

Three Phase Hybrid Inverter

SUN-29.9/35K-SG01HP3-AU-BM3
SUN-40/50K-SG01HP3-AU-BM4



- 100** 100% unbalanced output, each phase
- H** High voltage battery, higher efficiency
- AC** AC couple to retrofit existing solar system
- 100** Max. charging/discharging current of 100A
- 10** Max. 10 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 6** 6 time periods for battery charging/discharging
- Generator** Support storing energy from diesel generator

Technical Data

Model	SUN-29.9K-SG01HP3 -AU-BM3	SUN-35K-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 Current (A)	50+50			
Max. 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 Input Power (W)	44850	52500	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	35000	40000	50000
Max. AC Input/Output Apparent Power (VA)	29900	35000	40000	50000
Rated AC Input/Output Current (A)	43.4	50.8	58	72.5
Max. AC Input/Output Current (A)	43.4	50.8	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/Range (V)	230/400V 0.85Un-1.1Un			
Rated Input/Output Grid Frequency/Range(Hz)	50Hz/45Hz-55Hz 60Hz/55Hz-65Hz			
Grid Connection Form	3L+N+PE			
Total Current Harmonic Distortion THDi	<3% (of nominal power)			
DC Injection Current	<0.5% In			
Efficiency				
Max. Efficiency	97.60%			
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)	≤65			
Ingress Protection(IP) Rating	IP 65			
Inverter Topology	Transformerless			
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			