

Three Phase Hybrid Inverter

FES- HB-HV-3P(100-125kW)



Efficient

High voltage battery,
higher efficiency



Intelligent

6 time periods for battery charging
/discharging



Flexible

- AC couple to retrofit existing solar system
- Max. 10 pcs parallel for on-grid and off-grid operation; support multiple batteries parallel



Reliable

- Max. charging/discharging current of 200A
- Support storing energy from diesel generator



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Technical Data

Model	FES - 100K-SG02HP3-EU-GM8		FES - 100K-SG02HP3-EU-GM10	FES - 125K-SG02HP3-EU-GM10
Battery Input Data				
Battery Type	Lithium-ion			
Battery Voltage Range (V)	160-1000			
Max. Charging Current (A)	100+100			
Charging Strategy for Li-ion Battery	Self-adaption to BMS			
Number of Battery Input	2			
PV String Input Data				
Max. PV Access Power (W)	200000	200000	250000	
Max. PV Input Power (W)	160000	160000	200000	
Max. PV Input Voltage (V)	1000			
Start-up Voltage (V)	180			
MPPT Voltage Range (V)	150-850			
Rated PV Input Voltage (V)	600			
Max. Operating PV Input Current (A)	42+42+42+42+42+42+42+42	42+42+42+42+42+42+42+42+42+42		
Max. Input Short-Circuit Current (A)	63+63+63+63+63+63+63+63	63+63+63+63+63+63+63+63+63+63		
No. of MPP Trackers/ No. of Strings MPP Tracker	8/2+2+2+2+2+2+2+2	10/2+2+2+2+2+2+2+2+2+2		
AC Input/Output Data				
Rated AC Input/Output Active Power(W)	100000	100000	125000	
Max. AC Input/Output Apparent Power(VA)	110000	110000	135000	
Rated AC Input/Output Current (A)	151.6/145.0	151.6/145.0	189.4/181.2	
Max. AC Input/Output Current(A)	166.7/159.5	166.7/159.5	204.6/195.7	
Max. Continuous AC Passthrough (grid to load) (A)	250			
Peak Power (off-grid) (W)	1.5 times of rated power, 10s			
Power Factor Adjustment Range	0.8 leading to 0.8 lagging			
Rated Input/Output Voltage/Range (V)	220/380V, 230/400V 0.85Un-1.1Un 3L+N+PE			
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55, 60/55-65			
Grid Connection Form	3L+N+PE			
Total Current Harmonic Distortion THDi	<3% (of nominal power)			
DC Injection Current	<0.5% In			
Efficiency				
Max. Efficiency	98.70%			
Euro Efficiency	98.10%			
MPPT Efficiency	>99%			
Equipment Protection				
Integrated	DC Reverse Polarity Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Arc Fault Circuit Interrupter (AFCI) (optional), Anti-islanding Protection, DC Switch, Insulation Impedance Detection, Residual Current Detection			
Surge Protection Level	TYPE II(DC), TYPE II(AC)			
Interface				
LCD/LED Display	LCD+LED			
Communication Interface	RS485,RS232,CAN			
Monitor Mode	GPRS/WIFI/Bluetooth/4G/LAN(optional)			
General Data				
Operating Temperature Range (℃)	-40 to +60℃, >45℃ Derating			
Permissible Ambient Humidity	0-100%			
Permissible Altitude	3000m			
Noise (dB)	≤65			
Ingress Protection(IP) Rating	IP 65			
Inverter Topology	Non-Isolated			
Over Voltage Category	OVC II(DC), OVC III(AC)			
Cabinet Size (WxHxD mm)	734×1091×344 (Excluding Connectors and Brackets)			
Weight (kg)	161.7			
Type of Cooling	Intelligent Air Cooling			
Warranty	10 Years			
Grid Regulation	IEC 61727,IEC 62116,CEI 0-21,EN 50549, NRS 097,RD 140,UNE 217002, OVE-Richtlinie R25,G99,VDE-AR-N 4105			
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2			

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