Three Phase Hybrid Inverter

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

Safe

- 48V low voltage battery, transformer isolation design

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 350A
- Support storing energy from diesel generator
- 100% unbalanced output, max. output up to 50% rated power for each phase

Technical Data

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)	48 (40-60)				
Max. Charging/Discharging Current (A)	260	280	300	330	350
Charging Strategy for Li-ion Battery	Self-adaption to BMS				
Number of Battery Input	2				
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	230/400V,240/415V 0.85Un-1.1Un 3L+N+PE				
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55				
Total Current Harmonic Distortion THDi	<3% (of nominal power)				
DC Injection Current	<0.5% In				
Generator Data					
Nominal Input Voltage (V)	230/400V, 240/415V				
Rated Input Current (A)	24				
Power Factor	0.8 leading-0.8 lagging				
Frequency	50Hz				
Bcakup Data					
Nominal Output Voltage (V)	230/400V,240/415V				
Rated Output Current (A)	20.3	21.8	23.2	26.1	29
Rated Apparent Power (VA)	14000	15000	16000	18000	20000
Power Factor	0.8 leading-0.8 lagging				
Frequency	50Hz				
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, Arc Fault Circuit Interrupter (AFCI) (optional), Anti-islanding Protection(Active Frequency shift) , DC Switch, Insulation Impedance Detection, Residual Current Detection				
Surge Protection Level	TYPE II(DC), TYPE II(AC)				
Interface					
LCD/LED Display	LCD+LED				
Communication Interface	RS232, 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				
Protection Level	Class I				
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				