HYD

5K~20KTL-3PH

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

THREE-PHASE
ENERGY STORAGE INTEGRATED INVERTER

- Various operational modes for optimal perfomance
- Up to 2 MPPTs, allowing a flexible configuration
- Maximum two battery inputs
- Off-grid output can be connected to unbalanced load, three-phase separate output is supported
- Multiple parallel systems, more flexible system solutions
- 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 (V)	180-800					
Battery voltage range for full load (V)	200-800	240-800	320-800	200-800	300-800	400-800
Nominal charging / discharging power (W)	5000	6000	8000	10000(5000/5000)	15000(7500/7500)	20000(10000/10000)
Max. charging / discharging current (A)	25			50 (25 / 25)		
Peak charging / discharging current, duration (A, s)	40, 60			70 (35 / 35), 60		
Charging strategy for battery	Self-adaption to BMS					
Communication interfaces	CAN (RS485)					
PV String Input Data						
Recommended max. PV input power (Wp)	7500 (6000 / 6000)	9000 (6600 / 6600)	12000 (6600 / 6600)	15000 (7500 / 7500)	22500 (11250 / 11250)	30000 (15000 /15000)
Max. DC voltage (V)	1000					
Start-up operating voltage (V)	200					
MPPT voltage range (V)	180-960					
Nominal DC voltage (V)	600					
Full power MPPT voltage range (V)	250-850	320-850	360-850	220-850	350-850	450-850
Max. input current (A)	12.5 / 12.5			25 / 25		
Max. short current (A)	15 / 15			30 / 30		
No. of MPP trackers	2					
No. of strings per MPP tracker	1			2		
AC Output Data (On-grid)						
Rated AC power (W)	5000	6000	8000	10000	15000	20000
Rated apparent power (VA)	5000	6000	8000	10000	15000	20000
Max. AC power output to utility grid (VA)	5500	6600	8800	11000	16500	22000
Max. AC power from utility grid (VA)	10000	12000	16000	20000	30000	40000
Rated output current (A)	7.2	8.7	11.6	14.5	21.7	29
Max. AC current output to utility grid (A)	8	10	13	16	24	32
Max. AC current from utility grid (A)	15	17	24	29	44	58
Nominal grid voltage	3 / N / PE, 230 / 400 Vac					
Grid voltage range	184 Vac~276 Vac					
Nominal 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 (Back-up)						
Nominal output power (W)	5000	6000	8000	10000	15000	20000
Max. output power (VA)	5500	6600	8800	11000	16500	22000
Peak output power, duration (VA, s)	10000, 60	12000, 60	16000, 60	20000, 60	22000, 60	
Rated output current (A)	7.2	8.7	11.6	14.5	21.7	29
Max. output current (A)	8	10	13	16	24	32
Peak output current, duration (A, s)	15, 60	18, 60	24, 60	30, 60	32, 60	
Nominal output voltage	3 / N / PE, 230 / 400 Vac					
Nominal output frequency	50 / 60 Hz					
Output THDv (@symmetrical load)	< 3%					
Switch time	< 10 ms					
Efficiency						
MPPT efficiency	99.9%					
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					
Surge protection level	PV: type II standard, AC: type II standard					
Battery reverse protection	Yes					
General Data						
Dimension(mm)	571.4*515*264.1					
Weight (kg)	33			37		
Inverter topology	Transformerless					
Standby self-consumption (W)	< 15					
Operating temperature range	-30℃~+60℃					
Relative humidity	0~100%					
Noise	< 45 dB					
Operating altitude	< 4000 m					
Cooling	Natural			Forced airflow		
Protection degree	IP65					
Feature						
DC terminal	MC4					
Grid AC terminal	5P Connector					
Back-up AC terminal	5P Connector					
Display	LCD					
Monitoring interfaces	RS485/Bluetooth/CAN2.0/ Ethernet, Optional: WiFi					
Parallel operation	Yes					
Certifications & Standards						
EMC	EN 61000-6-1, EN61000-6-3					
Safety	IEC 62109-1, IEC 62109-2, IEC 62040-1					
Grid	AS4777.2,CEC					

* All specifications are subject to change without notice.