

SOFAR

SOFAR

ENERGY TO POWER
YOUR LIFE

PRODUCT *catalogue*

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SOFAR INTRODUCTION

SOFAR is a global leading supplier of solar PV and energy storage solutions and committed to be the leader of digital energy solutions. SOFAR supports the transition to renewable energy through a comprehensive portfolio including PV inverters range from 1 kW to 255 kW, hybrid inverters range from 3 kW to 20 kW, battery storage system and smart energy management solutions for residential, commercial & industrial, and utility-scale applications.

Founded in 2013, SOFAR has always insisted on independent innovation and established a global R&D network with three R&D centers. Over 300 employees of its workforce is assigned to R&D, ensuring continuous innovation in order to remain a pioneer in the PV and energy storage industry.

SOFAR has implemented a globalization strategy since its establishment and now has two global manufacturing bases with an annual production capacity of 10 GW PV and storage inverters, and 1 GWh batteries. Its extensive service network contains over 20 branch offices worldwide. SOFAR offices can now be found in the UK, Poland, Germany, South Korea, UAE, Pakistan, Australia, etc. By the end of 2021, SOFAR had shipped over 1 million inverters to more than 90 countries.

As the world's fastest-growing solar energy brand, SOFAR stands firmly among the mainstream solar energy brands with a compound annual growth rate of 86% from 2019 till 2021. SOFAR has received many awards for its state-of-the-art solutions, including the China "CQC" certification, the Chinese Top 5 String Inverter Brand, and the TOP 5 Global Hybrid Inverter Manufacturer. SOFAR has also been entitled by EuPD as TOP Brand PV Inverter in India, Poland, the U.K., Italy and Brazil.

Looking forward, SOFAR believes technology drives the green energy transition. Through independent, continuous innovation and state-of-the-art PV solar and energy storage solutions, SOFAR aims to play a key role in this global transition.

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PRODUCT PORTFOLIO

Single-phase Inverter01-07

- SOFAR 1100TL-G3 / 1600TL-G3 / 2200TL-G3 / 2700TL-G3 / 3000TL-G3 / 3300TL-G3
- SOFAR 3KTLM-G3 / 3.6KTLM-G3-J / 3.6KTLM-G3 / 4KTLM-G3 / 4.6KTLM-G3 / 5KTLM-G3 / 5KTLM-G3-A / 6KTLM-G3
- SOFAR 7KTLM-G3 / 7.7KTLM-G3 / 8KTLM-G3 / 9KTLM-G3 / 10KTLM-G3 / 10.5KTLM-G3

Three-phase Inverter09-23

- SOFAR 3.3KTLX-G3 / 4.4KTLX-G3 / 5.5KTLX-G3 / 6.6KTLX-G3 / 8.8KTLX-G3 / 11KTLX-G3 / 10KTLX-G3-A / 12KTLX-G3
- SOFAR 15KTLX-G3 / 17KTLX-G3 / 20KTLX-G3 / 22KTLX-G3 / 24KTLX-G3
- SOFAR 25KTLX-G3 / 30KTLX-G3 / 33KTLX-G3 / 36KTLX-G3 / 40KTLX-G3 / 45KTLX-G3 / 50KTLX-G3
- SOFAR 60KTLX2-G3 / 80KTLX-G3
- SOFAR 100KTLX-G4 / 110KTLX-G4 / 125KTLX-G4
- SOFAR 255KTL-HV
- SOFAR 350KTLX0

Energy Storage System25-43

- ME 3000SP
- ME 5KTL-3PH / 6KTL-3PH / 8KTL-3PH / 10KTL-3PH / 15KTL-3PH / 20KTL-3PH
- HYD 3000-EP / 3680-EP / 4000-EP / 4600-EP / 5000-EP / 5500-EP / 6000-EP
- HYD 5KTL-3PH / 6KTL-3PH / 8KTL-3PH / 10KTL-3PH / 10KTL-3PH-A / 15KTL-3PH / 20KTL-3PH
- GTX3000-H4 / H5 / H6 / H7 / H8 / H9 / H10
- GTX5000-PRO
- BTS E5-DS5 / E10-DS5 / E15-DS5 / E20-DS5
- SOFAR PowerAll : ESI 3K-S1 / 3.68K-S1 / 4K-S1 / 4.6K-S1 / 5K-S1 / 5K-S1-A / 6K-S1
- GTX5000S

Micro Inverter Energy Storage Solution

45-55

- MR500
- MR600 / MR800 / MR1000
- MR1600 / MR2000 / MR2400
- HU80
- BT5000A

C&I Energy Storage Solution

57-63

- SOFAR 100K~125KTLX-G4
- CBS5000-H4 / H5 / H6 / H7 / H8 / H9 / H10
- CBS5000-BOT

Utility ESS

65-71

- BESS
- SMART STRING PCS

Smart Energy

73-81

- LSW-3 / LSE-3
- SOFAR COMMUNICATION MANAGER
- FEED-IN LIMITATION BOX
- SOFAR MONITOR



01

Single-phase
Inverter

SOFAR 1100~3300TL-G3

1100 / 1600 / 2200 / 2700 / 3000 / 3300 W

SINGLE-PHASE SINGLE MPPT



Product advantages

- Max. efficiency up to 97.7%
- Lightweight, quick and easy to install
- 140% DC overload
- IP65 design for outdoor
- RS485
- Feed-in limitation function
- Optional: WiFi/Ethernet



Model	SOFAR 1100TL-G3	SOFAR 1600TL-G3	SOFAR 2200TL-G3	SOFAR 2700TL-G3	SOFAR 3000TL-G3	SOFAR 3300TL-G3
Input (DC)						
Max. input voltage	500V			550V		
Rated input voltage				360V		
Start-up voltage				70V		
MPPT operating voltage range	50-500V			50-550V		
Number of MPP trackers				1		
Number of DC inputs				1		
Max. input MPPT current				12A		
Max. input short circuit current				15A		
Output (AC)						
Rated output power	1100W	1600W	2200W	2700W	3000W	3300W
Max. apparent power	1100VA	1600VA	2200VA	2700VA	3000VA	3300VA
Max. output current	5.3A	7.7A	10.6A	13A	14.5A	16A
Rated output voltage	L/N/PE, 230Vac					
Output voltage range	180Vac-276Vac					
Rated output frequency	50/60Hz					
Output frequency range	45Hz-55Hz/55Hz-65Hz					
Active power adjustable range	0~100%					
THDi	<3%					
Power factor	1 (adjustable +/-0.8)					
Efficiency						
Max. efficiency	97.5%			97.7%		
European efficiency	96.9%			97.2%		
Protection						
DC reverse polarity protection				Yes		
Anti-islanding protection				Yes		
Leakage current protection				Yes		
Ground fault monitoring				Yes		
PV-array string fault monitoring				Yes		
DC switch				Yes		
SPD				PV: type III, AC: type III		
General Data						
Ambient temperature range				-30°C~+60°C		
Self-consumption at night				<1W		
Topology				Transformerless		
Degree of protection				IP65		
Allowable relative humidity range				0~100%		
Max. operating altitude				2000m		
Cooling				Natural		
Dimension (W×H×D)	303×260.5×118mm			321×260.5×131.5mm		
Weight	5.5kg			6.3kg		
Display				LCD		
Communication				RS485/WiFi		
Standard	IEC/EN 61000-6-1/3, IEC/EN 61000-3-2/3, IEC 62116, IEC 61727, IEC 61683, IEC 60068-1/2/14/30, IEC/EN 62109-1/2, VDE-AR-N 4105, CEI0-21, VDE V 0126-1-1, V 0124-100, C10/11, G98, EN 50549-1					

*All specifications are subject to change without notice.

SOFAR 3K~6KTLM-G3

3 / 3.6 / 4 / 4.6 / 5 / 6 kW

SINGLE-PHASE DUAL MPPT



Product advantages

- Max. efficiency up to 98.4%
- Compact design, lightweight
- Two MPPTs with 150% DC overload
- Natural cooling, no fans, low noise
- Feed-in limitation function
- RS485/Bluetooth, Optional: WiFi/Ethernet



Model	SOFAR 3KTLM-G3	SOFAR 3.6KTLM-G3-J	SOFAR 3.6KTLM-G3	SOFAR 4KTLM-G3	SOFAR 4.6KTLM-G3	SOFAR 5KTLM-G3	SOFAR 5KTLM-G3-A	SOFAR 6KTLM-G3
Input (DC)								
Max. input voltage	600V							
Rated input voltage	380V							
Start-up voltage	90V							
MPPT operating voltage range	80V-550V							
Number of MPP trackers	2							
Number of DC inputs	1 for each MPPT							
Max. input MPPT current	15A/15A							
Max. input short circuit current	22.5A/22.5A							
Output (AC)								
Rated output power	3000W	3600W	3680W	4000W	4600W	5000W	5000W	6000W
Max. apparent power	3300VA	3600VA	3680VA	4400VA	4600VA	5500VA	5000VA	6000VA
Max. output current	15A	16A	16A	20A	23A	25A	21.7A	29A
Rated output voltage	L/N/PE 230Vac							
Output voltage range	180Vac-276Vac							
Rated output frequency	50/60Hz							
Output frequency range	45Hz-55Hz/55Hz-65Hz							
Active power adjustable range	0~100%							
THDi	<3%							
Power factor	1 (adjustable +/-0.8)							
Efficiency								
Max. efficiency	98.2%	98.2%	98.2%	98.2%	98.4%	98.4%	98.4%	98.4%
European efficiency	97.3%	97.3%	97.3%	97.3%	97.5%	97.5%	97.5%	97.5%
Protection								
DC reverse polarity protection	Yes							
Anti-islanding protection	Yes							
Leakage current protection	Yes							
Ground fault monitoring	Yes							
PV-array string fault monitoring	Yes							
DC switch	Yes							
SPD	PV: type III, AC: type III							
General Data								
Ambient temperature range	-30℃--+60℃							
Self-consumption at night	<1W							
Topology	Transformerless							
Degree of protection	IP65							
Allowable relative humidity range	0~100%							
Max. operating altitude	4000m							
Cooling	Natural							
Dimension (W×H×D)	349×344×164mm							
Weight	9.2kg				10kg			
Display	LCD & Bluetooth +APP							
Communication	RS485/WiFi							
Standard	IEC/EN 61000-6-2/3, IEC/EN 61000-3-2/3, IEC/EN 61000-3-11/12,IEC 62116, IEC 61727, IEC 61683, IEC 60068-1/2/14/30, IEC/EN 62109-1/2, VDE-AR-N 4105, VDE V 0126-1-1, CEI0-21, C10/11, UNE 217002: 2020, G98/G99, EN 50549-1, ANRE 208							

*SOFAR 3.6KTLM-G3-J is only for Jordan.
*All specifications are subject to change without notice.

SOFAR 7K~10.5KTLM-G3

7 / 7.7 / 8 / 9 / 10 / 10.5 kW

SINGLE-PHASE THREE MPPTS



Product advantages

- Max. efficiency up to 98.1%
- Low start-up voltage, wide MPPT voltage range
- Three MPPTs with 150% DC overload
- Compatible with 500 W+ modules
- I-V curve scanning function
- Natural cooling, no fans, low noise
- Prolonged AC overload compatibility (110%)



Model	SOFAR 7KTLM-G3	SOFAR 7.7KTLM-G3	SOFAR 8KTLM-G3	SOFAR 9KTLM-G3	SOFAR 10KTLM-G3	SOFAR 10.5KTLM-G3
Input (DC)						
Max. input voltage	600V					
Rated input voltage	360V					
Start-up voltage	90V					
MPPT operating voltage range	80V-550V					
Number of MPP trackers	3					
Number of DC inputs	3					
Max. input MPPT current	20A/16A/16A					
Max. input short circuit current	30A/25A/25A					
Output (AC)						
Rated output power	7000W	7700W	8000W	9000W	10000W	10500W
Max. apparent power	7700VA	7700VA	8800VA	9900VA	10000VA	10500VA
Max. output current	35A	35A	40A	45A	46A	46A
Rated output voltage	L/N/PE.230Vac					
Output voltage range	180Vac-276Vac					
Rated output frequency	50/60Hz					
Output frequency range	45Hz-55Hz/55Hz-65Hz					
Active power adjustable range	0~100%					
THDi	<3%					
Power factor	1 (adjustable +/-0.8)					
Efficiency						
Max. efficiency	98.1%					
European efficiency	97.3%					
Protection						
DC reverse polarity protection	Yes					
Anti-islanding protection	Yes					
Leakage current protection	Yes					
Ground fault monitoring	Yes					
PV-array string fault monitoring	Yes					
DC switch	Yes					
SPD	PV: type II, AC: type III					
General Data						
Ambient temperature range	-30℃--60℃					
Self-consumption at night	<1W					
Topology	Transformerless					
Degree of protection	IP65					
Allowable relative humidity range	0~100%					
Max. operating altitude	4000m					
Cooling	Natural					
Dimension(W×H×D)	468×380×187 mm					
Weight	17.5kg			18.5kg		
Display	LCD & Bluetooth +APP					
Communication	RS485/WiFi					
Standard	IEC/EN 61000-6-1/3, IEC/EN 61000-3-11/12, IEC 62116, IEC 61727, IEC 61683, IEC 60068-1/2/14/30, IEC/EN 62109-1/2, G99, VDE V 0126-1-1, EN 50549-1, ANRE 208					

*All specifications are subject to change without notice.



