

Split Phase Hybrid Inverter

SUN-5/6/7.6/8K-SG02LP2-US-AM2

SUN-10/12K-SG02LP2-US-AM3



Colorful touch LCD, IP65 protection degree



AC couple to retrofit existing solar system



Max. 16 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel



Max. charging/discharging current of 250A



6 time periods for battery charging/discharging



Support storing energy from diesel generator



Stock Code: 605117.SH

Technical Data

Model	SUN-5K-SG02 LP2-US-AM2	SUN-6K-SG02 LP2-US-AM2	SUN-7.6K-SG02 LP2-US-AM2	SUN-8K-SG02 LP2-US-AM2	SUN-10K-SG02 LP2-US-AM3	SUN-12K-SG02 LP2-US-AM3
Battery Input Data						
Battery Type	Lead-acid or Lithium-ion					
Battery Voltage Range (V)	40-60					
Max. Charging Current (A)	120	135	190	190	220	250
Max. Discharging Current (A)	120	135	190	190	220	250
Charging Strategy for Li-ion Battery	Self-adaption to BMS					
Number of Battery Input	1					
PV String Input Data						
Max. PV Input Power (W)	7500	9000	11400	12000	15000	18000
Max. PV Input Voltage (V)	500					
Start-up Voltage (V)	125					
MPPT Voltage Range (V)	150-425					
Rated PV Input Voltage (V)	370					
Max. Operating PV Input Current (A)	20+20		26+26		26+26+26	
Max. Input Short-Circuit Current (A)	44+44		44+44		44+44+44	
No. of MPP Trackers/ No. of Strings MPP Tracker	2/2+2				3/2+2+2	
AC Input/Output Data						
Rated AC Input/Output Active Power (W)	5000	6000	7600	8000	10000	12000
Max. AC Input/Output Apparent Power (VA)	5000	6000	7600	8000	10000	12000
Rated AC Input/Output Current (A)	20.9	25	31.7	33.4	41.7	50
Max. AC Input/Output Current (A)	20.9	25	31.7	33.4	41.7	50
Max. Continuous AC Passthrough (grid to load) (A)	35	40	50		60	
Peak Power (off-grid) (W)	2 times of rated power, 10s					
Power Factor Adjustment Range	0.9-1					
Rated Input/Output Voltage/Range (V)	120/240; 208 0.88Un<U<1.1Un					
Rated Input/Output Grid Frequency/Range(Hz)	60/55-65					
Grid Connection Form	2L+N+PE					
Total Current Harmonic Distortion THDi	<3% (of nominal power)					
DC Injection Current	<0.5% In					
Efficiency						
Max. Efficiency	97.6%					
Euro Efficiency	96.5%					
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)	<45					
Ingress Protection(IP) Rating	TYPE 3R					
Inverter Topology	Non-Isolated					
Over Voltage Category	OVC II(DC), OVC III(AC)					
Cabinet Size (WxHxD mm)	420×670×233 (Excluding Connectors and Brackets)					
Weight (kg)	35.6					
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	IEEE 1547.1, SRD V2.0					
Safety / EMC Standard	FCC, UL 1741					

