

TECHNICAL CHARACTERISTICS

HEMK 645V

	FRAME 1	FRAME 2	
REFERENCE	FS2285K	FS3430K	
OUTPUT	AC Output Power(kVA/kW) @50°C ^[1]	2285	3430
	AC Output Power(kVA/kW) @40°C ^[1]	2365	3550
	Max. AC Output Current (A) @40°C	2117	3175
	Operating Grid Voltage(VAC) ^[2]	645V ±10%	
	Operating Grid Frequency(Hz)	50Hz/60Hz	
	Current Harmonic Distortion (THDi)	< 3% per IEEE519	
	Power Factor (cosine phi) ^[3]	0.5 leading ... 0.5 lagging adjustable / Reactive Power injection at night	
INPUT	MPPT @full power (VDC)	913V-1310V	
	Maximum DC voltage	1500V	
	Number of PV inputs ^[2]	Up to 36	
	Number of Freemaq DC/DC inputs ^[4]	Up to 6	
	Max. DC continuous current (A) ^[4]	2645	3970
	Max. DC short circuit current (A) ^[4]	4000	6000
EFFICIENCY & AUXILIARY SUPPLY	Efficiency (Max) (η)	98.8% (preliminary)	98.9% (preliminary)
	Euroeta (η)	98.4% (preliminary)	98.6% (preliminary)
	Max. Power Consumption (KVA)	8	10
CABINET	Dimensions [WxDxH] (ft)	12 x 7 x 7	
	Dimensions [WxDxH] (m)	3.7 x 2.2 x 2.2	
	Weight (lb)	12125	12677
	Weight (kg)	5500	5750
	Type of ventilation	Forced air cooling	
ENVIRONMENT	Degree of protection	NEMA 3R - IP54	
	Permissible Ambient Temperature	-35°C to +60°C / >50°C Active Power derating	
	Relative Humidity	4% to 100% non condensing	
	Max. Altitude (above sea level)	2000m; >2000m power derating (Max. 4000m)	
	Noise level ^[5]	< 79 dBA	
CONTROL INTERFACE	Interface	Graphic Display	
	Communication protocol	Modbus TCP	
	Plant Controller Communication	Optional	
	Keyed ON/OFF switch	Standard	
PROTECTIONS	Ground Fault Protection	GFDI and Isolation monitoring device	
	General AC Protection	Circuit Breaker	
	General DC Protection	Fuses	
	Oversoltage Protection	AC, DC Inverter and auxiliary supply type 2	
CERTIFICATIONS	Safety	UL1741, CSA 22.2 No.107.1-16, UL62109-1, IEC62109-1, IEC62109-2	
	Compliance	NEC 2017 / IEC	
	Utility interconnect	EEE 1547.1-2005 / UL1741SA-Feb. 2018 / IEC62116:2014	

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

[2] Consult Power Electronics for other configurations.

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

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

[5] Readings taken 1 meter from the back of the unit.