SOFAR

ENERGY TO POWER YOUR LIFE

PRODUCT *catalogue*

Shenzhen SOFARSOLAR Co., Ltd.

SOFAR INTRODUCTION

SOFAR is a global leading provider of all-scenario 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 350 kW, hybrid inverters range from 3 kW to 20 kW, battery storage systems, C&I and utility ESS solutions, microinverter system and SOFAR Monitor for residential, commercial & industrial, and utility-scale applications.

Founded in 2013, SOFAR has always insisted on independent innovation, established a global R&D network with three R&D centers and over 25% of its workforces assigned to R&D, thus gradually establishing the holistic technology and product R&D system.

SOFAR always insists on globalization thinking and localization action since its establishment and now has two global manufacturing bases of 16 inverter production lines and 4 battery production lines, with an annual production capacity of 14GW PV & storage inverters & 1 GWh batteries. It has built an extensive service network of over 20 branch offices worldwide, such as the United Kingdom, Poland, Germany, South Korea, Pakistan, Australia, and so on. As of June 2024, SOFAR had shipped over 34 GW inverters to more than 100 countries and regions around the world.

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 over 100% from 2020 till 2022. Due to the abilities in cutting-edge solar technologies, SOFAR has achieved China "CQC" certification, Chinese Top 5 String Inverter Brand, TOP5 Global Hybrid Inverter Provider and entitled by EuPD as TOP Brand PV Inverter in India, Poland, Australia, the U.K., Italy and Brazil.

Looking forward, SOFAR will adhere to its mission of “Technology Drives Green Energy” and its value of Virtue & Integrity, Collaboration & Effectiveness to build its core competitiveness in independent innovation in Net-Zero era, expecting to accelerate the global clean energy transition, leveraging its leading solar and energy storage products and solutions.

Learn more about SOFAR by visiting: https://www.sofarsolar.com/.

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PRODUCT PORTFOLIO

Single-phase Inverter 02-10

- SOFAR 1100TL-G3 / 1600TL-G3 / 2200TL-G3 / 2700TL-G3 / 3000TL-G3 / 3300TL-G3
- SOFAR 1.1KTL2-G3 / 1.6KTL2-G3 / 2.2KTL2-G3 / 2.7KTL2-G3 / 3KTL2-G3 / 3.3KTL2-G3 / 4KTL2-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 12-28

- 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 15KTLX-G3P / 17KTLX-G3P / 20KTLX-G3P / 23KTLX-G3P / 25KTLX-G3P
- SOFAR 25KTLX-G3 / 30KTLX-G3 / 33KTLX-G3 / 36KTLX-G3 / 40KTLX-G3 / 45KTLX-G3 / 50KTLX-G3
- SOFAR 60KTLX-G3 / 80KTLX-G3
- SOFAR 100KTLX-G4 / 110KTLX-G4 / 125KTLX-G4 / 125KTLX-G4-A
- SOFAR 255KTL-HV / 255KTL-HV-TRO
- SOFAR 250KTLX0 / 330KTLX0 / 350KTLX0

Energy Storage System 30-42

- HYD 3000-EP / 5000-EP / 6000-EP
- HYD 3000-EP / 3600-EP / 5000-EP / 6000-EP
- HYD 5KTL-3PH / 6KTL-3PH / 8KTL-3PH / 10KTL-3PH / 15KTL-3PH / 20KTL-3PH
- HYD 5KTL-3PH / 6KTL-3PH / 8KTL-3PH / 10KTL-3PH / 10KTL-3PH-A / 15KTL-3PH / 20KTL-3PH
- GTX5000S
- BTS E5-20-DS5

Smart Energy 44-54

- LSW-3 / LSE-4W / WF-BLE
- PSC100*
- PSC300*
- CH1000
- SofarCloud



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: Wi-Fi/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 to +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/Wi-Fi					
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, VDE V 0126-1-1, V 0124-100, C10/11, G98, EN 50549-1					

*All specifications are subject to change without notice.

