

INVERTERS

SUN-7-12K-SG06LP1-EU-BM3

Hybrid inverter · Single-phase · 7 – 12 kW · 5 models


7 – 12 kW
RATED POWER

Single-phase
PHASE

3
MPPT TRACKERS

97.6 %
MAX. EFFICIENCY

Parameter	Unit	SUN-7K-SG06LP1-EU-BM3	SUN-7.6K-SG06LP1-EU-BM3	SUN-8K-SG06LP1-EU-BM3	SUN-10K-SG06LP1-EU-BM3	SUN-12K-SG06LP1-EU-BM3
PV input						
Max. PV input power	W	14000	15200	16000	20000	24000
Max. usable PV input power	W	11200	12160	12800	16000	19200
Max. PV input voltage	V	500				
Rated PV input voltage	V	370				
MPPT voltage range	V	150 – 425				
Start-up voltage	V	125				
Max. input current per MPPT	A	36				
Max. short-circuit current per MPPT	A	54				
Number of MPPT trackers		3				
PV strings per MPPT		2				
Max. PV input current by MPPT tracker	A	36+18+18				36+36+18
Max. PV short-circuit current by MPPT tracker	A	54+27+27				54+54+27
PV strings by MPPT tracker		2+1+1				2+2+1
AC output						
Rated output power	W	7000	7600	8000	10000	12000
Max. apparent power	VA	7700	8360	8800	11000	13200
Rated AC voltage	V	230				
Rated AC output current	A	30.5	33.1	34.8	43.5	52.2
Max. AC output current	A	33.5	36.4	38.3	47.9	57.4
Phase		Single-phase				
Rated AC frequency	Hz	50/60				

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Total harmonic distortion (THDi)	%	<3				
Power factor		0.8 leading to 0.8 lagging				
Peak (surge) power	W	14000	15200	16000	20000	24000
Peak power duration (off-grid)	s	10				
Rated AC voltage options	V	220; 230				
AC voltage range		0.85 Un-1.1 Un				
Grid connection type		L+N+PE				
Grid frequency range (50 Hz / 60 Hz)	Hz	45-55 / 55-65				
Max. continuous AC passthrough (grid to load)	A	65				70
DC injection current		<0.5% In				
Generator input		Yes				
Max. parallel units		16				
Battery						
Battery type		Lead-acid or lithium-ion				
Battery voltage range	V	40 – 60				
Max. charge current	A	175	185		220	250
Max. discharge current	A	175	185		220	250
Charging strategy for Li-ion battery		Self-adaption to BMS				
Number of battery inputs		1				
Time periods for battery charging/discharging		6				
Efficiency						
Max. efficiency	%	97.6				
European efficiency	%	96.5				
MPPT efficiency	%	>99				
Protection						
Protection functions		DC reverse polarity protection; AC output overcurrent protection; Thermal protection; AC output overvoltage protection; AC output short-circuit protection; DC component monitoring; Arc fault circuit interrupter (AFCI)(optional); Anti-islanding protection; DC switch; Insulation impedance detection; Residual current detection				
Surge protection level		Type II (DC), Type II (AC)				
General data						
Dimensions (W x H x D)	mm	340 × 580 × 227				
Weight	kg	23.7			24.5	
Ingress protection (IP rating)		IP65				
Operating temperature range	°C	–40 – 60				
Relative humidity	%	0 – 100				
Max. operating altitude	m	3000				
Cooling		Intelligent air cooling				

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Noise level	dB	<45				
Topology		Non-isolated (solar), isolated (battery)				
Overvoltage category		OVC II (DC), OVC III (AC)				
Warranty	years	5 – 10				
Communication						
Display		Colorful touch LCD				
Communication interfaces		Wi-Fi; RS485; CAN				
Certifications						
Certifications and standards		IEC/EN 61000-6-1/2/3/4; IEC/EN 62109-1; IEC/EN 62109-2				
Grid codes		IEC 61727; IEC 62116; CEI 0-21; EN 50549; NRS 097; RD 140; UNE 217002; OVE-Richtlinie R25; G99; VDE-AR-N 4105				

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.

E-mail lidreamtec@163.com
WhatsApp +86 133 5280 0772