Three Phase Hybrid Inverter

SUN-5/6/8/10/12/15/20/25K-SG01HP3-AU-AM2

100 100% unbalanced output, each phase

AC couple to retrofit existing solar system

10 Max. 10pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel

50 Max. charging/discharging current of 50A

H High voltage battery, higher efficiency

6 6 time periods for battery charging/discharging

Support storing energy from diesel generator

Technical Data

Model	SUN-5K-SG01 HP3-AU-AM2	SUN-6K-SG01 HP3-AU-AM2	SUN-8K-SG01 HP3-AU-AM2	SUN-10K-SG01 HP3-AU-AM2	SUN-12K-SG01 HP3-AU-AM2	SUN-15K-SG01 HP3-AU-AM2	SUN-20K-SG01 HP3-AU-AM2	SUN-25K-SG01 HP3-AU-AM2
Battery Input Data								
Battery Type	Lithium-ion							
Battery Voltage Range (V)	160-700							
Max. Charging Current (A)	30	30	37					50
Max. Discharging Current (A)	30	30	37					50
Charging Strategy for Li-ion Battery	Self-adaption to BMS							
Number of Battery Input	1							
PV String Input Data								
Max. PV Input Power (W)	7500	9000	12000	15000	18000	22500	30000	37500
Max. PV Input Voltage (V)	1000							
Start-up Voltage (V)	180							
MPPT Voltage Range (V)	150-850							
Rated PV Input Voltage (V)	600							700
Max. Operating PV Input Current (A)	20+20				26+20		26+26	
Max. Input Short-Circuit Current (A)	30+30				39+30		39+39	
No. of MPP Trackers/ No. of Strings MPP Tracker	2/1+1				2/2+1		2/2+2	
AC Input/Output Data								
Rated AC Input/Output Active Power (W)	5000	6000	8000	10000	12000	15000	20000	25000
Max. AC Input/Output Apparent Power (VA)	5000	6000	8000	10000	12000	15000	20000	25000
Rated AC Input/Output Current (A)	7.3	8.7	11.6	14.5	17.4	21.8	29	36.3
Max. AC Input/Output Current (A)	7.3	8.7	11.6	14.5	17.4	21.8	29	36.3
Max. Continuous AC Passthrough (grid to load) (A)	40				80			
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)	230/400V 240/415V 0.85Un-1.1Un							
Rated Input/Output Grid Frequency/Range(Hz)	50Hz/45Hz-55Hz							
Grid Connection Form	3L+N+PE							
Total Current Harmonic Distortion THDi	<3% (of nominal power)							
DC Injection Current	<0.5% In							
Efficiency								
Max. Efficiency	97.6%							
Euro Efficiency	97.0%							
MPPT Efficiency	>99%							
Equipment Protection								
Integrated	DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Overvoltage Load Drop Protection, Ground Fault Current Monitoring, Arc Fault Circuit Interrupter (optional), Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch, DC Terminal Insulation Impedance Monitoring, Residual Current (RCD) Detection, Surge protection level							
Surge Protection Level	TYPE II(DC), TYPE II(AC)							
Interface								
Communication Interface	RS485/CAN							
Monitor Mode	GPRS/WIFI/Bluetooth/4G/LAN(optional)							
General Data								
Operating Temperature Range (℃)	-40 to +60°C, >45°C Derating							
Permissible Ambient Humidity	0-100%							
Permissible Altitude	2000m							
Noise (dB)	≤55							
Ingress Protection(IP) Rating	IP 65							
Inverter Topology	Transformerless							
Over Voltage Category	OVC II(DC), OVC III(AC)							
Cabinet Size (WxHxD mm)	408×638×237 (Excluding Connectors and Brackets)							
Weight (kg)	30.5							
Type of Cooling	Natural Cooling	Intelligent Air Cooling						
Warranty	10 Year							
Grid Regulation	AS/NZS 4777.2							
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2							