

Three Phase Hybrid Inverter

SUN-29.9/30/35K-SG01HP3-EU-BM3

SUN-40/50K-SG01HP3-EU-BM4



- 100** 100% unbalanced output, each phase
-  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

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
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				
Charging Strategy for Li-ion Battery	Self-adaption to BMS				
Number of Battery Input	2				
PV String Input Data					
Max. PV Access Power (W)	59800	60000	70000	80000	100000
Max. PV Input Power (W)	47840	48000	56000	64000	80000
Max. PV Input Voltage (V)	1000				
Start-up Voltage (V)	180				
MPPT Voltage Range (V)	150-850				
Rated PV Input Voltage (V)	600				
Max. Operating PV Input Current (A)	36+36+36			36+36+36+36	
Max. Input Short-Circuit Current (A)	55+55+55			55+55+55+55	
No. of MPP Trackers/ No. of Strings MPP Tracker	3/2+2+2			4/2+2+2+2	
AC Input/Output Data					
Rated AC Input/Output Active Power (W)	29900	30000	35000	40000	50000
Max. AC Input/Output Apparent Power (VA)	29900	33000	38500	44000	55000
Rated AC Input/Output Current (A)	45.4/43.4	45.5/43.5	53.1/50.8	60.7/58	75.8/72.5
Max. AC Input/Output Current (A)	45.4/43.4	50/47.9	58.4/55.8	66.7/63.8	83.4/79.8
Max. Continuous AC Passthrough (grid to load) (A)	200				
Peak Power (off-grid) (W)	1.5 times of rated power, 10s				
Power Factor Adjustment Range	0.8 leading to 0.8 lagging				
Rated Input/Output Voltage/Range (V)	220/380V, 230/400V 0.85Un-1.1Un				
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55, 60/55-65				
Grid Connection Form	3L+N+PE				
Total Current Harmonic Distortion THDi	<3% (of nominal power)				
DC Injection Current	<0.5% In				
Efficiency					
Max. Efficiency	97.60%				
Euro Efficiency	97.0%				
MPPT Efficiency	>99%				
Equipment Protection					
Integrated	DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Overvoltage Load Drop Protection, Ground Fault Current Monitoring, Arc Fault Circuit Interrupter (optional), Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch, DC Terminal Insulation Impedance Monitoring, Residual Current (RCD) Detection, Surge protection level				
Surge Protection Level	TYPE II(DC), TYPE II(AC)				
Interface					
Communication Interface	RS485/RS232/CAN				
Monitor Mode	GPRS/WIFI/Bluetooth/4G/LAN(optional)				
General Data					
Operating Temperature Range (°C)	-40 to +60°C, >45°C Derating				
Permissible Ambient Humidity	0-100%				
Permissible Altitude	2000m				
Noise (dB)	≤65				
Ingress Protection(IP) Rating	IP 65				
Inverter Topology	Non-Isolated				
Over Voltage Category	OVC II(DC), OVC III(AC)				
Cabinet Size (WxHxD mm)	527×894×294 (Excluding Connectors and Brackets)				
Weight (kg)	80				
Type of Cooling	Intelligent Air Cooling				
Warranty	5 Years/10 Years the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy				
Grid Regulation	IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105				
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2				

BOS-G PRO



- **Convenient**
Quick installation, standard of 19-inch embedded designed module is comfortable for installation and maintenance.
- **Safe And Reliable**
Cathode material is made from LiFePO4 with safety performance and long cycle life, The module has less self-discharge, up to 6 months without charging it on shelf, no memory effect, excellent performance of shallow charge and discharge.
- **Intelligent BMS**
It has protection functions including over-discharge, over-charge, overcurrent and over-high or low temperature. The system can automatically manage charge and discharge state and balance current and voltage of each cell.
- **Eco-friendly**
The whole module is non-toxic, non-polluting and environmentally friendly.
- **Flexible Configuration**
Multiple battery modules can be in parallel for expanding capacity and power. Support USB upgrade, wifi upgrade (optional), remote upgrade (Compatible with Deye inverter).
- **Wide Temperature**
Working temperature range is from -20°C to 55°C, with excellent discharge performance and cycle life.

Technical Data

Model		BOS-G PRO			
Main Parameter					
Cell Chemistry		LiFePO4			
Module Energy (kWh)		5.12			
Module Nominal Voltage (V)		51.2			
Module Capacity (Ah)		100			
Battery Module Number		BOS-G25 PRO	BOS-G40 PRO	BOS-G60 PRO	BOS-G85 PRO
Battery Module Qty in series. (Optional)		5 (Min)	8	12	17 (Max)
System Nominal Voltage (V)		256	409.6	614.4	870.4
System Operating voltage (V)		220~292	352~467.2	528~700.8	748~992.8
System Energy (kWh)		25.6	40.96	61.44	87.04
System Usable Energy (kWh) ^[1]		23.04	36.86	55.3	78.33
Rated DC Power (kW)		25.6	40.96	55.3	87.04
Charge/Discharge Current (A) ^[2]	Recommend	50			
	Max	100			
	Peak Discharge	125 (2mins, 25°C)			
Working Temperature (°C)		Charge: 0°C~55°C / Discharge: -20°C~55°C			
Status Indicator		Yellow: Battery High Voltage Power On Red: Battery System Alarm			
Communication Port		CAN2.0 / RS485			
Humidity		5~85%RH			
Altitude		≤3500m			
IP Rating of Enclosure		IP20			
Dimension (W/D/H, mm)		530*602*1629		530*602*2219	1060*602*1629
Weight Approximate (kg)		285	420	610	866
Installation Location		Rack Mounting			
Storage Temperature (°C)		0°C~35°C			
Recommend Depth of Discharge		90%			
Cycle Life		25°C±2°C, 0.5C/0.5C, EOL70%≥6000			
Warranty ^[3]		10 years			
Certification		CE, IEC62619, VDE2510-50, UN38.3			

[1] DC Usable Energy, test conditions: 90% DOD, 0.3C charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.

[2] The current is affected by temperature and SOC.

[3] The warranty is due whichever reached first of warranty period or life cycle power.

[4] Made in China.