SOFAR 1-4KTL2-G3

1.1 / 1.6 / 2.2 / 2.7 / 3 / 3.3 / 4 kW

SINGLE-PHASE SINGLE MPPT



Product advantages

- Max. efficiency up to 97.7%
- Lightweight, quick and easy to install
- IP65 design for outdoor
- RS485
- Feed-in limitation function



Model	SOFAR 1.1KTL2-G3	SOFAR 1.6KTL2-G3	SOFAR 2.2KTL2-G3	SOFAR 2.7KTL2-G3	SOFAR 3KTL2-G3	SOFAR 3.3KTL2-G3	SOFAR 4KTL2-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	13A	14A		15A			
Max. input short circuit current	17.5A			20A			
Output (AC)							
Rated output power	1100W	1600W	2200W	2700W	3000W	3300W	4000W
Max. apparent power	1100VA	1600VA	2200VA	2700VA	3000VA	3300VA	4000VA
Max. output current	5.3A	7.7A	10.6A	13A	14.5A	16A	19.3A
Rated output voltage	L/N/PE, 220Vac, 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	0.8 leading – 0.8 lagging						
Efficiency							
Max. efficiency	97.3%			97.7%			
European efficiency	96.7%			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 to +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			321×260.5×151.5mm
Weight	≤6kg			≤7kg			≤7.3kg
Display	LCD+LED						
Communication	RS485/Wi-Fi						
Standard	IEC/EN 62109-1/2, IEC/EN 61000-6-1/3, IEC 62116, IEC 61727, IEC 61683, IEC 60068-2-1/2/14/30, VDE V 0126-1-1, PORTARIA INMETRO N° 140, ABNT NBR 16149/16150						

*All specifications are subject to change without notice.

SOFAR 3-6KTLM-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: Wi-Fi/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%				98.4%			
European efficiency	97.3%				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˚C to +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/Wi-Fi							
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, 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 7-10.5KTLM-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
- Compatible with 500 W+ modules
- 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˚C to +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)	468×380×187mm					
Weight	17.5kg			18.5kg		
Display	LCD & Bluetooth +APP					
Communication	RS485/Wi-Fi					
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 3.3-12KTLX-G3

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

THREE-PHASE DUAL MPPT



Product advantages

- Max. efficiency up to 98.5%
- 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%				98.50%			
European efficiency	97.50%				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˚C to +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/Wi-Fi							
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, G98/G99, VDE-AR-N 4105, VDE V 0126-1-1, EN 50549-1, UNE 217002-2020							

*All specifications are subject to change without notice.

SOFAR 15-24KTLX-G3

15 / 17 / 20 / 22 / 24 kW

THREE-PHASE DUAL MPPT



Product advantages

- Max. efficiency up to 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				
Max. input short circuit current	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%				
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 to +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)	520×430×198mm				
Weight	20kg	22kg		23kg	
Display	LCD & Bluetooth +APP				
Communication	RS485/Wi-Fi				
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-AR-N 4105, VDE V 0126-1-1, EN 50549-1, NRS 097-2-1				

*All specifications are subject to change without notice.

SOFAR 15-25KTLX-G3P

15 / 17 / 20 / 23 / 25 kW

THREE-PHASE DUAL MPPT



Product advantages

- Compatible with 182 & 210 high power PV modules
- Low start-up voltage, wide MPPT voltage range
- Prolonged AC overload compatibility (110%)
- Type II SPD for both DC and AC side
- Remote firmware upgrade



Model	SOFAR 15KTLX-G3P	SOFAR 17KTLX-G3P	SOFAR 20KTLX2-G3P	SOFAR 23KTLX-G3P	SOFAR 25KTLX-G3P
Input (DC)					
Max. input voltage	1100V				
Rated input voltage	620V				
Start-up voltage	180V				
MPPT operating voltage range	160-1000V				
Number of MPP trackers	2				
Number of DC inputs	1/2		2/2		
Max. input MPPT current	20A/32A		40A/32A		
Max. input short circuit current	25A/40A		50A/40A		
Output (AC)					
Rated output power	15000W	17000W	20000W	23000W	25000W
Max. apparent power	16500VA	18700VA	22000VA	25300VA	27500VA
Max. output current	25.1A	28.5A	33.5A	38.5A	41.8A
Rated output voltage	3/N/PE, 220/380Vac, 230/400Vac, 240/415Vac				
Output voltage range	310-480Vac				
Rated output frequency	50/60Hz				
Output frequency range	45-55Hz/55-65Hz				
Active power adjustable range	0-100%				
THDi	<3%				
Power factor	0.8 leading – 0.8 lagging				
Efficiency					
Max. efficiency	≥98.6%				
European efficiency	≥98.1%				
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 to +60˚C				
Self-consumption at night	<1W				
Topology	Transformerless				
Degree of protection	IP66				
Allowable relative humidity range	0-100%				
Max. operating altitude	4000m (> 2000m derating)				
Cooling	Smart air cooling				
Dimension (W×H×D)	491×412×188mm				
Weight	19kg	20kg	20.5kg		
Display	LCD & Bluetooth +APP				
Communication	RS485/Wi-Fi				
Standard	IEC/EN 62109-1/2, IEC/EN 61000-6-1/2/3/4, IEC 62116, IEC 61727, IEC 61683, IEC 60068-2-1/2/14/30, PORTARIA INMETRO N° 140, ABNT NBR 16149/16150				

*All specifications are subject to change without notice.

