

# SOFAR

SOFAR

ENERGY TO POWER  
YOUR LIFE

PRODUCT *catalogue*

Shenzhen SOFARSOLAR Co., Ltd.

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Shenzhen SOFARSOLAR Co., Ltd.

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## SOFAR INTRODUCTION

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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 Inverter

02-08

- 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 Inverter

10-22

- 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 110KTLX-G4 / 125KTLX-G4
- SOFAR 255KTL-HV

### Energy Storage System

24-40

- 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

### Inverter Data Logger

42-44

- LSW-3



# 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



Datasheet	SOFAR 1100TL-G3	SOFAR 1600TL-G3	SOFAR 2200TL-G3	SOFAR 2700TL-G3	SOFAR 3000TL-G3	SOFAR 3300TL-G3
<b>Input (DC)</b>						
Max. input voltage	500V		360V		550V	
Rated input voltage			360V			
Start-up voltage			70V			
MPPT operating voltage range	50-500V				50-550V	
Number of MPPTs			1			
Number of DC inputs			1			
Max. input MPPT current			12A			
Max. input short circuit current			15A			
<b>Output (AC)</b>						
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)					
<b>Efficiency</b>						
Max. efficiency	97.5%		97.7%		97.7%	
European efficiency	96.9%				97.2%	
<b>Protection</b>						
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					
<b>General Data</b>						
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



Datasheet	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
<b>Input (DC)</b>								
Max. input voltage	600V							
Rated input voltage	380V							
Start-up voltage	90V							
MPPT operating voltage range	80V-550V							
Number of MPPTs	2							
Number of DC inputs	1 for each MPPT							
Max. input MPPT current	15A/15A							
Max. input short circuit current	22.5A/22.5A							
<b>Output (AC)</b>								
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)							
<b>Efficiency</b>								
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%
<b>Protection</b>								
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							
<b>General Data</b>								
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	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%)



Datasheet	SOFAR 7KTLM-G3	SOFAR 7.7KTLM-G3	SOFAR 8KTLM-G3	SOFAR 9KTLM-G3	SOFAR 10KTLM-G3	SOFAR 10.5KTLM-G3
<b>Input (DC)</b>						
Max. input voltage	600V					
Rated input voltage	360V					
Start-up voltage	90V					
MPPT operating voltage range	80V-550V					
Number of MPPTs	3					
Number of DC inputs	3					
Max. input MPPT current	20A/16A/16A					
Max. input short circuit current	30A/25A/25A					
<b>Output (AC)</b>						
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)					
<b>Efficiency</b>						
Max. efficiency	98.1%					
European efficiency	97.3%					
<b>Protection</b>						
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					
<b>General Data</b>						
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	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



Datasheet	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
<b>Input (DC)</b>								
Max. input voltage	1100V							
Rated input voltage	650V							
Start-up voltage	160V							
MPPT operating voltage range	140V-1000V							
Number of MPPTs	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			
<b>Output (AC)</b>								
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)							
<b>Efficiency</b>								
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%
<b>Protection</b>								
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							
<b>General Data</b>								
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	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							

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# 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



Datasheet	SOFAR 15KTLX-G3	SOFAR 17KTLX-G3	SOFAR 20KTLX-G3	SOFAR 22KTLX-G3	SOFAR 24KTLX-G3
<b>Input (DC)</b>					
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
<b>Output (AC)</b>					
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)				
<b>Efficiency</b>					
Max. efficiency	98.6%	98.6%	98.6%	98.6%	98.6%
European efficiency	98.2%	98.2%	98.2%	98.2%	98.2%
<b>Protection</b>					
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				
<b>General Data</b>					
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



### 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



Datasheet	SOFAR 25KTLX-G3	SOFAR 30KTLX-G3	SOFAR 33KTLX-G3	SOFAR 36KTLX-G3	SOFAR 40KTLX-G3	SOFAR 45KTLX-G3	SOFAR 50KTLX-G3
<b>Input (DC)</b>							
Max. input voltage	1100V						
Rated input voltage	620V						
Start-up voltage	200V						
MPPT operating voltage range	180V-1000V						
Number of MPPTs	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
<b>Output (AC)</b>							
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)						
<b>Efficiency</b>							
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%
<b>Protection</b>							
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						
<b>General Data</b>							
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



