

## RHI-3P(3-10)K-HVES-5G

# Solis Three Phase High Voltage Energy Storage Inverters

### Features:

- Max. efficiency 98.4%
- 2 MPPT and 4 DC input; Max 26A DC input current
- 3 operating modes (self-consumption; time-of-use; off-grid back-up) & programmable energy management
- Power supply can be switched automatically and switching time within 40ms
- Ensures AC backup for up to 10kW of continuous power and 16kVA of peak power
- Time of use shifting and peak shaving capabilities to grid
- AFCI protection, proactively reduces fire risk
- Intelligent EMS function
- Support three-phase imbalance on backup output port
- 24-hour fully intelligent energy management, Real-time grasp of PV plant status
- Remotely control & upgrade function, making digital power plant maintenance at your fingertips

### Models:

RHI-3P3K-HVES-5G / RHI-3P4K-HVES-5G

RHI-3P5K-HVES-5G / RHI-3P6K-HVES-5G

RHI-3P8K-HVES-5G / RHI-3P10K-HVES-5G



360° View

# DATASHEET

## RHI-3P(3-10)K-HVES-5G

Models	3K	4K	5K	6K	8K	10K
<b>Input DC (PV side)</b>						
Recommended max. PV power	4.8 kW	6.4 kW	8 kW	9.6 kW	12.8 kW	16 kW
Max. input voltage	1000 V					
Rated voltage	600 V					
Start-up voltage	160 V					
MPPT voltage range	200-850 V					
Max. input current	13 A / 13 A			26 A / 13 A		26 A / 26 A
Max. short circuit current	16.5 A / 16.5 A			32.5 A / 16.5 A		32.5 A / 32.5 A
MPPT number/Max. input strings number	2/2			2/3		2/4
<b>Battery</b>						
Battery type	Li-ion					
Battery voltage range	160-600 V					
Max. charge / discharge power	3 kW	4 kW	5 kW	6 kW	8 kW	10 kW
Max. charge / discharge current	25 A					
Communication	CAN					
<b>Input AC (Grid side)</b>						
Input voltage range	320-480 V					
Max. apparent input power	3 kVA	4 kVA	5 kVA	6 kVA	8 kVA	10 kVA
Max. input current	25 A					
Frequency range	45-55 Hz / 55-65 Hz					
<b>Output AC (Grid side)</b>						
Rated output power	3 kW	4 kW	5 kW	6 kW	8 kW	10 kW
Max. apparent output power	3.3 kVA	4.4 kVA	5.5 kVA	6.6 kVA	8.8 kVA	10 kVA
Operation phase	3/N/PE					
Rated grid voltage	380 V / 400 V					
Rated grid frequency	50 Hz / 60 Hz					
Rated grid output current	4.6 A / 4.4 A	6.1 A / 5.8 A	7.6 A / 7.3 A	9.2 A / 8.7 A	12.2 A / 11.6 A	15.2 A / 14.5 A
Max. output current	5.1 A	6.8 A	8.4 A	10 A	13.4 A	16.7 A
Power factor	>0.99 (0.8 leading - 0.8 lagging)					
THDi	<2%					
<b>Output AC (Back-up)</b>						
Rated output power	3 kW	4 kW	5 kW	6 kW	8 kW	10 kW
Peak apparent output power	10 kVA, 60 sec	10 kVA, 60 sec	10 kVA, 60 sec	12 kVA, 60 sec	16 kVA, 60 sec	16 kVA, 60 sec
Back-up switch time	< 40 ms					
Rated output voltage	3/N/PE, 380 V / 400 V					
Rated frequency	50 Hz / 60 Hz					
Rated output current	4.6 A / 4.4 A	6.1 A / 5.8 A	7.6 A / 7.3 A	9.2 A / 8.7 A	12.2 A / 11.6 A	15.2 A / 14.5 A
THDv (@linear load)	<2%					
<b>Efficiency</b>						
Max. efficiency	98.4%					
EU efficiency	97.7%					
MPPT efficiency	99.9%					
Battery charge/discharge efficiency	97.5%					
<b>Protection</b>						
Anti-islanding protection	Yes					
Output over current protection	Yes					
Short circuit protection	Yes					
Integrated AFCI	Yes <sup>(1)</sup>					
Integrated DC switch	Optional					
DC reverse-polarity protection	Yes					
PV over voltage protection	Yes					
Battery reverse protection	Yes					
<b>General Data</b>						
Dimensions (W*H*D)	535*455*185 mm					
Weight	25.1 kg					
Topology	Transformerless					
Standby consumption	<15 W					
Operating ambient temperature range	-25 ~ +60°C					
Relative humidity	0-100%					
Ingress protection	IP65					
Cooling concept	Natural convection					
Max. operation altitude	4000 m					
Grid connection standard	G98 or G99, VDE-AR-N 4105 / VDE V 0124, EN 50549-1, VDE 0126 / UTE C 15/VFR:2019, RD 1699/RD 244 / UNE 206006 / UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA					
Safety/EMC standard	IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-3					
<b>Features</b>						
DC connection	MC4 connector					
AC connection	Quick connection plug					
Display	LCD					
Communication	RS485, Optional: Wi-Fi, GPRS					

(1) Activation required.