

HE PLUS 420VAC

TECHNICAL CHARACTERISTICS

		420VAC - MPpt Window 594V-900V					
		FRAME 2		FRAME 3		FRAME 4	
NUMBER OF MODULES		5	6	7	8	9	10
REFERENCE		FS1051IH	FS1271IH	FS1480IH	FS1690IH	FS1901IH	FS2110IH
OUTPUT	AC Output Power(kVA/kW) @50°C ^[1]	1050	1270	1480	1690	1900	2110
	AC Output Power(kVA/kW) @25°C ^[1]	1160	1400	1630	1860	2100	2330
	Max. AC Output Current (A) @25°C	1600	1920	2240	2560	2880	3200
	Operating Grid Voltage(VAC)	420Vac					
	Operating Range, Grid Frequency	50Hz/60Hz					
	Current Harmonic Distortion (THDi)	< 3% at any load condition					
EFFICIENCY & AUXILIARY SUPPLY	Power Factor (cosine phi) ^[2]	0.00 leading ... 0.00 lagging adjustable/ Reactive Power injection at night (optional)					
	Power Curtailment (kVA)	0..100%/0.1% Steps					
INPUT	MPpt Voltage Window (VDC) ^[1]	594V-900V					
	MPpt window @full power (VDC) ^[1]	616V-820V @50°C / 680V-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					
	Max. Power Consumption (W)	2300W	2760W	3220W	3680W	4140W	4600W
	Max. Apparent Power (VA)	4800VA	5600VA	6500VA	7300VA	8200VA	9000VA
CABINET	Dimensions [WxDxH] [mm]	3370x1020x2080		4400x1020x2080		5260x1020x2080	
	Weight (kg) ^[3]	2500	2900	3300	3700	4100	4500
	Air Flow	Intake through rear lower part blown out through upper side					
ENVIRON- MENT	Type of ventilation	VSD Forced air cooling					
	Degree of protection	Indoor IP21					
	Permissible Ambient Temperature	-20°C to +60°C					
	Relative Humidity	10% to 95% Non condensing					
	Max. Altitude (above sea level)	4000m; >1000m power derating					
CONTROL INTERFACE	Noise level ^[4]	< 79 dBA					
	Interface	Alphanumeric Display / Optional Freesun App display or Web 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					
PROTECTIONS	Digital Outputs	1 electrically-isolated programmable switched relays (250VAC, 8A or 30VDC, 8A)					
	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 Wall mounted cabinets					
	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] Preliminary, consult Power Electronics.
 [4] Sound pressure level at a distance of 1m from the rear part.