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 125 kW, energy storage systems, C&I and utility BESS solutions, and SOFARCloud for residential, commercial & industrial, and utility-scale applications.

Since its establishment in 2013, SOFAR has been committed to building competitive advantages in products, technology, market and service on a global scale. It has established three R&D centers worldwide and further strengthened its independent innovation capabilities. Meanwhile, SOFAR has built two global manufacturing bases with 16 inverter production lines and 4 battery production lines. In 2023, the annual production capacity of PV and energy storage equipment exceeded 14 GW, while battery production capacity exceeded 1.0 GWh. SOFAR has always insisted on globalization thinking and localization action. Its products are supplied globally and sold in batches to more than 100 countries and regions. The company has also established localized service platforms in over 20 countries and regions, including Australia, Poland, Germany, South Korea, Pakistan, and the United Kingdom. As of the first half of 2025, SOFAR had shipped over 42 GW of inverters globally. On April 2, 2025, the company was officially listed on the ChiNext Board of the Shenzhen Stock Exchange, with stock code 301658.

From 2020 to 2022, the company achieved leapfrog growth in business performance, with a compound annual growth rate exceeding 100%. SOFAR has always insisted on creating value for customers through technological innovation. It has successively obtained China's CQC certification, become one of China's TOP 5 PV inverter brands and one of the TOP 5 global energy storage inverter brands, and has been recognized by EuPD as a Top PV Inverter Brand in India, Poland, Australia, the United Kingdom, Italy and Brazil. In 2025, SOFAR was awarded both the "Green Factory" and "Green Supply Chain Management Enterprise" certifications in Guangdong Province, further enhancing its comprehensive strength in green manufacturing and sustainable development.

In the future, SOFAR will uphold its corporate mission of "technology changing the energy structure" and its core values of "Morality as Priority and Perseverance for Success". It will continue to build core competitiveness through independent innovation in the zero-carbon era, and promote the global energy transition with its leading full range of solar PV and energy storage products and solutions.

HYD-3-8K-LS1-PRO

3 / 3.6 / 4 / 4.6 / 5 / 6 / 7 / 7.6 / 8 kW

Single-phase hybrid inverter



High performance

- 2 MPPTs, Max. 32A DC input current
- Supports 200% overload for 10 seconds
- Max. charging/discharging current up to 190A
- On/off grid seamless switching (4ms)

Flexible application

- Multiple inverters in parallel to build a microgrid
- Supports diesel generator
- Supports various brands of lithium batteries