Datasheet	SOFAR 60KTLX2-G3	SOFAR 80KTLX-G3
<b>Input (DC)</b>		
Max. input voltage	1100V	
Rated input voltage	620V	
Start-up voltage	200V	
MPPT operating voltage range	180V-1000V	
Number of MPPTs	6	
Number of DC inputs	2 for each MPPT	
Max. input MPPT current	6*40A	
Max. input short circuit current	6*60A	
<b>Output (AC)</b>		
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)	
<b>Efficiency</b>		
Max. efficiency	98.7%	
European efficiency	98.2%	
<b>Protection</b>		
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	
<b>General Data</b>		
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, C99, 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 110K~125KTLX-G4

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



Datasheet	SOFAR 110KTLX-G4	SOFAR 125KTLX-G4
<b>Input (DC)</b>		
Max. input voltage	1100V	
Rated input voltage	625V	
Start-up voltage	200V	
MPPT operating voltage range	180V-1000V	
Number of MPPTs	10	
Number of DC inputs	20	
Max. input MPPT current	10*40A	
Max. input short circuit current	10*50A	
<b>Output (AC)</b>		
Rated output power	100kW	110kW
Max. apparent power	110kVA@45°C / 100kVA@50°C	125kVA@45°C / 110kVA@50°C
Max. output current	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)	
<b>Efficiency</b>		
Max. efficiency	98.6%	
European efficiency	98.3%	
<b>Protection</b>		
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	
<b>General Data</b>		
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, 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, RD647, 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



Datasheet		SOFAR 255KTL-HV
<b>Input (DC)</b>		
Max. input voltage		1500V
Rated input voltage		1160V
Start-up voltage		550V
MPPT operating voltage range		500V-1500V
Number of MPPTs		12
Number of DC inputs		24
Max. input MPPT current		12*30A
Max. input short circuit current		12*50A
<b>Output (AC)</b>		
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)
<b>Efficiency</b>		
Max. efficiency		99.02%
European efficiency		98.70%
<b>Protection</b>		
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
<b>General Data</b>		
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 / PLC
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.



## 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
<b>Battery parameters</b>	
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)
<b>AC output (on-grid)</b>	
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
<b>System parameters</b>	
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/4C
Surge protection	AC: Type III
<b>Environmental</b>	
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
<b>AC output (off-grid)</b>	
Rated power	3000VA
Rated voltage, frequency	230V, 50/60Hz
Rated current	13A
Output THDv (@Linear load)	< 3%
Switch time	< 3s
<b>General parameters</b>	
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
<b>AC output (on-grid)</b>						
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)					
<b>Battery parameters</b>						
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					
<b>AC output (off-grid)</b>						
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	10000VA, 60s	12000VA, 60s	16000VA, 60s	20000VA, 60s	22000VA, 60s	22000VA, 60s
Max. output current	8A	10A	13A	16A	24A	32A
THDv (@ linear load)	<3%					
Switching time	<10ms					
<b>Efficiency</b>						
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%
<b>Protection</b>						
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					
<b>General parameters</b>						
Operating temperature range	-30°C-60°C					
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/G59/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



