

DATASHEET

12K-3P-L

Residential Hybrid Inverter - Central America and Caribbean

Inverter Model:

Sol-Ark-12K-3P-380V

SKU:

12K-3P-L

Input Data (PV)		
Max. Allowed PV Power (STC)	15,600W	
Rated MPPT Operating Voltage Range	200 - 650V	
MPPT Voltage Range	160 - 800V	
Startup Voltage	150V	
Max. Input Voltage ¹	800V	
No. of MPP Trackers	2	
	MPPT1:	MPPT2:
Max. Operating Input Current per MPPT	26A	13A
Max. Short Circuit Current per MPPT	34A	17A
No. of PV Strings per MPPT	2	1
Max. AC Coupled Input	21,000W	
Output Data (AC)		
Nominal AC Voltage (3Φ)	220/380V	230/400V
Max. Output Current ²	18.2A	17.4A
Real Power, max continuous (3Φ)	12,000W	
Peak Apparent Power (10s, off-grid, 3Φ)	18,000VA	
Max. Grid Passthrough Current	45A	
Grid Frequency	50 / 60Hz	
Power Factor Output Range	+/- 0.8 adjustable	
Backup Transfer Time	5ms	
Max Efficiency	97.6%	
Design (DC to AC)	Transformerless DC	
Stackable	Up to 8 in parallel	
Battery Input Data (DC)		
Battery Technologies	Lithium / Lead Acid	
Nominal DC Voltage	48V	
Operating Voltage Range	40 - 60V	
Capacity	50 – 9900Ah	
Max. Battery Charge / Discharge Current	240A	
Charging Controller	3-Stage with Equalization	
Grid to Battery Charging Efficiency	96.0%	
External Battery Temperature Sensor (BTS)	Included	
Automatic Generator Start (AGS)	2 Wire Start - Integrated	
BMS Communication	CANBus & RS485 MODBUS	
General Data		
Dimensions (H x W x D)	658 x 422 x 279 mm (25.9 x 16.6 x 11 in)	
Weight	34.5 kg / 76 lb.	
Enclosure	IP65 / NEMA 3R	
Ambient Temperature	-25~60°C, > 45°C Derating	
Noise	< 45 dB	
Idle consumption - No Load	-- Pending --	
Communication and Monitoring	Wi-Fi & LAN Hardware Included	
Standard Warranty	10 Years	
Protection and Certifications		
Certifications and Listings	UL1741-2010/2018, IEEE1547a 2003/2014	
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	

1. See Installation Guide for more details on sizing array strings. The highest input voltage is based on the open-circuit voltage of the array at the minimum design temperature.

2. Maximum output current will vary depending on programmed output voltage.