

# RHI-1P8K-HVES-5G

Solis High Voltage Energy Storage Inverters



## Features:

- ▶ All-new intelligent hybrid PV inverter
- ▶ Dual MPPT - 8K
- ▶ Off-grid backup function
- ▶ Export control
- ▶ UPS function
- ▶ Intelligent EMS function
- ▶ Multiple protection functions
- ▶ CAN, RS485, Wi-Fi/cellular (optional)
- ▶ 10 years standard warranty with extension options



**Model:**  
RHI-1P8K-HVES-5G

## Datasheet

Model Name	RHI-1P8K-HVES-5G
<b>DC Values (PV side)</b>	
Max. DC input power (watts)	11200
Max. voltage (volts)	500
Rated voltage (volts)	330
Startup voltage (volts)	120
Operating MPPT voltage range (volts)	90-450
Max. usable input current per MPPT (amps)	22*2
Max. short circuit input current (amps)	34.3*2
Number of MPPTs/inputs per MPPT	2/2
<b>Battery</b>	
Battery type	Li-ion
Operating voltage range (volts)	120-500
Max charge/discharge current (amps)	20
Continuous power (watts)	6000
Peak power (watts)	7000
2-pole disconnection	Yes
DC fuses on plus and minus (amps)	30 (field replaceable)
<b>AC Values (back-up)</b>	
Nominal output power (watts)	6000
Transient max. apparent output power (watts)	7000
Back-up switch time	<10ms
AC output voltage range (volts)	211-264 (L-L)
AC output voltage range (volts)	105-132 (L-N)
AC output frequency range (hertz)	55-65
Rated frequency (hertz)	60
Operating phase	Single Phase
Rated output current (amps)	25
Max. output current per phase (amps)	25
Overcurrent protection value (amps)	30
Grid current THD	<3%
<b>AC Values (grid side)</b>	
Nominal output power (watts)	8000
Nominal grid voltage (volts)	208/240
Nominal grid frequency (hertz)	60
Rating grid output current (amps)	38.5/33.3
Output power factor range	1 (default) and 0.8 leading ... 0.8 lagging adjustable
Grid current THD	<3%
<b>Input AC (grid side)</b>	
Input voltage range (volts)	183-228(for 208V rated)/211-264(for 240V rated)
Max. input current (amps)	48
Frequency range (hertz)	59.5-60.5
<b>Efficiency</b>	
Max efficiency of solar inverting	98%
CEC efficiency of solar inverting	97.5%
<b>Protection</b>	
Ground fault monitoring	Yes
Anti-islanding protection	Yes
Residual current monitoring unit	Yes
DC insulation monitoring	Yes
DC AFCI	Yes
DC reverse polarity protection	Yes
DC surge arrester	Yes
AC surge arrester	Yes
<b>General data</b>	
Dimensions (width*height*depth)	20.2*28.1*7.8in (514*717*250mm)
Weight	66.1lbs (30kgs)
Operating temperature range	-13°F to 140°F (-25°C to 60°C)
Storage environment	-13°C to 158°F (-25°C to 70°C)
Enclosure type	NEMA 4X
Inverter topology	Transformerless
Noise emission (typical)	<30dB(A)
Cooling concept	Natural convection
Max.operating altitude without derating	6, 560ft (2000m)
AC and DC connections	4 knockout for 1" conduit at bottom 2 knockout for 1" at side. 3 knockout for 1/2" at bottom
Display	7.0"LCD color screen display
Communication protocol	Modbus RTU (Sunspec compliant)
Warranty	10 Years standard (extendable to 20 years)
<b>Features</b>	
Grid connection standard	IEEE1547A, CA Rule 21 (UL 1741-SA), ISO-NE, Rule 21 Phase I, II compliant (Ready for Phase III), Rule 12
Safety/EMC standard	UL 1741, UL 1741SA, UL1998, UL1699B, CAN/CSA C22.2 107.1-1, FCC Part 15 Class B
Communication Interface	CAN, RS485*2 (provided) cellular or Wi-Fi
Revenue grade data ANSI C12.20	0.5 % RGM (optional)
Rapid shutdown 2017 NEC 690.12	Yes
RSD transmitter	Yes
Compatible batteries	BYD and LG Chem
Auto-Transformer	Optional