

THREE PHASE HYBRID INVERTER

SUNIN-80K/100K/125KM10-H1P3-EU

MAIN FEATURES

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Supports up to 2x rated PV input, maximizing solar energy utilization
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Supports both DC and AC coupling, for flexible retrofits and system expansions
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Smart remote control, AI optimisation, and instant troubleshooting - all in one platform
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Delivers 160% overload for 200ms in off-grid mode, ensuring stable startup of heavy loads
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Achieves on- and off-grid transitions in less than 10ms, ensuring an uninterrupted power supply
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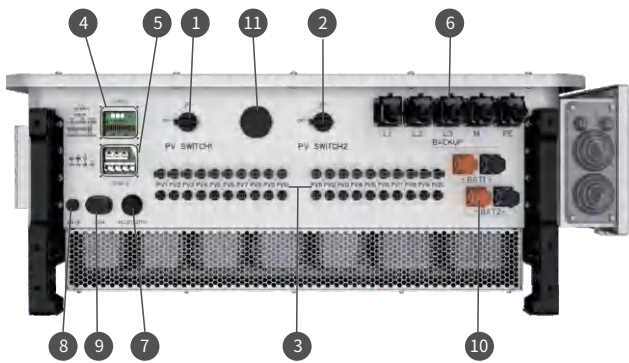
Supports multi-unit parallel operation up to 1.25MW (Solis STS cabinet recommended for systems over 6 units)



CERTIFICATIONS

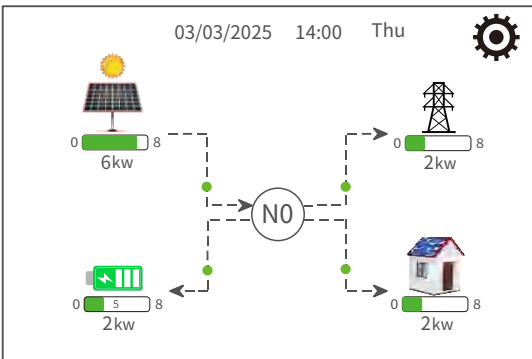


PRODUCT CHARACTERISTICS

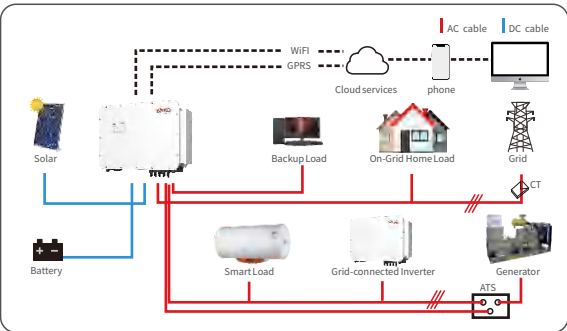


- 1.PV Switch1
- 2.PV Switch2
- 3.PV Module Input
- 4.COM1
- 5.COM2
6. BACKUP
7. BlueTooth
- 8.DATA
- 9.COM
- 10.Battery Connection
11. SMARTLOAD/GEN/INV
- 12.Grid

LCD DISPLAY ICONS



BASIC SYSTEM ARCHITECTURE



IP66 Residential Energy Storage Hybrid Inverter



TECHNICAL PARAMETER

Models	SUNIN-80KM10-H1P3-EU	SUNIN-100KM10-H1P3-EU	SUNIN-125KM10-H1P3-EU
Input DC (PV side)			
Recommended max. PV array size	160 kW	200 kW	250 kW
Max. usable PV input power	160 kW	200 kW	250 kW
Max. input voltage		1000 V	
Rated voltage		600 V	
Start-up voltage		180 V	
MPPT voltage range		150 - 950 V	
Max. input current		10x42 A	
Max. short circuit current		10x60 A	
MPPT number / Max. input strings number		10 / 20	
Battery			
Battery type		Li-ion	
Battery voltage range		300 - 950 V	
Max. charge / discharge current		200A/100A+100A	
Number of battery ports		2	
Max. charge / discharge current of each port		100A	
Communication		CAN / RS485	
Output AC (Grid side)			
Rated output power	80 kW	100 kW	125 kW
Max. apparent output power	80 kVA	100 kVA	125 kVA
Rated grid voltage		3/N/PE, 220 V / 380 V, 230 V / 400 V	
Rated grid frequency		50 Hz / 60 Hz	
Rated grid output current	121.6 A / 115.5 A	151.9 A / 144.3 A	189.9 A / 180.4 A
Power factor		> 0.99 (0.8 leading - 0.8 lagging)	
THDi		< 3%	
Input AC (Grid side)			
Max. input current		250 A	
Output AC (Back-up)			
Rated output power	80 kW	100 kW	125 kW
Max. apparent output power	75-100K: 1.2 times of rated power, 10 mins; 1.4 times of rated power, 100 s; 1.6 times of rated power, 10 s; 2 times of rated power, 200 ms; 125K: 1.2 times of rated power, 100 s; 1.4 times of rated power, 10 s; 1.6 times of rated power, 200 ms		
Back-up switch time		< 10 ms	
Rated output voltage		3/N/PE, 220 V / 380 V, 230 V / 400 V	
Rated frequency		50 Hz / 60 Hz	
THDv (@linear load)		< 2%	
Input AC (Generator)			
Max. input power	80 kW	100 kW	125 kW
Rated input current	121.6 A / 115.5 A	151.9 A / 144.3 A	189.9 A / 180.4 A
Rated input voltage		3/N/PE, 220 V / 380 V; 3/N/PE, 230 V / 400 V	
Rated input frequency		50 Hz / 60 Hz	
Efficiency			
Max. efficiency		97.6%	
EU efficiency		97.2%	
BAT charged / discharged to AC max. efficiency		97.0%	
Protection			
Anti-islanding protection		Yes	
Output over current protection		Yes	
Short circuit protection		Yes	
Integrated DC switch		Yes	
DC reverse-polarity protection		Yes	
Surge protection		DC Type II / AC Type II	
Integrated AFCI 2.0	Optional	Optional (Brazil: Yes)	Optional (Brazil: Yes)
Protection class / Over voltage category		I/ DC II, AC III	
General Data			
Max. allowable phase imbalance (grid & back-up)		100%	
Max. power per phase (grid & back-up)	26.66 kW	33.33 kW	41.66 kW
Dimensions (W × H × D)		1174 × 814 × 400 mm	
Weight		170 kg	
Topology		Transformerless	
Operating ambient temperature range		-25 ~ +60°C	
Relative humidity		0 - 100%	
Ingress protection		IP66	
Cooling concept		Intelligent fan-cooling	
Max. operation altitude		3000 m	
Grid connection standard	G99, VDE-AR-N 4105/VDE V 0124, EN 50549-1&2/EN 50549-10, VDE 0126/UTE C 15/VFR:2019, NTS 631/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,PORTARIA Nº 140, DE 21 DE MARÇO DE 2022; Brazil (75K: ORDINANCE (PORTARIA) NO.140, ORDINANCE NO. 515; 100K/125K: NBR 16149, NBR 16150, IEC 62116)		
Safety / EMC standard	IEC/EN 62109-1/-2, IEC/EN 61000-6-2/-4, EN 55011		
Features			
PV connection	MC4 Quick connection plug		
Battery connection	Terminal connector		
AC connection	Terminal block		
Display	7.0" LCD display & Bluetooth + APP		
Communication	CAN, RS485-115200, Ethernet, Optional: Wi-Fi, Cellular, LAN		

