

INVERTERS

S6-EH3P(3-12)K-H

Hybrid inverter · Three-phase · 3 – 12 kW · 11 models


3 – 12 kW
RATED POWER

Three-phase
PHASE

2
MPPT TRACKERS

95.5 – 97.9 %
MAX. EFFICIENCY

Parameter	Unit	Common to all models
PV input		
Max. PV input voltage	V	1000
Rated PV input voltage	V	600
Start-up voltage	V	160
MPPT voltage range	V	200 – 850
AC output		
Rated AC voltage	V	400
Phase		Three-phase
Rated AC frequency	Hz	50/60
Power factor		> 0.99 (0.8 leading to 0.8 lagging)
Total harmonic distortion (THDi)	%	<3
AC input voltage range (grid side, 380 V / 400 V)	V	304-437 / 320-460
Rated AC input frequency (grid side)	Hz	50 / 60
AC input frequency range (grid side)	Hz	45-55 / 55-65
Off-grid overload duration	s	60
Grid / off-grid switchover time	ms	<10
Rated output voltage, off-grid side	V	380 / 400
Rated frequency, off-grid side	Hz	50 / 60
Generator input		Yes
Max. parallel units		6
Battery		
Battery type		Lithium battery
Battery communication		CAN / RS485

Parameter	Unit	Common to all models
General data		
Topology		Transformerless
Night-time power consumption	W	<25
Operating temperature range	°C	-25 – 60
Relative humidity	%	0 – 100
Ingress protection (IP rating)		IP66
Noise level	dB	<46.9
Cooling		Natural convection
Max. operating altitude	m	4000
Max. single-phase load capacity		50% of rated power
PV connector		MC4
Battery connector		Quick connector
AC connector		Quick connector
Communication		
Display		LED indicators, Bluetooth + APP
Communication interfaces		CAN; RS485; Wi-Fi (optional); Cellular (optional); LAN (optional)
Certifications		
Certifications and standards		IEC/EN 62109-1/-2; IEC/EN 61000-6-1/-3

Parameter	Unit	S6-EH3P 3K-EU	S6-EH3P 4K-EU	S6-EH3P 5K-EU	S6-EH3P 6K-EU	S6-EH3P 8K-EU	S6-EH3P 10K-EU
PV input							
Max. PV input power	W	6000	8000	10000	12000	16000	20000
Max. usable PV input power	W	4800	6400	8000	9600	12800	16000
Max. input current per MPPT	A	16					
Max. short-circuit current per MPPT	A	24					
Number of MPPT trackers		2		3		4	
Max. number of PV input strings		2		3		4	
AC output							
Rated output power	W	3000	4000	5000	6000	8000	10000
Max. apparent power	VA	3000	4000	5000	6000	8000	10000
Rated AC output current	A	4.3	5.8	7.2	8.7	11.5	14.4
Max. AC output current	A	4.3	5.8	7.2	8.7	11.5	14.4
Max. AC input current (grid side, 380 V / 400 V)	A	6.8 / 6.5	9.1 / 8.7	11.4 / 10.9	13.6 / 13.0	18.2 / 17.4	22.7 / 21.7
Backup output power	W	3000	4000	5000	6000	8000	10000
Peak (surge) power	W	4800	6400	8000	9600	12800	16000
Rated output current, off-grid side (380 V / 400 V)	A	4.6 / 4.3	6.1 / 5.8	7.6 / 7.2	9.1 / 8.7	12.2 / 11.5	15.2 / 14.4

Parameter	Unit	S6-EH3P 3K-EU	S6-EH3P 4K-EU	S6-EH3P 5K-EU	S6-EH3P 6K-EU	S6-EH3P 8K-EU	S6-EH3P 10K-EU
Total voltage harmonic distortion (THDv), off-grid side	%	<2					
Battery							
Battery voltage range	V	120 – 600					
Max. charge power	W	3000	4000	5000	6000	8000	10000
Max. discharge power	W	3000	4000	5000	6000	8000	10000
Max. charge current	A	25				50	
Max. discharge current	A	25				50	
Efficiency							
Max. efficiency	%	95.5	96	96.5	97	97.5	97.9
European efficiency	%	95.51	96.03	96.77	97.1	97.41	97.51
Max. PV charging efficiency	%	95.96	96.57	98.37	98.45	98.22	98.31
Max. battery charge / discharge efficiency	%	97.04	97.29	97.32	97.34	97.50	
Protection							
Protection functions		Anti-islanding protection; AC output overcurrent protection; AC short-circuit protection; Surge protection (DC Type II / AC Type II optional); DC arc fault protection (optional); Integrated DC switch; DC reverse polarity protection; PV overvoltage protection; Battery reverse polarity protection					
General data							
Dimensions (W x H x D)	mm	600 × 500 × 210				600 × 500 × 230	
Weight	kg	26.4		27.6		30.2	
Max. three-phase unbalanced load capacity	%	100					
Certifications							
Grid codes		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; TOR; EIFS 2018.2; IEC 62116; IEC 61727; IEC 60068; IEC 61683; EN 50530; MEA; PEA					