8. Datasheet

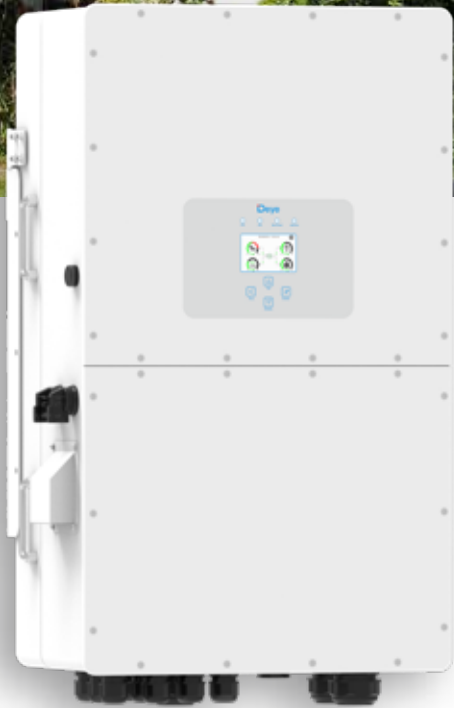
Model	SUN-8K-SG01HP3-US-AM2	SUN-10K-SG01HP3-US-AM2	SUN-12K-SG01HP3-US-AM2	SUN-15K-SG01HP3-US-AM2
Battery Input Data				
Battery Type	Lithium-ion			
Battery Voltage Range(V)	160-500			
Max. Charging Current(A)	50			
Max. Discharging Current(A)	50			
Charging Strategy for Li-ion Battery	Self-adaption to BMS			
Number of Battery Input	1			
PV String Input Data				
Max. PV access power(W)	16000	20000	24000	30000
Max. PV Input Power(W)	12800	16000	19200	24000
Max. PV Input Voltage (V)	550			
Start-up Voltage(V)	180			
PV Input Voltage Range(V)	180-550			
MPPT Voltage Range(V)	150-500			
Full Load MPPT Voltage Range(V)	200-500	250-500	300-500	375-500
Rated PV Input Voltage (V)	380			
Max. Operating PV Input Current(A)	26+26			
Max. Input Short-Circuit Current(A)	39+39			
No. of MPP Trackers/No. of Strings MPP Tracker	2/2+2			
Max. Inverter Backfeed Current To the Array	0			
AC Input/Output Data				
Rated AC Input/Output Active Power(W)	8000	10000	12000	15000
Max. AC Input/Output Apparent Power(VA)	8000	10000	12000	15000
Peak Power (off-grid)(W)	1.5 time of rated power, 10 S			
Rated AC Input/Output Current(A)	22.3	27.8	33.4	41.7
Max. AC Input/Output Current(A)	22.3	27.8	33.4	41.7
Max. Continuous AC Passthrough (grid to load)(A)	80			
Rated Input/Output Voltage/Range(V)	120V/208V 0.88Un-1.1Un			
Grid Connection Form	3L+N+PE			
Rated Input/Output Grid Frequency/Range	60Hz/55Hz-65Hz			
Power Factor Adjustment Range	0.8 leading to 0.8 lagging			
Total Current Harmonic Distortion THDi	<3% (of nominal power)			
DC Injection Current	<0.5% In			
Efficiency				
Max. Efficiency	97.60%			
Euro Efficiency	97.00%			
MPPT Efficiency	>99%			
Equipment Protection				
DC Polarity Reverse Connection Protection	Yes			
AC Output Overcurrent Protection	Yes			
AC Output Overvoltage Protection	Yes			
AC Output Short Circuit Protection	Yes			
Thermal Protection	Yes			
DC Terminal Insulation Impedance Monitoring	Yes			

DC Component Monitoring	Yes
Ground Fault Current Monitoring	Yes
Arc fault circuit interrupter (AFCI)	Optional
Power Network Monitoring	Yes
Island Protection Monitoring	Yes
Earth Fault Detection	Yes
DC Input Switch	Yes
Overvoltage Load Drop Protection	Yes
Residual Current (RCD) Detection	Yes
Surge Protection Level	TYPE II(DC), TYPE II(AC)
Interface	
Display	LCD+LED
Communication Interface	RS232, RS485, CAN
Monitor Mode	GPRS/WIFI/Bluetooth/4G/LAN (optional)
General Data	
Operating Temperature Range	-40 to +60°C, >45°C Derating
Permissible Ambient Humidity	0-100%
Permissible Altitude	2000m
Noise	≤ 55 dB
Ingress Protection(IP) Rating	NEMA 3R, IP65
Inverter Topology	Non-Isolated
Over Voltage Category	OVC II(DC),OVC IV(AC)
Cabinet size(W*H*D) [mm]	408W×678H×247D (Excluding connectors and brackets)
Weight(kg)	30
Installation Style	Wall-mounted
Warranty	5 Years/10 Years the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy
Type of Cooling	Intelligent Air Cooling
Grid Regulation	IEEE 1547.1,SRD V2.0
Safety EMC/Standard	FCC,UL 1741