SOFAR 25-50KTLX-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



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				4×40A		
Max. input short circuit current	3×50A				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%				98.8%		
European efficiency	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 to +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/Wi-Fi						
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, EN 50549-1, NRS 097-2-1, UNE 217002-2020						

*All specifications are subject to change without notice.

SOFAR 60-80KTLX-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 150%+ DC overload
- Low start-up voltage, wide MPPT voltage range
- Compatible with 500 W+ PV modules
- I-V curve scanning function



Model	SOFAR 60KTLX-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	6×32A	6×40A
Max. input short circuit current	6×50A	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 to +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/Wi-Fi	
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, EN 50549-1, UNE 217002-2020	

*All specifications are subject to change without notice.

SOFAR 100-125KTLX-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
- I-V curve scanning function
- Supports Modbus Communication, external Wi-Fi



Model	SOFAR 100KTLX-G4	SOFAR 110KTLX-G4	SOFAR 125KTLX-G4	SOFAR 125KTLX-G4-A
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	125kW
Max. apparent power	100kVA@45˚C / 90kVA@50˚C	110kVA@45˚C / 100kVA@50˚C	125kVA@45˚C / 110kVA@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	190A@380V / 181.2A@400V / 174A@415V
Rated output voltage	3/N/PE, 380V / 400V / 415V			
Output voltage range	310-480Vac			
Rated output frequency	50/60Hz			
Output frequency range	45Hz-55Hz/55Hz-65Hz			
Active power adjustable range	0-100%			
THDi	<1%(@100%P)			
Power factor	1 (adjustable +/-0.8)			
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˚C to +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/Wi-Fi			
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, NTS 631, UNE 217001, UNE 217002, G99, C10/11			

*All specifications are subject to change without notice.

SOFAR 255KTL-HV / 255KTL-HV-TRO

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	SOFAR 255KTL-HV-TRO
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)		
Rated output power	255kW	220kW
Max. apparent power	255kVA	
Max. output current	184A	
Rated output voltage	3/PE, 800V	
Output voltage range	640-920V	
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	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 to +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 250-350KTLX0

250 / 330 / 350 kW

THREE-PHASE SIX TO EIGHT MPPTS



Product advantages

- Max. efficiency up to 99.05%
- High current input, compatible with 700Wp+ module
- IP66 & C5 protection design for outdoor
- Intelligent string breaking protection for high safety
- I-V curve scanning function



Model	SOFAR 250KTLX0	SOFAR 330KTLX0	SOFAR 350KTLX0
Input (DC)			
Max. input voltage	1500V		
Rated input voltage	1160V		
Start-up voltage	550V		
MPPT operating voltage range	500V-1500V		
Number of MPP trackers	6	8	
Number of DC inputs	24	32	
Max. input MPPT current	6×60A	8×60A	
Max. input short circuit current	6×100A	8×100A	
Output (AC)			
Rated output power	250kW	330kW	352kW
Max. apparent power	250kVA	330kVA	352kVA
Max. output current	180.5A	238.2A	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 to +60˚C		
Topology	Transformerless		
Degree of protection	IP66		
Allowable relative humidity range	0-100%		
Max. operating altitude	4000m		
Cooling	Smart air cooling		
Dimension (W×H×D)	1159×828×366mm		
Weight	< 111kg	< 113kg	
Display	LED, 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 50549, EN 50530, VDE-AR-N 4110/4120, NTS 631, UNE 217002, IEC 62910		

*All specifications are subject to change without notice.



03 Energy Storage System

HYD 3000-6000-EP

3000 / 5000 / 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 5000-EP	HYD 6000-EP
DC input (PV)			
Recommended Max. PV input power	4500Wp	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		
AC output (on-grid)			
Rated output power	3000W	5000W	6000W
Rated output current	13A	21.7A	26.1A
Rated grid voltage	L/N/PE, 230V		
Rated grid frequency	50/60Hz		
Max. output apparent power	3000VA	5000VA	6000VA
Max. output current	15A	21.7A	27.3A
THDi	<3%		
Power factor	1 (adjustable+/-0.8)		
Battery parameters			
Battery type[3]	Lithium-ion, Lead-acid		
Battery voltage range	42-58V		
Number of battery input channels	1	1	
Max. charge/discharge power	3750W	5000W	
Max. charge/discharge current	75A	100A	
BMS communication mode	CAN, RS485		
AC output (off-grid)			
Rated output power	3000W	5000W	
Rated output current	13A	21.7A	26.1A
Rated output voltage	L/N/PE, 230V		
Rated output frequency	50/60Hz		
Max. output apparent power	3000VA	5000VA	6000VA
Peak output apparent power, time	4500VA, 30s	6000VA, 30s	6000VA, 30s
Max. output current	13.6A	22.7A	
THDv(@ linear load)	<3%		
Switching time	10ms default		
Eciency			
Max. MPPT eciency	99.9%		
Max. eciency	97.6%	97.8%	98%
European eciency	97.2%	97.3%	97.5%
Max. eciency of charging/discharging [1]	94.6%		
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 III, AC: Type III		
General Parameter			
Operating temperature range	-30℃ to +60℃ (Above 45℃ 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		

