current [3]	5491 A		5494 A	
	Max. DC Short Circuit Current [3]	8000 A			
ENVIRONMENT	Degree of Protection	IP55			
	Max. Altitude (above sea level) [4]	1000 m	2000 m		1000 m
PROTECTIONS	General AC Protection & Disconnection	24 kV SF6 Free MV switchgear (2L+V)	36 kV MV switchgear (2L+V)		
COMMON FEATURES					
	Current Harmonic Distortion (THDi)	<3% per IEEE 519			
	Power Factor (CosPhi) [5]	0.5 leading ... 0.5 lagging adjustable / Reactive power injection at night			
DC	Maximum DC Voltage	1500 V			
	Number of Inputs	Up to 40			
	Number of Freemaq DC/DC [3]	Up to 4			
EFFICIENCY	Efficiency (Max) (η)	98.08% including MV transformer		98.09% including MV transformer	
	Euroeta (η)	97.20% including MV transformer		97.21% including MV transformer	
CABINET	Footprint dimensions [WxDxH]	21.3 x 6.5 x 7.5 ft			
	Footprint dimensions [WxDxH]	6.5 x 2.0 x 2.3 m			
	Weight	30865 lbs			
	Weight	14000 kg			
	Type of Ventilation	Forced air cooling			
ENVIRONMENT	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			
CONTROL	Communication Protocol	Modbus TCP			
PROTECTIONS	Ground Fault Protection	GFDI and insulation monitoring device			
	Humidity Control	Active heating			
	General DC Protection & Disconnection	Fuses, Motorized DC disconnect switches			
	Overvoltage Protection	Type II protection for AC and DC			
STANDARDS	Safety	IEC 62109-1 / IEC 62109-2			
	Utility Interconnect [6]	IEC 62116 / G99 / VDE 4110-4120-4130 / CEI 0-16 / NTS 2.1 / EN 50549			

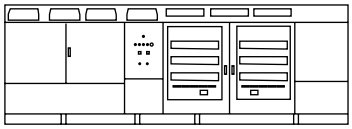
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REFERENCES		FS5077MH	FS5078MH	FS5081MH
AC	AC Output Power @30 °C [1]	5260 kVA / kW		
	AC Output Power @35 °C [1]	5075 kVA / kW		
	AC Output Power @40 °C [1]	4860 kVA / kW		
	AC Output Power @50 °C [1]	4430 kVA / kW		
	Operating Grid Voltage	30 kV ±10%	20 kV ±10%	33 kV ±10%
	Rated Impulse Withstand Voltage	145 kV	125 kV	150 kV
	Operating Grid Frequency	50 Hz		60 Hz
DC	DC Voltage Range [2]	976 V – 1500 V		
	Max. DC Continuous Current [3]	5494 A		
	Max. DC Short Circuit Current [3]	8000 A		
ENVIRONMENT	Degree of Protection	IP55		
	Max. Altitude (above sea level) [4]	1000 m		2000 m
PROTECTIONS	General AC Protection & Disconnection	36 kV MV switchgear (2L+V)	24 kV SF6 Free MV switchgear (2L+V)	36 kV MV switchgear (2L+V)
COMMON FEATURES				
	Current Harmonic Distortion (THDi)	<3% per IEEE 519		
	Power Factor (CosPhi) [5]	0.5 leading ... 0.5 lagging adjustable / Reactive power injection at night		
DC	Maximum DC Voltage	1500 V		
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