Three Phase Hybrid Inverter

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

SUN-30K-SG01HP3-US-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

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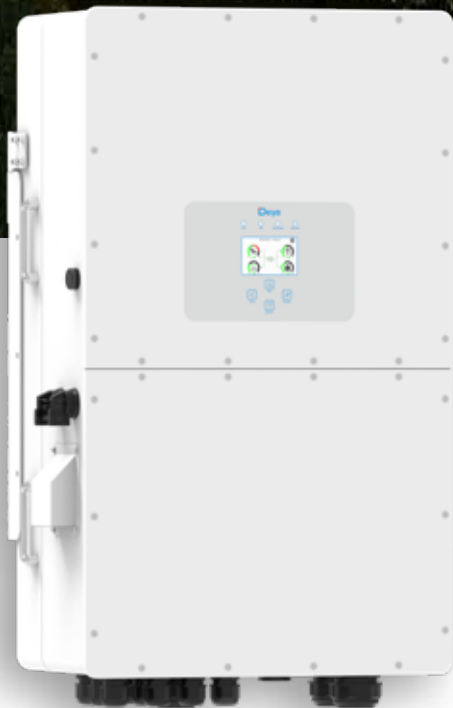
Stock Code: 605117.SH

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			
Charging Strategy for Li-ion Battery	Self-adaption to BMS			
Number of Battery Input	2			
PV String Input Data				
Max. PV Access Power (W)	40000	50000	60000	
Max. PV Input Power (W)	26000	32500	39000	
Max. PVInput Voltage (V)	550			
Start-up Voltage (V)	180			
MPPT Voltage Range (V)	150-500			
Rated PV Input Voltage (V)	380			
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 per MPP Tracker	3/2+2+2		4/2+2+2+2	
AC Input/Output Data				
Rated AC Input/Output Active Power (W)	20000	25000	30000	
Max. AC Input/Output Apparent Power (VA)	20000	25000	30000	
Rated AC Input/Output Current (A)	55.6	69.5	83.4	
Max. AC Input/Output Current (A)	55.6	69.5	83.4	
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)	120/208V 0.85Un-1.1Un			
Rated Input/Output Grid Frequency/Range(Hz)	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	WIFI, RS485, CAN			
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	TYPE3R			
Inverter Topology	Non-Isolated			
Over Voltage Category	OVC II(DC), OVC IV(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	IEEE 1547.1, SRD V2.0			
Safety / EMC Standard	FCC, UL 1741			

Three Phase Hybrid Inverter

SUN-30K-SG01HP3-US-BM3-277V

SUN-40/50/60K-SG01HP3-US-BM4-277V



- 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

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Model	SUN-30K-SG01HP3 -US-BM3-277V	SUN-40K-SG01HP3 -US-BM4-277V	SUN-50K-SG01HP3 -US-BM4-277V	SUN-60K-SG01HP3 -US-BM4-277V
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)	60000	80000	100000	120000
Max. PV Input Power (W)	39000	52000	65000	78000
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)	30000	40000	50000	60000
Max. AC Input/Output Apparent Power (VA)	30000	40000	50000	60000
Rated AC Input/Output Current (A)	36.2	48.2	60.2	72.3
Max. AC Input/Output Current (A)	36.2	48.2	60.2	72.3
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)	277/480V 0.85Un-1.1Un			
Rated Input/Output Grid Frequency/Range(Hz)	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	WIFI, RS485, CAN			
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	TYPE3R			
Inverter Topology	Non-Isolated			
Over Voltage Category	OVC II(DC), OVC IV(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	IEEE 1547.1, SRD V2.0			
Safety / EMC Standard	FCC, UL 1741			