[1] Battery-AC maximum eciency 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 3-6k-EP

3000 / 3600 / 5000 / 6000 W

SINGLE-PHASE HYBRID INVERTER



Product advantages

- Multi-energy management modes
- Connect to the generator with SOFAR ACBOX-63A-S1-ATS
- Supports 200% overload on the backup port
- Max. MPPT current of 16A/string
- Compatible with lead-acid and lithium-ion batteries, supporting max. 100A
- IP65 protection degree. Natural cooling



Model	HYD 3000-EP	HYD 3600-EP	HYD 5000-EP	HYD 6000-EP
PV Input				
Recommended Max. PV Power	4500Wp	5400Wp	7500Wp	9000Wp
Max. Input Voltage	600 Vd.c.			
Start-up Voltage [1]	50 Vd.c.			
Rated Input Voltage	360 Vd.c.			
MPPT Voltage Range	40-550 Vd.c.			
Number of MPPT	2			
Max. Number of Input Strings per MPPT	1/1			
Max. Input Current	16/16 A			
Max. Isc	22.5/22.5 A			
Battery				
Voltage Range	40-60 Vd.c.			
Number of Battery Input Channels	1			
Max. Charging Power	3.0 kW	3.6 kW	5 kW	5 kW
Max. Discharging Power	3.0 kW	3.6 kW	5 kW	5 kW
Max. Charging Current	75 A	80 A	100 A	100 A
Max. Discharging Current	75 A	80 A	100 A	100 A
Battery Type [2]	Lithium-ion & Lead-acid			
BMS Communication	CAN/RS485			
AC Backup				
Rated Output Voltage	L+N+PE, 220/230/240 Va.c.			
Rated Output Frequency	50/60 Hz			
Rated Output Power	3 kW	3.6 kW	5 kW	6 kW
Rated Output Current	13.6/13.0/12.5 A	16.4/15.7/15.0 A	22.7/21.7/20.8 A	27.3/26.1/25.0 A
Rated Apparent Power	3 kVA	3.6 kVA	5 kVA	6 kVA
Max. Apparent Power	3.3 kVA	3.6 kVA	5 kVA	6.6 kVA
Max. Output Current	15.0/14.3/13.8 A	16.4/15.7/15.0 A	22.7/21.7/20.8 A	30.0/28.7/27.5 A
Peak Output Apparent Power[3]	2 times of rated power, 3s			
THDv(@ linear load)	<3%			
Switching Time	4ms default			
AC Grid				
Rated Voltage	L+N+PE,220/230/240 Va.c.			
Rated Frequency	50/60 Hz			
Rated Output Power	3 kW	3.6 kW	5 kW	6 kW
Rated Output Current	13.6/13.0/12.5 A	16.4/15.7/15.0 A	22.7/21.7/20.8 A	27.3/26.1/25.0 A
Rated Apparent Power	3 kVA	3.6 kVA	5 kVA	6 kVA
Max. Apparent Power	3.3 kVA	3.6 kVA	5 kVA	6.6 kVA
Max. Output Current	15.0/14.3/13.8 A	16.4/15.7/15.0 A	22.7/21.7/20.8 A	30.0/28.7/27.5 A
Max. Input Current	40 A		50 A	
THDi	<3%			
Power Factor Range	0.8 lagging-0.8 leading			
Efficiency				
Max. MPPT Efficiency	99.9%			
Max. Efficiency	97.6%	97.6%	97.8%	98.0%
European Efficiency	97.2%	97.2%	97.3%	97.5%
Max. Efficiency of Charging/Discharging [3]	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	Isolation (for battery)			
Protective Class	Class I			
IP Rating	IP65			
Overvoltage Category	AC III, DC II			
Operating Temperature Range	-30℃ to +60℃ (derating above +45℃)			
Relative Humidity Range	5%-95%			
Max. Operating Altitude	4000 m (derating above 2000 m)			
Standby Self-consumption [4]	<10 W			
Installation Method	Wall Mounted			
Dimensions(W*H*D)	480*500*180 mm			
Cooling Mode	Natural			
Weight	23 kg			
Communication	CAN/RS485/WiFi,Optional:4G/LAN			
Display	LCD & APP			

[1] Minimum PV voltage to start MPPT operation.
[2] Please refer to document "SOFAR inverter Model compatible battery list"
[3] Full battery and sun.
[4] Battery-AC maximum efficiency of battery charge and discharge.
[5] Standby loss at rated input voltage.

