

# Three Phase Hybrid Inverter

SUN-5/8/10/15K-SG01HP3-US-AM2



- 100** 100% unbalanced output, each phase
- H** AC couple to retrofit existing solar system
- 10** \*Max. 10pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 50** Max. charging/discharging current of 50A
- H** High voltage battery, higher efficiency
- 6** 6 time periods for battery charging/discharging
- G** Support storing energy from diesel generator

## Technical Data

Model	SUN-5K-SG01HP3 -US-AM2	SUN-8K-SG01HP3 -US-AM2	SUN-10K-SG01HP3 -US-AM2	SUN-15K-SG01HP3 -US-AM2
<b>Battery Input Data</b>				
Battery Type	Lithium-ion			
Battery Voltage Range (V)	160-500			
Max. Charging Current (A)	50			
Max. Discharging Current (A)	50			
Number of Battery Input	1			
Charging Strategy for Li-Ion Battery	Self-adaption to BMS			
<b>PV String Input Data</b>				
Max. DC Input Power (W)	6500	10400	13000	19500
Max. DC Input Voltage (V)	550			
Start-up Voltage (V)	180			
MPPT Range (V)	150-500			
Full Load DC Voltage Range (V)	163-500	227-500	250-500	317-500
Rated DC Input Voltage (V)	380			
PV Input Current (A)	20+20	26+20	26+26	
Max. PV I <sub>sc</sub> (A)	30+30	39+30	39+39	
No. of MPP Trackers	2			
No. of Strings per MPP Tracker	1+1	2+1	2+2	
<b>AC Output Data</b>				
Rated AC Output Active Power (W)	5000	8000	10000	15000
Max AC Output Active Power (W)	5000	8000	10000	15000
AC Output Rated Current (A)	13.9	22.3	27.8	41.7
Max. AC Output Current (A)	13.9	22.3	27.8	41.7
Max. Three-phase Unbalanced Output Current (A)	22	30	35	40
Max. Continuous AC Passthrough (A)	40	80		
Peak Power (Off Grid)	1.5 time of rated power, 10 S			
Generator Input/Smart Load /AC Couple Current (A)	13.9 / 80 / 13.9	22.3 / 80 / 22.3	27.8 / 80 / 27.8	41.7 / 80 / 41.7
Power Factor Adjustment Range	0.8 leading to 0.8 lagging			
Output Frequency and Voltage	60Hz; 3L/N/PE 120/208Vac			
Grid Type	Three Phase			
Total Harmonics Current Distortion (THDi)	<3% (of nominal power)			
DC Current Injection	<0.5% I <sub>n</sub>			
<b>Efficiency</b>				
Max. Efficiency	97.60%			
Euro Efficiency	97.00%			
MPPT Efficiency	99.90%			
<b>Protection</b>				
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			
<b>Certifications and Standards</b>				
Grid Regulation	IEEE 1547.1, SRD V2.0			
Safety EMC / Standard	FCC, UL 1741			
<b>General Data</b>				
Operating Temperature Range (°C)	-40-60°C, >45°C Derating			
Cooling	Smart Cooling			
Noise (dB)	≤55 dB			
Communication with BMS	CAN			
Weight (kg)	30.5			
Cabinet Size (WxHxD mm)	408×648×247 (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.