

# BluePulse Series NEW

## KAC(20~50)DP2-BC208DLE

### Extreme Safety & Reliability

- ▶ Tier 1 battery cell brand ensure high quality
- ▶ 4+3 fire safety design avoids fire risks
- ▶ Integrated intelligence temperature control

### Versatile Adaptability

- ▶ 10ms-level\* on / off grid switching time with integrated STS
- ▶ Max. 20 PCS parallel for on-grid, 10 PCS for on / off-grid situation
- ▶ Flexible expansion up to 8.32 MWh

### Intelligent & User-friendly

- ▶ 3S (PCS, BMS, EMS) full-stack self-developed
- ▶ Integrated monitoring and O&M through KSTAR Sync
- ▶ VPP ready with KSTAR Sync Cloud



### Liquid-cooling Battery Cabinet Parameters

| Technical Parameters                    | BC208DLE                                                                  |
|-----------------------------------------|---------------------------------------------------------------------------|
| Battery Type                            | LiFe (LiFePO4)                                                            |
| Battery Module Capacity                 | 52.24 kWh                                                                 |
| Number of Modules                       | 4                                                                         |
| Total Battery Capacity                  | 208.99 kWh                                                                |
| Nominal Voltage                         | 665.5 V                                                                   |
| Operating Voltage Range                 | 592.8 ~ 748.8 V                                                           |
| Charge / Discharge Rate                 | 0.5 C                                                                     |
| Standard Charging / Discharging Current | 157 A / 157 A                                                             |
| DoD                                     | 95%                                                                       |
| General Parameters                      |                                                                           |
| Dimensions (W x H x D)                  | 1040 x 2234 x 1370 mm                                                     |
| Weight                                  | < 2.5 T                                                                   |
| Installation Site                       | Outdoor                                                                   |
| IP Protection                           | IP54                                                                      |
| Anti Corrosion Level                    | C4                                                                        |
| Operation Humidity                      | 5% ~ 95% (No Condensing)                                                  |
| Operation Temperature                   | -30°C ~ +50°C                                                             |
| Max. Operation Altitude                 | ≤ 3000 m (>2000m Derating)                                                |
| Communication Port                      | Ethernet; CAN                                                             |
| Communication Protocol                  | CAN; TCP                                                                  |
| Cooling Method                          | Liquid Cooling                                                            |
| Warranty                                | 5 Year Product Warranty, 10 Year Performance Warranty                     |
| Certificates                            | UN38.3; MSDS; IEC 62040; IEC 62477; IEC 62619; IEC 63056; IEC 61000-6-2/4 |

\* The 10ms on / off-grid switching time applies to single-PCS operation with a purely resistive load.