Datasheet	HYD 3000-EP	HYD 3680-EP	HYD 4000-EP	HYD 4600-EP	HYD 5000-EP	HYD 5500-EP*	HYD 6000-EP
<b>DC input (PV)</b>							
Recommended max. PV input power	4500Wp	5400Wp	6000Wp	6900Wp	7500Wp	7500Wp	9000Wp
Max. input voltage				600V			
Start-up voltage				100V			
Rated input voltage				360V			
MPPT operating voltage range				90-550V			
Number of MPPT				2			
Max. number of input strings per MPPT				1/1			
Max. input current per MPPT				13A/13A			
Max. short-circuit current per MPPT				18A/18A			
<b>AC output (on-grid)</b>							
Rated output power	3000W	3680W	4000W	4600W	5000W	5000W	6000W
Rated output current	13A	16A	17.4A	20A	21.7A	23.9A	26.1A
Rated grid voltage	L/N/PE, 230V						
Rated grid frequency	50/60Hz						
Max. output apparent power	3000VA	3680VA	4000VA	4600VA	5000VA	5500VA	6000VA
Max. output current	15A	16A	20A	20.9A	21.7A	25A	27.3A
THDI	<3%						
Power factor	1 (adjustable/-0.8)						
<b>Battery parameters</b>							
Battery type[3]	Lithium-ion, Lead-acid						
Battery voltage range	42-58V						
Number of battery input channels	1	1	1	1	1	1	1
Max. charge/discharge power	3750W	4000W	4250W	5000W	5000W	5000W	5000W
Max. charge/discharge current	75A	80A	85A	100A	100A	100A	100A
BMS communication mode	CAN, RS485						
<b>AC output (off-grid)</b>							
Rated output power	3000W	3680W	4000W	4600W	5000W	5000W	5000W
Rated output current	13A	16A	17.4A	20A	21.7A	23.9A	26.1A
Rated output voltage	L/N/PE, 230V						
Rated output frequency	50/60Hz						
Max. output apparent power	3000VA	3680VA	4000VA	4600VA	5000VA	5000VA	5000VA
Peak output apparent power, time	4500VA, 30s	4800VA, 30s	5100VA, 30s	6000VA, 60s	6000VA, 30s	6000VA, 30s	6000VA, 30s
Max. output current	13.6A	16A	18.2A	20.9A	22.7A	22.7A	22.7A
THDv (@ linear load)	<3%						
Switching time	10ms default						
<b>Efficiency</b>							
Max. MPPT efficiency	99.9%						
Max. efficiency	97.6%	97.6%	97.6%	97.8%	97.8%	97.8%	98%
European efficiency	97.2%	97.2%	97.2%	97.3%	97.3%	97.3%	97.5%
Max. efficiency of charging/discharging [1]	94.6%						
<b>Protection</b>							
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 III, AC: Type III						
<b>General parameters</b>							
Operating temperature range	-30°C~+60°C (Above 45°C derating)						
Relative humidity range	5%-95%						
Max. operating altitude	4000m						
Standby self-consumption [2]	<10W						
Topology	High frequency isolation (for battery)						
Installation method	Wall-mounted						
Degree of protection	IP65						
Dimensions (W*H*D)	482*503*183mm						
Cooling mode	Natural						
Weight	21.5kg						
Communication	RS485/CAN/WiFi, Optional: Ethernet/4G						
Display	LCD & APP-Bluetooth						
Standard EN 61000-6-2, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12, IEC 62109-1/2, IEC 62116, IEC 61727, IEC 61683, IEC 60068(1,2,14,30), VDE-AR-N 4105, VDE V 0126-1-1, AS/NZS 4777, CEI 0-21, C98/C99, TR321, TR322, EN 50438/EN50549, NRS 097-2-1, UNE 206 007-1							

[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 5K~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



Datasheet	HYD 5KTL-3PH	HYD 6KTL-3PH	HYD 8KTL-3PH	HYD 10KTL-3PH	HYD 10KTL-3PH-A*	HYD 15KTL-3PH	HYD 20KTL-3PH
<b>DC input (PV)</b>							
Recommended max. PV input power	7500Wp (6000Wp/6000Wp)	9000Wp (6600Wp/6600Wp)	12000Wp (6600Wp/6600Wp)	15000Wp (7500Wp/7500Wp)	15000Wp (7500Wp/7500Wp)	22500Wp (11250Wp/11250Wp)	30000Wp (15000Wp/15000Wp)
Max. input voltage				1000V			
Start-up voltage				200V			
Rated input voltage				600V			
MPPT operating voltage range				180V-960V			
Number of MPPT				2			
Max. number of input strings per MPPT	1/1					2/2	
Max. input current per MPPT	12.5A/12.5A					25A/25A	
Max. short-circuit current per MPPT	15A/15A					30A/30A	
<b>AC output (on-grid)</b>							
Rated output power	5000W	6000W	8000W	10000W	10000W	15000W	20000W
Rated output current	7.2A	8.7A	11.6A	14.5A	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	10000VA	16500VA	22000VA
Max. output current	8A	10A	13A	16A	16A	24A	32A
THDi	<3%						
Power factor	1 default (v/0.8 adjustable)						
<b>Battery parameters</b>							
Battery type[3]	Lithium-ion & Lead-acid						
Battery voltage range	180V-800V						
Number of battery input channels	1	1	1	2	2	2	2
Max. charge/discharge power	5000W	6000W	8000W	10000W	10000W	15000W	20000W
Max. charge/discharge current	25A	25A	25A	50A(25A/25A)	50A(25A/25A)	50A(25A/25A)	50A(25A/25A)
BMS communication mode	CAN, RS485						
<b>AC output (off-grid)</b>							
Rated output power	5000W	6000W	8000W	10000W	10000W	15000W	20000W
Rated output current	7.2A	8.7A	11.6A	14.5A	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	11000VA	16500VA	22000VA
Peak output apparent power, time	10000VA, 60s	12000VA, 60s	16000VA, 60s	20000VA, 60s	20000VA, 60s	22000VA, 60s	22000VA, 60s
Max. output current	8A	10A	13A	16A	16A	24A	32A
THDv (@ linear load)	<3%						
Switching time	<10ms						
<b>Efficiency</b>							
Max. MPPT efficiency	99.9%						
Max. efficiency	98%	98%	98%	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 [1]	97.6%	97.6%	97.6%	97.8%	97.8%	97.8%	97.8%
<b>Protection</b>							
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						
<b>General parameters</b>							
Operating temperature range	-30°C-60°C						
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	Forced airflow
Weight	33kg	33kg	33kg	37kg	37kg	37kg	37kg
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, C83/C59/C98/C99, UTE C15-712-1, UNE206 007-1						

