

# HYD 5K~20KTL-3PH

5 / 6 / 8 / 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



| Datasheet                                     | HYD 5KTL-3PH  | HYD 6KTL-3PH | HYD 8KTL-3PH | HYD 10KTL-3PH      | HYD 15KTL-3PH     | HYD 20KTL-3PH       |
|---|---|--------------|--------------|--------------------|-------------------|---------------------|
| <b>Battery Input Data</b>                     |   |              |              |                    |                   |                     |
| 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)   |              |              |                    |                   |                     |
| <b>AC Output Data (On-grid)</b>               |   |              |              |                    |                   |                     |
| 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%  |              |              |                    |                   |                     |
| <b>AC Output Data (EPS)</b>                   |   |              |              |                    |                   |                     |
| 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   |              |              |                    |                   |                     |
| <b>Efficiency</b>                             |   |              |              |                    |                   |                     |
| Euro efficiency                               | 97.5%   |              |              | 97.7%              |                   |                     |
| Max. efficiency                               | 98.0%   |              |              | 98.2%              |                   |                     |
| Max. battery charge / discharge efficiency    | 97.6%   |              |              | 97.8%              |                   |                     |
| <b>Protection</b>                             |   |              |              |                    |                   |                     |
| 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   |              |              |                    |                   |                     |
| <b>Features</b>                               |   |              |              |                    |                   |                     |
| DC terminal                                   | MC4   |              |              |                    |                   |                     |
| Grid AC terminal                              | 5P Connector  |              |              |                    |                   |                     |
| Back-up AC terminal                           | 5P Connector  |              |              |                    |                   |                     |
| Display                                       | LCD & Bluetooth+APP   |              |              |                    |                   |                     |
| Communication                                 | RS485, CAN2.0, WiFi, Optional: Ethernet, 4G   |              |              |                    |                   |                     |
| Parallel operation                            | Yes   |              |              |                    |                   |                     |
| <b>General Data</b>                           |   |              |              |                    |                   |                     |
| 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  |              |              |                    |                   |                     |
| <b>Standard</b>                               |   |              |              |                    |                   |                     |
| 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.