*All specifications are subject to change without notice.

HYD 5-20KTL-3PH

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

THREE PHASE PV HYBRID 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 15KTL-3PH	HYD 20KTL-3PH
PV Input						
Recommended Max. PV Power	7500Wp	9000Wp	12000Wp	15000Wp	225000Wp	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	1/1			2/2		
Max. Number of Input Strings per MPPT	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	15/15 kW	20/20 kW
Max. Discharging Power	5 kW	6 kW	8 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
Max. Discharging Current	25 A	25 A	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	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	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	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	15 kVA	20 kVA
Max. Apparent Power	5.5 kVA	6.6 kVA	8.8 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	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	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	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	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	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	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%			98.2%		
European Efficiency	97.5%			97.7%		
Max. Efficiency of Charging/Discharging [2]	97.6%			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℃ to +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)	587×515×261mm					
Cooling Mode	Natural			Forced Airflow		
Weight	33kg			37kg		
Communication	CAN/RS485/Wi-Fi, 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 / 15 / 20 kW

THREE PHASE PV HYBRID 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 Operating Voltage Range	180-960 Vd.c.						
Number of MPPT	2						
Max. Number of Input Strings per MPPT	1/1			2/2			
Max. Input Current [1]	16/16 A			32/32A			
Max. Isc [2]	22.5/22.5 A			45/45 A			
AC Output (Grid)							
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 Output Voltage	3N~+PE,380/400/415 Va.c.						
Rated Output Frequency	50/60 Hz						
Max. Apparent Power	5.5 kW	6.6 kW	8.8 kW	11 kW	10 kW	16.5 kW	22 kW
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						
Battery							
Battery Type [3]	Lithium-ion & Lead-acid						
Voltage Range	180-800 Vd.c.						
Number of Battery Input Channels	1			2			
Max. Charging Power	5 kW	6 kW	8 kW	10 kW	10 kW	15 kW	20 kW
Max. Discharging Power	5 kW	6 kW	8 kW	10 kW	10 kW	15 kW	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
BMS Communication	CAN/RS485						
AC Output(Backup)							
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 Output Voltage	3N~+PE,380/400/415 Va.c.						
Rated Output Frequency	50/60Hz						
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
Peak Output Apparent Power	7500VA, 60s	9000VA, 60s	12000VA, 60s	15000VA, 60s	15000VA, 60s	22500VA, 60s	26000VA, 60s
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
THDv(@ linear load)	<3%						
Switching Time	10ms default						
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 [4]	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 Parameters							
Operating Temperature Range	-30℃~+60℃ (derating above +45℃)						
Relative Humidity Range	5%~95%						
Max. Operating Altitude	4000m (derating above 2000m)						
Standby Self-consumption [5]	<25W						
Inverter Topology	Non-Isolation						
Installation Method	Wall Mounted						
IP Rating	IP65						
Dimensions(W*H*D)	587*515*261mm						
Cooling Mode	Natural			Forced Airflow			
Weight	33kg			39.5kg			
Communication	CAN/RS485/Wi-Fi, Optional: 4G/LAN						
Display	LCD & +APP						

[1] PV Max. Input Current may change(12.5A to 16A;25A to 32A), please refer tothe label on the body.
[2] PV Max. Isc may change(15A to 22.5A;30A to 45A), please refer to the label on the body.
[3] Please refer to document "SOFAR inverter Model compatible battery list".
[4] Battery-AC maximum efficiency of battery charge and discharge.
[5] Standby loss at rated input voltage.

*All specifications are subject to change without notice.

