

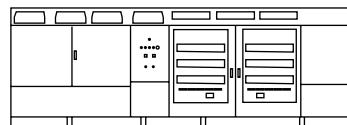


HEM

IEC | UL

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





Preliminary

COMMON FEATURES

	Current Harmonic Distortion (THDi)	< 3% per IEEE 519
	Power Factor (CosPhi) ^[2]	0.5 leading ... 0.5 lagging adjustable / Reactive power injection at night
	Maximum DC Voltage	1500 V
	Number of Inputs	Up to 40
	Number of Freemaq DC/DC ^[4]	Up to 4
EFFICIENCY	Efficiency (Max) (η)	98.00% including MV transformer
	CEC (η)	97.53% including MV transformer
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
	Operating Temperature Range ^[5]	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) ^[6]	1000 m
	Communication Protocol	Modbus TCP
CONTROL INTERFACE	Power Plant Controller	Optional
	Keyed ON/OFF Switch	Standard
	Ground Fault Protection	GFDI and isolation monitoring device
PROTECTIONS	Humidity Control	Active heating
	General DC Protection & Disconnection	Fuses, Motorized DC disconnect switches
	Overvoltage Protection	Type 2 protection for AC and DC
	Safety	UL 1741 / CSA 22.2 No.1071-16 / IEC 62109-1 / IEC 62109-2
CERTIFICATIONS & STANDARDS	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

REFERENCES		FS5000MU	FS5000MH	FS5001MH	FS5002MH
AC	AC Output Power (kVA/kW) @35°C ^[1]	5000			
	AC Output Power (kVA/kW) @40°C ^[1]	4780			
	AC Output Power (kVA/kW) @50°C ^[1]	4345			
	Operating Grid Voltage (kV)	34.5kV ±10%	33 kV ±10%	30 kV ±10%	
	Operating Grid Frequency (Hz)	60Hz	50Hz	50Hz	
DC	DC Voltage Range Full Power ^[3]	934 V – 1300 V			
	Max. DC Continuous Current (A)	5460			
	Max. DC Short Circuit Current (A)	8255			
ENVIRONMENT	Degree of Protection	NEMA 3R	IP55		
	General AC Protection & Disconnection	38 kV MV switchgear (V)	36 kV MV switchgear (2L+V)		
REFERENCES		FS5075MU	FS5075MH	FS5076MH	FS5077MH
AC	AC Output Power (kVA/kW) @35°C ^[1]	5075			
	AC Output Power (kVA/kW) @40°C ^[1]	4860			
	AC Output Power (kVA/kW) @50°C ^[1]	4430			
	Operating Grid Voltage (kV)	34.5kV ±10%	33 kV ±10%	30 kV ±10%	
	Operating Grid Frequency (Hz)	60Hz	50Hz	50Hz	
DC	DC Voltage Range Full Power ^[3]	976 V – 1300 V			
	Max. DC Continuous Current (A)	5306			
	Max. DC Short Circuit Current (A)	8022			
ENVIRONMENT	Degree of Protection	NEMA 3R	IP55		
	General AC Protection & Disconnection	38 kV MV switchgear (V)	36 kV MV switchgear (2L+V)		

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] Consult Power Electronics for Freemaq DC/DC connection configurations.
[5] Optional available for temperatures down to -35 °C.
[6] Consult Power Electronics for altitudes above 1000 m.
[7] Consult Power Electronics for other applicable standards / grid codes.