



HYD 5K~20KTL-3PH

5000/6000/8000/10000/15000/20000

Three-Phase Energy storage integrated inverter



2 MPPT inputs, more flexible configuration



Maximum two battery inputs



Diversified work patterns and rapid gains



Full digital control, higher control accuracy



Multiple parallel systems, more flexible system solutions



Off-grid output can be connected to unbalanced load, three-phase separate output is supported

Datasheet

HYD 5KTL-3PH HYD 6KTL-3PH HYD 8KTL-3PH HYD 10KTL-3PH HYD 15KTL-3PH HYD 20KTL-3PH

Battery Input Data

Battery type	Li-Ion					
No. of battery input	1	1	1	2	2	2
Battery voltage range	180V-800V					
Battery voltage range for full load	200V-800V	240V-800V	320V-800V	200V-800V	300V-800V	400V-800V
Nominal charging/discharging power	5000W	6000W	8000W	10000W	15000W	20000W
Max. charging/discharging current	25A	25A	25A	50A(25A/25A)	50A(25A/25A)	50A(25A/25A)
Peak charging/discharging current, Duration	40A, 60s	40A, 60s	40A, 60s	70A(35A/35A), 60s	70A(35A/35A), 60s	70A(35A/35A), 60s
Charging strategy for battery	Self-adaption to BMS					
Communication interfaces	CAN(RS485)					

PV String Input Data

Recommended Max. PV input power	7500Wp(6000Wp/6000Wp)	9000Wp(6600Wp/6600Wp)	12000Wp(6600Wp/6600Wp)	15000Wp(7500Wp/7500Wp)	22500Wp(11250Wp/11250Wp)	30000Wp(15000Wp/15000Wp)
Max. DC voltage	1000V					
Start-up operating voltage	200V					
MPPT voltage range	180V-960V					
Nominal DC voltage	600V					
Full power MPPT voltage range	250V-850V	320V-850V	360V-850V	220V-850V	350V-850V	450V-850V
Max. input current	12.5A/12.5A	12.5A/12.5A	12.5A/12.5A	25A/25A	25A/25A	25A/25A
Max. short current	15A/15A	15A/15A	15A/15A	30A/30A	30A/30A	30A/30A
No. of MPP trackers	2					
No. of strings per MPP tracker	1	1	1	2	2	2

AC Output Data (On-grid)

Nominal 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
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
Nominal grid voltage	3/N/PE, 220/380Vac, 230/400Vac					
Grid voltage range	184Vac~276Vac					
Nominal grid frequency	50/60Hz					
Grid frequency range	45Hz~55Hz/55Hz~65Hz					
Output power factor	~1 (0.8 leading to 0.8 lagging)					
Output THDi (@Nominal output)	<3%					

AC Output Data (Back-up)

Nominal 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	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	32A, 60s
Nominal output voltage	3/N/PE, 220/380Vac, 230/400Vac					
Nominal output frequency	50/60Hz					
Output THDv (@Liner load)	<3%					
Switch time	<20ms					

Efficiency

MPPT efficiency	99.9%					
Euro efficiency	97.5%	97.5%	97.5%	97.7%	97.7%	97.7%
Max. efficiency	98.0%	98.0%	98.0%	98.2%	98.2%	98.2%
Max. battery charge/discharge efficiency	97.6%	97.6%	97.6%	97.8%	97.8%	97.8%

Protection

DC switch	Yes
PV reverse polarity protection	Yes
Output over current protection	Yes
Output over voltage protection	Yes
Anti-islanding protection	Yes
Residual current detection	Yes
Insulation resistor detection	Yes
Surge protection level	II
Battery reverse protection	Yes

General Data

Dimension	571.4*515*264.1mm					
Weight	33kg	33kg	33kg	37kg	37kg	37kg
Inverter topology	Transformerless					
Standby self-consumption	<15W					
Operating temperature range	-30°C~+60°C					
Relative humidity	0~100%					
Noise	<45dB					
Operating altitude	<4000m					
Cooling	Natural	Natural	Natural	Forced airflow	Forced airflow	Forced airflow
Protection degree	IP65					

Feature

DC terminal	MC4
Grid AC terminal	5P Connector
Back-up AC terminal	5P Connector
Display	LCD Display
Monitoring interfaces	Bluetooth / RS485 / WIFI / GPRS (optional)
Parallel operation	Yes
Standard warranty	Standard 5 years

Certifications & Standards

EMC	EN61000-6-1, EN61000-6-3					
Safety	IEC62109-1, IEC62109-2, NB-T32004/IEC62040-1					
Grid	AS/NZS 4777, VDE V 0124-100, V0126-1-1, VDE-AR-N 4105, CEI 0-16/CEI 0-21, EN50549, G98/G99, UTE C15-712-1					