Safe & Reliable

- Wide temperature range from -30˚C to 60˚C
- Full power output at 50˚C

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Model	HYD-3K-LS1 -PRO	HYD-3.6K-LS1- PRO	HYD-4K-LS1 -PRO	HYD-4.6K-LS1 -PRO	HYD-5K-LS1 -PRO	HYD-6K-LS1 -PRO	HYD-7K-LS1 -PRO	HYD-7.6K-LS1 -PRO	HYD-8K-LS1 -PRO
PV Input									
Recommended Max. PV Power	6 kWp	7.2 kWp	7.2 kWp	9.2 kWp	10 kWp	12 kWp	14 kWp	15.2 kWp	16 kWp
Max. Input Voltage	500 Vd.c								
Start-up Voltage[1]	90 Vd.c.								
Rated Input Voltage	360 Vd.c.								
MPP Voltage Range	60-435 Vd.c.								
Number of MPPT	2								
Max. Number of Input Strings per MPPT	1/1						2/1		
Max. Input Current	20/20A						32/20A		
Max. Isc	25/25A						40/25A		
Battery									
Voltage Range	40-60 Vd.c								
Number of Battery Input Channels	1								
Max. Charging Power	7kW							8kW	
Max. Discharging Power	3kW	3.6kW	4kW	4.6kW	5kW	6kW	7kW	7.6kW	8kW
Max. Charging Current	175A							190A	
Max. Discharging Current	75A	90A	100A	115A	125A	150A	175A	190A	190A
Battery Type[2]	Lead-acid or Lithium-ion								
BMS Communication	RS-485/CAN								
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	4 kW	4.6 kW	5 kW	6 kW	7 kW	7.6kW	8kW
Rated Output Current	13.6/13.0/12.5 A	16.4/15.7/15.0 A	18.2/17.4/16.7 A	20.9/20.0/19.2 A	22.7/21.7/20.8 A	27.3/26.1/25.0 A	31.8/30.4/29.2A	34.5/33.0/31.7A	36.4/34.8/33.3 A
Rated Apparent Power	3 kW	3.6 kW	4 kW	4.6 kW	5 kW	6 kW	7 kW	7.6kW	8kW
Max. Apparent Power	3.3 kVA	3.6 kVA	4.4 kVA	4.6 kVA	5.5 kVA	6.6 kVA	7.7 kVA	8.4 kVA	8.8 kVA
Max. Output Current	15.0/14.3/13.8 A	16.4/15.7/15.0 A	20.0/19.1/18.3 A	20.9/20.0/19.2 A	25.0/23.9/22.9 A	30.0/28.7/27.5 A	35/33.5/32.1 A	38.0/36.3/34.8 A	40.0/38.3/36.7 A
Peak Output Apparent Power[3]	2 times of rated power, 10s								
THDv(@ linear load)	< 3%								
Switching Time	4 ms default								
AC Smartload/Generator									
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	4 kW	4.6 kW	5 kW	6 kW	7 kW	7.6 kW	8 kW
Rated Output Current	13.6/13.0/12.5 A	16.4/15.7/15.0 A	18.2/17.4/16.7 A	20.9/20.0/19.2 A	22.7/21.7/20.8 A	27.3/26.1/25.0 A	31.8/30.4/29.2A	34.5/33.0/31.7A	36.4/34.8/33.3 A
Rated Apparent Power	3 kVA	3.6 kVA	4 kVA	4.6 kVA	5 kVA	6 kVA	7 kVA	7.6 kVA	8 kVA
Max. Apparent Power	3.3 kVA	3.6 kVA	4.4 kVA	4.6 kVA	5.5 kVA	6.6 kVA	7.7 kVA	8.4 kVA	8.8 kVA
Max. Output Current	15.0/14.3/13.8 A	16.4/15.7/15.0 A	20.0/19.1/18.3 A	20.9/20.0/19.2 A	25.0/23.9/22.9 A	30.0/28.7/27.5 A	35/33.5/32.1 A	38.0/36.3/34.8 A	40.0/38.3/36.7 A
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	4 kW	4.6 kW	5 kW	6 kW	7 kW	7.6 kW	8 kW
Rated Output Current	13.6/13.0/12.5 A	16.4/15.7/15.0 A	18.2/17.4/16.7 A	20.9/20.0/19.2 A	22.7/21.7/20.8 A	27.3/26.1/25.0 A	31.8/30.4/29.2A	34.5/33.0/31.7A	36.4/34.8/33.3 A
Rated Apparent Power	3 kVA	3.6 kVA	4 kVA	4.6 kVA	5 kVA	6 kVA	7 kVA	7.6 kVA	8 kVA
Max. Apparent Power	3.3 kVA	3.6 kVA	4.4 kVA	4.6 kVA	5.5 kVA	6.6 kVA	7.7 kVA	8.4 kVA	8.8 kVA
Max. Output Current	15.0/14.3/13.8 A	16.4/15.7/15.0 A	20.0/19.1/18.3 A	20.9/20.0/19.2 A	25.0/23.9/22.9 A	30.0/28.7/27.5 A	35/33.5/32.1 A	38.0/36.3/34.8 A	40.0/38.3/36.7 A
Max. Input Current[4]	35A					40A		50A	
THDi	< 3%								
Power Factor Range	0.8 lagging - 0.8 leading								
Efficiency									
Max. MPPT Efficiency	99.9%								
Max. Efficiency	97.6%								
European Efficiency	97.0%								
Max. Efficiency of Charging/ Discharging[5]	95.0%								
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[6]	PV: Type II, AC: Type II								
General Parameter									
Inverter Topology	Non-Isolation								
Protective Class	Class I								
IP Rating	IP66								
Overvoltage Category	AC III, DC II								
Operating Temperature Range	-30˚C ~ +60˚C (derating above + 45˚C)								
Relative Humidity Range	5%-95%								
Max. Operating Altitude	4000 m (derating above 2000 m)								
Standby Self-consumption[7]	<15 W								
Installation Method	Wall Mounted								
Dimensions (W×H×D) / Weight	335×540×220 mm / 24 kg								
Cooling Mode	Intelligent Airflow								
Communication	RS485/Bluetooth, Optional: WiFi/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 sun and battery.
[4] Continuous AC passthrough current from grid to load. [5] Battery-AC maximum efficiency of battery charge and discharge. [6] According to EN/IEC 61643-11.
[7] Standby loss at rated input voltage.

*All specifications are subject to change without notice.

HYD-10-12K-LS1

10 / 12 kW

Single-phase hybrid inverter



High performance

- 2 MPPTs, Max. 40A DC input current per MPPT
- Supports 200% overload for 10 seconds
- Max. 250A charge/discharge current

Flexible application

- Multiple inverters in parallel to build a microgrid
- Supports diesel generator

Safe & Reliable

- AFCI protection integrated
- On/off grid seamless switching (4ms)