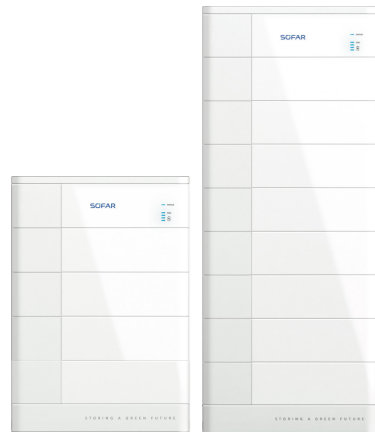
[1] Battery-AC maximum efficiency of battery charge and discharge [2] Standby loss at rated input voltage [3] Please refer to document "SOFAR inverter Model compatible battery list"  
\*All specifications are subject to change without notice.

# GTX3000-H4~H10

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



## HV ENERGY STORAGE



### Product advantages

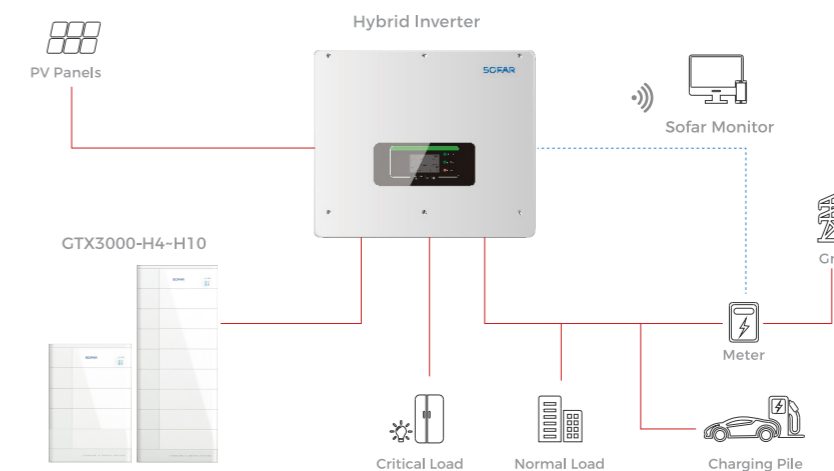
- User-friendly one-button operation, automatic module ID assignment process
- Supports parallel operation (up to 4 units)
- Supports soft startup
- Remote diagnosis and real-time data monitoring
- Simple stack design, saving time and costs
- Efficient automated production line, achieving optimum production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



Model	GTX 3000-H4	GTX 3000-H5	GTX 3000-H6	GTX 3000-H7	GTX 3000-H8	GTX 3000-H9	GTX 3000-H10
<b>System Parameters</b>							
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						
<b>General Parameters</b>							
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°C - +55°C / Discharge: -20°C - +60°C						
Humidity	5-95%						
Installation	Floor Stand						
Max. operating altitude	2000 m						
<b>Battery Module</b>							
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.

