

Three Phase Hybrid Inverter

SUN-14/15/16/18/20K-SG05LP3-AU-SM2



100

100% unbalanced output, each phase; Max. output up to 50% rated power



AC couple to retrofit existing solar system

10

Max. 10 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel

350

Max. charging/discharging current of 350A

48

48V low voltage battery, transformer isolation design

6

6 time periods for battery charging/discharging



Support storing energy from diesel generator

Deye

Stock Code: 605117.SH

Model	SUN-14K-SG05LP3 -AU-SM2	SUN-15K-SG05LP3 -AU-SM2	SUN-16K-SG05LP3 -AU-SM2	SUN-18K-SG05LP3 -AU-SM2	SUN-20K-SG05LP3 -AU-SM2
Battery Input Data					
Battery Type	Lead-acid or Lithium-ion				
Battery Voltage Range (V)	40-60				
Max. Charging Current (A)	260	280	300	330	350
Max. Discharging Current (A)	260	280	300	330	350
Charging Strategy for Li-ion Battery	Self-adaption to BMS				
Number of Battery Input	1				
PV String Input Data					
Max. PV access power(W)	28000	30000	32000	36000	40000
Max. PV Input Power (W)	22400	24000	25600	28800	32000
Max. PV Input Voltage (V)	800				
Start-up Voltage (V)	160				
MPPT Voltage Range (V)	160-650				
Rated PV Input Voltage (V)	550				
Max. Operating PV Input Current (A)	36+36				
Max. Input Short-Circuit Current (A)	54+54				
No. of MPP Trackers/ No. of Strings MPP Tracker	2/2+2				
AC Input/Output Data					
Rated AC Input/Output Active Power (W)	14000	15000	16000	18000	20000
Max. AC Input/Output Apparent Power (VA)	14000	15000	16000	18000	20000
Rated AC Input/Output Current (A)	20.3	21.8	23.2	26.1	29
Max. AC Input/Output Current (A)	20.3	21.8	23.2	26.1	29
Max. Continuous AC Passthrough (grid to load) (A)	70				
Peak Power (off-grid) (W)	2 times of rated power, 10s				
Power Factor Adjustment Range	0.8 leading to 0.8 lagging				
Rated Input/Output Voltage/Range (V)	230/400V , 240/415V 0.85Un-1.1Un				
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55				
Grid Connection Form	3L+N+PE				
Total Current Harmonic Distortion THDi	<3% (of nominal power)				
DC Injection Current	<0.5% In				
Efficiency					
Max. Efficiency	97.6%				
Euro Efficiency	97.0%				
MPPT Efficiency	>99%				
Equipment Protection					
Integrated	DC Reverse Polarity Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Insulation Impedance Detection, Arc Fault Circuit Interrupter (optional), DC Switch, Anti-islanding Protection(Active Frequency shift) , Residual Current Detection				
Surge Protection Level	TYPE II(DC), TYPE II(AC)				
Interface					
Communication Interface	LCD				
LCD/LED Display	WIFI,RS485,CAN				
General Data					
Operating Temperature Range (°C)	-40 to -60°C, >45°C Derating				
Permissible Ambient Humidity	0-100%				
Permissible Altitude	3000m				
Noise (dB)	<60				
Ingress Protection(IP) Rating	IP 65				
Inverter Topology	Non-Isolated				
Over Voltage Category	OVC II(DC), OVC III(AC)				
Cabinet Size (WxHxD mm)	456×750×268.5 (Excluding Connectors and Brackets)				
Weight (kg)	51.9				
Type of Cooling	Intelligent Air Cooling				
Warranty	10 Years				
Grid Regulation	AS/NZS 4777.2				
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2				