



SINGLE-PHASE HYBRID INVERTER




DATASHEET

SYNK-3.6K-SG03LP1
SYNK-5K-SG03LP1

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FUTURE REFERENCE

Model	SYNK-3.6K-SG03LP1	SYNK-5K-SG03LP1
Battery Input Data		
Battery Type	Lead-acid or Li-Ion	
Battery Voltage Range	48Vd.c (40Vd.c ~ 60Vd.c)	
Max. Charging/Discharging Current	90Ad.c (max.)	120Ad.c (max.)
Charging Curve	3 Stages / Equalization	
External Temperature Sensor	Yes	
Charging Strategy for Li-Ion Battery	Self-adaption to BMS	
PV String Input Data		
Max. DC Input Power	4680W	6500W
PV Input Voltage	370V (125V~500V)	
MPPT Range	150~425V	
Full Load DC Voltage Range	300~425V	
Start-up Voltage	125V	
PV Input Current	13Ad.c + 13Ad.c	
No. of MPPT Trackers	2	
No. of Strings Per MPPT Tracker	1+1	
AC Output Data		
Rated AC Output and UPS Power	3600W	5000W
Max. AC Output Power	3960W	5500W
Peak Power(off grid)	2 times of rated power, 10s	
AC Output Rated Current	16.4/15.7Aa.c	22.7/21.7Aa.c
Max. AC Current	18/17.2Aa.c	25/23.9Aa.c
Max. Continuous AC Passthrough	35A	
Power Factor	0.8 leading to 0.8 lagging	
Output Frequency and Voltage	50/60Hz; 220/230 (single phase)	
Grid Type	Single Phase	
Total 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%	
Protection		
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	

Model	SYNK-3.6K-SG03LP1	SYNK-5K-SG03LP1
Certifications and Standards		
Grid Regulation	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150	
EMC/Safety Regulation	IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000-6-1, IEC/EN 61000-6-2, IEC/EN 61000-6-3, IEC/EN 61000-6-4	
General Data		
Operating Temperature Range	-40~60 °C, >45 °C Derating	
Cooling	Smart cooling	
Noise	<30 dB	
Communication with BMS	RS485; CAN	
Weight	22.5kg	
Cabinet size	330W×580H×232D mm (Excluding connectors and brackets)	
Protection Degree	IP65	
Installation Style	Wall-mounted	
Warranty	5 years	



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