



# HYBRID SOLAR INVERTER

Single Phase 5-8KW, 2 MPPT Hybrid Inverter

ARK-5/6/7.6/8K-SG01LP1-US

ARK -7.6/8K-SG01LP1-EU



**Screen & IP65**  
Colorful touch LCD,  
IP65 protection degree



**Galvanic coupling**  
DC couple and AC couple to  
retrofit existing solar system



**Maximum Current**  
Max. charging/discharging  
current of 190A



**Charging/Discharging**  
6 time periods for battery  
charging/discharging



**Generator Storing**  
Support storing energy from  
diesel generator

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Model	ARK-5K-SG01LP1-US	ARK-6K-SG01LP1-US	ARK-7.6K-SG01LP1-US/EU	ARK-8K-SG01LP1-US/EU
<b>Battery Input Data</b>				
Battery Type	Lead-acid or Li-Ion			
Battery Voltage Range (V)	40~60			
Max. Charging Current (A)	120	135	190	190
Max. Discharging Current (A)	120	135	190	190
External Temperature Sensor	Yes			
Charging Curve	3 Stages / Equalization			
Charging Strategy for Li-Ion Battery	Self-adaption to BMS			
<b>PV String Input Data</b>				
Max. DC Input Power (W)	6500	7800	9880	10400
Rated PV Input Voltage (V)	370 (125-500)			
Start-up Voltage (V)	125			
MPPT Voltage Range (V)	150-425			
Full Load DC Voltage Range (V)	300-425	200-425		
PV Input Current (A)	13+13	26+13	26+26	
Max. PV Isc (A)	22+22	44+22	44+44	
No. of MPP Trackers	2			
No. of Strings per MPP Tracker	1+1	2+1	2+2	
<b>AC Output Data</b>				
Rated AC Output Active Power (W)	5000	6000	7600	8000
Max AC Output Active Power (W)	5500	6600	8360	8800
AC Output Rated Current (A)	20.8/24	25/28.8	31.7/36.5	34.5/33
Max AC Output Current (A)	22.9/26.4	27.5/31.7	34.8/40.2	38/36.3
Max. Continuous AC Passthrough (A)	50			
Peak Power (Off Grid)	2 time of rated power, 10 S			
Power Factor Adjustment Range	0.8 leading to 0.8 lagging			
Power Factor	1			
Output Frequency and Voltage	50 / 60Hz; L1/L2/N(PE) 120/240Vac (split phase), 208Vac (2/3 phase), L/N/PE 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	99.90%			
<b>Protection</b>				
Integrated	Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge Protection			
Over Voltage Category	DC Type II/AC Type III			
<b>Certifications and Standards</b>				
Grid Regulation	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150			
Safety EMC/ Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2			
<b>General Data</b>				
Operating Temperature Range (°C)	-40~60°C, >45°C Derating			
Cooling	Smart Cooling			
Noise (dB)	≤30 dB			
Communication with BMS	RS485; CAN			
Weight (kg)	32			
Cabinet Size (WxHxD mm)	420×670×233 (Excluding Connectors and Brackets)			
Protection Degree	IP65			
Installation Style	Wall-mounted			
Warranty	5 Years (10 Years Optional)			