

Three Phase Hybrid Inverter

SUN-29.9K-SG01HP3-AU-BM3
SUN-40/50K-SG01HP3-AU-BM4



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 100A
- Support storing energy from diesel generator

Model	SUN-29.9K-SG01HP3 -AU-BM3		SUN-40K-SG01HP3 -AU-BM4		SUN-50K-SG01HP3 -AU-BM4	
Battery Input Data						
Battery Type	Lithium-ion					
Battery Voltage Range (V)	160-800					
Max. Charging/Discharging Current (A)	50+50					
Charging Strategy for Li-ion Battery	Self-adaption to BMS					
Number of Battery Input	2					
PV String Input Data						
Max. PV access power (W)	50000	80000	100000			
Max. PV Input Power (W)	44850	60000	75000			
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)	36+36+36	36+36+36+36				
Max. Input Short-Circuit Current (A)	55+55+55	55+55+55+55				
No. of MPP Trackers/ No. of Strings MPP Tracker	3/2+2+2	4/2+2+2+2				
AC Input/Output Data						
Rated AC Input/Output Active Power (W)	29900	40000	50000			
Rated/Max. AC Input/Output Apparent Power (VA)	29900	40000	50000			
Rated AC Input/Output Current (A)	43.4	58	72.5			
Max. AC Input/Output Current (A)	43.4	58	72.5			
Max. Continuous AC Passthrough (grid to load) (A)	200					
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					
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)	200					
Power Factor	0.8 leading-0.8 lagging					
Frequency	50Hz					
Backup Data						
Nominal Output Voltage (V)	230/400V,240/415V					
Rated Output Current (A)	43.4	58	72.5			
Rated Apparent Power (VA)	29900	40000	50000			
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)	≤65					
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)	527×894×294 (Excluding Connectors and Brackets)					
Weight (kg)	80					
Type of 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					