### Hybrid Solar System



# GTX5000-PRO

5.1 kWh

## LV ENERGY STORAGE



### Product advantages

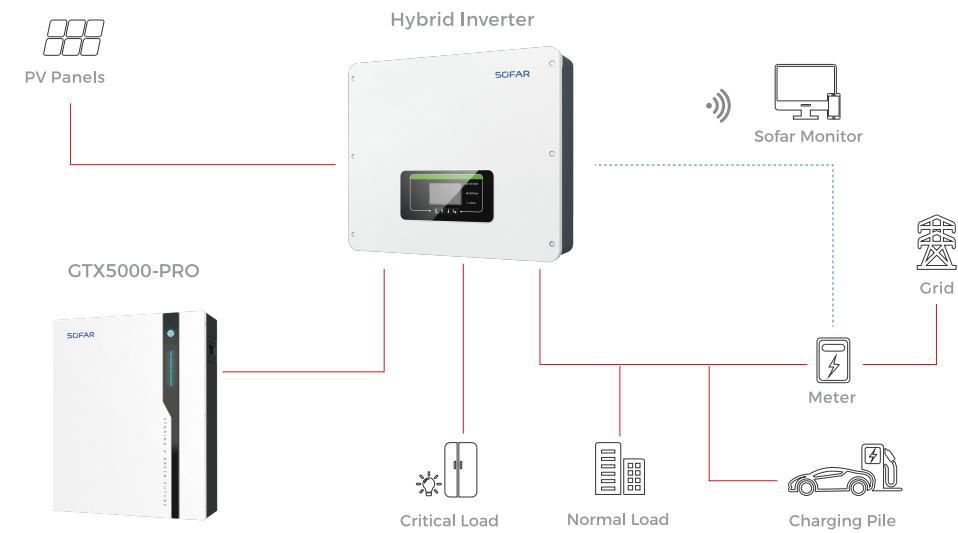
- User-friendly one-button operation, automatic module ID assignment process
- Supports parallel operation (up to 4 units)
- Wall- or floor-mounted installation, saving time and costs
- Remote diagnosis and real-time data monitoring
- Efficient automated production line, achieving optimum production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



Model	GTX 5000-PRO
<b>System Parameters</b>	
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	50A
Max. units in parallel	4
<b>General Parameters</b>	
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]	LFP			
Battery distribution unit	BTS 5K-BDU			
Number of battery distribution units	1			
Battery module	BTS 5K			
Number of battery modules	1	2	3	4
Battery total energy[2]	5.12kWh	10.24kWh	15.36kWh	20.48kWh
Battery usable energy[3]	4.75kWh	9.5kWh	14.25kWh	19kWh
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*900*170mm 708*1100*170mm
Weight	59kg	110kg	161kg	212kg
Protection rating	IP65			
Cooling	Natural			
Operating temperature[4]	Charge: 0°C - +50°C / Discharge: -10°C - +50°C			
Humidity	5-95%			
Installation	Floor Stand			
Max. operating altitude[5]	4000m			
Battery Module[6]				
Model	BTS 5K			
Battery module energy[2]	5.12kWh			
Nominal voltage	400V			
Nominal power	2500W			
Dimension (W*H*D)	708*420*170mm			
Weight	50kg			
Battery Distribution Unit				
Model	BTS 5K-BDU			
Max. charging/discharging current	35A			
Dimension (W*H*D)	708*200*170mm			
Weight	7.5kg			
Standard	UN38.3, IEC62619, IEC62040-1, etc.			
Deliverable parts				
Product ordering model[7]	BTS 5K, BTS 5K-BDU, BTS 5K-KIT (Optional)			

[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 >2000m, derating operation is required, refer to the derating curve. [6] The internal battery pack is 51.2V, 100Ah.  
 [7] Storage system is ordered and delivered in the form of power module and battery module separately with corresponding quantity. It is recommended to use the accessory kit BTS 5K-KIT in the 20kWh system.  
 \*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

- 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
- Switchover time to critical loads less than 10 ms
- Compatible with high current PV panels



