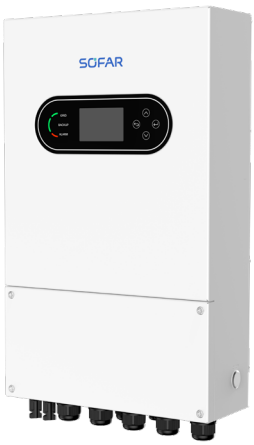
HYD-3 / 3.6 / 4 / 4.6 / 5 / 6 / 7 / 7.6 / 8K-LS1-PRO

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

SINGLE-PHASE HYBRID INVERTER



Product advantages

- Support 200% overload for 10 seconds.
- Max. 190A charge/discharge current capability.
- Automatic switchover time of 4ms, provides seamless switching between grid and backup.
- Support diesel generators for energy storage and home power, during grid power outage.
- Multiple inverters in parallel to build a microgrid.

Model	HYD-3K-LS1	HYD-3.6K-LS1	HYD-4K-LS1	HYD-4.6K-LS1	HYD-5K-LS1	HYD-6K-LS1	HYD-7K-LS1	HYD-7.6K-LS1	HYD-8K-LS1
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	20/20 A							32/20 A	
Max. Isc	25/25 A							40/25 A	
Battery									
Voltage Range	40-60 Vd.c.								
Number of Battery Input Channels	1								
Max. Charging Power[3]	7 kW							8kW	
Max. Discharging Power	3 kW	3.6 kW	4 kW	4.6 kW	5 kW	6 kW	7 kW	7.6kW	8kW
Max. Charging Current	175 A							190A	
Max. Discharging Current	75 A	90 A	100 A	115 A	125 A	150 A	175 A	190 A	190 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	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
Peak Output Apparent Power[3]	2 times of rated power, 10s								
THDv(@ linear load)	<3%								
Switching Time	4 ms default								

Model	HYD-3K-LS1	HYD-3.6K-LS1	HYD-4K-LS1	HYD-4.6K-LS1	HYD-5K-LS1	HYD-6K-LS1	HYD-7K-LS1	HYD-7.6K-LS1	HYD-8K-LS1
AC Generator									
Rated Input Voltage	L+N+PE,220/230/240 Va.c.								
Rated Input Frequency	50/60 Hz								
Rated Input Power	3 kW	3.6 kW	4 kW	4.6 kW	5 kW	6 kW	7 kW	7.6 kW	8 kW
Rated Input 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. Input 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%								
Max. Efficiency of Charging/Discharging[5]	95%								
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 to +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)	380*480*230 mm								
Cooling Mode	Intelligent Airflow								
Weight	18 kg								
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.