KSTAR
Powering the Future

BluePulse Series

NEW

KAC20DP2 / KAC25DP2 / KAC29.9DP2 / KAC30DP2 / KAC40DP2 / KAC49.9DP2 / KAC50DP2
BC70DE2 / BC89DE2 / BC107DE2



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

- 280ah 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	BC70DE2	BC89DE2	BC107DE2
Battery Type		LFP	
Battery Module Capacity		17.92 kWh	
Cell Type		280 Ah	
Number of Modules	4	5	6
Total Battery Capacity	71.68 kWh	89.6 kWh	107.52 kWh
Nominal Voltage	256 V	320 V	384 V
Operating Voltage Range	228 ~ 288 V	285 ~ 360 V	342 ~ 432 V
Max. Charge / Discharge Rate		0.5 C *	
DoD		95%	
General Parameters			
Dimensions (W x H x D)		1062 x 2083 x 1371 mm	
Weight	< 1.2 T	< 1.35 T	< 1.5 T
Installation Site		Outdoor	
IP Protection		IP54	
Anti Corrosion Level		C4	
Operation Humidity		5% ~ 95% (No Condensing)	
Operation Ttemperature		-30°C ~ +50°C	
Max. Operation Altitude		≤ 3000 m	
Communication Port		Ethernet; CAN; RS485	
Communication Protocol		CAN; MODBUS TCP / IP	
Cooling Method		Air Conditioner	
Certification		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 ~ 950 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	43.5 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℃ (> 45℃ 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						