02 Three-phase Inverter

SOFAR 3.3K~12KTLX-G3

3.3 / 4.4 / 5.5 / 6.6 / 8.8 / 11 / 10 / 12 kW

THREE-PHASE DUAL MPPT



Product advantages

- Maximum efficiency 98.6%
- Low start-up voltage, wide MPPT voltage
- Maximum DC input voltage 1100 V
- Smart string level monitoring
- Remote firmware upgrade
- Natural cooling, no fans, low noise
- Type II SPD for both DC and AC side



Model	SOFAR 3.3KTLX-G3	SOFAR 4.4KTLX-G3	SOFAR 5.5KTLX-G3	SOFAR 6.6KTLX-G3	SOFAR 8.8KTLX-G3	SOFAR 11KTLX-G3	SOFAR 10KTLX-G3-A	SOFAR 12KTLX-G3
Input (DC)								
Max. input voltage	1100V							
Rated input voltage	650V							
Start-up voltage	160V							
MPPT operating voltage range	140V-1000V							
Number of MPP trackers	2							
Number of DC inputs	1/1						1/2	
Max. input MPPT current	15A/15A						15A/30A	
Max. input short circuit current	22.5A/22.5A						22.5A/45A	
Output (AC)								
Rated output power	3000W	4000W	5000W	6000W	8000W	10000W	10000W	12000W
Max. apparent power	3300VA	4400VA	5500VA	6600VA	8800VA	11000VA	10000VA	13200VA
Max. output current	5A	6.7A	8.3A	10A	13.3A	16.7A	15.2A	20A
Rated output voltage	3/N/PE, 230/400Vac							
Output voltage range	310Vac-480vac							
Rated output frequency	50/60Hz							
Output frequency range	45Hz-55Hz/55Hz-65Hz							
Active power adjustable range	0~100%							
THDi	<3%							
Power factor	1 (adjustable+/-0.8)							
Efficiency								
Max. efficiency	98.40%	98.40%	98.40%	98.40%	98.50%	98.50%	98.50%	98.50%
European efficiency	97.50%	97.50%	97.50%	97.50%	98.00%	98.00%	98.00%	98.00%
Protection								
DC reverse polarity protection	Yes							
Anti-islanding protection	Yes							
Leakage current protection	Yes							
Ground fault monitoring	Yes							
PV-array string fault monitoring	Yes							
DC switch	Yes							
SPD	PV: type II, AC: type II							
General Data								
Ambient temperature range	-30℃~+60℃							
Self-consumption at night	<1W							
Topology	Transformerless							
Degree of protection	IP65							
Allowable relative humidity range	0~100%							
Max. operating altitude	4000m							
Cooling	Natural							
Dimension (W*H*D)	430×385×182mm							
Weight	17kg					18kg		
Display	LCD & Bluetooth +APP							
Communication	RS485/WiFi							
Standard	IEC/EN 61000-6-1/3, IEC/EN 61000-3-2/3, IEC/EN 61000-3-11/12, IEC 62116, IEC 61727, IEC 61683, IEC 60068-1/2/14/30, IEC/EN 62109-1/2, C98/C99, CEI0-21, VDE-AR-N 4105, VDE V 0126-1-1, EN 50549-1, UNE 217002-2020							

*All specifications are subject to change without notice.

SOFAR 15K~24KTLX-G3

15 / 17 / 20 / 22 / 24 kW

THREE-PHASE DUAL MPPT



Product advantages

- Maximum efficiency 98.6%
- Low start-up voltage, wide MPPT voltage
- Maximum DC input voltage 1100 V
- Smart string level monitoring
- Type II SPD for both DC and AC side
- Remote firmware upgrade
- 110% long-time overload ability



Model	SOFAR 15KTLX-G3		SOFAR 17KTLX-G3	SOFAR 20KTLX-G3	SOFAR 22KTLX-G3	SOFAR 24KTLX-G3
Input (DC)						
Max. input voltage	1100V					
Rated input voltage	650V					
Start-up voltage	160V					
MPPT operating voltage range	140V-1000V					
Number of MPP trackers	2					
Number of DC inputs	2/2					
Max. input MPPT current	26A/26A	26A/26A	26A/26A	26A/26A	26A/26A	
Max. input short circuit current	36A/36A	36A/36A	36A/36A	36A/36A	36A/36A	
Output (AC)						
Rated output power	15000W	17000W	20000W	22000W	24000W	
Max. apparent power	16500VA	18700VA	22000VA	24200VA	26400VA	
Max. output current	23.9A	27.1A	31.9A	35.1A	38.3A	
Rated output voltage	3/N/PE, 230V/400Vac					
Output voltage range	310Vac-480Vac					
Rated output frequency	50/60Hz					
Output frequency range	45Hz-55Hz/55Hz-65Hz					
Active power adjustable range	0~100%					
THDi	<3%					
Power factor	1 (adjustable +/-0.8)					
Efficiency						
Max. efficiency	98.6%	98.6%	98.6%	98.6%	98.6%	
European efficiency	98.2%	98.2%	98.2%	98.2%	98.2%	
Protection						
DC reverse polarity protection	Yes					
Anti-islanding protection	Yes					
Leakage current protection	Yes					
Ground fault monitoring	Yes					
PV-array string fault monitoring	Yes					
DC switch	Yes					
SPD	PV: type II, AC: type II					
General Data						
Ambient temperature range	-30°C~+60°C					
Self-consumption at night	<1W					
Topology	Transformerless					
Degree of protection	IP65					
Allowable relative humidity range	0~100%					
Max. operating altitude	4000m					
Cooling	Smart air cooling					
Dimension (W×H×D)	520×430×189mm					
Weight	20kg	22kg	22kg	23kg	23kg	
Display	LCD & Bluetooth + APP					
Communication	RS485/WiFi					
Standard	IEC/EN 61000-6-1/3, IEC/EN 61000-3-11/12, IEC 62116, IEC 61727, IEC 61683, IEC 60068-1/2/14/30, IEC/EN 62109-1/2, C99, VDE-AR-N 4105, VDE V 0126-1-1, CEI0-21, EN 50549-1, NRS 097-2-1					

*All specifications are subject to change without notice.

SOFAR 25K~50KTLX-G3

25 / 30 / 33 / 36 / 40 / 45 / 50 kW

THREE-PHASE THREE TO FOUR MPPTS



- C** Product advantages
- Max. efficiency up to 98.80%
 - Up to 4 MPPTs with DC overload capability (up to 150%)
 - Type II SPD for both DC and AC side
 - Prolonged AC overload capability (110%)
 - Low start-up voltage, wide MPPT voltage range
 - Compatible with 500 W+ modules
 - I-V curve scanning function



Model	SOFAR 25KTLX-G3	SOFAR 30KTLX-G3	SOFAR 33KTLX-G3	SOFAR 36KTLX-G3	SOFAR 40KTLX-G3	SOFAR 45KTLX-G3	SOFAR 50KTLX-G3
Input (DC)							
Max. input voltage	1100V						
Rated input voltage	620V						
Start-up voltage	200V						
MPPT operating voltage range	180V-1000V						
Number of MPP trackers	3				4		
Number of DC inputs	2 for each MPPT						
Max. input MPPT current	3*40A	3*40A	3*40A	3*40A	4*40A	4*40A	4*40A
Max. input short circuit current	3*50A	3*50A	3*50A	3*50A	4*50A	4*50A	4*50A
Output (AC)							
Rated output power	25000W	30000W	33000W	36000W	40000W	45000W	50000W
Max. apparent power	28000VA	34000VA	37000VA	40000VA	44000VA	50000VA	55000VA
Max. output current	42.4A	51.5A	56A	60.6A	66.7A	75.8A	83.3A
Rated output voltage	3/N/PE, 230/400Vac						
Output voltage range	310Vac-480Vac						
Rated output frequency	50/60Hz						
Output frequency range	45Hz-55Hz/55Hz-65Hz						
Active power adjustable range	0-100%						
THDi	<3%						
Power factor	1 (adjustable +/-0.8)						
Efficiency							
Max. efficiency	98.6%	98.6%	98.6%	98.6%	98.8%	98.8%	98.8%
European efficiency	98.2%	98.2%	98.2%	98.2%	98.2%	98.2%	98.2%
Protection							
DC reverse polarity protection	Yes						
Anti-islanding protection	Yes						
Leakage current protection	Yes						
Ground fault monitoring	Yes						
PV-array string fault monitoring	Yes						
DC switch	Yes						
SPD	PV: type II, AC: type II						
General Data							
Ambient temperature range	-30°C--+60°C						
Self-consumption at night	<3W						
Topology	Transformerless						
Degree of protection	IP65						
Allowable relative humidity range	0-100%						
Max. operating altitude	4000m						
Cooling	Smart air cooling						
Dimension (W*H*D)	585*480*220mm						
Weight	36kg				37kg		
Display	LCD & Bluetooth +APP						
Communication	RS485/WiFi						
Standard	IEC/EN 61000-6-1/2/3/4,IEC 62116, IEC 61727, IEC 61683, IEC 60068-1/2/14/30, IEC/EN 62109-1/2, G99, VDE-AR-N 4105, VDE V 0126-1-1,CEI0-21, EN 50549-1, NRS 097-2-1, UNE 217002-2020						

*All specifications are subject to change without notice.

SOFAR 60K~80KTLX-G3

60 / 80 kW

THREE-PHASE SIX MPPTS



Product advantages

- Max. efficiency up to 98.7%
- Longtime 110% AC overload ability
- Type II SPD for both DC and AC side
- 6 MPPTs with 1.5 times DC overload
- Low start-up voltage, wide MPPT voltage range
- Compatible with 500 W+ PV modules
- I-V curve scanning function



Model	SOFAR 60KTLX2-G3	SOFAR 80KTLX-G3
Input (DC)		
Max. input voltage	1100V	
Rated input voltage	620V	
Start-up voltage	200V	
MPPT operating voltage range	180V-1000V	
Number of MPP trackers	6	
Number of DC inputs	2 for each MPPT	
Max. input MPPT current	6'40A	
Max. input short circuit current	6'60A	
Output (AC)		
Rated output power	60000W	80000W
Max. apparent power	66000VA	88000VA
Max. output current	100A	133.3A
Rated output voltage	3/N/PE, 230/400Vac	
Output voltage range	310Vac-480Vac	
Rated output frequency	50/60Hz	
Output frequency range	45Hz-55Hz/55Hz-65Hz	
Active power adjustable range	0-100%	
THDi	<3%	
Power factor	1 (adjustable +/-0.8)	
Efficiency		
Max. efficiency	98.7%	
European efficiency	98.2%	
Protection		
DC reverse polarity protection	Yes	
Anti-islanding protection	Yes	
Leakage current protection	Yes	
Ground fault monitoring	Yes	
PV-array string fault monitoring	Yes	
DC switch	Yes	
SPD	PV: type II, AC: type II	
General Data		
Ambient temperature range	-30°C--+60°C	
Self-consumption at night	<2W	
Topology	Transformerless	
Degree of protection	IP66	
Allowable relative humidity range	0-100%	
Max. operating altitude	4000m (>3000m derating)	
Cooling	Smart air cooling	
Dimension (W*H*D)	687*561*275mm	
Weight	50kg	
Display	LCD & Bluetooth +APP	
Communication	RS485/WiFi	
Standard	IEC/EN 61000-6-2/4, IEC 61000-3-4/5, IEC 62116, IEC 61727, IEC 61683, IEC 60068-1/2/14/30, IEC/EN 62109-1/2, G99, VDE-AR-N 4105, VDE V 0126-1-1, CEI0-21, EN 50549-1, UNE 217002-2020	

*All specifications are subject to change without notice.

SOFAR 100K~125KTLX-G4
100 / 110 / 125 kW

THREE-PHASE TEN MPPTS



- Product advantages
- Max. efficiency up to 98.6%
 - IP66 design for outdoor
 - Maximum 10 MPPTs with 150%+ DC overload
 - Type II SPD for both DC and AC side
 - AC/DC dual power supply redundant design, 24- hour status monitoring
 - I-V curve scanning function
 - Supports Modbus Communication, external WiFi



Model	SOFAR 100KTLX-G4	SOFAR 110KTLX-G4	SOFAR 125KTLX-G4
Input (DC)			
Max. input voltage	1100V		
Rated input voltage	625V		
Start-up voltage	200V		
MPPT operating voltage range	180V-1000V		
Number of MPP trackers	10		
Number of DC inputs	20		
Max. input MPPT current	10*40A		
Max. input short circuit current	10*50A		
Output (AC)			
Rated output power	100kW	100kW	110kW
Max. apparent power	100kVA@45°C / 90kVA@50°C	110kVA@45°C / 100kVA@50°C	125kVA@45°C / 110kVA@50°C
Max. output current	152A@380V / 145A@400V / 139.2A@415V	167.2A@380V / 159.5A@400V / 153.1A@415V	190A@380V / 181.2A@400V / 174A@415V
Rated output voltage	3/N/PE, 380V / 400V / 415V		
Output voltage range	310-480V		
Rated output frequency	50/60Hz		
Output frequency range	45-55Hz/55-65Hz		
Active power adjustable range	0-100%		
THDi	<1%(@100%P)		
Power factor	1 (+/-0.8 adjustable)		
Efficiency			
Max. efficiency	98.6%		
European efficiency	98.3%		
Protection			
DC reverse polarity protection	Yes		
Anti-islanding protection	Yes		
Leakage current protection	Yes		
Ground fault monitoring	Yes		
PV-array string fault monitoring	Yes		
DC switch	Yes		
AFCI	Yes		
SPD	PV: type II, AC: type II		
General Data			
Ambient temperature range	-30℃--+60℃		
Topology	Transformerless		
Degree of protection	IP66		
Allowable relative humidity range	0-100%		
Max. operating altitude	4000m (>3000m derating)		
Cooling	Smart air cooling		
Dimension (W×H×D)	970×695×325mm		
Weight	75kg		
Display	LCD & Bluetooth +APP		
Communication	RS485/ WiFi		
Standard	EN/IEC 62109-1/2, EN/IEC 61000-6-2/-4, IEC 61000-3-4/-5, EN 50530, EN 50549, IEC62116, IEC 61727, IEC 61683, IEC 60068-2-1/2/14/30, VDE V 0126-1-1, UTE C15-712-1, VDE-AR-N 4105/4110, CEI 0-21/16, NTS 631, UNE 217001, UNE 217002, G99, C10/11		

*All specifications are subject to change without notice.