## Datasheet

### System Parameters

System Schematic						
Rated output power	3000-6000W					
Number of batteries	1	2	3	4	5	6
Battery total energy[1]	5.12kWh	10.24kWh	15.36kWh	20.48kWh	25.6kWh	30.72kWh
Usable Energy[2]	4.75kWh	9.5kWh	14.25kWh	19kWh	23.75kWh	28.5kWh
Degree of protection	IP65					
Ambient temperature range[3]	-10°C--50°C					
Allowable relative humidity range	5%-95%					
Max. operating altitude[4]	4000m					
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+Bluetooth					
Communication	RS485/CAN/WiFi, Optional: Ethernet/4G					
Product ordering model	[ESI 3-6K-S1 Inverter Module] + N * [BTS 5K Battery Module]					

### Inverter Module

Model	ESI 3K-S1	ESI 3.68K-S1	ESI 4K-S1	ESI 4.6K-S1	ESI 5K-S1	ESI 5K-S1-A*	ESI 6K-S1
Rated battery voltage	400V						
Max. charging/discharging current	20A						
Max. PV input power	4500Wp	5400Wp	6000Wp	6900Wp	7500Wp	7500Wp	9000Wp
Max. input voltage	550V						
Rated input voltage	360V						
MPPT operating voltage range	85-520V						
Number of MPPTs	2						
Max. input current per MPPT	16A/16A						
Max. short circuit current	22.5A/22.5A						
Rated grid voltage	L/N/PE, 230V, 50Hz/60Hz						
Grid voltage range	180Vac-276Vac (According to local standard)						
Rated AC power	3000W	3680W	4000W	4600W	5000W	5000W	6000W
Max. AC power output to utility grid	3300VA	3680VA	4400VA	4600VA	5500VA	5000VA	6600VA
Rated voltage, frequency(off-grid)	220/230/240V,50/60Hz						
Rated power(off-grid)	3000W	3680W	4000W	4600W	5000W	5000W	6000W
Max. apparent power(off-grid)	3000VA	3680VA	4000VA	4600VA	5000VA	5000VA	6000VA
Peak output power, duration(off-grid)[5]	4500VA, 10S	5520VA, 10S	6000VA, 10S	6900VA, 10S	7500VA, 10S	7500VA, 10S	9000VA, 10S
Switch time	<10ms						
Max efficiency of solar inverter	97.7%	97.7%	97.7%	97.8%	97.8%	97.8%	97.8%
European efficiency of solar inverter	97%	97%	97%	97.1%	97.1%	97.1%	97.1%
Topology	Transformerless						
Dimension (W*H*D)	708*410*170mm						
Weight	22.5kg						

### Battery Module

Model	BTS 5K
Battery type[6]	LFP
Battery module energy	5.12kWh
Rated Power	2500W
Topology	Transformer isolation
Dimension (W*H*D)	708*420*170mm
Weight	50kg

Standard EN 61000-6-2, EN 61000-6-3, IEC 62109-1/2, IEC 62040-1, UN38.3, IEC62619, VDE-AR-N 4105, VDE V 0126-1-1, AS/NZS 4777, CEI 0-21, C10/11, G98/G99, TR321, TR322, EN 50438/EN50549, UTE C15-712-1, NRS 097-2-1, UNE 206 007-1

[1] Test conditions: 0.2C charging/discharging at 25°C, 100%DOD. [2] Based on the battery cell. [3] Please refer to the temperature derating curve. [4] If the altitude is >2000 m, derating is required. Please refer to the derating curve. [5] In a system with sufficient PV and battery power [6] Please refer to document "SOFAR inverter Model compatible battery list"  
\* All specifications are subject to change without notice.



## 04 Inverter Data Logger



## LSW-3

### STICK LOGGER (WIFI)



#### 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
<b>General parameters</b>	
Working voltage	DC 5V
Working power	1.5W
Data interface	USB
LED	3
<b>Communication parameter</b>	
Working frequency	2.412GHz-2.484GHz
Flash memory	8MB
Connected inverters	1
Antenna	External
<b>Software parameter</b>	
Serial communication rate	Default 9600bps(1200-115200bps adjustable)
Data acquisition interval	Default 5min(1-15min optional)
AT+ instruction set	
User configuration	Local web
	Remote web
Firmware upgrade	Local web
	Remote web
<b>Environmental parameter</b>	
Working temperature	-30~+70°C
Working humidity	10%-90%(Condensation free)
Protection grade	IP65
<b>Other</b>	
	Real-time control, Data resume

\*All specifications are subject to change without notice.



