

Three Phase Hybrid Inverter

SUN-30K-SG01HP3-US-BM3-277V
SUN-40/50/60K-SG01HP3-US-BM4-277V



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
- 100% unbalanced output

Model	SUN-30K-SG01HP3 -US-BM3-277V	SUN-40K-SG01HP3 -US-BM4-277V	SUN-50K-SG01HP3 -US-BM4-277V	SUN-60K-SG01HP3 -US-BM4-277V
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)	60000	80000	100000	120000
Max. PV Input Power (W)	39000	52000	65000	78000
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)	30000	40000	50000	60000
Max. AC Input/Output Apparent Power (VA)	30000	40000	50000	60000
Rated AC Input/Output Current (A)	36.2	48.2	60.2	72.3
Max. AC Input/Output Current (A)	36.2	48.2	60.2	72.3
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	277V/480V 0.88Un-1.1Un 3L+N+PE			
Rated Input/Output Grid Frequency/Range(Hz)	60/55-65			
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 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) , 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			
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	TYPE3R			
Inverter Topology	Non-Isolated			
Over Voltage Category	OVC II(DC), OVC IV(AC)			
Cabinet Size (WxHxD mm)	527×894×294 (Excluding Connectors and Brackets)			
Weight (kg)	80			
Type of Cooling	Intelligent Air Cooling			
Warranty	5 Years / Up to 10 Years* *Warranty period varies by installation country. Refer to the Warranty Policy for details.			
Grid Regulation	IEEE 1547.1,SRD V2.0			
Safety / EMC Standard	FCC, UL 1741			