SOFAR 255KTL-HV
255 kW

THREE-PHASE TWELVE MPPTS



Product advantages

- 12 MPPTs with max. efficiency up to 99.02%
- IP66&C5 protection design for outdoor
- PID recovery
- Compatible with Al and Cu AC cables
- Type II SPD for both DC and AC side
- AC/DC dual power supply redundant design, 24-hour status monitoring
- I-V curve scanning function



Model		SOFAR 255KTL-HV
Input (DC)		
Max. input voltage		1500V
Rated input voltage		1160V
Start-up voltage		550V
MPPT operating voltage range		500V-1500V
Number of MPP trackers		12
Number of DC inputs		24
Max. input MPPT current		12*30A
Max. input short circuit current		12*50A
Output (AC)		
AC output power		255kW@35°C / 230kW@45°C / 220kW@50°C
Max. output current		184A
Rated output voltage		3/PE, 800V
Output voltage range		640-920V
Rated output frequency		50Hz/60Hz
Output frequency range		45-55Hz/55- 65Hz
Active power adjustable range		0-100%
THDi		<3%
Power factor		1 (+/-0.8 adjustable)
Efficiency		
Max. efficiency		99.02%
European efficiency		98.70%
Protection		
DC reverse polarity protection		Yes
Anti-islanding protection		Yes
Leakage current protection		Yes
Ground fault monitoring		Yes
PV-array string fault monitoring		Yes
DC switch		Yes
PID recovery		Yes
SPD		PV: type II, AC: type II
General Data		
Ambient temperature range		-30°C~+60°C
Topology		Transformerless
Degree of protection		IP66
Allowable relative humidity range		0-100%
Max. operating altitude		5000m (> 4000m derating)
Cooling		Smart air cooling
Dimension (W×H×D)		1100.5×713.5×368mm
Weight		99kg
Display		LCD & Bluetooth +APP
Communication		RS485 / PBUS
Standard	EN/IEC 62109-1/2, EN/IEC 61000, IEC 62116, IEC 61727, IEC 61683, IEC 60068-2-1/2/14/30, EN 50530, VDE V 0126-1-1, VDE-AR-N 4110/4120, EN 50549, IEC 62910	

*All specifications are subject to change without notice.

SOFAR 350KTLX0

350 kW

THREE-PHASE EIGHT MPPTS



Product advantages

- Max. efficiency up to 99.05%
- High current input, compatible with 600Wp+ module
- Prolonged AC overload capacity (110%)
- IP66 & C5 protection design for outdoor
- Intelligent string breaking protection for high safety
- I-V curve scanning function



Model		SOFAR 350KTLX0
Input (DC)		
Max. input voltage		1500V
Rated input voltage		1160V
Start-up voltage		550V
MPPT operating voltage range		500V-1500V
Number of MPPTs		8
Number of DC inputs		32
Max. input MPPT current		8*60A
Max. input short circuit current		8*100A
Output(AC)		
Rated output power		352kW
Max. apparent power		352kVA
Max. output current		254.1A
Rated output voltage		3/PE, 800V
Output voltage range		640-920V
Rated output frequency		50/60Hz
Output frequency range		45-55Hz/55-65Hz
Active power adjustable range		0-100%
THDi		<3%
Power factor		1 (+/-0.8 adjustable)
Efficiency		
Max. efficiency		99.05%
European efficiency		98.80%
Protection		
DC reverse polarity protection		Yes
Anti-islanding protection		Yes
Leakage current protection		Yes
Ground fault monitoring		Yes
PV-array string fault monitoring		Yes
DC switch		Yes
SPD		PV: type II, AC: type II
General Data		
Ambient temperature range		-30°C~+60°C
Topology		Transformerless
Degree of protection		IP66
Allowable relative humidity range		0-100%
Max. operating altitude		5000m(>4000m derating)
Cooling		Smart air cooling
Dimension(W×H×D)		1159×828×366mm
Weight		113kg
Display		LED, Bluetooth +APP
Communication		RS485 / PBUS

*All specifications are subject to change without notice.



03 Energy Storage System

ME 3000SP
3000 W

AC-COUPLED ENERGY STORAGE INVERTER



Product advantages

- Various operational modes available
- Smart fanless cooling design
- Flexible configuration, allowing both lead-acid and lithium batteries
- LCD+LED – user friendly interface
- Smart battery energy management system.
- Compatible with other brands of inverter
- IP65 design for outdoor



Model		ME 3000SP
Battery parameters		
Battery type ^[1]	Lithium-ion, Lead-acid	
Rated battery voltage	48V	
Battery voltage range	42-58V	
Max. charging current	65A	
Max. charging current range	0-65A(programmable)	
Charging curve (Lithium-ion)	Self-adaption to BMS	
Max. discharging current	70A	
Electronic protection	OCP OTP OVP	
Short circuit protection	Fuse (100A)	
AC output (on-grid)		
Rated power	3000W	
Max. output power	3000VA	
Rated output current	13A	
Max. output current	13A	
AC voltage range	180-270V	
Grid frequency range	44-55 Hz/55-65Hz	
Output THDi	<3%	
Power factor	1 default (+/-0.8 adjustable)	
Connection phase	Single	
Inrush current	0.8A/1μs	
Max. output fault current	100A/1μs	
Max. output overcurrent protection	13A	
System parameters		
Max. charging/discharging efficiency	>95%	
Standby losses	< 5W	
Topology	High frequency isolated transformer	
Degree of protection	IP65	
Safety protection	Anti-islanding, RCMU, ground fault monitoring	
Communication	RS485/CAN/WiFi Optional: Ethernet/4G	
Surge protection	AC: Type III	
Environmental		
Ambient temperature range	-25°C--+60°C (above 45°C derating)	
Allowable relative humidity range	0-100%	
Max. operating altitude	2000 m	
Current sensor connection	External	
AC output (off-grid)		
Rated power	3000VA	
Rated voltage, frequency	230V, 50/60Hz	
Rated current	13A	
Output THDv (@Linear load)	< 3%	
Switch time	< 3s	
General parameters		
Weight	16kg	
Cooling	Natural	
Dimension	358*543.2*171.7mm	
Display	LCD	
Standard	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, IEC 62109-1/2, IEC62040-1, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21, EN 50549, G83/G98, UTE C15-712-1	

[1] Please refer to document "SOFAR inverter Model compatible battery list"
*All specifications are subject to change without notice.

ME 5K~20KTL-3PH

5 / 6 / 8 / 10 / 15 / 20 kW

AC-COUPLED ENERGY STORAGE INVERTER



Product advantages

- Max. battery charge / discharge efficiency up to 97.8%
- Off-grid and on-grid output can be connected to unbalanced load
- Wide battery voltage range (180-800 V)
- Flexible switching between grid-tied mode and energy storage mode
- Compact design with functional LCD



Model	ME 5KTL-3PH	ME 6KTL-3PH	ME 8KTL-3PH	ME 10KTL-3PH	ME 15KTL-3PH	ME 20KTL-3PH
AC output (on-grid)						
Rated output power	5000W	6000W	8000W	10000W	15000W	20000W
Rated output current	7.2A	8.7A	11.6A	14.5A	21.7A	29.0A
Rated grid voltage	3/N/PE, 230/400Vac					
Rated grid frequency	50/60Hz					
Max. output apparent power	5500VA	6600VA	8800VA	11000VA	16500VA	22000VA
Max. output current	8A	10A	13A	16A	24A	32A
THDi	<3%					
Power factor	1 default (+/-0.8 adjustable)					
Battery parameters						
Battery type ^[3]	Lithium-ion& Lead-acid					
Battery voltage range	180V-800V					
Number of battery input channels	1	1	1	2	2	2
Max. charge/discharge power	5000W	6000W	8000W	10000W	15000W	20000W
Max. charge/discharge current	25A	25A	25A	50A(25A/25A)	50A(25A/25A)	50A(25A/25A)
BMS communication mode	CAN, RS485					
AC output (off-grid)						
Rated output power	5000W	6000W	8000W	10000W	15000W	20000W
Rated output current	7.2A	8.7A	11.6A	14.5A	21.7A	29.0A
Rated output voltage	3/N/PE, 230/400Vac					
Rated output frequency	50/60Hz					
Max. output apparent power	5500VA	6600VA	8800VA	11000VA	16500VA	22000VA
Peak output apparent power, time	7500VA, 60s	9000VA, 60s	12000VA, 60s	15000VA, 60s	22500VA, 60s	26000VA, 60s
Max. output current	8A	10A	13A	16A	24A	32A
THDv (@ linear load)	<3%					
Switching time	<10ms					
Efficiency						
Max. efficiency of charging ^[1]	97.6%	97.6%	97.6%	97.8%	97.8%	97.8%
Max. efficiency of discharging	97.6%	97.6%	97.6%	97.8%	97.8%	97.8%
Protection						
DC switch	Yes					
PV reverse connection protection	Yes					
Battery reverse connection protection	Yes					
Output short circuit protection	Yes					
Output overcurrent protection	Yes					
Output overvoltage protection	Yes					
Insulation impedance detection	Yes					
Residual current detection	Yes					
Anti-island protection	Yes					
Surge protection	AC; Type II					
General parameters						
Operating temperature range	-30℃-60℃					
Relative humidity range	5%-95%					
Max. operating altitude	<4000m					
Standby self-consumption ^[2]	<20W					
Topology	Transformerless					
Installation method	Wall-mounted					
Degree of protection	IP65					
Dimensions (W*H*D)	586.6*515*261.2mm					
Cooling mode	Natural	Natural	Natural	Forced airflow	Forced airflow	Forced airflow
Weight	30kg	30kg	30kg	34kg	34kg	34kg
Communication	RS485/CAN/WiFi, Optional: Ethernet/4G					
Display	LCD & Bluetooth+APP					
Standard	EN61000-6-2, EN61000-6-3, EN61000-3-2, EN61000-3-3, EN61000-3-11, EN61000-3-12, IEC62109-1, IEC62109-2, EN62040-1, AS/NZS 4777, VDE V 0124-100, V0126-1-1, VDE-AR-N 4105, CEI 0-21/CEI 0-16, EN50438/EN50549, G83/C59/G98/G99, UNE206 007-1					

[1] Battery-AC maximum efficiency of battery charge and discharge [2] Standby loss at rated input voltage [3] Please refer to document "SOFAR inverter Model compatible battery list"
* All specifications are subject to change without notice.

