

Three Phase Hybrid Inverter

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



- 100

100% unbalanced output, each phase
- Battery

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.