GTX5000S

5.12 kWh

LV ENERGY STORAGE

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Product advantages

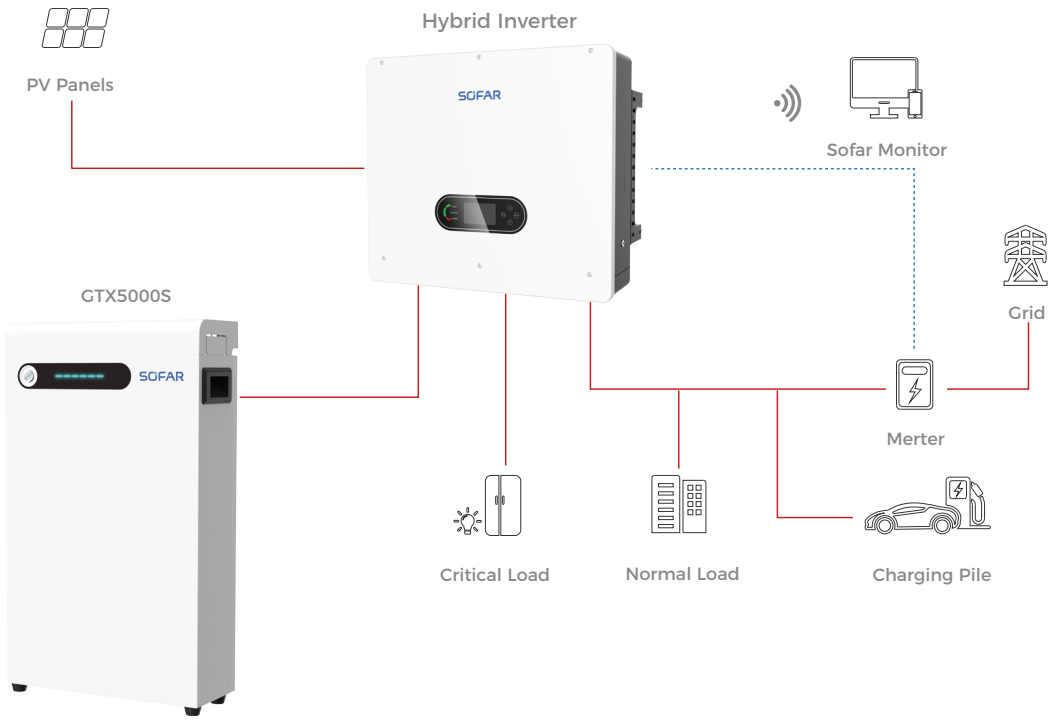
- Safe and reliable LFP battery
- Up to 4 batteries in parallel, flexible expansion
- Automatic allocation of parallel ID, simple and convenient operation
- Wall mounted or floor mounted, saving installation time and cost
- Remote monitoring of data and software upgrades
- IP65 protection for outdoor installation safety



Model	GTX 5000S
System Parameters	
Battery type	$LiFePO_4$ - lithium iron phosphate battery
Total energy	5120Wh
Usable energy	4608Wh
Rated voltage	51.2V
Operating voltage range	40.8V~57.6V
Rated charging/discharging power	2560W
Rated charging/discharging current	50 A
Max. charging/discharging current	50A
Max.Parallel Quantity	4pcs
General Parameters	
Communication	CAN
Dimension (W*H*D)	396*681*154.5mm
Weight	45 kg
Protection rating	IP65
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.

Hybrid Solar System



BTS E5-20-DS5

5 / 10 / 15 / 20 kWh

SMART BATTERY

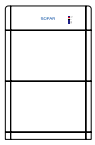
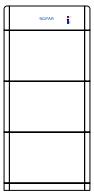
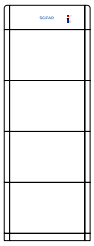
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Product advantages

- 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 HYD 5/6/8/10/15/20KTL-3PH



Model	BTS E5-DS5	BTS E10-DS5	BTS E15-DS5	BTS E20-DS5
System Parameters				
System Schematic				
Battery Type [1]	$LiFePO_4$ - lithium iron phosphate battery			
Battery Distribution Unit	BTS 5K-BDU			
Number of Battery Distribution Unit	1			
Battery Module	BTS 5K			
Number of Battery Modules	1	2	3	4
Battery Total Energy [2]	5.12 kWh	10.24 kWh	15.36 kWh	20.48 kWh
Rated Capacity	100 Ah	200 Ah	300 Ah	400 Ah
Rated Power	2.5 kW	5 kW	7.5 kW	10 kW
Nominal Voltage	400 Vd.c.			
Operating Voltage Range	350-435 Vd.c.			
Max. Charging Current	6 A	12 A	18 A	24 A
Max. Discharging Current	7.5 A	15 A	22.5 A	30 A
General Parameters				
Display	LED			
Communication	CAN			
Dimensions(W*H*D)	708*680*170 mm	708*1100*170 mm	708*1520*170 mm	708*1940*170 mm
Weight	59 kg	110 kg	161 kg	212 kg
Enclosure Type	IP65			
Cooling	Natural			
Operating Temperature Range [3]	Charge: 0˚C to +50˚C / Discharge: -10˚C to +50˚C			
Humidity	5%-95%			
Installation	Floor Stand			
Max. Operating Altitude [4]	4000 m			
Battery Module [5]				
Model	BTS 5K			
Battery Module Energy	5.12 kWh			
Nominal Voltage	400 Vd.c.			
Rated Power	2.5 kW			
Dimensions(W*H*D)	708*420*170 mm			
Weight	50 kg			
Battery Distribution Unit				
Model	BTS 5K-BDU			
Operating Voltage Range	350-435 Vd.c.			
Maximum Current	30 A			
Number of BTS 5K	1-4			
Protective Class	Class I			
Enclosure Type	IP65			
Dimensions(W*H*D)	708*200*170 mm			
Weight	7.5 kg			
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℃,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.