HYD 3000~6000-EP

3000 / 3680 / 4000 / 4600 / 5000 / 5500 / 6000 W

SINGLE-PHASE ENERGY STORAGE INTEGRATED INVERTER



Product advantages

- Various operational modes available
- Smart fanless cooling design
- Flexible configuration, allowing both lead-acid and lithium batteries
- EPS function (switchover time less than 10 ms)
- Feed-in limitation function
- Supports both on- and off-grid operation
- IP65 design for outdoor



Model	HYD 3000-EP	HYD 3680-EP	HYD 4000-EP	HYD 4600-EP	HYD 5000-EP	HYD 5500-EP	HYD 6000-EP
PV Input							
Recommended Max. PV Input Power	4500Wp	5400Wp	6000Wp	6900Wp	7500Wp	7500Wp	9000Wp
Max. Input Voltage	550 Vd.c.						
Start-up Voltage	100 Vd.c.						
Rated Input Voltage	360 Vd.c.						
MPPT Voltage Range	85-520 Vd.c.						
Number of MPPT Trackers	1/1						
Max. Input Current	13/13 A						
Max. Isc	18/18 A						
Battery							
Voltage Range	42-58 Vd.c.						
Number of Battery Input Channels	1						
Max. Charging Power	3.75 kW	4 kW	4.25 kW	5 kW	5 kW	5 kW	5 kW
Max. Discharging Power	3.75 kW	4 kW	4.25 kW	5 kW	5 kW	5 kW	5 kW
Max. Charging Current	75 A	80 A	85 A	100 A	100 A	100 A	100 A
Max. Discharging Current	75 A	80 A	85 A	100 A	100 A	100 A	100 A
Battery Type [1]	Lithium-ion & Lead-acid						
BMS Communication	CAN/RS485						
AC Input(Grid)							
Rated Input Voltage	L+N+PE.230 Va.c.						
Rated Input Frequency	50/60 Hz						
Max. Input Current	29.3 A	33.4 A	35.9 A	41.7 A	43.5 A	43.5 A	43.5 A
AC Output(Backup)							
Rated Output Voltage	L+N+PE.230 Va.c.						
Rated Output Frequency	50/60 Hz						
Rated Output Power	3 kW	3.68 kW	4 kW	4.6 kW	5 kW	5 kW	5 kW
Rated Output Current	13.0 A	16.0 A	17.4 A	20.0 A	21.7 A	21.7 A	21.7 A
Rated Apparent Power	3 kVA	3.68 kVA	4 kVA	4.6 kVA	5 kVA	5 kVA	5 kVA
Max. Apparent Power	3 kVA	3.68 kVA	4 kVA	4.6 kVA	5 kVA	5 kVA	5 kVA
Max. Output Current	13.0 A	16.0 A	17.4 A	20.0 A	21.7 A	21.7 A	21.7 A
Peak Output Apparent Power	4500VA, 30s	4800VA, 30s	5100VA,30s	6000VA, 30s	6000VA, 30s	6000VA, 30s	6000VA, 30s
THDv(@ linear load)	<3%						
Switching Time	10ms default						
AC Output(Grid)							
Rated Output Voltage	L+N+PE.230 Va.c.						
Rated Output Frequency	50/60 Hz						
Rated Output Power	3 kW	3.68 kW	4 kW	4.6 kW	5 kW	5 kW	6 kW
Rated Output Current	13.0 A	16.0 A	17.4 A	20.0 A	21.7 A	21.7 A	26.1 A
Max. Apparent Power	3.3 kVA	3.68 kVA	4.4 kVA	4.6 kVA	5 kVA	5.5 kVA	6 kVA
Max. Output Current	14.3 A	16.0 A	19.1 A	20.0 A	21.7 A	23.9 A	26.1 A
THDi	<3%						
Power Factor Range	0.8 lagging-0.8 leading						
Efficiency							
Max. MPPT Efficiency	99.9%						
Max. Efficiency	97.6%	97.6%	97.6%	97.8%	97.8%	97.8%	98.0%
European Efficiency	97.2%	97.2%	97.2%	97.3%	97.3%	97.3%	97.5%
Max. efficiency of Charging/Discharging [2]	94.6%						
Protection							
DC Switch	Yes						
PV Reverse Connection Protection	Yes						
Output Short Circuit Protection	Yes						
Output Overcurrent Protection	Yes						
Output Overvoltage Protection	Yes						
Insulation Impedance Detection	Yes						
Residual Current Detection	Yes						
Anti-island Protection	Yes						
Surge protection	PV: Type III, AC: Type III						
General Parameter							
Inverter Topology	High-frequency Isolation (For Battery)						
Protective class	Class I						
IP Rating	IP65						
Overvoltage Category	AC III, DC II						
Operating Temperature Range	-30°C--+60°C (derating above +45°C)						
Relative Humidity Range	5%-95%						
Max. Operating Altitude	4000m (derating above 2000m)						
Standby Self-consumption [3]	<10W						
Installation Method	Wall Mounted						
Dimensions (W*H*D)	482*503*183mm						
Cooling Mode	Natural						
Weight	21.5kg						
Communication	CAN/RS485/WIFI, Optional: 4G/LAN						
Display	LCD & APP						

[1] Please refer to document "SOFAR inverter Model compatible battery list"

[2] Battery-AC maximum efficiency of battery charge and discharge

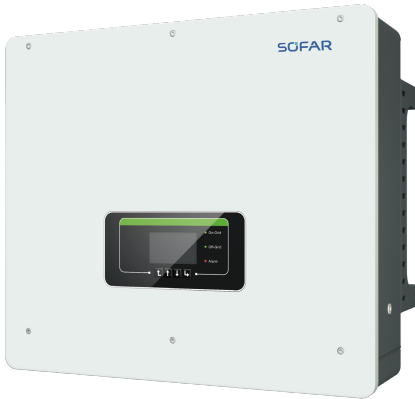
[3] Standby loss at rated input voltage

*All specifications are subject to change without notice.

HYD 5~20KTL-3PH

5 / 6 / 8 / 10 / 10 / 15 / 20 kW

THREE-PHASE ENERGY STORAGE INTEGRATED INVERTER



Product advantages

- Various operational modes for optimal performance
- Off-grid output can be connected to unbalanced load, three-phase separate output is supported
- Up to 2 MPPTs, allowing a flexible configuration
- Multiple parallel systems, more flexible system solutions
- Maximum two battery inputs
- Fully digital operation, enabling higher control accuracy



Model	HYD 5KTL-3PH	HYD 6KTL-3PH	HYD 8KTL-3PH	HYD 10KTL-3PH	HYD 10KTL-3PH-A	HYD 15KTL-3PH	HYD 20KTL-3PH
PV Input							
Recommended Max. PV Power	7500Wp	9000Wp	12000Wp	15000Wp	15000Wp	22500Wp	30000Wp
Max. Input Voltage				1000 Vd.c.			
Start-up Voltage				200 Vd.c.			
Rated Input Voltage				600 Vd.c.			
MPPT Voltage Range				180-960 Vd.c.			
Number of MPPT Trackers	1/1			2/2			
Max. Input Current	12.5/12.5 A			25/25 A			
Max. Isc	15/15 A			30/30 A			
Battery							
Voltage Range				180-800 Vd.c.			
Number of Battery Input Channels	1			2			
Max. Charging Power	5 kW	6 kW	8 kW	10/10 kW	10/10 kW	15/15 kW	20/20 kW
Max. Discharging Power	5 kW	6 kW	8 kW	10/10 kW	10/10 kW	15/15 kW	20/20 kW
Max. Charging Current	25 A	25 A	25 A	25/25 A	25/25 A	25/25 A	25/25 A
Max. Discharging Current	25 A	25 A	25 A	25/25 A	25/25 A	25/25 A	25/25 A
Battery Type ^[1]	Lithium-ion & Lead-acid						
BMS Communication	CAN/RS485						
AC Input(Grid)							
Rated Input Voltage	3(N)~+PE.380/400/415 Va.c.						
Rated Input Frequency	50/60 Hz						
Max. Input Current	15.2/14.5/13.9 A	18.2/17.4/16.7 A	24.2/23.2/22.2 A	30.3/29.0/27.8 A	30.3/29.0/27.8 A	45.5/43.5/41.7 A	60.6/58.0/55.6 A
AC Output(Backup)							
Rated Output Voltage	3N~+PE.380/400/415 Va.c.						
Rated Output Frequency	50/60 Hz						
Rated Output Power	5 kW	6 kW	8 kW	10 kW	10 kW	15 kW	20 kW
Rated Output Current	7.6/7.2/6.9 A	9.1/8.7/8.3 A	12.1/11.6/11.1 A	15.2/14.5/13.9 A	15.2/14.5/13.9 A	22.7/21.7/20.8 A	30.3/29.0/27.8 A
Rated Apparent Power	5 kVA	6 kVA	8 kVA	10 kVA	10 kVA	15 kVA	20 kVA
Max. Apparent Power	5.5 kVA	6.6 kVA	8.8 kVA	11 kVA	11 kVA	16.5 kVA	22 kVA
Max. Output Current	8.3/8.0/7.6 A	10.0/9.6/9.2 A	13.3/12.8/12.2 A	16.7/15.9/15.3 A	16.7/15.9/15.3 A	25.0/23.9/22.9 A	33.3/31.9/30.6 A
Peak Output Apparent Power	7500VA, 60s	9000VA, 60s	12000VA, 60s	15000VA, 60s	15000VA, 60s	22500VA, 60s	26000VA, 60s
THDv(@ linear load)	<3%						
Switching Time	10ms default						
AC Output(Grid)							
Rated Output Voltage	3(N)~+PE.380/400/415 Va.c.						
Rated Output Frequency	50/60 Hz						
Rated Output Power	5 kW	6 kW	8 kW	10 kW	10 kW	15 kW	20 kW
Rated Output Current	7.6/7.2/6.9 A	9.1/8.7/8.3 A	12.1/11.6/11.1 A	15.2/14.5/13.9 A	15.2/14.5/13.9 A	22.7/21.7/20.8 A	30.3/29.0/27.8 A
Max. Apparent Power	5.5 kVA	6.6 kVA	8.8 kVA	11 kVA	10 kVA	16.5 kVA	22 kVA
Max. Output Current	8.3/8.0/7.6 A	10.0/9.6/9.2 A	13.3/12.8/12.2 A	16.7/15.9/15.3 A	15.2/14.5/13.9 A	25.0/23.9/22.9 A	33.3/31.9/30.6 A
THDi	<3%						
Power Factor Range	0.8 lagging-0.8 leading						
Efficiency							
Max. MPPT Efficiency	99.9%						
Max. Efficiency	98.0%	98.0%	98.0%	98.2%	98.2%	98.2%	98.2%
European Efficiency	97.5%	97.5%	97.5%	97.7%	97.7%	97.7%	97.7%
Max. efficiency of Charging/Discharging ^[2]	97.6%	97.6%	97.6%	97.8%	97.8%	97.8%	97.8%
Protection							
DC Switch				Yes			
PV Reverse Connection Protection				Yes			
Battery Reverse Connection Protection				Yes			
Output Short Circuit Protection				Yes			
Output Overcurrent Protection				Yes			
Output Overvoltage Protection				Yes			
Insulation Impedance Detection				Yes			
Residual Current Detection				Yes			
Anti-island Protection				Yes			
Surge protection	PV: Type II, AC: Type II						
General Parameter							
Inverter Topology	Non-isolation						
Protective class	Class I						
IP Rating	IP65						
Overvoltage Category	AC III, DC II						
Operating Temperature Range	-30℃~+60℃ (derating above +45℃)						
Relative Humidity Range	5%-95%						
Max. Operating Altitude	4000m (derating above 2000m)						
Standby Self-consumption ^[3]	<25W						
Installation Method	Wall Mounted						
Dimensions (W*H*D)	587*515*261 mm						
Cooling Mode	Natural			Forced airflow			
Weight	33kg	33kg	33kg	37kg	37kg	37kg	37kg
Communication	CAN/RS485/WiFi, Optional: 4G/LAN						
Display	LCD & +APP						

[1] Please refer to document "SOFAR inverter Model compatible battery list" [2] Battery-AC maximum efficiency of battery charge and discharge [3] Standby loss at rated input voltage
*All specifications are subject to change without notice.

GTX3000-H4~H10

10 / 12.5 / 15 / 17.5 / 20 / 22.5 / 25 kWh

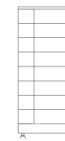
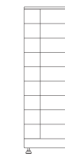
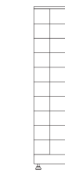
HV ENERGY STORAGE



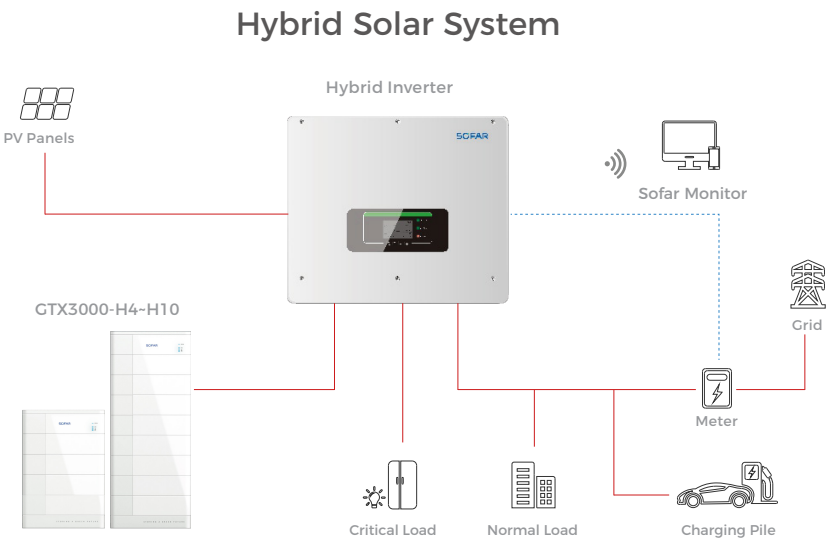
 Product advantages

- User-friendly one-button operation, automatic module ID assignment process
- Supports parallel operation (up to 4 units)
- Supports soft startup
- Remote diagnosis and real-time data monitoring
- Simple stack design, saving time and costs
- Efficient automated production line, achieving optimum production quality



Model	GTX 3000-H4	GTX 3000-H5	GTX 3000-H6	GTX 3000-H7	GTX 3000-H8	GTX 3000-H9	GTX 3000-H10
System Parameters							
System schematic							
Battery module	GTX3000: 51.2V, 2.56kWh						
No. of battery modules	4	5	6	7	8	9	10
Rated voltage	204.8V	256V	307.2V	358.4V	409.6V	460.8V	512V
Operating voltage range	182.4V-224.64V	228V-280.8V	273.6V-336.96V	319.2V-393.12V	364.8V-449.28V	410.4V-505.44V	456V-561.6V
Total energy	10kWh	12.5kWh	15kWh	17.5kWh	20kWh	22.5kWh	25kWh
Usable energy	9kWh	11.25kWh	13.5kWh	15.75kWh	18kWh	20.25kWh	22.5kWh
Rated charging/discharging current	25A						
Max. charging/discharging current	30A						
Rated charging/discharging power	5.12kW	6.4kW	7.68kW	8.96kW	10.24kW	11.52kW	12.8kW
Max. units in parallel	4 groups						
General Parameters							
Communication	CAN/RS485/RS232						
Dimension (W*H*D)	515*770*480mm	515*895*480mm	515*1020*480mm	515*1145*480mm	515*1270*480mm	515*1395*480mm	515*1520*480mm
Weight	138kg	168kg	198kg	228kg	258kg	288kg	318kg
Protection rating	IP65						
Cooling	Natural						
Operating temperature	Charge: 0℃ - +55℃ / Discharge: -20℃ - +60℃						
Humidity	5-95%						
Installation	Floor Stand						
Max. operating altitude	2000 m						
Battery Module							
Battery type	LFP						
Rated voltage	51.2V						
Rated capacity	50Ah						
Weight	30kg						
Dimension (W*H*D)	515*125*478.8mm						
Protection rating	IP65						
Standard	UN38.3, IEC62619, IEC62040-1, etc.						

