



# Three Phase Hybrid Inverter

SUN-29.9/30/35K-SG02HP3-EU-BM3

SUN-40/50K-SG02HP3-EU-BM4



- 100** 100% unbalanced output
-  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

**Deye**



Stock Code: 605117.SH

Model	SUN-29.9K-SG02HP3 -EU-BM3	SUN-30K-SG02HP3 -EU-BM3	SUN-35K-SG02HP3 -EU-BM3	SUN-40K-SG02HP3 -EU-BM4	SUN-50K-SG02HP3 -EU-BM4
<b>Battery Input Data</b>					
Battery Type	Lithium-ion				
Battery Voltage Range (V)	160-800				
Max. Charging Current (A)	100				
Max. Discharging Current (A)	100				
Charging Strategy for Li-ion Battery	Self-adaption to BMS				
Number of Battery Input	1				
<b>PV String Input Data</b>					
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	
<b>AC Input/Output Data</b>					
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				
<b>Efficiency</b>					
Max. Efficiency	97.60%				
Euro Efficiency	97.0%				
MPPT Efficiency	>99%				
<b>Equipment Protection</b>					
Integrated	DC Reverse Polarity Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Arc Fault Circuit Interrupter (optional), Anti-islanding Protection, DC Switch, Insulation Impedance Detection, Residual Current Detection				
Surge Protection Level	TYPE II(DC), TYPE II(AC)				
<b>Interface</b>					
LCD/LED Display	LCD				
Communication Interface	WIFI/RS485/CAN				
Monitor Mode	GPRS/WIFI/Bluetooth/4G				
<b>General Data</b>					
Operating Temperature Range (°C)	-40 to +60°C, >45°C Derating				
Permissible Ambient Humidity	0-100%				
Permissible Altitude	3000m				
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)	528×793×278 (Excluding Connectors and Brackets)				
Weight (kg)	65				
Type of Cooling	Intelligent Air Cooling				
Warranty	Standard 5 years, extended warranty				
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				

# Three Phase Hybrid Inverter

SUN-100/125K-SG02HP3-EU-GM10



- 100** 100% unbalanced output
-  AC couple to retrofit existing solar system
- 10** Max. 10 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel
- 200** Max. charging/discharging current of 200A
- H** High voltage battery, higher efficiency
- 6** 6 time periods for battery charging/discharging
-  Support storing energy from diesel generator

**Deye**

Stock Code: 605117.SH

Model	SUN-100K-SG02HP3-EU-GM10	SUN-125K-SG02HP3-EU-GM10
<b>Battery Input Data</b>		
Battery Type	Lithium-ion	
Battery Voltage Range (V)	160-1000	
Max. Charging Current (A)	100+100	
Max. Discharging Current (A)	100+100	
Charging Strategy for Li-ion Battery	Self-adaption to BMS	
Number of Battery Input	2	
<b>PV String Input Data</b>		
Max. PV Access Power (W)	200000	250000
Max. PV Input Power (W)	160000	200000
Max. PV Input Voltage (V)	1000	
Start-up Voltage (V)	180	
MPPT Voltage Range (V)	150-850	
Rated PV Input Voltage (V)	650	
Max. Operating PV Input Current (A)	42+42+42+42+42+42+42+42+42+42	
Max. Input Short-Circuit Current (A)	63+63+63+63+63+63+63+63+63+63	
No. of MPP Trackers/No. of Strings MPP Tracker	10/2+2+2+2+2+2+2+2+2+2	
<b>AC Input/Output Data</b>		
Rated AC Input/Output Active Power (W)	100000	125000
Max. AC Input/Output Apparent Power (VA)	110000	135000
Rated AC Input/Output Current (A)	151.6/145.0	189.4/181.2
Max. AC Input/Output Current (A)	166.7/159.5	204.6/195.7
Max. Continuous AC Passthrough (grid to load) (A)	250	
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	
<b>Efficiency</b>		
Max. Efficiency	98.70%	
Euro Efficiency	98.10%	
MPPT Efficiency	>99%	
<b>Equipment Protection</b>		
Integrated	DC Reverse Polarity Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Arc Fault Circuit Interrupter(AFCI) (optional), Anti-islanding Protection, DC Switch, Insulation Impedance Detection, Residual Current Detection	
Surge Protection Level	TYPE II(DC),TYPE II(AC)	
<b>Interface</b>		
LCD/LED Display	LCD+LED	
Communication Interface	RS485,RS232,CAN	
Monitor Mode	GPRS/WIFI/Bluetooth/4G/LAN(optional)	
<b>General Data</b>		
Operating Temperature Range (°C)	-40 to +60°C, >45°C Derating	
Permissible Ambient Humidity	0-100%	
Permissible Altitude	3000m	
Noise	≤ 65 dB(A)	
Ingress Protection(IP) Rating	IP 65	
Inverter Topology	Non-Isolated	
Over Voltage Category	OVC II(DC), OVC III(AC)	
Cabinet Size (WxHxD mm)	734×1091×344 (Excluding Connectors and Brackets)	
Weight (kg)	161.7	
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	

