

HYD 5K~20KTL-3PH

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

SOFAR

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



Datasheet	HYD 5KTL-3PH	HYD 6KTL-3PH	HYD 8KTL-3PH	HYD 10KTL-3PH	HYD 15KTL-3PH	HYD 20KTL-3PH
Battery Input Data						
Battery type	Lithium-ion, Lead-acid					
No. of battery input	1			2		
Battery voltage range	180-800V					
Rated voltage	600V					
Battery voltage range for full load	200-800V	240-800V	320-800V	200-800V	300-800V	400-800V
Rated charging / discharging power	5000W	6000W	8000W	10000W(5000/5000)	15000W(7500/7500)	20000W(10000/10000)
Max. charging / discharging current	25A			50A (25 / 25)		
Peak charging / discharging current, duration	40A, 60s			70A (35 / 35), 60s		
BMS communication mode	CAN (RS485)					
AC Output Data (On-grid)						
Rated AC power	5000W	6000W	8000W	10000W	15000W	20000W
Max. AC power output to utility grid	5500VA	6600VA	8800VA	11000VA	16500VA	22000VA
Max. AC power from utility grid	10000VA	12000VA	16000VA	20000VA	30000VA	40000VA
Rated output current	7.2A	8.7A	11.6A	14.5A	21.7A	29A
Max. AC current output to utility grid	8A	10A	13A	16A	24A	32A
Max. AC current from utility grid	15A	17A	24A	29A	44A	58A
Rated grid voltage	3 / N / PE, 230 / 400 Vac					
Grid voltage range	184 Vac-276 Vac					
Rated grid frequency	50 / 60 Hz					
Grid frequency range	45 Hz-55 Hz / 55 Hz-65 Hz					
Output power factor	1 default (+/-0.8 adjustable)					
Output THDi (@Nominal output)	< 3%					
AC Output Data (EPS)						
Rated output power	5000W	6000W	8000W	10000W	15000W	20000W
Max. output power	5500VA	6600VA	8800VA	11000VA	16500VA	22000VA
Peak output power, duration	10000VA, 60s	12000VA, 60s	16000VA, 60s	20000VA, 60s	22000VA, 60s	
Max. output current	8A	10A	13A	16A	24A	32A
Peak output current, duration	15A, 60s	18A, 60s	24A, 60s	30A, 60s	32A, 60s	
Rated output voltage	3 / N / PE, 230 / 400 Vac					
Rated output frequency	50 / 60 Hz					
THDv	< 3%					
Switch time	< 10 ms					
Efficiency						
Euro efficiency	97.5%			97.7%		
Max. efficiency	98.0%			98.2%		
Max. battery charge / discharge efficiency	97.6%			97.8%		
Protection						
DC switch	Yes					
PV reverse polarity protection	Yes					
Output overcurrent protection	Yes					
Output overvoltage protection	Yes					
Anti-islanding protection	Yes					
Residual current detection	Yes					
Insulation resistor detection	Yes					
SPD	PV: Type II standard, AC: Type III standard					
Battery reverse protection	Yes					
Features						
DC terminal	MC4					
Grid AC terminal	5P Connector					
Back-up AC terminal	5P Connector					
Display	LCD & Buletooth+APP					
Communication	RS485, CAN2.0, WiFi, Optional: Ethernet, 4G					
Parallel operation	Yes					
General Data						
Dimension (W*H*D)	571.4*515*264.1mm					
Weight	33kg			37kg		
Inverter topology	Transformerless					
Standby self consumption	< 15W					
Operating temperature range	-30°C ~ +60°C					
Relative humidity	0-100%					
Installation method	Wall					
Maximum number of parallel units	10					
Operating altitude	< 4000 m					
Cooling	Natural			Forced airflow		
Protection degree	IP65					
Standard						
EMC	EN 61000-6-1, EN61000-6-3					
Safety standards	IEC 62109-1, IEC 62109-2, IEC 62040-1					
Grid standards	VDE V 0124-100, V0126-1-1, VDE-AR-N 4105, CEI 0-16 / CEI 0-21, EN 50549, C98 / C99, UTE C15-712-1					

* All specifications are subject to change without notice.