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Model	HYD-10K-LS1	HYD-12K-LS1
PV Input		
Recommended Max. PV Power	20 kWp	24 kWp
Max. Input Voltage	550 Vd.c.	
Start-up Voltage [1]	90 Vd.c.	
Rated Input Voltage	360 Vd.c.	
MPP Voltage Range	60-500 Vd.c.	
Number of MPPT	2	
Max. Number of Input Strings per MPPT	2/2	
Max. Input Current	40/40 A	
Max. Isc	50/50 A	
Battery		
Voltage Range	40-60 Vd.c.	
Number of Battery Input Channels	1	
Max. Charging Power	10 kW	
Max. Discharging Power	10 kW	12 kW
Max. Charging Current	210 A	250 A
Max. Discharging Current	210 A	250 A
Battery Type [2]	Lead-acid or Lithium-ion	
BMS Communication	RS-485/CAN	
AC Backup		
Rated Output Voltage	L+N+PE, 220/230/240 Va.c.	
Rated Output Frequency	50/60 Hz	
Rated Output Power	10 kW	12 kW
Rated Output Current	45.5/43.5/41.7 A	50.0/54.5/54.5 A
Rated Apparent Power	10 kVA	12 kVA
Max. Apparent Power	11 kVA	13.2 kVA
Max. Output Current	50.0/47.8/45.8 A	55.0/60.0/60.0 A
Peak Output Apparent Power [3]	2 times of rated power, 10s	
THDv(@ linear load)	< 3%	
Switching Time [4]	4 ms default	
AC Smartload/Generator		
Rated Output Voltage	L+N+PE, 220/230/240 Va.c.	
Rated Output Frequency	50/60 Hz	
Rated Output Power	10 kW	12 kW
Rated Output Current	45.5/43.5/41.7 A	50.0/54.5/54.5 A
Rated Apparent Power	10 kVA	12 kVA
Max. Apparent Power	11 kVA	13.2 kVA
Max. Output Current	50.0/47.8/45.8 A	55.0/60.0/60.0 A
AC Grid		
Rated Voltage	L+N+PE, 220/230/240 Va.c.	
Rated Frequency	50/60 Hz	
Rated Output Power	10 kW	12 kW
Rated Output Current	45.5/43.5/41.7 A	50.0/54.5/54.5 A
Rated Apparent Power	10 kVA	12 kVA
Max. Apparent Power	11 kVA	13.2 kVA
Max. Output Current	50.0/47.8/45.8 A	55.0/60.0/60.0 A
Max. Input Current [5]	50A	60A
THDi	< 3%	
Power Factor Range	0.8 lagging - 0.8 leading	
Efficiency		
Max. MPPT Efficiency	99.9%	
Max. Efficiency	97.6%	
European Efficiency	97.0%	
Max. Efficiency of Charging/Discharging [6]	95.0%	
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 [7]	PV: Type II, AC: Type II	
General Parameter		
Inverter Topology	Non-Isolation	
Protective Class	Class I	
IP Rating	IP66	
Overvoltage Category	AC III, DC II	
Operating Temperature Range	-30˚C ~ +60˚C (derating above +45˚C)	
Relative Humidity Range	5%-95%	
Max. Operating Altitude	4000 m (derating above 2000 m)	
Standby Self-consumption [8]	<15 W	
Installation Method	Wall Mounted	
Dimensions(W×H×D)	410×620×270 mm	
Cooling Mode	Intelligent Airflow	
Weight	30 kg	
Communication	RS485, Optional: WiFi/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 sun and battery.
[4] In the on-grid mode, the nominal power of the hybrid inverter is higher than the total power of the home loads. [5] Continuous AC passthrough current from grid to load.
[6] Battery-AC maximum efficiency of battery charge and discharge. [7] According to EN/IEC 61643-11. [8] Standby loss at rated input voltage.

*All specifications are subject to change without notice.

HYD-5-20K-LT1

5 / 6 / 6.5 / 8 / 9.9 / 10 / 12 / 15 / 20 kW

Three-phase hybrid inverter



Robustness

- Maximum 200% PV input and 40A per MPPT
- 200% overload capability for 10 seconds
- Max. charging/discharging current of 350A

Safety

- IP66 protection rating
- Integrated type II surge protection
- AI based AFCI protection(Optional)

Flexibility

- Multiple inverters in parallel connection
- Flexible expansion of battery power and capacity
- Integration of generators to extend backup duration

Intelligent

- UPS-level switching time < 4ms (Typical)
- Supports 100% unbalanced on both the BACKUP and GRID port
- Multi-function EMS integrated, highy utilization ratio of solar energy