## Hybrid Inverter Parameters

| Product Specifications                     | KAC20DP2                                                     | KAC25DP2    | KAC29.9DP2  | KAC30DP2    | KAC40DP2    | KAC49.9DP2  | KAC50DP2    |
|--------------------------------------------|--------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| PV Side                                    |                                                              |             |             |             |             |             |             |
| MPPT Voltage Range                         | 250 ~ 950 Vdc (Max. 1000 Vdc)                                |             |             |             |             |             |             |
| MPPT Rated Voltage                         | 720 Vdc                                                      |             |             |             |             |             |             |
| MPPT Rated Voltage (Full Load)             | 300 ~ 800 V                                                  | 350 ~ 800 V | 400 ~ 800 V | 400 ~ 800 V | 500 ~ 800 V | 600 ~ 800 V | 620 ~ 800 V |
| Max. PV Power                              | 40 kWp                                                       | 50 kWp      | 60 kWp      | 60 kWp      | 80 kWp      | 100 kWp     | 100 kWp     |
| Number of MPPT / Strings per MPPT          | 4 / 2                                                        |             |             |             |             |             |             |
| Max. Current per MPPT                      | 45 A                                                         |             |             |             |             |             |             |
| Battery Side                               |                                                              |             |             |             |             |             |             |
| Battery Voltage Range                      | 150 ~ 900 Vdc                                                |             |             |             |             |             |             |
| Battery Rated Voltage Range                | 180 ~ 800 Vdc                                                |             |             |             |             |             |             |
| Max. DC Current                            | 40 Adc x 2                                                   | 50 Adc x 2  | 60 Adc x 2  | 60 Adc x 2  | 80 Adc x 2  | 80 Adc x 2  | 80 Adc x 2  |
| Max. DC Power                              | 22 kW                                                        | 27.5 kW     | 29.9 kW     | 33 kW       | 44 kW       | 49.9 kW     | 55 kW       |
| Number of DC Inputs                        | 2                                                            |             |             |             |             |             |             |
| AC Side (On Grid)                          |                                                              |             |             |             |             |             |             |
| Nominal AC Output Power                    | 20 kW                                                        | 25 kW       | 29.9 kW     | 30 kW       | 40 kW       | 49.9 kW     | 50 kW       |
| Max. AC Output Power                       | 22 kVA                                                       | 27.5 kVA    | 29.9 kVA    | 33 kVA      | 44 kVA      | 49.9 kVA    | 55 kVA      |
| Max. AC Input Power (Single-phase)         | 20 kW                                                        | 25 kW       | 25 kW       | 25 kW       | 27.5 kW     | 37.5 kW     | 37.5 kW     |
| Rate AC Output Current                     | 29 A                                                         | 36 A        | 43 A        | 43 A        | 58 A        | 72 A        | 72 A        |
| Max. AC Input Current                      | 64 A                                                         | 80 A        | 87 A        | 96 A        | 128 A       | 144 A       | 160 A       |
| AC Rated Voltage / Voltage Range           | 230 / 400 Vac; 220 / 380 Vac; 3L+PE+N; -15% ~ +10%           |             |             |             |             |             |             |
| Nominal Grid Frequency / Frequency Range   | 50 Hz / 60 Hz (±5 Hz)                                        |             |             |             |             |             |             |
| THDi                                       | < 3% (100% Load)                                             |             |             |             |             |             |             |
| Adjustable PF Range                        | 0.8 inductive(under-excited) to 0.8 capacitive(over-excited) |             |             |             |             |             |             |
| Backup Output                              |                                                              |             |             |             |             |             |             |
| Nominal AC Voltage                         | 230 / 400 V; 220 / 380 Vac; 3L+PE+N                          |             |             |             |             |             |             |
| THDv                                       | < 3% (Rated Power)                                           |             |             |             |             |             |             |
| Nominal Grid Frequency / Frequency Range   | 50 Hz / 60 Hz                                                |             |             |             |             |             |             |
| Nominal AC Output Power                    | 20 kW                                                        | 25 kW       | 29.9 kW     | 30 kW       | 40 kW       | 49.9 kW     | 50 kW       |
| Max. AC Output Power (Single-phase)        | 20 kW                                                        | 20 kW       | 20 kW       | 20 kW       | 25 kW       | 25 kW       | 25 kW       |
| Max. Output Current                        | 87 A                                                         | 87A         | 87 A        | 87 A        | 110 A       | 110 A       | 110 A       |
| Genset Input                               |                                                              |             |             |             |             |             |             |
| Max. Input Current                         | 87 A                                                         | 87 A        | 87 A        | 87 A        | 110 A       | 110 A       | 110 A       |
| Efficiency                                 |                                                              |             |             |             |             |             |             |
| Max. Efficiency                            | 97%                                                          | 97%         | 97%         | 97%         | 97.5%       | 97.5%       | 97.5%       |
| Protection                                 |                                                              |             |             |             |             |             |             |
| Reverse DC Connection Protection           | Yes                                                          |             |             |             |             |             |             |
| Anti-Islanding Protection                  | Yes                                                          |             |             |             |             |             |             |
| Over-Temperature Protection                | Yes                                                          |             |             |             |             |             |             |
| Grid Monitoring / Earthing Fault Detection | Yes                                                          |             |             |             |             |             |             |
| Insulation Monitoring                      | Yes                                                          |             |             |             |             |             |             |
| DC / AC Surge Protection                   | DC Type II; AC Type II                                       |             |             |             |             |             |             |
| AFCI                                       | Optional                                                     |             |             |             |             |             |             |
| General Parameters                         |                                                              |             |             |             |             |             |             |
| Dimensions (W x H x D)                     | 900 x 730 x 355 mm                                           |             |             |             |             |             |             |
| Weight                                     | 101 kg                                                       |             |             |             |             |             |             |
| Topology                                   | Transformerless                                              |             |             |             |             |             |             |
| IP Protection                              | IP66                                                         |             |             |             |             |             |             |
| Operation Temperature Range                | -30 ~ 60°C (> 45°C Derating)                                 |             |             |             |             |             |             |
| Operation Humidity Range                   | 0 ~ 100% (No Condensing)                                     |             |             |             |             |             |             |
| Cooling Method                             | Intelligent Air Cooling                                      |             |             |             |             |             |             |
| Max. Operation Altitude                    | 4000 m (> 3000 m Derating)                                   |             |             |             |             |             |             |
| Communication Port                         | RS-485 / CAN                                                 |             |             |             |             |             |             |