*All specifications are subject to change without notice.



GTX5000-PRO

5.1 kWh

LV ENERGY STORAGE



Product advantages

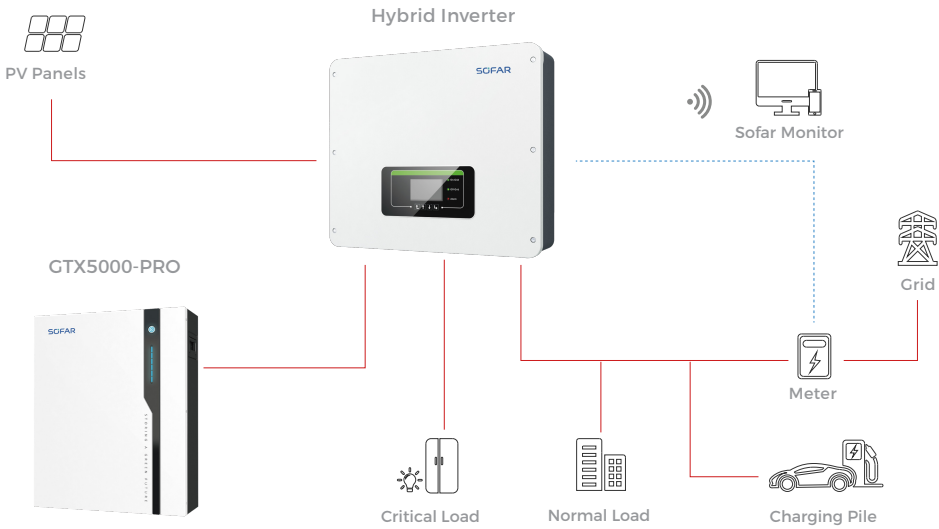
- User-friendly one-button operation, automatic module ID assignment process
- Supports parallel operation (up to 4 units)
- Wall- or floor-mounted installation, saving time and costs
- Remote diagnosis and real-time data monitoring
- Efficient automated production line, achieving optimum production quality

Model	GTX 5000-PRO
System Parameters	
Battery type	LFP
Total energy	5120Wh
Usable energy	4600Wh
Rated voltage	51.2V
Operating voltage range	45.6V-56.16V
Rated charging/discharging power	2560W
Rated charging/discharging current	50A
Max. charging/discharging current	100A
Max. units in parallel	4
General Parameters	
Communication	CAN/RS485/RS232
Dimension (W*H*D)	480*606*171.5mm
Weight	47 kg
Protection rating	IP20
Cooling	Natural
Operating temperature	Charge: 0°C - +55°C / Discharge: -20°C - +60°C
Humidity	5%-95%
Installation	Wall-mounted / Floor stand
Max. operating altitude	2000 m
Standard	UN38.3, IEC62619, IEC62040-1, etc

*All specifications are subject to change without notice.
 Note: Operating current derating according to cell voltage and battery



Hybrid Solar System



BTS E5~E20-DS5

5 / 10 / 15 / 20 kWh

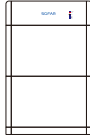
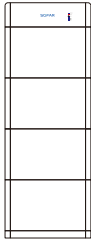
INTELLIGENT ENERGY STORAGE



Product advantages

- Modular and integrated design for easy transportation and installation
- Maximal battery energy with pack optimization
- Flexible battery capacity expansion
- Extremely low battery self-consumption in sleep mode
- User-friendly one-button battery operation
- Energy storage specially for ME/HYD 5K~20KTL-3PH inverters



Model	BTS E5-DS5		BTS E10-DS5		BTS E15-DS5		BTS E20-DS5	
System Parameters								
System schematic								
	Battery type ^[1]							
	Battery distribution unit							
	Qty.of battery distribution unit							
	Battery module							
Qty.of battery modules	1		2		3		4	
Battery total energy ^[2]	5.12kWh		10.24kWh		15.36kWh		20.48kWh	
Rated capacity	100AH		200Ah		300Ah		400Ah	
Rated power	2.5kW		5kW		7.5kW		10kW	
Nominal voltage	400V							
Operating voltage range	350~435V							
Max. charging current	6A		12A		18A		24A	
Max. discharging current	7.5A		15A		22.5A		30A	
General Parameters								
Display	LED indicators							
Communication	CAN							
Dimension(W*H*D)	708*680*170mm		708*1100*170mm		708*1520*170mm		708*1940*170mm	
Weight	59kg		110kg		161kg		212kg	
Protection rating	IP65							
Cooling	Natural							
Operating temperature ^[3]	Charge: 0℃ ~ +50℃ / Discharge: -10℃ ~ +50℃							
Humidity	5~95%							
Installation	Floor Stand							
Max. operating altitude ^[4]	4000m							
Battery Module ^[5]								
Model	BTS 5K							
Battery module energy	5.12kWh							
Nominal voltage	400V							
Rated power	2500W							
Dimension(W*H*D)	708*420*170mm							
Weight	50kg							
Battery Distribution Unit								
Model	BTS 5K-BDU							
Max. charging/discharging current	30A							
Dimension(W*H*D)	708*200*170mm							
Weight	7.5kg							
Standard	UN38.3,IEC62619, IEC62040-1, etc.							
Ordering and Deliverable Part								
Product ordering model ^[6]	BTS 5K, BTS 5K-BDU							

[1] Rechargeable Li-ion Battery system. [2] Test conditions:0.2C charging/discharging at 25°C,100%DOD. [3] Refer to the temperature derating curve.
[4] If the altitude is >2000m, derating operation is required, refer to the derating curve. [5] The internal battery pack is 51.2V, 100Ah.
[6] Storage system is ordered and delivered in the form of power module and battery module separately with corresponding quantity.
*All specifications are subject to change without notice.

SOFAR POWERALL

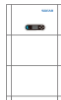
3 / 3.68 / 4 / 4.6 / 5 / 6 KW
5 / 10 / 15 / 20 / 25 / 30 kWh

SINGLE-PHASE DUAL MPPT



Product advantages

- Stacking integrated design, easy installation
- Supports mixing old and new batteries, simple maintenance
- Built-in PCU, battery available energy increased by 6%
- Maximum 16A PV input current, compatible with high-current/ bifacial modules
- Battery with physical and electrical isolation , safer system

Model	ESI 3-6K-S1-HA1	ESI 3-6K-S1-HA2	ESI 3-6K-S1-HA3	ESI 3-6K-S1-HA4	ESI 3-6K-S1-HA5	ESI 3-6K-S1-HA6	
System Parameters							
System Schematic							
Inverter Module	ESI 3-6K-S1						
Qty.of Inverter Modules	1						
Battery Module	BTS 5K						
Qty.of Battery Modules	1	2	3	4	5	6	
Battery total energy ^[1]	5.12kWh	10.24kWh	15.36kWh	20.48kWh	25.6kWh	30.72kWh	
IP Rating	IP65						
Ambient temperature range ^[2]	-10°C--+50°C						
Allowable relative humidity range	5%-95%						
Max. operating altitude ^[3]	4000 m						
Weight	74.5kg	125.5kg	176.5kg	228.5kg	279.5kg	330.5kg	
Dimension (W*H*D)	708*890*170mm	708*1310*170mm	708*1730*170mm	708*1310*170mm 708*900*170mm	708*1310*170mm 708*1320*170mm	708*1730*170mm 708*1320*170mm	
Display	LCD & APP						
Communication	RS485/CAN/WiFi, Optional: Ethernet/4G						
Product ordering model	[ESI 3-6K-S1 Inverter Module] + N * [BTS 5K Battery Module]						
Inverter Module	ESI 3K-S1	ESI 3.68K-S1	ESI 4K-S1	ESI 4.6K-S1	ESI 5K-S1	ESI 5K-S1-A*	ESI 6K-S1
PV Input							
Recommended Max. PV Input Power	4500Wp	5400Wp	6000Wp	6900Wp	7500Wp	7500Wp	9000Wp
Max. Input Voltage	550 Vd.c.						
Start-up Voltage	100 Vd.c.						
Rated Input Voltage	360 Vd.c.						
MPPT Voltage Range	85-520 Vd.c.						
Number of MPPT Trackers	1/1						
Max. Input Current	16/16 A						
Max. Isc	22.5/22.5 A						
Battery							
Rated Voltage Range	400 Vd.c.						
Max. charging/discharging current	20 A						
AC Input(Grid)							
Rated Input Voltage	L+N+PE,230 Va.c.						
Rated Input Frequency	50/60 Hz						
Max. Input Current	26.1 A	32.0 A	34.8 A	40.0 A	43.5 A	43.5 A	52.2 A
AC Output(Backup)							
Rated Output Voltage	L+N+PE,230 Va.c.						
Rated Output Frequency	50/60 Hz						
Rated Output Power	3 kW	3.68 kW	4 kW	4.6 kW	5 kW	5 kW	6 kW
Max. Apparent Power	3 kVA	3.68 kVA	4 kVA	4.6 kVA	5 kVA	5 kVA	6 kVA
Peak Output Apparent Power ^[4]	4500VA, 60s	5520VA, 60s	6000VA, 60s	6900VA, 60s	7500VA, 60s	7500VA, 60s	9000VA, 60s
Switching time	10ms, default						
Dimension (W*H*D)	708*410*170mm						
Weight	22.5kg						
Battery Module							
Battery Type	LFP						
Battery module energy	5.12kWh						
Rated Power	2500W						
Topology	Transformer isolation						
Dimension (W*H*D)	708*420*170mm						
Weight	50kg						

[1] Test conditions:0.2C charging/discharging at 25°C,100%DOD.

[2] Please refer to the temperature derating curve.

[3] If the altitude is >2000 m, derating is required. Please refer to the derating curve.

[4] In a system with sufficient PV and battery power

* All specifications are subject to change without notice.

5.1 kWh

LV ENERGY STORAGE



Product advantages

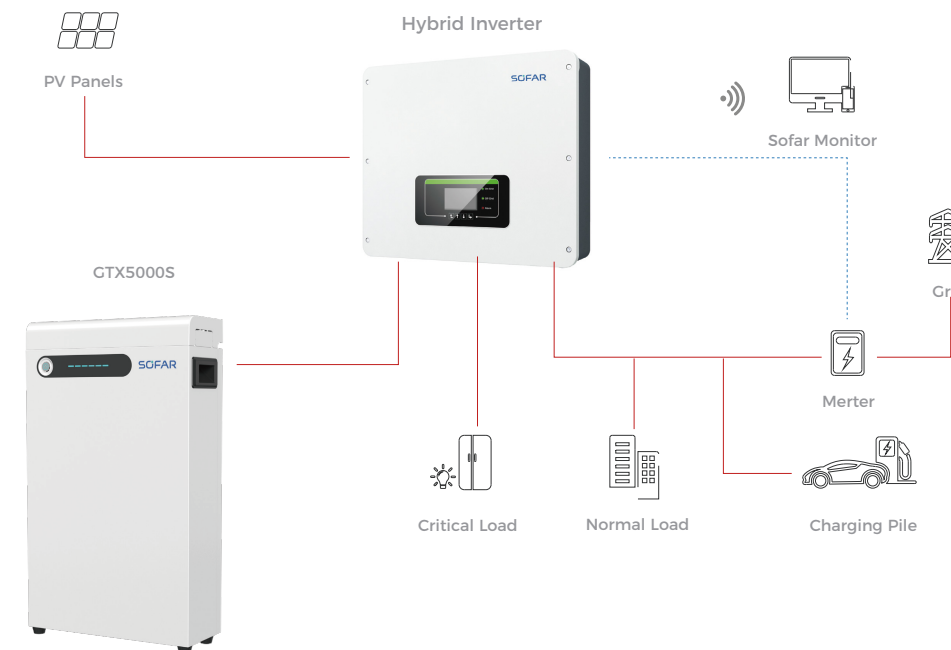
- Safe And Reliable LEP Battery
- Expansion of holding and parallel operation, and maximum holding and parallel operation of 4 units
- Automatic allocation of parallel ID, simple and convenient operation
- Wall mounted or floor mounted, saving installation time and cost
- Remote monitoring of data and software upgrades
- IP65 protection for outdoor installation safety