05 Smart Energy

STICK LOGGER

LSW-3 / LSE-4W / WF-BLE



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-4W	WF-BLE
General parameters			
Working voltage	DC 5V		
Working power	1.5W		5W
LED	3		4
Communication parameter			
Remote data interface	Wi-Fi	LAN	Wi-Fi
Flash memory	8MB	4MB	
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 server
	Remote server		
Firmware upgrade	Remote web		
Environmental parameter			
Working temperature	-30˚C-+70˚C		-30˚C-+85˚C
Working humidity	10%-90% (Condensation free)		
Protection grade	IP65		
Other			
	Real-time control, Data resume		

*All specifications are subject to change without notice.

PSC100*

SOFAR COMMUNICATION MANAGER



Product advantages

- RS485, PBUS, Ethernet, or wired 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	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
Wired ports	Max. transmission distance: 20km
	Interface method: LC
Protocol supported	MODBUS TCP/IEC103/IEC104/IEC51850
Environmental parameters	
Operating temperature	-30˚C to +60˚C
Storage and transport temperature	-40˚C to +85˚C
Operating altitude	≤4000m
Relative humidity	IP65
Protection level	<95%, Non-condensing
Surge Protection	AC Type II
Mechanical Data	
Cooling methods	Natural cooling
Dimensions (W×H×D)	760×580×220mm
Weight	≤21.5kg
Compliance	
Certificates	IEC 61000-6-2/4, IEC 62109-1/2
Other	
Installation mode	Wall mounting / Flat mounting

PSC100 Including PSC100, PSC100A.
All specifications are subject to change without notice.

PSC300*

SOFAR COMMUNICATION MANAGER



Product advantages

- RS485, PBUS, Ethernet, Fiber-optic
- Supports up to 60 inverters
- Supports dual-split, two-winding transformers
- Can be connected to a wide range of environmental collectors, electricity meters, box transformer, measurement and control equipment

  Built-in Surge protectors
- Anti-PID function:
  Compensation can be performed simultaneously on photovoltaic module of inverters connected

  The PID module can achieve N/PE compensation based on the status of the inverter
- IP66 protection for long-term stable outdoor operation
- Supports remote/local firmware upgrade
- Remote control, giving commands such as power settings
- Local web configuration



Model	PSC300*
General parameters	
Auxiliary power input	Voltage range 100Vac~240Vac; Frequency range: 50~60Hz
Communication mode	With inverters: PBUS/RS485
	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
Anti-PID function input	Single phase AC input voltage: 220/230/240VAC, 50/60Hz; Single phase AC rated input voltage: 220VAC, 50/60Hz.
	Three phase AC output voltage: 380/400/415/440/480/800 VAC Three phase AC rated output voltage: 800 VAC
	DC output voltage: 250-500VDC (AC voltage: 380/400/415/440/480 VAC) 500~800VDC (AC voltage: 800 VAC)
Fiber-optic	Max. transmission distance: 20KM
	Interface method: LC
Protocol supported	MODBUS-TCP/IEC103/IEC104/IEC61850
Environmental parameters	
Operating temperature	-30˚C to +60˚C
Storage and transport temperature	-40˚C to +85˚C
Operating altitude	<4000m
Protection level	IP66
Relative humidity	<95%, Non-condensing
Surge Protection	AC Type II
Mechanical parameters	
Cooling methods	Natural cooling
Dimensions (W x D x H)	660 x 776 x 265mm
Weight	≤35kg
Compliance	
Certificates	IEC 62109-1/2, IEC 61000-6-2/4, IEC 60529
Other	
Installation mode	Wall mounting / Flat mounting

* PSC300* Including PSC300,PSC300A.
All specifications are subject to change without notice.

