



ECCO HYBRID INVERTER



DATASHEET

SYNK-8K-SG05LP1

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v.10 (07/05/25)



**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	26A+26A
Max. PV Isc	34A+34A
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, AC Output Overvoltage Protection, AC Output Short Circuit Protection, Thermal Protection, DC Terminal Insulation Impedance Monitoring, DC Component Monitoring, Ground Fault Current Monitoring, Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch, Over-voltage Load Drop Protection, Residual Current (RCD) Detection, Surge protection level
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	25.5kg
Gross Weight	30kg
Size	330W x 580H x 237D mm
Protection Degree	IP65
Installation Style	Wall-mounted
Warranty	5 years (10 years when installed with a Sunsynk battery)



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

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