HEC PLUS 400VAC

TECHNICAL CHARACTERISTICS

		400VAC - MPPt Window 566V-900V					
		FRAME 2		FRAME 3		FRAME 4	
NUMBER OF MODULES		5	6	7	8	9	10
REFERENCE		FS1003CH	FS1201CH	FS1401CH	FS1600CH	FS1800CH	FS2000CH
OUTPUT	AC Output Power(kVA/kW) @50°C[1]	1000	1200	1400	1600	1800	2000
	AC Output Power(kVA/kW) @25°C[1]	1110	1330	1550	1770	2000	2220
	Max. AC Output Current (A) @25°C	1600	1920	2240	2560	2880	3200
	Operating Grid Voltage(VAC)	400Vac					
	Operating Range, Grid Frequency	50Hz/60Hz					
	Current Harmonic Distortion (THDi)	< 3% at any load condition					
	Power Factor (cosine phi)[2]	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)[1]	566V-900V					
	MPPt window @full power (VDC)[1]	584V–820V @50°C / 648V–820V @25°C					
	Maximum DC and Starting voltage	1000V					
	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 PAC, nom (η)	98.6%		98.6%		98.6%	
	Euroeta (η)	98.3%		98.4%		98.4%	
	Max. Standby Consumption (Pnight)	< approx. 40W/per module					
	Control Power Supply	400V/230VAC–1kVA user power supply available, Optional 6kVA					
	Max. Power Consumption	2300W	2760W	3220W	3680W	4140W	4600W
	Max. Apparent Power (VA)	4800VA	5600VA	6500VA	7300VA	8200VA	9000VA
CABINET	Dimensions [WxDxH] [mm]	3900x1050x2400		4900x1050x2400		5900x1050x2400	
	Weight (kg)	3540	3850	4590	4900	5640	5950
	Air Flow	Intake through lower part blown out through upper side					
	Type of ventilation	Forced air cooling					
ENVIRON-MENT	Degree of protection	IP54					
	Permissible Ambient Temperature	-30°C [3] to +60°C / >50°C Active Power derating					
	Relative Humidity	0% to 100% non condensing					
	Max. Altitude (above sea level)	4000m; >1000m power derating					
	Noise level [4]	< 79 dBA					
CONTROL INTERFACE	Interface	Alphanumeric Display / Optional Freesun App					
	Communication	RS232 / RS485 / USB / Ethernet, (Modbus RTU Protocol, Modbus TCP/IP)					
	Analogue Inputs	1 programmable and differential inputs; (0-20mA or ± 10mV to ± 10V) and PT100					
	String Supervisor Communication	RS485 / Modbus RTU					
	Plant Controller Communication	Ethernet / Modbus TCP/IP					
	Digital Outputs	1 electrically-isolated programmable switched relays (250VAC, 8A or 30VDC, 8A)					
PROTECTIONS	Ground Fault Protection	Floating PV array: Isolation Monitoring per MPP Grounded PV array (Positive pole and negative pole): GFDI protection PV Array transfer kit: GFDI and Isolation monitoring device (requires 1 Digital Output)					
	Humidity control	Active Heating					
	ON / OFF Pushbutton	Standard					
	General AC Protection & Disconn.	Circuit Breaker					
	General DC Protection & Disconn.	Optional External Disconnecting Unit Cabinet					
	Module AC Protection & Disconn.	AC contactor & fuses					
	Module DC Protection & Disconn.	DC contactor & DC fuses					
	Overvoltage Protection	AC, DC Inverter and auxiliary supply type 2 - Internal Standard					
	DC Lightning Protections	Optional (Integrated in the inverter)					

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