CH1000

Control Hub



Product advantages

- Support monitoring via cloud or mobile APP. Device include inverter, battery, energy meter, EV charger, heat pump.
- Built-in EMS function include self-consumption, time of use mode, scheduled charging and discharging, VPP access.
- Emergency power off, millisecond power controlling.

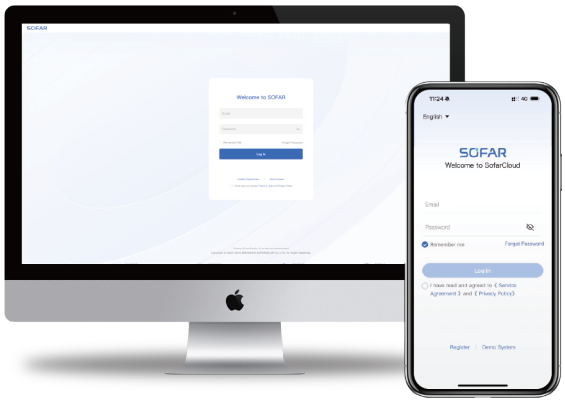


Model	CH1000
Communication to Inverter	
Max. number of connected devices	60pcs
To Residential & Commercial & Industrial inverter	RS485
Power Supply (Adapter)	
Type	External Adapter
Adapter input voltage/frequency	100 to 240 V AC / 50 or 60 Hz
Adapter output voltage/current	12V/2A
Power consumption	Typical. 5.0W
Internet Connection Options	
Wi-Fi	2.4G, 802.11b/g/n
Mobile	Optional, LTE CAT.4
Ethernet	RJ45 × 2, 10M/100Mbps
Other Interface	
RS485	COM × 3, Modbus-RTU
DRM	RJ45 × 1, DRM0/5/6/7/8
Analog Signal Input	×4, 4-20mA
Digital Signal Output	× 2, Dry Contact
Digital Signal Input	× 4, Dry Contact
Interaction	
LED	LED ×3
APP	SofarCloud
Mechanical Data	
Operating temperature rangeEnvironmental	-30℃ to +65℃
rating	IP20
Dimensions (L×W×H)	217×125×34mm
Weight	0.5kg
Altitude	3000m
Installation method	Wall mounting / Desktop mounting / DIN rail
Compliance	
Certificates	IEC61000-6-1/2/3/4, CE-RED, RoHS
Inverter Compatibility	
Inverter model	SOFAR 3.3-12KTLX-G3 / 15-24KTLX-G3 / 15-25KTLX-G3P / 25-50KTLX-G3 / 60-80KTLX-G3 / 100-125KTLX-G4 / 250-255KTL-HV / 250-350KTLX0

*All specifications are subject to change without notice.

SofarCloud

SYSTEM MONITORING



Product advantages

Diverse Scenarios

- Integrated management of various SOFAR devices
- Adaptive display of system energy flows
- Remote real-time control of system and devices

Safe and efficient

- Mobile O&M, local device control via Bluetooth
- One-click device upgrade reduces maintenance time
- Minute monitoring and alarming plus professional online helpfunction, support to eliminate errors faster

User friendly

- 3 step system setup, plug-and-play device installation
- Hierarchical permission control, secure user data management
- Operating parameters can be easily adjusted to local requirements



Product Parameter	SofarCloud
Supported Devices	
Devices type	Inverter, Battery, Wallbox, Electricity meters, MVS, Environmental monitoring device and other devices in the plant
Acquisition Environment	
Acquisition devices	Stick logger, CH1000, Communication boxes and other acquisition devices
Acquisition interval	1...5 minutes
Acquisition methods	4G, WLAN, Ethernet
Client Environment	
Lowest browser version	Chrome 87, Edge 88, Safari 14, Firefox 78
Lowest system version	Android 8.0, iOS 12.4
Browser resolution	1440 * 900, 1920 * 1080 (recommended)
Mobile device resolution	Supported all major resolutions
Languages	Multilingual
System Parameter	
Years of data retention	Can be customised according to requirements

*All specifications are subject to change without notice.

Support SOFAR'S products

Inverter

Battery

Wallbox

Support third-party products

Meter

Environmental monitor devices

Heater

Generator

Temperature and humidity sensors

... ...

Functions		Web	APP
Demo System	Experience Power Station	●	●
Home	Data Board	●	●
	Alarm	●	●
Plant	Plant List	●	●
	Plant Detail	●	●
	Create Plant	●	●
Device	Device List	●	●
	Device Detail	●	●
	Remote Upgrade	●	●
	Remote Setting	●	●
Maintenance	Account Management	●	–
	Device Management	●	–
	Local O&M	–	●

*All specifications are subject to change without notice.





ENERGY TO POWER YOUR LIFE

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