

# HEC PLUS 460VAC

## TECHNICAL CHARACTERISTICS

		460VAC - MPpt Window 651V-900V					
		FRAME 2		FRAME 3		FRAME 4	
NUMBER OF MODULES		5	6	7	8	9	10
REFERENCE		FS1162CH	FS1391CH	FS1620CH	FS1850CH	FS2081CH	FS2300CH
OUTPUT	AC Output Power(kVA/kW) @50°C <sup>[1]</sup>	1160	1390	1620	1850	2080	2300
	AC Output Power(kVA/kW) @25°C <sup>[1]</sup>	1270	1530	1780	2040	2290	2550
	Max. AC Output Current (A) @25°C	1600	1920	2240	2560	2880	3200
	Operating Grid Voltage(VAC)	460Vac					
	Operating Range, Grid Frequency	50Hz/60Hz					
	Current Harmonic Distortion (THDi)	< 3% at any load condition					
INPUT	Power Factor (cosine phi) <sup>[2]</sup>	0.00 leading ... 0.00 lagging adjustable / Reactive Power injection at night					
	Power Curtailment (kVA)	0...100%/0.1% Steps					
	MPpt Voltage Window (VDC) <sup>[1]</sup>	651V-900V					
	MPpt window @full power (VDC) <sup>[1]</sup>	671V-820V @50°C / 744V-820V @25°C					
	Maximum DC and Starting voltage	1000V					
	Max. DC continuous current (A)	1750	2100	2450	2800	3150	3500
EFFICIENCY & AUXILIARY SUPPLY	Max. DC short circuit current (A)	2275	2730	3185	3640	4095	4550
	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
CABINET	Max. Apparent Power (VA)	4800VA	5600VA	6500VA	7300VA	8200VA	9000VA
	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					
	Degree of protection	IP54					
ENVIRONMENT	Permissible Ambient Temperature	-30°C <sup>[3]</sup> 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 <sup>[4]</sup>	< 79 dBA					
CONTROL INTERFACE	Interface	Alphanumeric Display / Optional Freesun App display					
	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.