HYD 5-20KTL-3PH

5 / 6 / 8 / 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
- 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 input power	7500Wp (6000Wp/6000Wp)	9000Wp (6600Wp/6600Wp)	12000Wp (6600Wp/6600Wp)	15000Wp (7500Wp/7500Wp)	15000Wp (7500Wp/7500Wp)	22500Wp (11250Wp/11250Wp)	30000Wp (15000Wp/15000Wp)
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 inverter back feed current toarray	0A						
Max. number of input strings per MPPT	1/1			2/2			
Max. input current per MPPT	12.5/12.5 A			25/25 A			
Max. short-circuit current per MPPT	15/15 A			30/30 A			
AC Output (Grid)							
Rated output power	5000 W	6000 W	8000 W	10000 W	10000 W	15000 W	20000 W
Rated apparent power	5000 VA	6000 VA	8000 VA	10000 VA	10000 VA	15000 VA	20000 VA
Rated output current	7.2 A	8.7 A	11.6 A	14.5 A	14.5 A	21.7 A	29.0 A
Rated grid voltage	3/N/PE, 230/400 Vac						
Rated grid frequency	50/60 Hz						
Max. output apparent power	5500 VA	6600 VA	8800 VA	11000 VA	10000 VA	16500 VA	22000 VA
Max. current output to grid	8 A	10 A	13 A	16 A	16 A	24 A	32 A
Max. AC current from grid	15 A	17 A	24 A	29 A	29 A	44 A	58 A
Output Inrush current	100A/1μs						
Output fault current	80A/5μs						
Output overcurrent protection (RMS)	10 A	12 A	15 A	18 A	18 A	26 A	34 A
Output overcurrent protection (MAX)	20.4 A	22.5 A	33.1A	40.7 A	40.7 A	61.1 A	81.5 A
THDi	< 3%						
Power factor	0.8 lagging - 0.8 leading						
Battery							
Battery type[1]	Lithium-ion & Lead-acid						
Battery voltage range	180~800 Vd.c.						
Number of battery input channels	1			2			
Max. charge/discharge power	5000 W	6000 W	8000 W	10000 W	10000 W	15000 W	20000 W
Max. charge/discharge current	25 A	25 A	25 A	50A (25A/25A)	50A (25A/25A)	50A (25A/25A)	50A (25A/25A)
BMS communication mode	CAN, RS485						
AC Output(Backup)							
Rated output power	5000 W	6000 W	8000 W	10000 W	10000 W	15000 W	20000 W
Rated output current	7.2 A	8.7 A	11.6 A	14.5 A	14.5 A	21.7 A	29.0 A
Rated output voltage	3/N/PE, 230/400V ac						
Rated output frequency	50/60 Hz						
Max. output apparent power	5500 VA	6600 VA	8800 VA	11000 VA	11000 VA	16500 VA	22000 VA
Peak output apparent power, time	10000 VA, 60s	12000 VA, 60s	16000 VA, 60s	20000 VA, 60s	20000 VA, 60s	22000 VA, 60s	22000 VA, 60s
Max. output current	8 A	10 A	13 A	16 A	16 A	24 A	32 A
THDv(@ linear load)	< 3%						
Switching time	< 10ms						
Efficiency							
Max. MPPT eciency	99.9%						
Max. eciency	98.0%	98.0%	98.0%	98.2%	98.2%	98.2%	98.2%
European eciency	97.5%	97.5%	97.5%	97.7%	97.7%	97.7%	97.7%
Max. eciency of charging/discharging [2]	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	Method (Reactive power disturbance)						
Surge Protection	PV: Type Ⅱ, AC: Type Ⅱ						
General Parameters							
Protective class	Class I						
Degree of protection	IP65						
Overvoltage Category	AC Ⅲ, DC Ⅱ						
Operating temperature range	-30℃ ~ +60℃						
Relative humidity range	5%~95%						
Max. operating altitude	< 2000m						
Standby self-consumption [3]	< 20W						
Topology	Transformerless						
Installation method	Wall Mounted						
Dimensions (W×H×D)	586.6×515×261.2 mm						
Cooling mode	Natural						
Weight	33kg			37kg			
Communication	RS485/CAN/WiFi, Optional: Ethernet/4G						
Display	LCD & Bluetooth+APP						
Standard	EN61000-6-2, EN61000-6-3, EN61000-3-2, EN61000-3-3, EN61000-3-11, EN61000-3-12, IEC62109-1, IEC62109-2, EN62040-1, AS/NZS 4777						

[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.