

330VAC - MPPT range 520Vdc-820Vdc										
		FRAME 1 - FS		FRAME 2 - FS			FRAME 3 - FS			
Number of Modules		2	3	4	5	6	7	8	9	10
FREESUN HE		0250_H	0380_H	0501_H	0630_H	0750_H	0880_H	1001_H	1130_H	1251_H
OUTPUT	Nominal AC Output Power(kVA) ^[1]	250	380	500	630	750	880	1000	1130	1250
	Rated Output Power (+10%) (kVA) ^[2]	280	410	550	690	830	960	1100	1240	1380
	Operating Grid Voltage(VAC)	330Vac (± 10%)								
	Operating Range, Grid Frequency	50Hz – 60Hz								
	Voltage Ripple, PV Voltage	< 3%								
	Current Harmonic Distortion (THDi)	< 3% at nominal power								
	Power Factor (cosine phi)	0.90 leading ... 0.90 lagging adjustable								
INPUT	DC Voltage Range MPPT (VDC) ^[3]	520V-820V								
	Max. permissible DC voltage	1000V								
	Max. permissible DC current (A)	500A	750A	1000A	1250A	1500A	1750A	2000A	2250A	2500A
	Max. Recommended PV peak power (kWp) (+20%)	300	450	600	750	900	1050	1200	1350	1500
	N° of DC connections (per pole)	8	12	16	20	24	28	32	36	40
Max. cable section (mm ²) ^[4]	240 mm ²									
EFFICIENCY	Max. Efficiency P _{AC} , nom (η)	98.6%		98.6%			98.6%			
	Euroeta (η)	98.2%		98.3%			98.4%			
	Californian efficiency (η)	98.0%		98.1%			98.2%			
	Max. Standby Consumption (P _{night})	< approx. 120W		< approx. 240W			< approx. 400W			
AUXILIARY SUPPLY	Control Power	HE Series 3 x 400V, 50 / 60Hz, (BDEW, PO12.3 inverters equipped with internal UPS)								
	Supply	HEC Series Internal 3x400VAC transformer (BDEW, PO12.3 inverters equipped with internal UPS)								
	Max. Power Consumption	1400W		2760W			4600W			
CABINET	Dimensions [WxHxD] mm	HE Series 2100 x 2150 x 1020		HEC Series 3372 x 2150 x 1020			HEC Series 5260 x 2150 x 1020			
		HEC Series 2440 x 2270 x 1319		HEC Series 3712 x 2270 x 1319			HEC Series 5600 x 2270 x 1319			
	Weight (kg)	HE Series 1650		HEC Series 2900			HEC Series 4500			
		HEC Series 1815		HEC Series 3190			HEC Series 4950			
	Air Flow	Intake through rear lower part blown out through upper side								
Type of ventilation	Forced									
ENVIRONMENT	Degree of protection	HE Series Indoor IP21		HEC Series Outdoor IP54						
	Permissible Ambient Temperature ^[5]	-20°C ...+50°C								
	Relative Humidity	HE Series 10% to 95% Non condensing		HEC Series 4% to 100% Condensing						
	Max. Altitude (above sea level) ^[5]	1000m; >1000m power derating 1% Sn (kVA) per 100m								
	Noise level ^[6]	< 79 dBA								
CONTROL INTERFACE	Communication	RS232 / RS485 / USB / Ethernet, (Modbus RTU Protocol, Modbus TCP/IP, Optional GSM / GPRS)								
	Digital Inputs	2 programmable inputs. Galvanically isolated.								
	Analogue Inputs	2 programmable and differential inputs; (0-20mA or ± 10mV to ± 10V) and PT100								
	String Supervisor Communication	RS485 / Modbus RTU								
	Digital Outputs	2 electrically-isolated programmable switched relays (250VAC, 8A or 30 VDC, 8A)								
	Analogue Outputs	1 Analogue output galvanically isolated.								
PROTECTIONS	Ground Fault Monitoring ^[7]	Standard built in								
	Heating Resistors	HE Series		HEC Series			Optional			
	Emergency Stop	Standard								
	General AC on-load switch disconn.	Optional								
	AC contactor	Standard								
	AC Circuit Breaker	standard in each module								
	DC Motorized Circuit Breaker	standard in each module								
	General DC power switch	MCB. Motorized built in as standard in each module								
	DC General Fuses	Optional								
	Overvoltage Protection	Optional								
Lightning Protections	DC and AC Inverter sides and Auxiliary Supply type II - Internal Standard									
	Optional (Integrated in the inverter)									

[1] Values at 50°C.

[2] Maximum ambient temperature 40°C.

[3] Values at 1.05·Vac nom and cos Φ= 1.

[4] Maximum DC cable section per connexion and pole. The installer must also consider for the cable selection the factors such as length of cable for each installation, environmental conditions, aluminium conductors, installation methods and requirements set out in current regulations applicable in the country of installation.

[5] Other characteristics consult with Power Electronics.

[6] Sound pressure level at a distance of 1m from the rear part.

[7] In cases where the installation has the positive pole or the negative pole earth connected, this protection will be disconnected.