HYD 5~20KTL-3PH

5 / 6 / 8 / 10 / 10 / 15 / 20 kW

THREE-PHASE ENERGY STORAGE INTEGRATED INVERTER



Product advantages

- Various operational modes for optimal performance
- Off-grid output can be connected to unbalanced load, three-phase separate output is supported
- Up to 2 MPPTs, allowing a flexible configuration
- Multiple parallel systems, more flexible system solutions
- Maximum two battery inputs
- Fully digital operation, enabling higher control accuracy



Model	HYD 5KTL-3PH	HYD 6KTL-3PH	HYD 8KTL-3PH	HYD 10KTL-3PH	HYD 10KTL-3PH-A*	HYD 15KTL-3PH	HYD 20KTL-3PH
DC input (PV)							
Recommended max. PV input power	7500Wp	9000Wp	12000Wp	15000Wp	15000Wp	22500Wp	30000Wp
Max. input voltage	1000V						
Start-up voltage	200V						
Rated input voltage	600V						
MPPT operating voltage range	180V-960V						
Number of MPP trackers	2						
Max. number of input strings per MPPT	1/1			2/2			
Max. input current per MPPT	12.5A/12.5A			25A/25A			
Max. short-circuit current per MPPT	15A/15A			30A/30A			
AC output (on-grid)							
Rated output power	5000W	6000W	8000W	10000W	10000W	15000W	20000W
Rated output current	7.2A	8.7A	11.6A	14.5A	14.5A	21.7A	29A
Rated grid voltage	3/N/PE, 400Vac						
Rated grid frequency	50/60Hz						
Max. output apparent power	5500VA	6600VA	8800VA	11000VA	10000VA	16500VA	22000VA
Max. output current	8.0A	9.9A	12.8A	15.9A	14.5A	23.9A	31.9A
THDi	<3%						
Power factor	1 default (+/-0.8 adjustable)						
Battery parameters							
Battery type [3]	Lithium-ion & Lead-acid						
Battery voltage range	180V-800V						
Number of battery input channels	1	1	1	2	2	2	2
Max. charge/discharge power	5000W	6000W	8000W	10000W	10000W	15000W	20000W
Max. charge/discharge current	25A	25A	25A	50A(25A/25A)	50A(25A/25A)	50A(25A/25A)	50A(25A/25A)
BMS communication mode	CAN, RS485						
AC output (off-grid)							
Rated output power	5000W	6000W	8000W	10000W	10000W	15000W	20000W
Rated output current	7.2A	8.7A	11.6A	14.4A	14.4A	21.7A	28.9A
Rated output voltage	3/N/PE, 400Vac						
Rated output frequency	50/60Hz						
Max. output apparent power	5500VA	6600VA	8800VA	11000VA	11000VA	16500VA	22000VA
Peak output apparent power, time	7500VA, 60s	9000VA, 60s	12000VA, 60s	15000VA, 60s	15000VA, 60s	22500VA, 60s	26000VA, 60s
Max. output current	8A	9.6A	12.8A	15.9A	15.9A	23.9A	31.9A
THDv (@ linear load)	<3%						
Switching time	<10ms						
Efficiency							
Max. MPPT efficiency	99.9%						
Max. efficiency	98%	98%	98%	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 [1]	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	-30~60°C						
Relative humidity range	5%~95%						
Max. operating altitude	<4000m						
Standby self-consumption [2]	<25W						
Topology	Non-Isolation						
Installation method	Wall-mounted						
Degree of protection	IP65						
Dimensions (W*H*D)	587*515*261mm						
Cooling mode	Natural	Natural	Natural	Forced airflow	Forced airflow	Forced airflow	Forced airflow
Weight	33kg	33kg	33kg	37kg	37kg	37kg	37kg
Communication	RS485/CAN/WiFi, Optional: Ethernet/4G						
Display	LCD & +APP						

[1] Battery-AC maximum efficiency of battery charge and discharge [2] Standby loss at rated input voltage [3]Please refer to document "SOFAR inverter Model compatible battery list"

*All specifications are subject to change without notice.