Model	CTX 5000S
System Parameters	
Battery type	LFP
Total energy	5120Wh
Usable energy	4608Wh
Rated voltage	51.2V
Operating voltage range	45.6V-56.16V
Rated charging/discharging power	2560W
Rated charging/discharging current	50A
Max. charging/discharging current	50A
Max.Parallel Quantity	4pcs
General Parameters	
Communication	CAN/RS232
Dimension (W*H*D)	396*681*154.5mm
Weight	45 kg
Protection rating	IP65
Cooling	Natural
Operating temperature	Charge: 0℃ ~ +55℃ / Discharge: -20℃ ~ +60℃
Humidity	5%-95%
Installation	Wall-mounted / Floor stand
Max. operating altitude	2000 m
Standard	UN38.3, IEC62619, IEC62040-1, etc

*All specifications are subject to change without notice



Hybrid Solar System

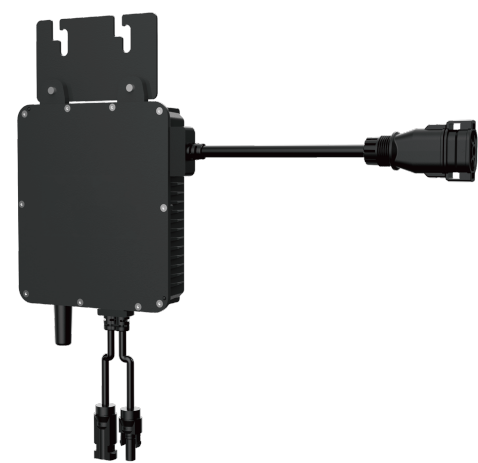




04 Micro Inverter Energy Storage Solution

MR500

MICRO INVERTER



Product advantages

- Easy to install and maintain with small size, light weight
- Up to 20A DC input current to be compatible with the high power PV module
- Low start up voltage and wide MPPT voltage range
- Safer with Rapid Shutdown function and isolated HF transformer
- Electrolytic-free capacitor for long life
- Sub 1G/Wi-Fi wireless communication
- IP67 protection grade, more reliable

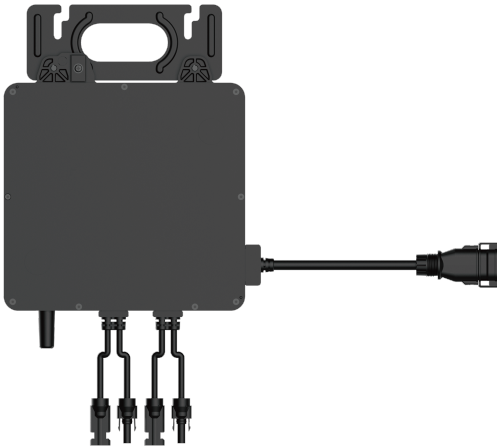


Model	MR500
DC input	
Recommended PV Module Power (STC) Range	200Wp to 670Wp+
Voltage range	22-58V
MPPT operating voltage range	26-55V
Number of MPPT	1
Max. number of input strings per MPPT	1
Max. input current per MPPT	20A
Max. short-circuit current per MPPT	25A
AC Output	
Rated output power	500W
Max. output power	600VA
Rated output current	2.3/2.2/2.1A
Rated grid voltage ^[1]	220/230/240V
Grid Voltage Range ^[2]	176-276V
Rated grid frequency	50/60Hz
Grid frequency range	45-66Hz
THDi	≤3%
Power factor	0.8 leading-0.8 lagging
Maximum units per branch ^[3]	6
Efficiency	
Max. MPPT efficiency	99.5%
Peak Efficiency	97.5%
General Datas	
Operating temperature range ^[4]	-40~+65°C
Relative humidity range	5%-95% (non-condensing)
Max. operating altitude ^[5]	<4000m
Topology	Galvanically Isolated
Degree of protection	IP67
Dimensions (W*H*D)	145*165*43mm
Cooling	Natural Cooling
Weight	2.2kg
Communication	Sub-1G/ Wi-Fi
Standard	IEC/EN 61000-6-1/-3, IEC62109-1/-2, VDE4105, EN50549-1, EN50549-1 (NFC) typeA, ABNT NBR 16149/50

[1],[2] According to local utility requirements. [3] Refer to the local requirements for qty. of microinverter per branch. [4] Refer to the temperature derating curve. [5] Refer to the derating curve.
* All specifications are subject to change without notice.

MR600 / 800 / 1000

MICRO INVERTER



Product advantages

- Easy to install and maintain with small size, light weight
- Up to 20A DC input current to be compatible with the high power PV module
- Low start up voltage and wide MPPT voltage range
- Safer with Rapid Shutdown function and isolated HF transformer
- Electrolytic-free capacitor for long life
- Sub 1G/Wi-Fi wireless communication
- IP67 protection grade, more reliable

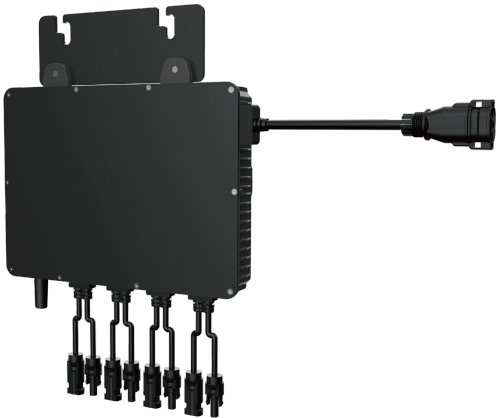


Model	MR600	MR800	MR1000
DC input			
Recommended PV Module Power (STC) Range	200Wp to 670Wp+	200Wp to 670Wp+	200Wp to 670Wp+
Voltage range	22-58V	22-58V	22-58V
MPPT operating voltage range	26-55V	26-55V	26-55V
Number of MPPT	2	2	2
Max. number of input strings per MPPT	1	1	1
Max. input current per MPPT	20A	20A	20A
Max. short-circuit current per MPPT	25A	25A	25A
AC Output			
Rated output power	600W	800W	1000W
Max. output power	660VA	880VA	1100VA
Rated output current	2.72/2.61/2.5A	3.64/3.48/3.33A	4.5/4.3/4.2A
Rated grid voltage ^[1]	220/230/240V	220/230/240V	220/230/240V
Grid Voltage Range ^[2]	176-276V	176-276V	176-276V
Rated grid frequency	50/60Hz	50/60Hz	50/60Hz
Grid frequency range	45-66Hz	45-66Hz	45-66Hz
THDi	≤3%	≤3%	≤3%
Power factor	0.8 leading-0.8 lagging	0.8 leading-0.8 lagging	0.8 leading-0.8 lagging
Maximum units per branch ^[3]	6	6	6
Efficiency			
Max. MPPT efficiency	99.5%	99.5%	99.5%
Peak Efficiency	97.5%	97.5%	97.5%
General Datas			
Operating temperature range ^[4]	-40~+65°C	-40~+65°C	-40~+65°C
Relative humidity range	5%-95% (non-condensing)	5%-95% (non-condensing)	5%-95% (non-condensing)
Max. operating altitude ^[5]	<4000m	<4000m	<4000m
Topology	Galvanically Isolated	Galvanically Isolated	Galvanically Isolated
Degree of protection	IP67	IP67	IP67
Dimensions (W*H*D)	225*210*43mm	225*210*43mm	225*210*43mm
Cooling	Natural Cooling	Natural Cooling	Natural Cooling
Weight	4.2kg	4.2kg	4.2kg
Communication	Sub-1G/Wi-Fi	Sub-1G/Wi-Fi	Sub-1G/Wi-Fi
Standard	IEC/EN 61000-6-1/-3, IEC62109-1/-2, VDE4105, EN50549-1, EN50549-1 (NFC) typeA, ABNT NBR 16149/50		

[1],[2] According to local utility requirements. [3] Refer to the local requirements for qty. of microinverter per branch. [4] Refer to the temperature derating curve. [5] Refer to the derating curve.
* All specifications are subject to change without notice.

MR1600 / 2000 / 2400

MICRO INVERTER



Product advantages

- Easy to install and maintain with small size, light weight
- Up to 20A DC input current to be compatible with the high power PV module
- Low start up voltage and wide MPPT voltage range
- Safer with Rapid Shutdown function and isolated HF transformer
- Electrolytic-free capacitor for long life
- Sub 1G/Wi-Fi wireless communication
- IP67 protection grade, more reliable



Model	MR1600	MR2000	MR2400
DC input			
Recommended PV Module Power (STC) Range	200Wp to 670Wp+	200Wp to 670Wp+	200Wp to 670Wp+
Voltage range	22-58V	22-58V	22-58V
MPPT operating voltage range	26-55V	26-55V	26-55V
Number of MPPT	4	4	4
Max. number of input strings per MPPT	1	1	1
Max. input current per MPPT	20A	20A	20A
Max. short-circuit current per MPPT	25A	25A	25A
AC Output			
Rated output power	1600W	2000W	2400W
Max. output power	1760VA	2200VA	2640VA
Rated output current	7.3/7.0/6.7A	9.1/8.7/8.3A	10.9/10.4/10A
Rated grid voltage ^[1]	220/230/240V	220/230/240V	220/230/240V
Grid Voltage Range ^[2]	176-276V	176-276V	176-276V
Rated grid frequency	50/60Hz	50/60Hz	50/60Hz
Grid frequency range	45-66Hz	45-66Hz	45-66Hz
THDi	≤3%	≤3%	≤3%
Power factor	0.8 leading-0.8 lagging	0.8 leading-0.8 lagging	0.8 leading-0.8 lagging
Maximum units per branch ^[3]	4	4	4
Efficiency			
Max. MPPT efficiency	99.5%	99.5%	99.5%
Peak Efficiency	97.5%	97.5%	97.5%
General Datas			
Operating temperature range ^[4]	-40~+65°C	-40~+65°C	-40~+65°C
Relative humidity range	5%-95% (non-condensing)	5%-95% (non-condensing)	5%-95% (non-condensing)
Max. operating altitude ^[5]	<4000m	<4000m	<4000m
Topology	Galvanically Isolated	Galvanically Isolated	Galvanically Isolated
Degree of protection	IP67	IP67	IP67
Dimensions (W*H*D)	295*210*43mm	295*210*43mm	295*210*43mm
Cooling	Natural Cooling	Natural Cooling	Natural Cooling
Weight	5.5kg	5.5kg	5.5kg
Communication	Sub-1G/Wi-Fi	Sub-1G/Wi-Fi	Sub-1G/Wi-Fi
Standard	IEC/EN 61000-6-1/-3, IEC62109-1/-2, VDE4105, EN50549-1, EN50549-1 (NFC) typeA, ABNT NBR 16149/50		

[1], [2] According to local utility requirements. [3] Refer to the local requirements for qty. of microinverter per branch. [4] Refer to the temperature derating curve. [5] Refer to the derating curve.
* All specifications are subject to change without notice.



Product advantages

- Support whole home load and partial load backup applications
- Export limitation function supported
- Built-in EMS function, remote monitoring and management of microinverters and batteries
- Safe and reliable, with the system EPO function
- Multiple wireless communication interfaces

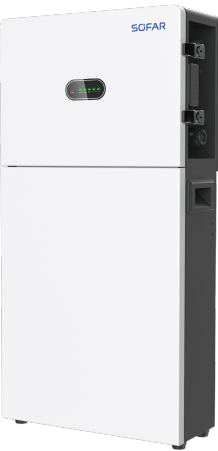


Model	HU80
Input From Grid	
Rated Voltage	220/230/240V
Voltage Range	176-276V
Rated Frequency	50/60Hz
Frequency Range	45-55/55-65Hz
Max. Input Current	80A
Circuit breakers (as needed) ^[1]	Not included, must order separately
Output to distribution panel	
Number for AC outputs	1
Rated Voltage	220/230/240V
Voltage Range	176-276V
Rated Frequency	50/60Hz
Frequency Range	45-55/55-65Hz
Max. output Current	80A
Circuit breakers (as needed) ^[2]	Not included, must order separately
Input from inverter/AC battery	
Number for AC outputs	4
Max. output Current	80A
Rated Voltage	220/230/240A
Voltage Range	176-276V
Rated Frequency	50/60Hz
Frequency Range	45-55/55-65Hz
Circuit breakers ^[3]	32A
Generator	
Number for AC outputs	1
Max.Input Power	12kW
Max.Input Current	52A
Dry Contact	Yes
Smart Load	
Number for AC outputs	1
Max.Output Power	6kW
Max.Output Curent	30A
RS485 Communication	Yes
General Datas	
Operating temperature range	-30--+50℃
Relative humidity range	5%-95% (non-condensing)
Max. operating altitude	<4000m
Degree of protection	IP65
Display	LED
Cooling	Natural Cooling
Communication	Wi-Fi, Ethernet, RS485, Sub-1G, Optional: 4G
EPO	Yes
Switch Time	< 40ms
SPD	II
Dimensions (W"H"D)	450 x 650*175mm
Weight (kg)	20kg
Installation method	Wall Mounted
Standard	IEC61000-6-1, IEC61000-6-3, IEC61439, RED

[1],[2] Refer to the Sofar recommendation list, otherwise the product is not within the warranty. [3] The default circuit breaker rating is 32A.
* All specifications are subject to change without notice.

