

BluePulse Series **NEW**

KAC20DP2 / KAC25DP2 / KAC29.9DP2 / KAC30DP2 / KAC40DP2 / KAC49.9DP2 / KAC50DP2
BC80DE2A / BC100DE2A / BC120DE2A

Versatile Applications

- Supports both DC- and AC-coupled solar + storage solutions
- Integrated STS with seamless on/off-grid switching (≤ 10 ms)
- Scalable system: up to 20 PCS units in on-grid mode, and 6 PCS in off-grid mode

Safe & Reliable

- 314Ah high-capacity cells for enhanced energy density
- Comprehensive safety design: CO detection, audible & visual alarms, exhaust fan, explosion vent, air inlet valve, and firefighting water inlet
- Protective coverings ensure full electrical isolation and operational safety

Intelligent & User-Friendly

- Integrated monitoring and O&M via KSTAR Sync
- Fully integrated self-developed BMS, EMS, and PCS for maximum flexibility
- Compatible with third-party EMS and VPP platforms

High Performance

- Up to 200% DC/AC ratio for increased output and charging capability
- Supports direct diesel generator (DG) connection without external ATS
- Long battery lifespan exceeding 8,000 cycles



Technical Parameters	BC80DE2A	BC100DE2A	BC100DE2A-AU	BC120DE2A
Battery Type	LiFe (LiFePO4)			
Battery Module Capacity	20.09 kWh			
Number of Modules	4	5	5	6
Rated Capacity	80.38 kWh	100.48 kWh	100 kWh	120.57 kWh
Usable Capacity	78.77 kWh	98.47 kWh	98 kWh	118.16 kWh
Nominal Voltage	256 V	320 V	320 V	384 V
Operating Voltage Range	228 ~ 288 V	285 ~ 360 V	285 ~ 360 V	342 ~ 432 V
Charging / Discharge Rate	0.5 C			
Max. Charging Current	157 A			
Max. Discharging Current	157 A			
DoD	Default 90%, Max 98%			
General Parameters				
Dimensions (W x H x D)	1060 x 1380 x 2085 mm			
Weight	1165 kg	1300 kg	1300 kg	1435 kg
Installation Site	Outdoor			
IP Protection	IP54			
Over Voltage Category	OVC II			
Protective Class	Class I			
Pollution degree	PD3 (PD2 inside)			
Anti Corrosion Level	C4			
Operation Humidity	0 ~ 95% (No Condensing)			
Operation Temperature	-30°C ~ +50°C			
Max. Operation Altitude	≤ 3000			
Communication Port	Ethernet; CAN; RS485			
Communication Protocol	CAN; TCP			
Cooling Method	Intelligent Air Cooling			
Warranty	10 Years			
Certificates	UL 9540A; UN38.3; MSDS; IEC 62040; IEC 62477; IEC 62619; IEC 63056; IEC 61000-6-2/4			

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
Startup Voltage	180 V						
Number of MPPT / Strings per MPPT	4 / 2						
Max. Continuous Input Current per MPPT	45 A						
Max. Short-Circuit Current per MPPT	60 A						
Battery Side							
Battery Type	LFP (LiFePO4)						
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						

Hybrid Inverter Parameters

Product Specifications	KAC20DP2	KAC25DP2	KAC29.9DP2	KAC30DP2	KAC40DP2	KAC49.9DP2	KAC50DP2
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						
Environmental Category	Outdoor						
Overvoltage Category	DC II; AC III						
Protective Class	I						
Pollution Degree	PD2 (internal), PD3 (external)						
Active Anti-islanding Method	Power Variation						
DC / AC Surge Protection	DC Type II; AC Type III						
AFCI	Optional						
General Parameters							
Dimensions (W x H x D)	900 x 650 x 322 mm						
Weight	101 kg						
Topology	Non-isolated						
IP Protection	IP66						
Operation Temperature Range	-25 ~ 60°C (> 45°C Derating)						
Operation Humidity Range	0 ~ 100% (No Condensing)						
Cooling Method	Intelligent Air Cooling						
Max. Operation Altitude	3000 m (> 3000 m Derating)						
Communication Port	RS-485 / CAN						
Country of Manufacture	China						
Warranty	10 Years						
Certificate	EN IEC 61000-6/3; EN IEC 62920; IEC EN 62109-1/2; IEC EN 62477-1/62991; IEC 61683; EN50549-1/2/10; IEC 61727&62116; AS4777.2						