



# SINGLE-PHASE HYBRID INVERTER




## INSTALLER MANUAL

SYNK-8K-SG01LP1

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v.17 (10/16/23)

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Model	SYNK-8K-SG01LP1	
<b>Battery Input Data</b>		
Battery Type	Lead-acid or Li-Ion	
Battery Voltage Range	48Vd.c (40Vd.c ~ 60Vd.c)	
Max. Charging/Discharging Current	190Ad.c (max.)	
Charging Curve	3 Stages / Equalization	
External Temperature Sensor	Yes	
Charging Strategy for Li-Ion Battery	Self-adaption to BMS	
<b>PV String Input Data</b>		
Max. DC Input Power	10400W	
PV Input Voltage	370V (125V~500V)	
MPPT Range	150~425V	
Start-up Voltage	125V	
PV Input Current	26Ad.c + 26Ad.c	
Max PV Isc	44Ad.c + 44Ad.c	
No. of MPPT Trackers	2	
No. of Strings Per MPPT Tracker	2+2	
<b>AC Output Data</b>		
Rated AC Output and UPS Power	8000W	
Max. AC Output Power	8800W	
Peak Power(off grid)	2 times of rated power, 10s	
AC Output Rated Current	33.3/38.5A	36.4/34.8A
Max. AC Current	36.7/42.3A	40/38.3A
Max. Continuous AC Passthrough	50A	
Power Factor	0.8 leading to 0.8 lagging	
Output Frequency and Voltage	50 / 60Hz; 120 / 240Vac (split phase), 208Vac (2 / 3 phase), 220/230Vac (single phase)	
Grid Type	Split phase; 2 / 3 phase; Single Phase	
Total Harmonic Distortion (THD)	<3% (of nominal power)	
DC current injection	<0.5% In	
<b>Efficiency</b>		
Max. Efficiency	97.60%	
Euro Efficiency	97.00%	
MPPT Efficiency	>99%	
<b>Protection</b>		
PV Arc Fault Detection	Integrated	
PV Input Lightning Protection	Integrated	
Anti-islanding Protection	Integrated	
PV String Input Reverse Polarity Protection	Integrated	
Insulation Resistor Detection	Integrated	
Residual Current Monitoring Unit	Integrated	
Output Over Current Protection	Integrated	
Output Shorted Protection	Integrated	
Surge Protection	DC Type II / AC Type II	
Over Voltage Category	DC Type II / AC Type III	

### Certifications and Standards

Grid Regulation	EN 50549, UNE 217002, NRS 097, IEEE 1547.1, SRD V2.0
EMC/Safety Regulation	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2, FCC, UL 1741

### General Data

Operating Temperature Range	-40~60 °C, >45 °C Derating
Cooling	Smart cooling
Noise	<30 dB
Communication with BMS	RS485; CAN
Weight	32kg
Cabinet size	420W×670H×233D (Excluding connectors and brackets)
Protection Degree	IP65
Installation Style	Wall-mounted
Warranty	5 years



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