

Three Phase Hybrid Inverter

SUN-30K-SG01HP3-US-BM3-277V

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



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

Technical Data

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 Current (A)	50+50			
Max. Discharging Current (A)	50+50			
Number of Battery Input	2			
Charging Strategy for Li-Ion Battery	Self-adaption to BMS			
PV String Input Data				
Max. DC Input Power (W)	39000	52000	65000	78000
Max. DC Input Voltage (V)	1000			
Start-up Voltage (V)	180			
MPPT Range (V)	150-850			
Full Load DC Voltage Range (V)	360-850	360-850	450-850	540-850
Rated DC Input Voltage (V)	600			
PV Input Current (A)	36+36+36		36+36+36+36	
Max. PV I _{SC} (A)	55+55+55		55+55+55+55	
No. of MPP Trackers	3		4	
No. of Strings per MPP Tracker	2+2+2		2+2+2+2	
AC Output Data				
Rated AC Output Active Power (W)	30000	40000	50000	60000
Max AC Output Active Power (W)	30000	40000	50000	60000
AC Output Rated Current (A)	36.2	48.2	60.2	72.3
Max. AC Output Current (A)	36.2	48.2	60.2	72.3
Max. Three-phase Unbalanced Output Current (A)	50	60	70	83.3
Max. Continuous AC Passthrough (A)	200			
Peak Power (Off Grid)	1.5 time of rated power, 10 S			
Generator Input/Smart Load /AC Couple Current (A)	36.2 / 200 / 36.2	48.2 / 200 / 48.2	60.2 / 200 / 60.2	72.3 / 200 / 72.3
Power Factor Adjustment Range	0.8 leading to 0.8 lagging			
Output Frequency and Voltage	60Hz; 3L/N/PE 277/480Vac			
Grid Type	Three Phase			
Total Harmonics Current Distortion (THDi)	<3% (of nominal power)			
DC Current Injection	<0.5% I _n			
Efficiency				
Max. Efficiency	97.60%			
Euro Efficiency	97.00%			
MPPT Efficiency	99.90%			
Protection				
Integrated	Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge Protection			
Over Voltage Category	DC Type II/AC Type III			
Certifications and Standards				
Grid Regulation	IEEE 1547.1, SRD V2.0			
Safety EMC / Standard	FCC, UL 1741			
General Data				
Operating Temperature Range (°C)	-40-60°C, >45°C Derating			
Cooling	Smart Cooling			
Noise (dB)	≤65 dB			
Communication with BMS	CAN			
Weight (kg)	80			
Cabinet Size (WxHxD mm)	527×894×294 (Excluding Connectors and Brackets)			
Protection Degree	TYPE 3R			
Installation Style	Wall-mounted			
Warranty	5 Years (10 Years Optional)			

*Note: Parallel operation for 5 inverters is usable. Parallel operation is currently being tested for up to ten inverters. The prerequisite for parallel operation is that only Deye high-voltage inverters with the same power and Deye high-voltage storage battery can be used.