



THREE-PHASE HYBRID INVERTER



DATASHEET

SUNSYNK-20K-SG05LP3-EU-SM2

www.sunsynk.com
sales@sunsynk.com
customerservices@sunsynk.com

Model	SUNSYNK-20K-SG05LP3-EU-SM2
Battery Input Data	
Battery Type	Lead-acid or Li-Ion
Battery Voltage Range	40Vd.c ~ 60Vd.c
Max. Charging/Discharging Current	350A
Charging Curve	3 Stages / Equalization
External Temperature Sensor	Yes
Charging Strategy for Li-Ion Battery	Self-adaption to BMS
PV String Input Data	
Max. PV Input Power	32000W
PV Input Voltage	550Vd.c (160Vd.c ~ 800Vd.c)
MPPT Voltage Range	160Vd.c ~ 650Vd.c
Start-up Voltage	160V
Max. Operating PV Input Current	36Ad.c + 36Ad.c
Max. Input Short-Circuit Current	54Ad.c + 54Ad.c
No. of MPP Trackers	2
No. of Strings Per MPP Tracker	2+2
Max. Inverter Backfeed Current to the Array	0
AC Output Data	
Rated AC Input/Output Active Power	20000K
Max. AC Input/Output Apparent Power	22000VA
Peak Power (Off-Grid)	2 times of rated power, 10 S
Rated AC Input/Output Current	30.4/29A
Max. AC Input/Output Current	33.4/31.9A
Max. Continuous AC Passthrough (grid to load)	70A
Max. Output Fault Current	66.8A
Max. Output Overcurrent Protection	100A
Rated Input/Output Voltage/Range	220/380V,230/400V 0.85Un-1.1Un
Grid Connection Form	3L+N+PE
Rated Input/Output Grid Frequency/Range	50Hz/45Hz-55Hz 60Hz/55Hz-65Hz
Power Factor Adjustment Range	0.8 leading-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%

Protection	
Integrated	DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, Thermal Protection, DC Terminal Insulation Impedance Monitoring, DC Component Monitoring, Ground Fault Current Monitoring, Arc fault circuit interrupter (AFCI) (Optional), Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch, Overvoltage Load Drop Protection, Residual Current (RCD) Detection
Surge Protection Level	TYPE II(DC), TYPE II(AC)
Over Voltage Category	OVC II(DC), OVC III(AC)
Certifications and Standards	
Grid Regulation	EN 50549-1, AS-NZS 4777.2, NRS 097-2-1; Additional connections available upon request
EMC/Safety Regulation	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2
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	3000m
Noise	<60 dB
Ingress Protection (IP) Rating	IP65
Inverter Topology	Non-Isolated
Weight	51.9kg
Cabinet Size	456W×750H×268.5D (Excluding connectors and brackets)
Warranty	5 Years
Type of Cooling	Intelligent Air Cooling



NOTE:

Safe Transport and Handling of Inverter:

When transporting the equipment, use its original packaging and keep it as a complete unit. Store the product in a dry environment, avoiding direct sunlight, and maintain a temperature range between -40°C and 60°C. Since the equipment can be quite heavy, always consider its total weight when moving, transporting, or installing it, ensuring that the installation site has adequate load-bearing capacity. Transporting and installing the inverter should be carried out solely by qualified personnel.



Contact Us

Call +44 151 832 4300 **Email** sales@sunsynk.com **Website** www.sunsynk.com

Address

- HK** Room 702-704, 7/F Texwood Plaza, 6 How Ming Street, Kwun Tong, Kowloon, Hong Kong
- UK** Sunsynk UK Ltd, 17 Turnstone Business Park, Mulberry Avenue, Widnes, Cheshire, WA8 0WN
- SA** Unit 2, 3 & 4, 80 Highview Blvd, Ferndale, Randburg, 2160, South Africa
- NL** Sunsynk NL BV, Henri Wijnmalenweg 8, 5657 EP Eindhoven, Netherlands
- AU** Level 1, 982-988 Wellington Street, West Perth WA 6005, Australia
- ES** Tafetana, 32 P.I. Las Andoriñas 38639 Las Chafiras Santa Cruz de Tenerife
- US** 100 S. Ashley Drive, Suite 600, Tampa, Florida, 33602, United States of America