BT5000A

AC BATTERY



Product advantages

- Wi-Fi wireless communication
- Integrated battery and PCS, compact installation
- Flexible expansion, up to 8 units in parallel
- Wall or floor mounted installation, saving time and cost
- User-friendly one-button battery operation



Model	BT5000A
AC Output(On Grid)	
Rated Power	2500W
Rated Apparent Power	2750VA
Rated Current	11.4/10.9/10.4A
Max. Current	12.5/12/11.5A
Rated AC Voltage	220/230/240V
Grid Voltage Range	176-276V
Rated Grid Frequency	50/60Hz
Grid Frequency Range	45-66Hz
THDI	<3%
PF	0.8 leading-0.8 lagging
AC Output(Off Grid)	
Rated Power	2500W
Peak output Power	3500W,10s
Rated Current	11.4/10.9/10.4A
Rated Voltage	220/230/240V
Rated Frequency	50/60Hz
THDV	<3%
Battery Side	
Battery Type ^[1]	LFP
Rated Voltage	51.2V
Battery total Energy ^[2]	5.12kWh
Usable capacity ^[3]	4.6kWh
General Datas	
Operating temperature range ^[4]	Discharge: -10~+50°C Charge: 0~+50°C
Relative humidity range	5%-95% (non-condensing)
Max. operating altitude ^[5]	<4000m
Degree of protection	IP66
Display	LED
Cooling	Natural Cooling
Communication	Wi-Fi, RS485, Optional: 4G, Ethernet
SPD	II
Dimensions (W*H*D)	400*800*175mm
Weight (kg)	50kg
Installation method	Wall Mounted OR Floor Mounted
Standard	IEC62109, IEC62477, IEC62619, IEC 61000, UN38.3, VDE 4105, EN50549-1

[1] Rechargeable li-ion battery system.
[2] Test conditions: 0.2C charging/discharging at 25°C, 100%DOD.
[3] Usable energy is based on battery cell only.
[4] Refer to the temperature derating curve.
[5] If the altitude is more than 2000m, derating operation is required. Refer to the derating curve.
*All specifications are subject to change without notice.



05 C&I Energy Storage Solution

SOFAR 100K~125KTLX-G4

100 / 110 / 125 kW

THREE-PHASE TEN MPPTS, ESS READY



- Product advantages
- Max. efficiency up to 98.6%
 - IP66 & C5 design for outdoor
 - Maximum 10 MPPTs, 40A per MPPT
 - Type I + II SPD for DC
 - I-V curve scanning function
 - Battery connector for ESS, DC coupled



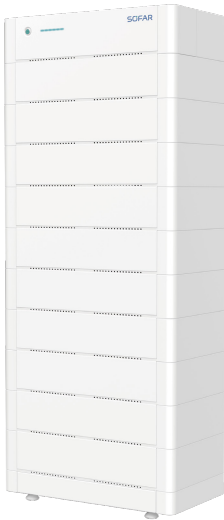
Model	SOFAR 100KTLX-G4	SOFAR 110KTLX-G4	SOFAR 125KTLX-G4
Input (DC)			
Max. input voltage	1100V		
Rated input voltage	625V		
Start-up voltage	200V		
MPPT operating voltage range	180V-1000V		
Number of MPP trackers	10		
Number for DC inputs	20		
Max. input MPPT current	10*40A		
Max. input short circuit current	10*50A		
AC Output(On Grid)			
Rated output power	100kW	100kW	110kW
Max. apparent power	100kVA@45°C / 90kVA@50°C	110kVA@45°C / 100kVA@50°C	125kVA@45°C / 110kVA@50°C
Max. output current	152A@380V / 145A@400V / 139.2A@415V	167.2A@380V / 159.5A@400V / 153.1A@415V	190A@380V / 181.2A@400V / 174A@415V
Rated output voltage	3/N/PE, 380V / 400V / 415V		
Output voltage range	310-480V		
Rated output frequency	50/60Hz		
Output frequency range	45-55Hz/55-65Hz		
Active power adjustable range	0-100%		
THDi	<1%(@100%P)		
Power factor	1 (+/-0.8 adjustable)		
ESS Parameter			
DC voltage range	200-1100V		
Max. charge / discharge current	100A / 100A		
Max. power(charge / discharge)	62.5kW / 62.5kW		
BMS communication	CAN		
AC Output(Off Grid)			
Rated output power	100kW	100kW	110kW
Max. apparent power	100kVA@45°C / 90kVA@50°C	110kVA@45°C / 100kVA@50°C	125kVA@45°C / 110kVA@50°C
Max. output current	152A@380V / 145A@400V / 139.2A@415V	167.2A@380V / 159.5A@400V / 153.1A@415V	190A@380V / 181.2A@400V / 174A@415V
Rated output voltage	3/N/PE, 380V / 400V / 415V		
Rated output frequency	50/60Hz		
THDV	<3%(Linear Load)		
Efficiency (PV)			
Max. efficiency	98.60%		
European efficiency	98.30%		
Protection			
DC reverse polarity protection	Yes		
Anti-islanding protection	Yes		
Leakage current protection	Yes		
Ground fault monitoring	Yes		
PV-array string fault monitoring	Yes		
DC switch	Yes		
AFCI	Yes		
SPD	PV: type I + II , AC: type II		
General Data			
Ambient temperature range	-30°C--+60°C		
Topology	Transformerless		
Degree of protection	IP66		
Allowable relative humidity range	0-100%		
Max. operating altitude	4000m(>3000m derating)		
Cooling	Smart air cooling		
Dimension(W×H×D)	970×695×325mm		
Weight	75kg		
Display	LCD & Bluetooth +APP		
Communication	RS485 / WiFi		
Standard	EN/IEC 62109-1/2, EN/IEC 61000-6-2/-4, IEC 61000-3-4/-5, EN 50530, EN 50549, IEC62116, IEC 61727, IEC 61683, IEC 60068-2-1/2/14/30, VDE V 0126-1-1, UTE C15-712-1, VDE-AR-N 4105/4110, CEI 0-21/16, NTS 631, UNE 217001, UNE 217002		

*All specifications are subject to change without notice.

CBS5000-H4~H10

20 / 25 / 30 / 35 / 50 / 45 / 50 kWh

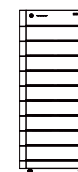
HV ENERGY STORAGE



 Product advantages

- Active equalization between battery packs, higher usable energy.
- Up to 4 racks in parallel, 20~200kWh wide battery energy range.
- One-button automatic recognition, simple and convenient operation.
- Simple stack design, saving time and costs.
- IP65 protection rating, more reliable and safe.



Model	CBS 5000-H4	CBS 5000-H5	CBS 5000-H6	CBS 5000-H7	CBS 5000-H8	CBS 5000-H9	CBS 5000-H10
System Parameters							
System							
Battery Module	CBS5000 : 51.2V 100Ah						
No.of battery modules	4	5	6	7	8	9	10
Rated voltage	204.8V	256V	307.2V	358.4V	409.6V	460.8V	512V
Operating voltage range	179.2V-233.6V	224V-292V	268.8V-350.4V	313.6V-408.8V	358.4V-467.2V	403.2V-525.6V	448V-584V
Total energy ^[1]	20.48kWh	25.60kWh	30.72kWh	35.84kWh	40.96kWh	46.08kWh	51.20kWh
Usable energy ^[2]	18.43kWh	23.04kWh	27.65kWh	32.26kWh	36.86kWh	41.47kWh	46.08kWh
Rated charge power	10.24kW	12.8kW	15.36kW	17.92kW	20.48kW	23.04kW	25.6kW
Rated discharge power	10.24kW	12.8kW	15.36kW	17.92kW	20.48kW	23.04kW	25.6kW
Rated charge/discharge current	50A						
Max. charge current	50A						
Max. discharge current	60A						
Scalability	Up to 4 racks in parallel						
General Parameters							
Communication	CAN						
Dimension(W*H*D)	730*881*420mm	730*1033*420mm	730*1185*420mm	730*1337*420mm	730*1489*420mm	730*1641*420mm	730*1793*420mm
Weight	210kg	257kg	304kg	351kg	398kg	445kg	492kg
Protection rating	IP65						
Cooling	Smart air cooling						
Operating temperature ^[3]	Charge : 0℃-50℃; Discharge : -10℃-50℃						
Humidity	5%RH-95%RH (non-condensing)						
Altitude ^[4]	≤4000m						
Equalization method	Active equalization between battery modules						
Installation	Floor stand						
Display	LED						
Battery Module							
Battery type ^[5]	LFP						
Rated capacity	100Ah						
Rated voltage	51.2V						
Rated charge/discharge current	50A						
Max. charge current	50A						
Max. discharge current	60A						
Dimension(W*H*D)	730*152*420mm						
Weight	47kg						
Protection rating	IP65						
Standard	UN38.3 , IEC 62619 , IEC 61000-6-2/-3, IEC62040-1						

[1] Test conditions: 0.2C charging/discharging at 25℃, 100%DOD.

[2] Usable energy is base on battery cell only.

[3] Refer to the temperature derating curve.

[4] If the altitude is more than 2000m,derating operation is required,Refer to the derating curve.

[5] Rechargeable li-ion battery system.

* All specifications are subject to change without notice.

CBS5000-BOT

BATTERY RACK OPTIMIZATION MODULE



Product advantages

- Small size, light weight, easy to install.
- Up to 4 units in parallel.
- Integrated battery tower management to improve usable energy.
- One-button automatic recognition, simple and convenient operation.
- High efficiency with three-level technology.
- IP65 for outdoor use.



Model		CBS5000-BOT
Battery side		
Rated voltage		512V
Voltage range		179.2-584V
Max.charge current		50A
Max.discharge current		60A
BUS side		
Rated voltage		600V
Voltage range		510-980V
Rated power		25.24kW
Rated current		42A
Max.efficiency		99%
General Parameters		
Overvoltage protection		Yes
Overcurrent protection		Yes
Short circuit protection		Yes
Battery reverse connection protection		Yes
insulation impedance detection		Yes
Cooling		Smart air cooling
Communication		CAN, RS485
Dimension(W*H*D)		500*400*190mm
Weight		16.5kg
Protection rating		IP65
Operating temperature ^[1]		-30-60℃
Humidity		5%RH-95%RH (non-condensing)
Altitude ^[2]		≤4000m
Installation		Wall mounted
Display		LED
SPD		Type II
Standard		IEC 62477-1, IEC 61000-6-2/-4

[1] Refer to the temperature derating curve.
[2] If the altitude is more than 2000m,derating operation is required.Refer to the derating curve.
* All specifications are subject to change without notice.



06 Utility ESS

Utility ESS

POWER MASTER



Utility ESS – PowerMaster

LESS LCOS

High Efficiency
and Flexibility

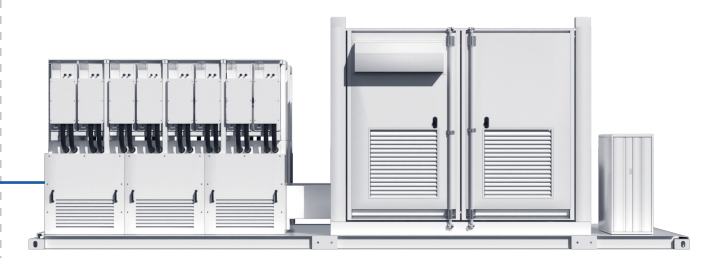
Ultimate Security

Intelligent Stability

Utility-Scale Energy Storage System Solution



BESS



Smart String PCS

MVT

Air-Liquid Mixing

Air-Cooled+Liquid-Cooled
Intelligent Heat Dissipation



Modular Design

Minimal operation and maintenance
One rack for one management
Automatic coordination control,
to ensure full power operation of PCS.



Suitable For Large Cells

Higher Energy Density
3.93MWh

3+2 Security System

Cell-Level Fire Extinguishing Gas Technique +
Cabin-Level Fire Extinguishing Gas Technique +
Water Firefighting Three-Level Linkage
Combustible Gas Emission + Explosion Venting
Design



Combined Design

A 40-foot Combined scheme can
be used to reduce the floor space
by more than 30%.

