ECCO
HYBRID INVERTER

DATASHEET

SYNK-8K-SG05LP1

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

v.12 (20/11/25)

PLEASE RETAIN FOR FUTURE REFERENCE

Model	SYNK-8K-SG05LP1
Battery Input Data	
Battery Type	Lead-acid or Lithium-ion
Battery Voltage Range	40~60V
Max. Charging Current	190A
Max. Discharging Current	190A
Charging Curve	3 Stages/Equalisation
External Temperature Sensor	Yes
Charging Strategy for Li-Ion Battery	Self-Adaptation to BMS
PV String Input Data	
Max. DC Input Power	10400W
PV Input Voltage	370V (125V~500V)
MPPT Range	150~425V
Start-up Voltage	125V
Full Load DC Voltage Range	200~425V
PV Input Current	32A+32A
Max. PV Isc	48A+48A
No. of MPPT / Strings Per MPPT	2/2+2
AC Output Data	
Rated AC Output and UPS Power	8000W
Max. AC Power	8800W
Peak Power (off-grid)	2 times of rated power, 10 S
AC Output Rated Current	34.8A
Max AC Current	38.3A
Max Continuous AC Passthrough	50A
Power Factor	0.8 leading to 0.8 lagging
Output Frequency and Voltage	50/60Hz; L/N/PE 230Vac (Single-Phase)
Grid Type	Single-Phase
Current Harmonic Distortion	THD <3% (of nominal power)
DC current injection	<0.5% In
Efficiency	
Max. Efficiency	97.60%
Euro Efficiency	96.50%
MPPT Efficiency	>99.00%
Protection	
Integrated	DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Terminal Insulation Impedance Monitoring, 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	TYPE II(DC), TYPE II(AC)
Over Voltage Category	OVC II(DC), OVC III(AC)

Certifications and Standards	
Grid Connection Standard	EN 50549-1, AS-NZS 4777.2, NRS 097-2-1; Additional connections available upon request
EMC/Safety Standards	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2
General Data	
Operating Temperature Range	-45~60°C, >45°C Derating
Cooling	Natural Cooling
Noise	<30dB
Communication with BMS	RS485; CAN
Net Weight	24.9kg
Gross Weight	30kg
Size	330W x 580H x 237D mm
Protection Degree	IP65
Protective Class	Class I
Inverter Topolgy	Non-Isolated
Installation Style	Wall-mounted
Warranty	5 years (10 years when installed with a Sunsynk battery)
Pollution Degree	PD2 (Inside) PD3 (Outside)
Manufacturer Country	China

NOTICE

Safe Transport and Handling of the Inverter

When transporting the equipment, always use its original packaging and keep it intact 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. As 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 only be carried out by qualified personnel.

SUN SYNK®

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