Three Phase Hybrid Inverter

SUN-20/25K-SG01HP3-US-BM3
SUN-30K-SG01HP3-US-BM4

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

Technical Data

Model	SUN-20K-SG01HP3 -US-BM3	SUN-25K-SG01HP3 -US-BM3	SUN-30K-SG01HP3 -US-BM4
Battery Input Data			
Battery Type	Lithium-ion		
Battery Voltage Range (V)	160-500		
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)	26000	32500	39000
Max. DC Input Voltage (V)	550		
Start-up Voltage (V)	180		
MPPT Range (V)	150-500		
Full Load DC Voltage Range (V)	240-500	300-500	270-500
Rated DC Input Voltage (V)	380		
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)	20000	25000	30000
Max AC Output Active Power (W)	20000	25000	30000
AC Output Rated Current (A)	55.6	69.5	83.4
Max. AC Output Current (A)	55.6	69.5	83.4
Max. Three-phase Unbalanced Output Current (A)	80	85	90
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)	55.6 / 200 / 55.6	69.5 / 200 / 69.5	83.4 / 200 / 83.4
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% In		
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	IEC 61727, IEC 62116, CEI 0-21, CEI 0-16, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105, VDE-AR-N 4110		
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2		
General Data			
Operating Temperature Range (℃)	-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.