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Model	HYD-5K-LT1	HYD-6K-LT1	HYD-6.5K-LT1	HYD-8K-LT1	HYD-9.9K-LT1-A	HYD-10K-LT1	HYD-12K-LT1	HYD-15K-LT1	HYD-20K-LT1
PV Input									
Recommended Max. PV Power	10 kWp	12 kWp	13 kWp	16 kWp	20 kWp	20 kWp	24 kWp	30 kWp	40 kWp
Max. Input Voltage	1000 Vd.c.								
Start-up Voltage [1]	200 Vd.c.								
Rated Input Voltage	600 Vd.c.								
MPP Voltage Range	160-950 Vd.c.								
Number of MPPT	2								
Max. Number of Input Strings per MPPT	2/2								
Max. Input Current	40/40 A								
Max. Isc	50/50 A								
Battery									
Voltage Range	40-60 Vd.c.								
Number of Battery Input Channels	1								
Max. Charging Power	12 kW							20 kW	
Max. Discharging Power	5 kW	6 kW	6.5 kW	8 kW	9.9 kW	10 kW	12 kW	15 kW	20 kW
Max. Charging Current	240 A							350 A	
Max. Discharging Current	120 A	135 A	145 A	190 A	205A	210 A	240 A	300 A	350 A
Battery Type [2]	Lead-acid or Lithium-ion								
BMS Communication	RS-485/CAN								
AC Backup									
Rated Output Voltage	3N~+PE, 380/400/415 Va.c.								
Rated Output Frequency	50/60 Hz								
Rated Output Power	5 kW	6 kW	6.5 kW	8 kW	9.9 kW	10 kW	12 kW	15 kW	20 kW
Rated Output Current	7.6/7.2/6.9 A	9.1/8.7/8.3 A	9.9/9.4/9.0 A	12.1/11.6/11.1 A	15.0/14.3/13.8 A	15.2/14.5/13.9A	18.2/17.4/16.7 A	22.8/21.7/20.9 A	30.4/28.9/27.8A
Rated Apparent Power	5 kVA	6 kVA	6.5 kVA	8 kVA	9.9 kVA	10 kVA	12 kVA	15 kVA	20 kVA
Max. Apparent Power	5.5 kVA	6.6 kVA	7.15 kVA	8.8 kVA	9.9 kVA	11 kVA	13.2 kVA	16.5 kVA	22 kVA
Max. Output Current	8.3/8.0/7.6 A	10/9.6/9.2 A	10.9/10.3/9.9 A	13.3/12.8/12.2 A	15.0/14.3/13.8 A	16.7/15.9/15.3 A	20.0/19.1/18.3 A	25.1/23.8/23.0 A	33.4/31.8/30.6 A
Peak Output Apparent Power [3]	2 times of rated power, 10s								
THDv(@ linear load)	< 3%								
Switching Time	4 ms default								
Asymmetric load	Yes, Supports 100% three-phase unbalanced load								
AC Smartload/Generator									
Rated Output Voltage	3N~+PE, 380/400/415 Va.c.								
Rated Output Frequency	50/60 Hz								
Rated Output Power	5 kW	6 kW	6.5 kW	8 kW	9.9 kW	10 kW	12 kW	15 kW	20 kW
Rated Output Current	7.6/7.2/6.9 A	9.1/8.7/8.3 A	9.9/9.4/9.0 A	12.1/11.6/11.1 A	15.0/14.3/13.8 A	15.2/14.5/13.9A	18.2/17.4/16.7 A	22.8/21.7/20.9 A	30.4/28.9/27.8A
Rated Apparent Power	5 kVA	6 kVA	6.5 kVA	8 kVA	9.9 kVA	10 kVA	12 kVA	15 kVA	20 kVA
Max. Apparent Power	5.5 kVA	6.6 kVA	7.15 kVA	8.8 kVA	9.9 kVA	11 kVA	13.2 kVA	16.5 kVA	22 kVA
Max. Output Current	8.3/8.0/7.6 A	10/9.6/9.2 A	10.9/10.3/9.9 A	13.3/12.8/12.2 A	15.0/14.3/13.8 A	16.7/15.9/15.3 A	20.0/19.1/18.3 A	25.1/23.8/23.0 A	33.4/31.8/30.6 A
AC Grid									
Rated Voltage	3N~+PE, 380/400/415 Va.c.								
Rated Frequency	50/60 Hz								
Rated Output Power	5 kW	6 kW	6.5 kW	8 kW	9.9 kW	10 kW	12 kW	15 kW	20 kW
Rated Output Current	7.6/7.2/6.9 A	9.1/8.7/8.3 A	9.9/9.4/9.0 A	12.1/11.6/11.1 A	15.0/14.3/13.8 A	15.2/14.5/13.9A	18.2/17.4/16.7 A	22.8/21.7/20.9 A	30.4/28.9/27.8A
Rated Apparent Power	5 kVA	6 kVA	6.5 kVA	8 kVA	9.9 kVA	10 kVA	12 kVA	15 kVA	20 kVA
Max. Apparent Power	5.5 kVA	6.6 kVA	7.15 kVA	8.8 kVA	9.9 kVA	11 kVA	13.2 kVA	16.5 kVA	22 kVA
Max. Output Current	8.3/8.0/7.6 A	10/9.6/9.2 A	10.9/10.3/9.9 A	13.3/12.8/12.2 A	15.0/14.3/13.8 A	16.7/15.9/15.3 A	20.0/19.1/18.3 A	25.1/23.8/23.0 A	33.4/31.8/30.6 A
Max. Input Current [4]	35 A			40 A			45 A	50 A	60 A
THDi	< 3%								
Power Factor Range	0.8 lagging - 0.8 leading								
Efficiency									
Max. MPPT Efficiency	99.9%								
Max. Efficiency	97.6%								
European Efficiency	97.0%								
Max. Efficiency of Charging/Discharging [5]	95.0%								
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 [6]	PV: Type II, AC: Type II								
General Parameter									
Inverter Topology	Non-Isolation								
Protective Class	Class I								
IP Rating	IP66								
Overvoltage Category	AC III, DC II								
Operating Temperature Range	-30°C ~ +60°C (derating above + 45°C)								
Relative Humidity Range	5%-95%								
Max. Operating Altitude	4000 m (derating above 2000 m)								
Standby Self-consumption [7]	< 15 W								
Installation Method	Wall Mounted								
Dimensions(W×H×D)	485×690×290 mm								
Cooling Mode	Intelligent Airflow								
Weight	52 kg								
Communication	RS485, Optional: Wi-Fi/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 sun and battery. [4] Continuous AC passthrough current from grid to load.
[5] Battery-AC maximum efficiency of battery charge and discharge. [6] According to EN/IEC 61643-11. [7] Standby loss at rated input voltage.

