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.