

# VPS01 Series

## Hybrid Microgrid Inverter



### Product Highlights



#### Load Adaptability and Operating Modes

- 100% three-phase unbalanced load capacity for stable operation under complex conditions
- Intelligent load rate regulation for optimized diesel generator load distribution and enhanced fuel efficiency
- Multi-mode operation (VF/PQ/VSG/constant bus) with multi-unit parallel compatibility
- On/off-grid/emergency power support with high/low voltage ride-through and black start



#### Control and Protection Capacity

- Customizable control strategies for scenario-specific performance
- ARM+FPGA dual-core architecture for high-speed, precision control with superior dynamic response
- Multi-layer current protection: drive protection against hardware overcurrent, CBC, overload, and overcurrent for various industrial needs
- Grid-tied charging/discharging and off-grid standalone inverter functions available



#### Integrated and Scalable Design

- Seamless switching between PV-MPPT, isolation transformer integrated in a compact design for unified maintenance
- Flexible PV expansion support for adaptable system scalability



#### Intelligent O&M Management

- Remote monitoring and OTA upgrades for reduced on-site maintenance and higher efficiency

| Model                     | VPS01-0200-GE0A                                                    | VPS01-0300-GE0A | VPS01-0500-GE0A                 | VPS01-0800-GE0A                     | VPS01-1000-GE0A                     |
|---------------------------|--------------------------------------------------------------------|-----------------|---------------------------------|-------------------------------------|-------------------------------------|
| AC (Grid-Connected)       |                                                                    |                 |                                 |                                     |                                     |
| Maximum output power (kW) | 220                                                                | 330             | 550                             | 880                                 | 1100                                |
| Rated power (kW)          | 200                                                                | 300             | 500                             | 800                                 | 1000                                |
| Rated voltage (V)         | 400                                                                | 400             | 400                             | 400                                 | 400                                 |
| Rated current (A)         | 289                                                                | 433             | 722                             | 1155                                | 1444                                |
| Voltage range (V)         | 340~460                                                            |                 |                                 |                                     |                                     |
| Rated frequency (Hz)      | 50/60                                                              |                 |                                 |                                     |                                     |
| Frequency range(Hz)       | 45~55/55~65                                                        |                 |                                 |                                     |                                     |
| THDI                      | < 3% (Linear balanced load)                                        |                 |                                 |                                     |                                     |
| Power Factor              | 1.0 ( 0.8 leading~0.8 lagging configurable)                        |                 |                                 |                                     |                                     |
| AC connection             | Three-phase four-wire + Ground (3W+N+PE)                           |                 |                                 |                                     |                                     |
| AC Power(off-grid)        |                                                                    |                 |                                 |                                     |                                     |
| Max. output power (kW)    | 220                                                                | 330             | 550                             | 880                                 | 1100                                |
| Rated power (kW)          | 200                                                                | 300             | 500                             | 800                                 | 1000                                |
| Rated voltage (V)         | 400                                                                | 400             | 400                             | 400                                 | 400                                 |
| Rated current (A)         | 289                                                                | 433             | 722                             | 1155                                | 1444                                |
| THDU                      | <3% (Linear balanced load)                                         |                 |                                 |                                     |                                     |
| Rated frequency (Hz)      | 50/60                                                              |                 |                                 |                                     |                                     |
| Overload capacity         | 110% for non-stop operation                                        |                 |                                 |                                     |                                     |
| PV Input                  |                                                                    |                 |                                 |                                     |                                     |
| Max. PV voltage (V)       | 900                                                                |                 |                                 |                                     |                                     |
| Max. PV power             | 120kW per MPPT                                                     | 120kW per MPPT  | 120kW per MPPT                  | 120kW per MPPT                      | 120kW per MPPT                      |
| PV input channel          | 1                                                                  | 1               | 1                               | 1                                   | 1                                   |
| MPPT qty                  | 2                                                                  | 3               | 5/6                             | 8/9/10                              | 10/11/12                            |
| Isc(A)                    | 240                                                                |                 |                                 |                                     |                                     |
| Max. discharge current(A) | 200                                                                |                 |                                 |                                     |                                     |
| MPPT voltage range (V)    | 250~850                                                            |                 |                                 |                                     |                                     |
| Battery                   |                                                                    |                 |                                 |                                     |                                     |
| Max. charge power (kW)    | 240                                                                | 360             | 600/720                         | 960/1080/1200                       | 1200/1320/1440                      |
| Battery voltage range (V) | 630~900                                                            |                 |                                 |                                     |                                     |
| System Configuration      |                                                                    |                 |                                 |                                     |                                     |
| Dimension[W/D/H](mm)      | 1350*900*2082                                                      | 1450*900*2082   | 643*728*2082+<br>2000*1100*2082 | (643*728*2082)*2+<br>2754*1303*2184 | (643*728+2082)*2+<br>3000*1303*2184 |
| Net(kg)                   | 1350                                                               | 1830            | 353+2656                        | 320*2+3900                          | 353*2+4500                          |
| Environment temperature   | -10℃~50℃; (Derate by 1% for every 1℃ rise when above 40℃, 50℃ max) |                 |                                 |                                     |                                     |
| Relative humidity         | 0% ~ 95%, no condensation                                          |                 |                                 |                                     |                                     |
| Protection level          | IP21                                                               |                 |                                 |                                     |                                     |
| Noise(dB)                 | <70                                                                |                 |                                 |                                     |                                     |
| Altitude(m)               | 4000 max (Derate by 1% for every 100m increase when above 1000m)   |                 |                                 |                                     |                                     |
| Standby power consumption | <0.5% of rated power                                               |                 |                                 |                                     |                                     |
| Cooling                   | Air cooling                                                        |                 |                                 |                                     |                                     |
| Display and Communication |                                                                    |                 |                                 |                                     |                                     |
| Display                   | LCD touch screen                                                   |                 |                                 |                                     |                                     |
| BMS communication         | RS485, CAN                                                         |                 |                                 |                                     |                                     |
| Local communication       | RS485, TCP/IP                                                      |                 |                                 |                                     |                                     |