*All specifications are subject to change without notice.

HYD 5-20KTL-3PH

5 / 10 / 15 / 20 kW

Three-phase hybrid inverter



Simplicity

- Light weight and convenient transportation
- LCD and App for easy commissioning

Safety

- IP65 protection rating
- Integrated type II surge protection

Flexibility

- On/off grid seamless switching (10ms)
- Maximum two battery inputs

Robustness

- Max. 150% PV input, and max. 32A per MPPT
- Supports three-phase unbalanced loads

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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	1000Vd.c.						
Start-up Voltage	200Vd.c.						
Rated Input Voltage	600Vd.c.						
MPPT Operating Voltage Range	180-960Vd.c.						
Number of MPPT	2						
Max. Number of Input Strings per MPPT	1/1			2/2			
Max. Input Current [1]	16/16A			32/32A			
Max. Isc [2]	22.5/22.5A			45/45A			
AC Output (Grid)							
Rated Output Power	5kW	6kW	8kW	10kW	10kW	15kW	20kW
Rated Output Current	7.6/7.2/6.9A	9.1/8.7/8.3A	12.1/11.6/11.1A	15.2/14.5/13.9A	15.2/14.5/13.9A	22.7/21.7/20.8A	30.3/29.0/27.8A
Rated Output Voltage[3]	3N~+PE, 380/400/415Va.c.						
Rated Output Frequency	50/60Hz						
Max. Apparent Power	5.5kW	6.6kW	8.8kW	11kW	10kW	16.5kW	22kW
Max. Output Current	8.3/8.0/7.6A	10.0/9.6/9.2A	13.3/12.8/12.2A	16.7/15.9/15.3A	15.2/14.5/13.9A	25.0/23.9/22.9A	33.3/31.9/30.6A
THDi	< 3%						
Power Factor Range	0.8 lagging - 0.8 leading						
Battery							
Battery Type [4]	Lithium-ion & Lead-acid						
Voltage Range	180-800Vd.c.						
Number of Battery Input Channels	1			2			
Max. Charging Power	5kW	6kW	8kW	10kW	10kW	15kW	20kW
Max. Discharging Power	5kW	6kW	8kW	10kW	10kW	15kW	20kW
Max. Charging Current	25A	25A	25A	25/25A	25/25A	25/25A	25/25A
Max. Discharging Current	25A	25A	25A	25/25A	25/25A	25/25A	25/25A
BMS Communication	CAN/RS485						
AC Output(Backup)							
Rated Output Power	5kW	6kW	8kW	10kW	10kW	15kW	20kW
Rated Output Current	7.6/7.2/6.9A	9.1/8.7/8.3A	12.1/11.6/11.1A	15.2/14.5/13.9A	15.2/14.5/13.9A	22.7/21.7/20.8A	30.3/29.0/27.8A
Rated Output Voltage[3]	3N~+PE, 380/400/415Va.c.						
Rated Output Frequency	50/60Hz						
Rated Apparent Power	5kVA	6kVA	8kVA	10kVA	10kVA	15kVA	20kVA
Max. Apparent Power	5.5kVA	6.6kVA	8.8kVA	11kVA	11kVA	16.5kVA	22kVA
Peak Output Apparent Power	7500VA, 60s	9000VA, 60s	12000VA, 60s	15000VA, 60s	15000VA, 60s	22500VA, 60s	26000VA, 60s
Max. Output Current	8.3/8.0/7.6A	10.0/9.6/9.2A	13.3/12.8/12.2A	16.7/15.9/15.3 A	16.7/15.9/15.3A	25.0/23.9/22.9A	33.3/31.9/30.6A
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 [5]	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˚C ~ +60˚C (derating above +45˚C)						
Relative Humidity Range	5%~95%						
Max. Operating Altitude	4000m (derating above 2000m)						
Standby Self-consumption [6]	< 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]AC Output Rated/Max. Output Current corresponds to Rated Output Voltage. 20K model, for example, when the Rated Output Voltage is 400V, the Rated Output Current is 29A; most of the Rated Output Voltage is 415V, the Rated Output Current is 27.8A
[4] Please refer to document "SOFAR inverter Model compatible battery list". [5] Battery-AC maximum efficiency of battery charge and discharge. [6] Standby loss at rated input voltage.
*All specifications are subject to change without notice.

