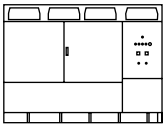
HEMK

Easy maintenance.
Multilevel topology.
Advanced grid support.
Full power voltage range.
Bus Plus. Combine Solar and Storage.

HEMK



COMMON FEATURES				
FRAME		**2**	**3**	**4**
AC	Max. AC Output Current (A) @40 °C	1837	2756	3674
	Operating Grid Frequency (Hz)	50/60 Hz		
	Current Harmonic Distortion (THDi)	< 3% per IEEE519		
	Power Factor (CosPhi) [1]	0.5 leading ... 0.5 lagging adjustable / Reactive power injection at night		
DC	Maximum DC Voltage	1500 V		
	Number of Inputs	Up to 20	Up to 30	Up to 40
	Max. DC Continuous Current (A) [2]	2295	3443	4590
	Max. DC Short Circuit Current (A) [2]	3470	5205	6940
	Number of Freemaq DC/DC [2]	Up to 4		
CABINET	Dimensions [WxDxH] (ft)	9.8 x 6.5 x 7.5		
	Dimensions [WxDxH] (m)	3.0 x 2.0 x 2.3		
	Weight (lbs)	8600	9700	10365
	Weight (kg)	3900	4400	4700
	Type of Ventilation	Forced air cooling		
ENVIRONMENT	Degree of Protection	NEMA 3R / IP55		
	Operating Temperature Range [3]	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		
	Max. Altitude (above sea level)	2000 m / >2000 m power derating (Max. 4000 m)		
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.	Circuit breaker		
	General DC Protection & Disconn.	Fuses, Motorized DC disconnect switches		
	Overvoltage Protection	Type 2 protection for AC and DC		
CERTIFICATIONS & STANDARDS	Safety	UL 1741 / CSA 22.2 No.107.1-16 / IEC 62109-1 / IEC 62109-2		
	Installation	NEC 2023 / IEC		
	Utility Interconnect	UL 1741 SA & SB / RULE 21 / RULE 14H / IEEE 1547.1 2020 / IEC 62116:2014		

		690 V			**660 V**			**645 V**		
FRAME		**2**	**3**	**4**	**2**	**3**	**4**	**2**	**3**	**4**
REFERENCES		**FS2195K**	**FS3290K**	**FS4390K**	**FS2101K**	**FS3151K**	**FS4200K**	**FS2055K**	**FS3080K**	**FS4105K**
AC	AC Output Power (kVA/kW) @40 °C [4]	2195	3290	4390	2100	3150	4200	2055	3080	4105
	AC Output Power (kVA/kW) @50 °C [4]	2035	3055	4075	1950	2925	3900	1905	2855	3810
	Operating Grid Voltage (VAC)	690 V ±10%			660 V ±10%			645 V ±10%		
DC	DC Voltage Range [5]	976 V - 1500 V			934 V - 1500 V			913 V - 1500 V		
EFFICIENCY	Efficiency (Max) (η)	98.84%	98.87%	98.94%	98.86%	98.89%	98.95%	98.85%	98.88%	98.81%
	Euroeta (η)	98.34%	98.49%	98.51%	98.36%	98.51%	98.53%	98.24%	98.39%	98.41%

		630 V			**615 V**			**600 V**		
FRAME		**2**	**3**	**4**	**2**	**3**	**4**	**2**	**3**	**4**
REFERENCES		**FS2005K**	**FS3005K**	**FS4010K**	**FS1955K**	**FS2935K**	**FS3915K**	**FS1910K**	**FS2865K**	**FS3820K**
AC	AC Output Power (kVA/kW) @40 °C [4]	2005	3005	4010	1955	2935	3915	1910	2865	3820
	AC Output Power (kVA/kW) @50 °C [4]	1860	2790	3720	1815	2725	3635	1775	2660	3545
	Operating Grid Voltage (VAC)	630 V ±10%			615 V ±10%			600 V ±10%		
DC	DC Voltage Range [5]	891 V - 1500 V			870 V - 1500 V			849 V - 1500 V		
EFFICIENCY	Efficiency (Max) (η)	98.79%	98.82%	98.88%	98.75%	98.78%	98.77%	98.82%	98.85%	98.78%
	Euroeta (η)	98.28%	98.43%	98.45%	98.20%	98.35%	98.37%	98.18%	98.33%	98.35%

NOTES

[1] Consult P-Q charts available: $Q(kVAr)=\sqrt{(S(kVA)^2-P(kW)^2)}$.
[2] Consult Power Electronics for Freemaq DC/DC connection configurations.
[3] Optional available for temperatures below to -25 °C.
[4] Values at 1.00·Vac nom and cosφ=1. Consult Power Electronics for derating curves.
[5] 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.

POWER ELECTRONICS