Three Phase Hybrid Inverter

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

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 50A
- Support storing energy from diesel generator
- 100% unbalanced output

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/Discharging Current (A)	30		37					50
Charging Strategy for Li-ion Battery	Self-adaption to BMS							
Number of Battery Input	1							
PV String Input Data								
Max. PV access power (W)	10000	12000	16000	20000	24000	30000	40000	50000
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	9999	12000	15000	20000	25000
Rated/Max. AC Input/Output Apparent Power (VA)	5000	6000	8000	9999	12000	15000	20000	25000
Rated AC Input/Output Current (A)	7.3	8.7	11.6	14.5	17.4	21.8	29.0	36.3
Max. AC Input/Output Current (A)	7.3	8.7	11.6	14.5	17.4	21.8	29.0	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	230/400V 240/415V 0.85Un-1.1Un 3L+N+PE							
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55, 60/55-65							
Total Current Harmonic Distortion THDi	<3% (of nominal power)							
DC Injection Current	<0.5% In							
Generator Data								
Nominal Input Voltage (V)	230/400V, 240/415V							
Rated Input Current (A)	40				80			
Power Factor	0.8 leading-0.8 lagging							
Frequency	50Hz							
Backup Data								
Nominal Output Voltage (V)	230/400V,240/415V							
Rated Output Current (A)	7.3	8.7	11.6	14.5	17.4	21.8	29.0	36.3
Rated Apparent Power (VA)	5000	6000	8000	10000	12000	15000	20000	25000
Power Factor	0.8 leading-0.8 lagging							
Frequency	50Hz							
Efficiency								
Max. Efficiency	97.6%							
Euro Efficiency	97.0%							
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(Active Frequency shift), DC Switch, Insulation Impedance Detection, Residual Current Detection							
Surge Protection Level	TYPE II(DC), TYPE II(AC)							
Interface								
LCD/LED Display	LCD							
Communication Interface	WiFi, RS485, CAN							
General Data								
Operating Temperature Range (°C)	-40 to +60°C, >45°C Derating							
Permissible Ambient Humidity	0-100%							
Permissible Altitude	2000m							
Noise (dB)	≤55							
Ingress Protection(IP) Rating	IP 65							
Protection Level	Class I							
Inverter Topology	Non-Isolated							
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 Years							
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							