HYD-14.9-30K-T1

14.9 / 15 / 20 / 25 / 29.9 / 30 kW

Three-phase hybrid inverter



Simplicity

- Light weight and convenient transportation
- LCD and App for easy commissioning

Safety

- IP66 protection rating
- DC SPD type I+II, AC SPD type II
- AI based AFCI protection

Flexibility

- Multiple inverters in parallel connection
- Supports intelligent control of non critical loads

Robustness

- Maximum 200% PV input, and 40A per MPPT
- Supports 100% unbalanced loads
- 150% overload capability for 10 seconds
- Integration of generators to extend backup duration

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Model	HYD-14.9K-T1-A	HYD-15K-T1	HYD-20K-T1	HYD-25K-T1	HYD-29.9K-T1-A-PLUS	HYD-30K-T1-PLUS
PV Input						
Recommended Max. PV Power	30 kWp	30 kWp	40 kWp	50 kWp	60 kWp	60 kWp
Max. Input Voltage	1000 Vd.c.					
Start-up Voltage[1]	200 Vd.c.					
Rated Input Voltage	600 Vd.c.					
MPP Voltage Range	160-950 Vd.c.					
Number of MPPT	3					
Max. Number of Input Strings per MPPT	2/2/2					
Max. Input Current	40/40/40 A					
Max. Isc	50/50/50 A					
Battery						
Voltage Range	600-1000 Vd.c.					
Number of Battery Input Channels	1					
Max. Charging Power	30 kW					
Max. Discharging Power	14.9 kW	15 kW	20 kW	25 kW	29.9 kW	30 kW
Max. Charging Current	50 A					
Max. Discharging Current	23.8 A	24 A	32 A	40 A	47.8 A	50 A
Battery Type[2]	Lithium-ion					
BMS Communication	CAN					
AC Backup						
Rated Output Voltage	3N~+PE, 380/400/415 Va.c.					
Rated Output Frequency	50/60 Hz					
Rated Output Power	14.9 kW	15 kW	20 kW	25 kW	29.9 kW	30 kW
Rated Output Current	22.6/21.5/20.7 A	22.8/21.7/20.9 A	30.4/28.9/27.8 A	38.0/36.1/34.8 A	45.4/43.2/41.6 A	45.6/43.3/41.7 A
Rated Apparent Power	14.9 kVA	15 kVA	20 kVA	25 kVA	29.9 kVA	30 kVA
Max. Apparent Power	14.9 kVA	16.5 kVA	22 kVA	27.5 kVA	29.9 kVA	33 kVA
Max. Output Current	22.6/21.5/20.7 A	25.1/23.8/23.0 A	33.4/31.8/30.6 A	41.8/39.7/38.3 A	45.4/43.2/41.6 A	50.0/47.6/45.9 A
Peak Output Apparent Power[3]	1.5 times of rated power, 10s					
THDv(@ linear load)	< 3%					
Switching Time	10 ms default					
Asymmetric load	Yes, Supports 100% three-phase unbalanced load					
AC Smartload/Generator						
Rated Output Voltage	3N~+PE, 380/400/415 Va.c.					
Rated Output Frequency	50/60 Hz					
Rated Output Power	14.9 kW	15 kW	20 kW	25 kW	29.9 kW	30 kW
Rated Output Current	22.6/21.5/20.7 A	22.8/21.7/20.9 A	30.4/28.9/27.8 A	38.0/36.1/34.8 A	45.4/43.2/41.6 A	45.6/43.3/41.7 A
Rated Apparent Power	14.9 kVA	15 kVA	20 kVA	25 kVA	29.9 kVA	30 kVA
Max. Apparent Power	14.9 kVA	16.5 kVA	22 kVA	27.5 kVA	29.9 kVA	33 kVA
Max. Output Current	22.6/21.5/20.7 A	25.1/23.8/23.0 A	33.4/31.8/30.6 A	41.8/39.7/38.3 A	45.4/43.2/41.6 A	50.0/47.6/45.9 A
AC Grid						
Rated Voltage	3(N)~+PE, 380/400/415 Va.c.					
Rated Frequency	50/60 Hz					
Rated Output Power	14.9 kW	15 kW	20 kW	25 kW	29.9 kW	30 kW
Rated Output Current	22.6/21.5/20.7 A	22.8/21.7/20.9 A	30.4/28.9/27.8 A	38.0/36.1/34.8 A	45.4/43.2/41.6 A	45.6/43.3/41.7 A
Rated Apparent Power	14.9 kVA	15 kVA	20 kVA	25 kVA	29.9 kVA	30 kVA
Max. Apparent Power	14.9 kVA	16.5 kVA	22 kVA	27.5 kVA	29.9 kVA	33 kVA
Max. Output Current	22.6/21.5/20.7 A	25.1/23.8/23.0 A	33.4/31.8/30.6 A	41.8/39.7/38.3 A	45.4/43.2/41.6 A	50.0/47.6/45.9 A
Max. Input Current	80 A					
THDi	< 3%					
Power Factor Range	0.8 lagging - 0.8 leading					
Efficiency						
Max. MPPT Efficiency	99.9%					
Max. Efficiency	98.0%	98.0%	98.2%	98.2%	98.2%	98.2%
European Efficiency	97.0%	97.0%	97.5%	97.5%	97.5%	97.5%
Max. Efficiency of Charging/ Discharging[4]	98.0%	98.0%	98.2%	98.2%	98.2%	98.2%
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[5]	PV: Type I+II, AC: Type II					
General Parameter						
Inverter Topology	Non-Isolation					
Protective Class	Class I					
IP Rating	IP66					
Overvoltage Category	AC III, DC II					
Operating Temperature Range	-30˚C ~ +60˚C (derating above + 45˚C)					
Relative Humidity Range	5%-95%					
Max. Operating Altitude	4000 m (derating above 2000 m)					
Standby Self-consumption[6]	<10 W					
Installation Method	Wall Mounted					
Dimensions (W×H×D)	680×525×325 mm					
Cooling Mode	Intelligent Airflow					
Weight	40 kg					
Communication	RS485, Optional: WiFi/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 sun.
[4] Battery-AC maximum efficiency of battery charge and discharge. [5] According to EN/IEC 61643-11. [6] Standby loss at rated input voltage.

