HEC-US PLUS 440VAC

TECHNICAL CHARACTERISTICS

		440VAC - MPPt Window 623V-900V					
		FRAME 2		FRAME 3		FRAME 4	
NUMBER OF MODULES		5	6	7	8	9	10
REFERENCE		FS1112CU	FS1331CU	FS1550CU	FS1770CU	FS1991CU	FS2200CU
OUTPUT	AC Output Power(kVA/kW) @50°C	1110	1330	1550	1770	1990	2200
	AC Output Power(kVA/kW) @25°C	1220	1460	1710	1950	2190	2440
	Max. Power (kW@PF=0.9, @50°C)	1000	1190	1390	1590	1790	1980
	Max. AC Output Current (A) @25°C	1600	1920	2240	2560	2880	3200
	Operating Grid Voltage(VAC)	440Vac ±10%					
	Operating Grid Frequency	60Hz					
	Current Harmonic Distortion (THDi)	< 3% per IEEE519					
	Power Factor (cosine phi)[1]	0.00 leading ... 0.00 lagging adjustable/ Reactive Power injection at night					
	Power Curtailment (kVA)	0...100%/0.1% Steps					
INPUT	MPPt Voltage Window (VDC)[2]	623V-900V					
	MPPt window @full power (VDC)[2]	642V-820V @50°C / 712V-820V @25°C					
	Maximum DC Voltage	1000V					
	Minimum Start Voltage	700V - User configurable					
	Max. DC continuous current (A)	1750	2100	2450	2800	3150	3500
	Max. DC short circuit current (A)	2275	2730	3185	3640	4095	4550
EFFICIENCY & AUXILIARY SUPPLY	Max. Efficiency / CEC (η)	98.6% / 98.0%					
	Euroeta (η)	98.3%		98.4%			
	Max. Standby Consumption (Pnight)	< approx. 40W/per module					
	Control Power Supply	120V / 208VAC-1kVA power supply available for external equipment					
	Max. Power Consumption	2300W	2760W	3220W	3680W	4140W	4600W
CABINET	Dimensions [WxDxH] [inches]	153.5"x40.12"x94.5"		192.9"x40.12"x94.5"		232.3"x40.12"x94.5"	
	Dimensions [WxDxH] [mm]	3900x1050x2400		4900x1050x2400		5900x1050x2400	
	Weight (lbs)	7804	8487	10119	10802	12434	13117
	Weight (kg)	3540	3850	4590	4900	5640	5950
	Air Flow	Bottom intake. Exhaust top vent (Front or Rear option)					
	Type of ventilation	Forced air cooling					
ENVIRON-MENT	Degree of protection	NEMA 3R					
	Permissible Ambient Temperature	-22°F to +122°F, -30°C[3] to +50°C / Active Power derating >50°C/122°F					
	Relative Humidity	0% to 100% non condensing					
	Max. Altitude (above sea level)	1000m; >1000m power derating 1% Sn (kVA) per 100m					
	Noise level [4]	< 79 dBA					
CONTROL INTERFA-CE	Interface	Alphanumeric Display (inside cabinet) / Optional Freesun App					
	Communication Protocol	RS232 / RS485 / USB / Ethernet, (Modbus RTU, Modbus TCP/IP)					
	Power Plant Controller	Optional					
	Keyed ON/OFF switch	Standard					
PROTECTIONS	Ground Fault Protection	Floating PV array: Isolation Monitoring per MPP NEC2014 Grounded PV Array: GFDI protection Optional PV Array transfer kit: GFDI and Isolation monitoring device					
	Humidity control	Active Heating					
	General AC Protection & Disconn.	Circuit Breaker					
	General DC Protection & Disconn.	External Disconnecting Unit Cabinet (FSDK)					
	Module AC Protection & Disconn.	AC contactor & fuses					
	Module DC Protection & Disconn.	DC contactor & DC fuses					
	Overvoltage Protection	AC and DC protection (type 2)					
CERTI-FICA-TIONS	Safety	UL 1741; CSA 22.2 No.107.1-01					
	Utility interconnect	IEEE 1547 with Utility Interactive Control functions					

NOTES
[1] Consult P-Q charts available: $Q(kVAr)=\sqrt{(S(kVA)^2-P(kW)^2)}$
[2] Values at 1.00•Vac nom and cos Φ= 1. Consult Power Electronics for derating curves.
[3] Heating kit option required below -20°C.
[4] Sound pressure level at a distance of 1m from the rear part.