



# Three Phase Hybrid Inverter

SUN-29.9/30/35K-SG01HP3-EU-BM3  
SUN-40/50K-SG01HP3-EU-BM4



- 100** 100% unbalanced output, each phase; Max. output up to 50% rated power
-  DC couple and 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
-  Support storing energy from diesel generator

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# Technical Data

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Model	SUN-29.9K-SG01HP3 -EU-BM3	SUN-30K-SG01HP3 -EU-BM3	SUN-35K-SG01HP3 -EU-BM3	SUN-40K-SG01HP3 -EU-BM4	SUN-50K-SG01HP3 -EU-BM4
<b>Battery Input Data</b>					
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				
<b>PV String Input Data</b>					
Max. DC Input Power (W)	38870	39000	45500	52000	65000
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	360-850	360-850	450-850
Rated DC Input Voltage (V)	600				
PV Input Current (A)	36+36+36	36+36+36	36+36+36	36+36+36+36	
Max. PV I <sub>SC</sub> (A)	55+55+55	55+55+55	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	
<b>AC Output Data</b>					
Rated AC Output Active Power (W)	29900	30000	35000	40000	50000
Max AC Output Active Power (W)	29900	33000	38500	44000	55000
AC Output Rated Current (A)	45.4/43.4	45.5/43.5	53.1/50.8	60.7/58	75.8/72.5
Max. AC Output Rated Current (A)	45.4/43.4	50/47.8	58.4/55.8	66.7/63.8	83.4/79.7
Max. Three-phase Unbalanced Output Current (A)	60	60	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)	45.4 / 200 / 45.4	45.5 / 200 / 45.5	53.1 / 200 / 53.1	60.7 / 200 / 60.7	75.8 / 200 / 75.8
Power Factor Adjustment Range	0.8 leading to 0.8 lagging				
Output Frequency and Voltage	50/60Hz; 3L/N/PE 220/380, 230/400Vac				
Grid Type	Three Phase				
Total Harmonic Distortion (THD)	<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	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150				
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2				
<b>General Data</b>					
Operating Temperature Range (°C)	-40-60°C, >45°C Derating				
Cooling	Smart Cooling				
Noise (dB)	≤65 dB				
Communication with BMS	RS485; CAN				
Weight (kg)	80				
Cabinet Size (WxHxD mm)	527×894×294 (Excluding Connectors and Brackets)				
Protection Degree	IP65				
Installation Style	Wall-mounted				
Warranty	5 Years (10 Years Optional)				

\*Note: The function of Multiple units work in parallel mode will be available in Q1 2023