Parameter	Unit	S6-EH3P 12K	S6-EH3P 5K2	S6-EH3P 6K2	S6-EH3P 8K2	S6-EH3P 10K2
PV input						
Max. PV input power	W	24000	10000	12000	16000	20000
Max. usable PV input power	W	19200	8000	9600	12800	16000
Max. input current per MPPT	A	21	16			
Max. short-circuit current per MPPT	A	31.5	24			
Number of MPPT trackers		4	2			
Max. number of PV input strings		4	2			
AC output						
Rated output power	W	12000	5000	6000	8000	10000
Max. apparent power	VA	12000	5000	6000	8000	10000
Rated AC output current	A	17.3	7.2	8.7	11.5	14.4

Parameter	Unit	S6-EH3P 12K	S6-EH3P 5K2	S6-EH3P 6K2	S6-EH3P 8K2	S6-EH3P 10K2
Max. AC output current	A	17.3	7.2	8.7	11.5	14.4
Max. AC input current (grid side, 380 V / 400 V)	A	27.3 / 26.0	11.4 / 10.9	13.6 / 13.0	18.2 / 17.4	22.7 / 21.7
Backup output power	W	12000	5000	6000	8000	10000
Peak (surge) power	W	19200	8000	9600	12800	16000
Rated output current, off-grid side (380 V / 400 V)	A	18.2 / 17.3	7.6 / 7.2	9.1 / 8.7	12.2 / 11.5	15.2 / 14.4
Total voltage harmonic distortion (THDv), off-grid side	%	<3	<2			
Battery						
Battery voltage range	V	120 – 700	120 – 600			
Max. charge power	W	12000	5000	6000	8000	10000
Max. discharge power	W	12000	5000	6000	8000	10000
Max. charge current	A	50	25		50	
Max. discharge current	A	50	25		50	
Efficiency						
Max. efficiency	%	97.85	96.5	97	97.5	97.9
European efficiency	%	97.51	96.77	97.1	97.41	97.51
Max. PV charging efficiency	%	98.31	98.37	98.45	98.22	98.31
Max. battery charge / discharge efficiency	%	97.50	97.32	97.34	97.50	
Protection						
Protection functions		Anti-islanding protection; AC output overcurrent protection; AC short-circuit protection; Surge protection (DC Type II / AC Type II optional); Integrated DC switch; DC reverse polarity protection; Battery reverse polarity protection	Anti-islanding protection; AC output overcurrent protection; AC short-circuit protection; DC arc fault protection (optional); Integrated DC switch; DC reverse polarity protection; PV overvoltage protection; Battery reverse polarity protection			
General data						
Dimensions (W x H x D)	mm	563 × 412 × 230	600 × 500 × 210		600 × 500 × 230	
Weight	kg	34.5	27.6		30.2	
Max. three-phase unbalanced load capacity	%	–	100			

Parameter	Unit	S6-EH3P 12K	S6-EH3P 5K2	S6-EH3P 6K2	S6-EH3P 8K2	S6-EH3P 10K2
Certifications						
Grid codes		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; TOR; EIFS 2018.2; IEC 62116; IEC 61727; IEC 60068; IEC 61683; EN 50530; MEA; PEA; EK18	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; TOR; EIFS 2018.2; IEC 62116; IEC 61727; IEC 60068; IEC 61683; EN 50530; MEA; PEA			

Specifications are subject to change without notice. Values are typical at 25 °C unless stated.
XUSION is a brand of Hunan New Lithium Aviation Technology Co., Ltd.

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