*All specifications are subject to change without notice.

HYD-40-60K-T1

40 / 49.9 / 50 / 60 kW

Three-phase hybrid inverter



Simplicity

- Light weight and convenient transportation
- LCD and App for easy commissioning

Safety

- IP66 protection rating
- DC SPD type I+II, AC SPD type II
- AI based AFCI protection

Flexibility

- Multiple inverters in parallel connection
- Supports intelligent control of non critical loads

Robustness

- Maximum 200% PV input, and 40A per MPPT
- Supports 100% unbalanced loads
- 150% overload capability for 10 seconds
- Integration of generators to extend backup duration

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Model	HYD-40K-T1	HYD-49.9K-T1-A	HYD-50K-T1	HYD-60K-T1
PV Input				
Recommended Max. PV Power	80 kWp	100 kWp		120 kWp
Max. Input Voltage	1000 Vd.c			
Start-up Voltage[1]	200 Vd.c.			
Rated Input Voltage	600 Vd.c.			
MPP Voltage Range	160-950 Vd.c.			
Number of MPPT	4			
Max. Number of Input Strings per MPPT	2/2/2/2			
Max. Input Current	40/40/40/40 A			
Max. Isc	50/50/50/50 A			
Battery				
Voltage Range	600-1000 Vd.c.			
Number of Battery Input Channels	1			
Max. Charging Power	60 kW			
Max. Discharging Power	40 kW	49.9 kW	50 kW	60 kW
Max. Charging Current	100 A			
Max. Discharging Current	64 A	79.8 A	80 A	100 A
Battery Type[2]	Lithium-ion			
BMS Communication	CAN			
AC Backup				
Rated Output Voltage	3N~+PE, 380/400/415 Va.c.			
Rated Output Frequency	50/60 Hz			
Rated Output Power	40 kW	49.9 kW	50 kW	60 kW
Rated Output Current	60.8/57.7/55.6 A	75.8/72.0/69.4 A	76.0/72.2/69.6 A	91.2/86.6/83.5 A
Rated Apparent Power	40 kVA	49.9 kVA	50 kVA	60 kVA
Max. Apparent Power	44 kVA	49.9 kVA	55 kVA	66 kVA
Max. Output Current	66.9/63.5/61.2 A	75.8/72.0/69.4 A	83.6/79.4/76.5 A	100/95.3/91.8 A
Peak Output Apparent Power[3]	1.5 times of rated power, 10s			
THDv(@ linear load)	< 3%			
Switching Time[4]	4 ms			
Asymmetric load	Yes, Supports 100% three-phase unbalanced load			
AC Smartload/Generator				
Rated Output Voltage	3N~+PE, 380/400/415 Va.c.			
Rated Output Frequency	50/60 Hz			
Rated Output Power	40 kW	49.9 kW	50 kW	60 kW
Rated Output Current	60.8/57.7/55.6 A	75.8/72.0/69.4 A	76.0/72.2/69.6 A	91.2/86.6/83.5 A
Rated Apparent Power	40 kVA	49.9 kVA	50 kVA	60 kVA
Max. Apparent Power	44 kVA	49.9 kVA	55 kVA	66 kVA
Max. Output Current	66.9/63.5/61.2 A	75.8/72.0/69.4 A	83.6/79.4/76.5 A	100/95.3/91.8 A
AC Grid				
Rated Voltage	3(N)~+PE, 380/400/415 Va.c.			
Rated Frequency	50/60 Hz			
Rated Output Power	40 kW	49.9 kW	50 kW	60 kW
Rated Output Current	60.8/57.7/55.6 A	75.8/72.0/69.4 A	76.0/72.2/69.6 A	91.2/86.6/83.5 A
Rated Apparent Power	40 kVA	49.9 kVA	50 kVA	60 kVA
Max. Apparent Power	44 kVA	49.9 kVA	55 kVA	66 kVA
Max. Output Current	66.9/63.5/61.2 A	75.8/72.0/69.4 A	83.6/79.4/76.5 A	100/95.3/91.8 A
Max. Input Current	100 A			
THDi	< 3%			
Power Factor Range	0.8 lagging - 0.8 leading			
Efficiency				
Max. MPPT Efficiency	99.9%			
Max. Efficiency	98.2%	98.2%	98.2%	98.2%
European Efficiency	97.5%	97.5%	97.5%	97.5%
Max. Efficiency of Charging/Discharging[5]	98.2%	98.2%	98.2%	98.2%
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[6]	PV: Type I+II, AC: Type II			
General Parameter				
Inverter Topology	Non-Isolation			
Protective Class	Class I			
IP Rating	IP66			
Overvoltage Category	AC III, DC II			
Operating Temperature Range	-30℃ ~ +60℃ (derating above + 45℃)			
Relative Humidity Range	5%-95%			
Max. Operating Altitude	4000 m (derating above 2000 m)			
Standby Self-consumption[7]	< 15 W			
Installation Method	Wall Mounted			
Dimensions (W×H×D)	850×660×305 mm			
Cooling Mode	Intelligent Airflow			
Weight	75 kg			
Communication	RS485, Optional: WiFi/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 sun. [4] In the on-grid mode, the nominal power of the hybrid inverter is higher than the total power of the home loads.
[5] Battery-AC maximum efficiency of battery charge and discharge. [6] According to EN/IEC 61643-11. [7] Standby loss at rated input voltage.

