

# BluePulse Series NEW

KAC(20~50)DP2-BC80DE2A / BC100DE2A / BC120DE2A

## Versatile Application

- ▶ Ideal for factories, hotels, and farms with DC / AC-coupled solar-storage
- ▶ 10ms-level\* on / off grid switching time with integrated STS

## Safe & Reliable

- ▶ 314ah large capacity cell, higher energy density
- ▶ Carbon monoxide detection, Sound and light alarm, Exhaust fan, Explosion vent window, Inlet valve, Fire water injection port

## Smart Energy

- ▶ Supports self-consumption, peak shifting, time-of-use, and battery backup
- ▶ Integrated self-developed BMS / EMS for flexibility

## High Performance

- ▶ Max. 20 PCS parallel for on-grid, 10 PCS for on / off-grid situation
- ▶ Long-lasting battery cycle life

## Easy Operation

- ▶ Compact design saves space
- ▶ Cloud control with 24 / 7 monitoring



| Technical Parameters                    | BC80DE2A                                                                            | BC100DE2A   | BC120DE2A   |
|-----------------------------------------|-------------------------------------------------------------------------------------|-------------|-------------|
| Battery Type                            | LiFe (LiFePO4)                                                                      |             |             |
| Battery Module Capacity                 | 20.09 kWh                                                                           |             |             |
| Number of Modules                       | 4                                                                                   | 5           | 6           |
| Total Battery Capacity                  | 80.38 kWh                                                                           | 100.48 kWh  | 120.57 kWh  |
| Nominal Voltage                         | 256 V                                                                               | 320 V       | 384 V       |
| Operating Voltage Range                 | 228 ~ 288 V                                                                         | 285 ~ 360 V | 342 ~ 432 V |
| Max. Charging / Discharge Rate          | 0.5 C *                                                                             |             |             |
| Standard Charging / Discharging Current | 157 A / 157 A                                                                       |             |             |
| DoD                                     | 95%                                                                                 |             |             |
| General Parameters                      |                                                                                     |             |             |
| Dimensions (W x H x D)                  | 1060 x 2085 x 1380 mm                                                               |             |             |
| Weight                                  | < 1.36 T                                                                            | < 1.5 T     | < 1.64 T    |
| Installation Site                       | Outdoor                                                                             |             |             |
| IP Protection                           | IP54                                                                                |             |             |
| Anti Corrosion Level                    | C4                                                                                  |             |             |
| Operation Humidity                      | 0 ~ 95% (No Condensing)                                                             |             |             |
| Operation Temperature                   | -30°C ~ +50°C                                                                       |             |             |
| Max. Operation Altitude                 | ≤ 3000 ( > 2000m Derating)                                                          |             |             |
| Communication Port                      | Ethernet; CAN; RS-485                                                               |             |             |
| Communication Protocol                  | CAN; MODBUS TCP / IP                                                                |             |             |
| Cooling Method                          | Air Conditioner                                                                     |             |             |
| Warranty                                | 5 Year Product Waarranty; 10 Year Performance Warranty                              |             |             |
| Certificates                            | UL 9540A; 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.

\*\* Max charge / discharge rate is limited to the inverter, in case of use 2 batteries and one inverter, max power remain the same.

**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 | 600 ~ 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                                                         | 87 A        | 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%                                                          |             |             |             | 97.5%       |             |             |
| 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                              | IP65                                                         |             |             |             |             |             |             |
| 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                                                 |             |             |             |             |             |             |