HYD-5-10K-LSP1

5 / 6 / 7.5 / 10 kW

Split-phase hybrid inverter



We've GOT YOU COVERED with CGL insurance.

High performance

- 2 MPPTs, Max. 40A DC input current per MPPT
- Supports 200% overload for 10 seconds
- Max. 210A 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-5K-LSP1	HYD-6K-LSP1	HYD-7.5K-LSP1	HYD-10K-LSP1
PV Input				
Recommended Max. PV Power	10 kWp	12 kWp	16 kWp	20 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	1/1	2/1	2/2	
Max. Input Current	20/20 A	40/20 A	40/40 A	
Max. Isc	25/25 A	50/25 A	50/50 A	
Battery				
Voltage Range	40-60 Vd.c.			
Number of Battery Input Channels	1			
Max. Charging Power	10 kW			
Max. Discharging Power	5 kW	6 kW	7.5 kW	10 kW
Max. Charging Current	190 A			210 A
Max. Discharging Current	125 A	150 A	190 A	210 A
Battery Type [2]	Lead-acid or Lithium-ion			
BMS Communication	RS-485/CAN			
AC Backup				
Rated Output Voltage	L1+L2+N+PE, 120 / 240 Va.c. (Split Phase); 127 / 220 Va.c. (2/3 Phase); 220 Va.c. (Single Phase)			
Rated Output Frequency	50/60 Hz			
Rated Output Power	5 kW	6 kW	7.5 kW	10 kW
Rated Output Current	20.8/22.7/22.7 A	25.0/27.3/27.3 A	31.3/34.1/34.1A	45.5/43.5/41.7 A
Rated Apparent Power	5 kVA	6 kVA	7.5 kVA	10 kVA
Max. Apparent Power	5.5 kVA	6.6 kVA	7.5 kVA	11 kVA
Max. Output Current	22.9/25.0/25.0 A	27.5/30.0/30.0 A	31.3/34.1/34.1A	50/47.8/45.8 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	L1+L2+N+PE, 120 / 240 Va.c. (Split Phase); 127 / 220 Va.c. (2/3 Phase); 220 Va.c. (Single Phase)			
Rated Output Frequency	50/60 Hz			
Rated Output Power	5 kW	6 kW	7.5 kW	10 kW
Rated Output Current	20.8/22.7/22.7 A	25.0/27.3/27.3 A	31.3/34.1/34.1A	45.5/43.5/41.7 A
Rated Apparent Power	5 kVA	6 kVA	7.5 kVA	10 kVA
Max. Apparent Power	5.5 kVA	6.6 kVA	7.5 kVA	11 kVA
Max. Output Current	22.9/25.0/25.0 A	27.5/30.0/30.0 A	31.3/34.1/34.1A	50/47.8/45.8 A
AC Grid				
Rated Voltage	L1+L2+N+PE, 120 / 240 Va.c. (Split Phase); 127 / 220 Va.c. (2/3 Phase); 220 Va.c. (Single Phase)			
Rated Frequency	50/60 Hz			
Rated Output Power	5 kW	6 kW	7.5 kW	10 kW
Rated Output Current	20.8/22.7/22.7 A	25.0/27.3/27.3 A	31.3/34.1/34.1A	45.5/43.5/41.7 A
Rated Apparent Power	5 kVA	6 kVA	7.5 kVA	10 kVA
Max. Apparent Power	5.5 kVA	6.6 kVA	7.5 kVA	11 kVA
Max. Output Current	22.9/25.0/25.0 A	27.5/30.0/30.0 A	31.3/34.1/34.1A	50/47.8/45.8 A
Max. Input Current [5]	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 [6]	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 [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.