*All specifications are subject to change without notice.

SOFAR 80-125KTLX-G4-ESS

80 / 99 / 100 / 110 / 125 kW

Three-phase hybrid inverter



Battery-ready & Load flexibility

- 200A DC-coupled battery port
- 10ms on/off-grid switching with STS
- Supports max. 20kW unbalanced load
- Supports max. 62.5kW in off-grid mode (200% for 2s)

Flexible PV input

- 9 MPPTs, 40A per MPPT
- 200% PV input power max

Advanced safety

- AFCI arc-fault detection
- DC SPD type I+II surge protection

Outdoor ready

- Engineered with IP66 rating and smart air cooling
- Lightweight for easy transport and installation

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Model	SOFAR 80KTLX-G4-ESS	SOFAR 99KTLX-G4-ESS	SOFAR 100KTLX-G4-ESS	SOFAR 110KTLX-G4-ESS	SOFAR 125KTLX-G4-ESS
Input (DC)					
Recommended max. PV input power	160kWp	200kwp	200kWp	220kWp	225kWp
Max. input voltage	1100V				
Rated input voltage	625V				
Start-up voltage	200V				
MPPT operating voltage range	160V-1000V				
Number of MPP trackers	9				
Number for DC inputs	18				
Max. input MPPT current	9×40A				
Max. input short circuit current	9×50A				
Output (AC)					
Rated output power	80 kW	99.99 kW	100 kW	110 kW	125 kW
Max. output apparent power	88 kVA	99.99 kVA	110 kVA	121 kVA	125 kVA
Max. output current	133.7A@380V / 127.0A@400V / 122.4A@415V	151.9A@380V / 144.3A@400V / 139.1A@415V	167.1A@380V / 158.7A@400V / 153.0A@415V	183.8A@380V / 174.6A@400V / 168.3A@415V	189.9A@380V / 180.4A@400V / 173.9A@415V
Rated output voltage	3N~+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	0.8 leading – 0.8 lagging				
Max. asymmetric power	50%				
Output (Off-grid)					
Rated output voltage	3N~+PE , 380 / 400 / 415 Va.c.				
Rated output frequency	50/60Hz				
Rated output power	62.5kW				
Rated output current	94.9A				
Peak output apparent power	200%, 2s				
THDv (@ linear load)	3%				
Switching time	< 10ms, with STS				
Asymmetric load	100%				
Input (BAT)					
Battery type	Lithium-ion				
Number of battery input channels	1				
DC voltage range	600-1000V				
Max. charge power	125 kW				
Max. discharge power	88 kW	99.99 kW	110 kW	121 kW	125 kW
Max. charge current	200A				
Max. discharge current	140.8 A	160 A	176 A	193.6 A	200 A
BMS communication	RJ45, CAN*2 + DO*1				
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				
PID recovery	Yes				
AFCI	Yes				
SPD	PV: type I+II, AC: type II				
General Data					
Ambient temperature range	-30℃ ~+ 60℃				
Topology	Transformerless				
Degree of protection	IP66				
Allowable relative humidity range	0-100%				
Max. operating altitude	4000m (> 3000m derating)				
Weight	80kg				
Cooling	Smart air cooling				
Dimension (W×H×D)	985×710×321 mm				
Display	LCD & Bluetooth+APP				
Communication	Ethernet / RS485 / Wi-Fi				
STS communication	RS485, DIO *2				
Standard	EN/IEC 62109-1/2, EN/IEC 61000-6-2/-4, IEC 61000-3-11/-12, EN 50530, EN 50549, VDE-AR-N 4105/4110, C10/11				

*All specifications are subject to change without notice.

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ENERGY TO POWER YOUR LIFE

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