High conversion efficiency in the full power range

Smart coordination strategy to ensure high efficiency
performance of PCS full power-range





Product Advantages

- Uniform Flow Liquid-Cooled + Intelligent Air Cooled
- Better temperature uniformity, the temperature difference of cells in the battery pack is <2.5℃
- Anti-Condensation Design
- Combined Design: The 40-foot combination scheme reduces the floor area by more than 30%.
- Three-level linkage of cell-level gas fire protection + cabin-level gas fire protection + water fire protection
- Combustible Gas Emission + Explosion Venting Design
- Prevent secondary re-ignition in the battery compartment
- Ultimate Safety Design

BESS Specifications

Cell Type	LFP/280Ah	LFP/320Ah
Nominal Capacity (BOL)	3.44MWh	3.93MWh
Working Voltage Range	960 ~ 1401.6V	
Charge and Discharge Rate	≤0.5P	
Operating Ambient Temperature	-30℃ ~ 55℃	
Working Environment Relative Humidity	0 ~ 100%(No Condensation)	
Working Altitude	≤4000m	
Cooling Method	Air Cooling + Liquid Cooling	
Fire Fighting Method	Perfluoro Gas Firefighting (Cell Level & Cabin Level) + Backup Water FireFighting +Combustible Gas Emission + Explosion Venting Design	
Communication Interface	Ethernet/CAN/RS485	
Communication Protocol	IEC61850、IEC104/CAN2.0/Modbus	
Degree of Protection	IP55	
Anti-Corrosion Grade	C4	
Dimensions (W*D*H)	6058*2438*2896mm	
Weight	~34T	~35T
Standards & Certifications	GB/T36276/IEC62619/UL1973/UL9540A/UN3536	

PACK Specifications

Model	S1G-LP430	S1G-LP490
Cell Type	LFP	
Series and Parallel Mode	1P48S	
Nominal Capacity/Energy	280Ah/43kWh	320Ah/49kWh
Rated Voltage	153.6V	
Working Voltage Range	120~ 175.2V	
Charge and Discharge Rate	≤0.5P	
Working Temperature	-30℃ ~ 55℃	
Working Environment Relative Humidity	0 ~ 100%(No Condensation)	
Working Altitude	≤4000m	
Cooling Method	Liquid Cooling	
Fire Fighting Method	Cell-Level Firefighting (Perfluoro)	
Communication Interface	CAN	
Degree of Protection	IP67	
Dimensions (W*D*H)	765*1050*245mm	
Weight	≤310kg	≤322kg
Standards & Certifications	GB/T36276、IEC62619、UL1973、UN38.3	

Rack Specifications

Nominal Energy	344kWh	393kWh
Configuration	1P384S	
Rated Voltage	1228.8V	
Working Voltage Range	960 ~ 1401.6V	
Charge and Discharge Rate	≤0.5P	
Working Temperature	-30℃ ~ 55℃	
Working Environment Relative Humidity	0 ~ 100%(No Condensation)	
Working Altitude	≤4000m	
Cooling Method	Liquid Cooling	
Fire Fighting Method	Perfluoro Gas Firefighting	
Communication Interface	CAN、Dry Contact	
Dimensions (W*D*H)	1050*1105*2400mm	
Weight	≤3.2T	≤3.3T
Standards & Certifications	GB/T36276、IEC62619	

* All specifications are subject to change without notice.

Smart String PCS

Product Advantages



- Support 1500Vdc battery system, higher system efficiency
- Three-level topology, 99% peak efficiency, lower power loss
- Modular design, easy installation, easy maintenance, lower OPEX
- Rack-level management, more available capacity
- Support active and reactive power response, four-quadrant operation
- Support high and low voltage ride through
- Power grid adaptability, support weak grid SCR1.2.
- Strong environmental adaptability : module, IP66 , system, IP55
- Equipped with intelligent control algorithm, can be expanded in parallel



Specification	PCS Module		PCS System	
MODEL	EBI 215K	EBI 250K	EBI 1725K	EBI 2000K
DC Side Parameters				
Maximum DC Voltage	1500 V		1500 V	
DC Voltage Working Range	1000 ~ 1500 V	1180 ~ 1500 V	1000 ~ 1500 V	1180 ~ 1500 V
Maximum DC Current	242 A		968 A *2	
Grid Side Parameters				
Rated AC Power	215 kW	250 kW	1725 kW	2000 kW
Maximum AC Active Power	237 kW	275 kW	1898 kW	2200 kW
Rated AC Current	180 A		1443 A	
Maximum AC Current	198 A		1588 A	
Rated Grid Voltage	690 V	800 V	690 V	800 V
Grid Voltage Range	586.5~759V	680~880V	586.5~759V	680~880V
Rated Grid Frequency	50 / 60 Hz		50 / 60 Hz	
Grid Frequency Range	45~55Hz / 55~65Hz		45~55Hz / 55~65Hz	
Power Factor	-1~1,Adjustable		-1~1,Adjustable	
Current Total Harmonic Distortion (@Rated Power)	<1%		<3%	
System Characteristics				
Working Temperature	-35℃~60℃		-35℃~60℃	
Relative Humidity	0 ~ 100%(No Condensation)		0 ~ 100%(No Condensation)	
Maximum Working Altitude	4000m		4000m	
Ingress Protection	IP66		IP55	
Mechanical Parameters				
Dimensions (W*H*D)	770 x 850 x 310 mm		2790 x 2110 x 980 mm	
Weight	<87 kg		<1500 kg	

* All specifications are subject to change without notice.



07 Smart Energy

STICK LOGGER

LSW-3 / LSE-3



Product advantages

- Independent from inverter to protect parts inside the inverter eliminate potential problems
- Outdoor design,easier to replace faulty equipment
- Plug-and-play for easy installation, no external power supply needed
- IP65 design, adaptable to bad weather condition
- External light indicator, logging status at a glance
- User-friendly App platform to monitor yield performance any time, anywhere



Model	LSW-3		LSE-3
General parameters			
Working voltage	DC 5V		
Working power	1.5W		1W
Local data interface	USB		
LED	3		
Communication parameter			
Remote data interface	Wi-Fi		LAN
Flash memory	8MB		2MB
Connected inverters	1		
Software parameter			
Serial communication rate	Default 9600bps (1200-115200bps adjustable)		
Data acquisition interval	Default 5min (1-15min optional)		
User configuration	AT+ instruction set		
	Remote web		
Firmware upgrade	Remote web		
Environmental parameter			
Working temperature	-30~+70℃		
Working humidity	10%-90% (Condensation free)		
Protection grade	IP65		
Other			
	Real-time control, Data resume		

*All specifications are subject to change without notice.

SOFAR COMMUNICATION MANAGER



Product advantages

- RS485, PBUS, Ethernet, Fiber-optic network
- Supports up to 60 inverters
- Supports dual-split, two-winding transformers and can be configured with dual PBUS modules
- Can be connected to a wide range of environmental collectors, electricity meters, box transformer, measurement and control equipment
- Built-in Surge protectors
- IP65 protection for long-term stable outdoor operation
- Supports remote/local batch upgrades and single unit upgrades
- Remote control, giving commands such as power settings



Model		SOFAR COMMUNICATION MANAGER PSC100*
General parameters		
Auxiliary power input	Voltage range 100Vac-240Vac; Frequency range: 50-60Hz	
Communication mode	With inverters: RS485/PBUS	
	With monitoring platforms: SFP/ETH	
Max. number of connected devices	RS485: 60pcs, PBUS: 60pcs	
Max. transmission distance	RS485:1000M, PBUS:1000M	
PBUS (communication) voltage input	Voltage range: 320Vac-920Vac, Frequency range: 50H-60Hz	
Fibre optic ports	Max. transmission distance: 20KM	
	Interface method: LC	
Environmental parameters		
Operating temperature	-30~+60°C	
Storage and transport temperature	-40°C~+85°C	
Operating altitude	<4000m	
Protection level	IP65	
Relative humidity	<95%, Non-condensing	
Surge Protection	AC Type II	
Mechanical parameters		
Cooling methods	Natural cooling	
Dimensions (W x D x H)	760 x 580 x 220mm	
Other		
Installation mode	Wall mounting/Flat mounting	

* All specifications are subject to change without notice.

SAR-100

FEED-IN LIMITATION BOX



Product advantages

- Local APP configuration, easy to use
- Standard air switch for safe use
- 2.4G / WIFI transmits data
- Real-time monitoring of grid connection
- With multi-machine Anti-reflux function, up to 10 devices can be connected



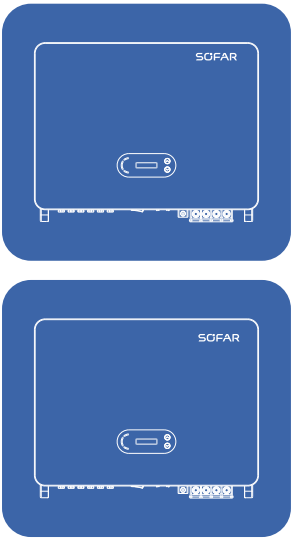
Model		FEED-IN LIMITATION BOX SAR-100
Electrical parameters		
Operating voltage		3x230/400V 50/60Hz
Operating current		3x1.5(6)A
Connection mode		Three-phase four-wire
Communication parameters		
Communication mode		2.4G Wi-Fi+Ethernet
Antenna		External
Local Communication		RS485
Maximum of inverter connection		10
Mechanical parameter		
Size		400 x 300 x 170mm
Weight		3.9kg
User configuration		
Local configuration		Local APP+ web configuration
Remote configuration		Remote web configuration
Environmental parameter		
Operating temperature		-25°C~+60°C
Relative humidity (no condensation)		5%-95%
Other		
IP grade		IP65
Installation mode		Wall-mounting

* All specifications are subject to change without notice.



SOFAR MONITOR

The SOFAR Monitor is aimed at distributors/installers and end-users of Residential PV& Storage System and C&I PV & Storage System. It is a platform system for the whole life cycle management of new energy power plants, which can effectively help customers to grasp the operation status of power plants in real time, achieve fine control, efficient operation and maintenance, transparent operation and maximum profit.



Unlimited no. of inverters



Wi-Fi

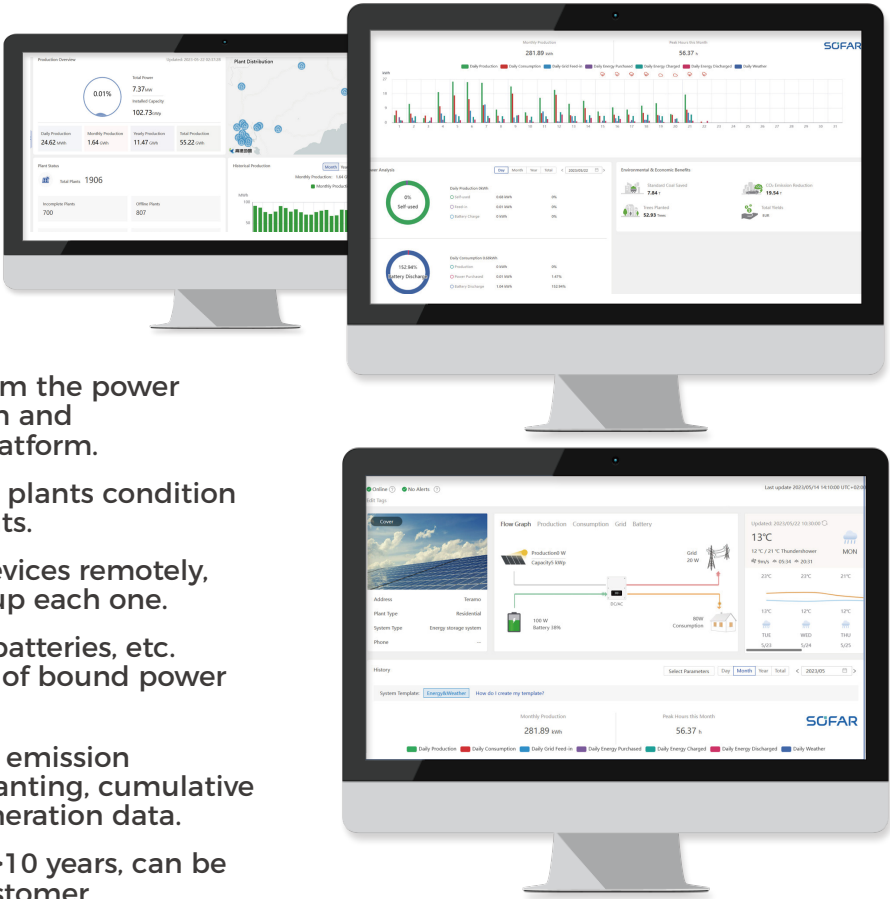


Ethernet



SOFAR Monitor

– Web



- Collection of all power data from the power plants during power generation and transmission to the terminal platform.
- Real-time knowledge of power plants condition and devices to prevent accidents.
- Batch upgrade and manage devices remotely, no need to visit the site to set up each one.
- Alerts data covering inverters, batteries, etc. Easy to check the alarm status of bound power plant devices.
- Simulation of coal savings, CO² emission reductions, equivalent tree planting, cumulative revenue through electricity generation data.
- General data retention period >10 years, can be extended if required by the customer

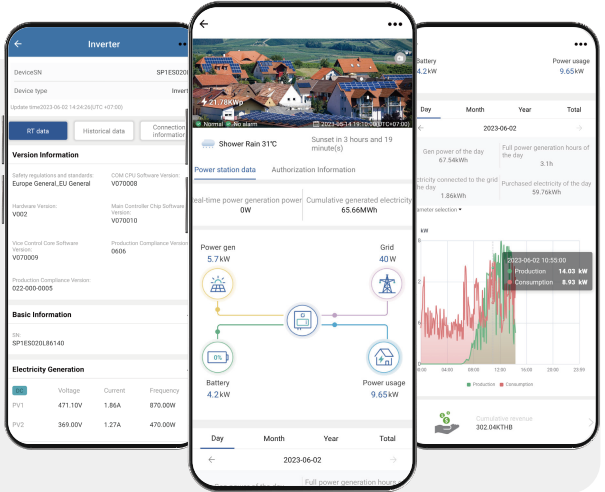
SOFAR Monitor

– App



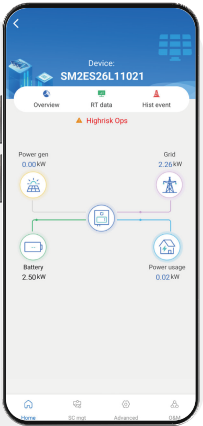
Portable management

- Check the status of your power plant anytime, anywhere!
- Flow chart showing current power generation, consumption and grid connection at the plant
- Precise location of the faulty device and the cause of the fault
- Customize your power plant display



Local setup of inverters

- Bluetooth connection for inverters, data transfer
- Remote switch on/off, set safety regulations, language, time, etc.
- Historical events, rapid O&M



Download QR Code