# Three Phase Hybrid Inverter

SUN-100K-SG02HP3-EU-GM8  
SUN-100/125K-SG02HP3-EU-GM10



## Efficient

- High voltage battery, higher efficiency



## Intelligent

- 6 time periods for battery charging/discharging



## Flexible

- AC couple to retrofit existing solar system
- Max. 10 pcs parallel for on-grid and off-grid operation; support multiple batteries parallel



## Reliable

- Max. charging/discharging current of 200A
- Support storing energy from diesel generator
- 100% unbalanced output

Model	SUN-100K-SG02HP3-EU-GM8	SUN-100K-SG02HP3-EU-GM10	SUN-125K-SG02HP3-EU-GM10
<b>Battery Input Data</b>			
Battery Type	Lithium-ion		
Battery Voltage Range (V)	160-1000		
Max. Charging/Discharging Current (A)	100+100		
Charging Strategy for Li-ion Battery	Self-adaption to BMS		
Number of Battery Input	2		
<b>PV String Input Data</b>			
Max. PV access power (W)	200000	200000	250000
Max. PV Input Power (W)	160000	160000	200000
Max. PV Input Voltage (V)	1000		
Start-up Voltage (V)	180		
MPPT Voltage Range (V)	150-850		
Rated PV Input Voltage (V)	650		
Max. Operating PV Input Current (A)	42+42+42+42+42+42+42+42	42+42+42+42+42+42+42+42+42	42+42+42+42+42+42+42+42+42
Max. Input Short-Circuit Current (A)	63+63+63+63+63+63+63+63	63+63+63+63+63+63+63+63+63	63+63+63+63+63+63+63+63+63
No. of MPP Trackers/ No. of Strings MPP Tracker	8/2+2+2+2+2+2+2+2	10/2+2+2+2+2+2+2+2+2	10/2+2+2+2+2+2+2+2+2
<b>AC Input/Output Data</b>			
Rated AC Input/Output Active Power (W)	100000	100000	125000
Max. AC Input/Output Apparent Power (VA)	110000	110000	135000
Rated AC Input/Output Current (A)	151.6/145.0	151.6/145.0	189.4/181.2
Max. AC Input/Output Current (A)	166.7/159.5	166.7/159.5	204.6/195.7
Max. Continuous AC Passthrough (grid to load) (A)	250		
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	220/380V, 230/400V 0.85Un-1.1Un 3L+N+PE		
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55, 60/55-65		
Total Current Harmonic Distortion THDi	<3% (of nominal power)		
DC Injection Current	<0.5% In		
<b>Efficiency</b>			
Max. Efficiency	98.70%		
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Integrated	DC Reverse Polarity Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Arc Fault Circuit Interrupter (AFCI) (optional), Anti-islanding Protection, DC Switch, Insulation Impedance Detection, Residual Current Detection		
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Permissible Ambient Humidity	0-100%		
Permissible Altitude	3000m		
Noise (dB)	≤65		
Ingress Protection(IP) Rating	IP 65		
Inverter Topology	Non-Isolated		
Over Voltage Category	OVC II(DC), OVC III(AC)		
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