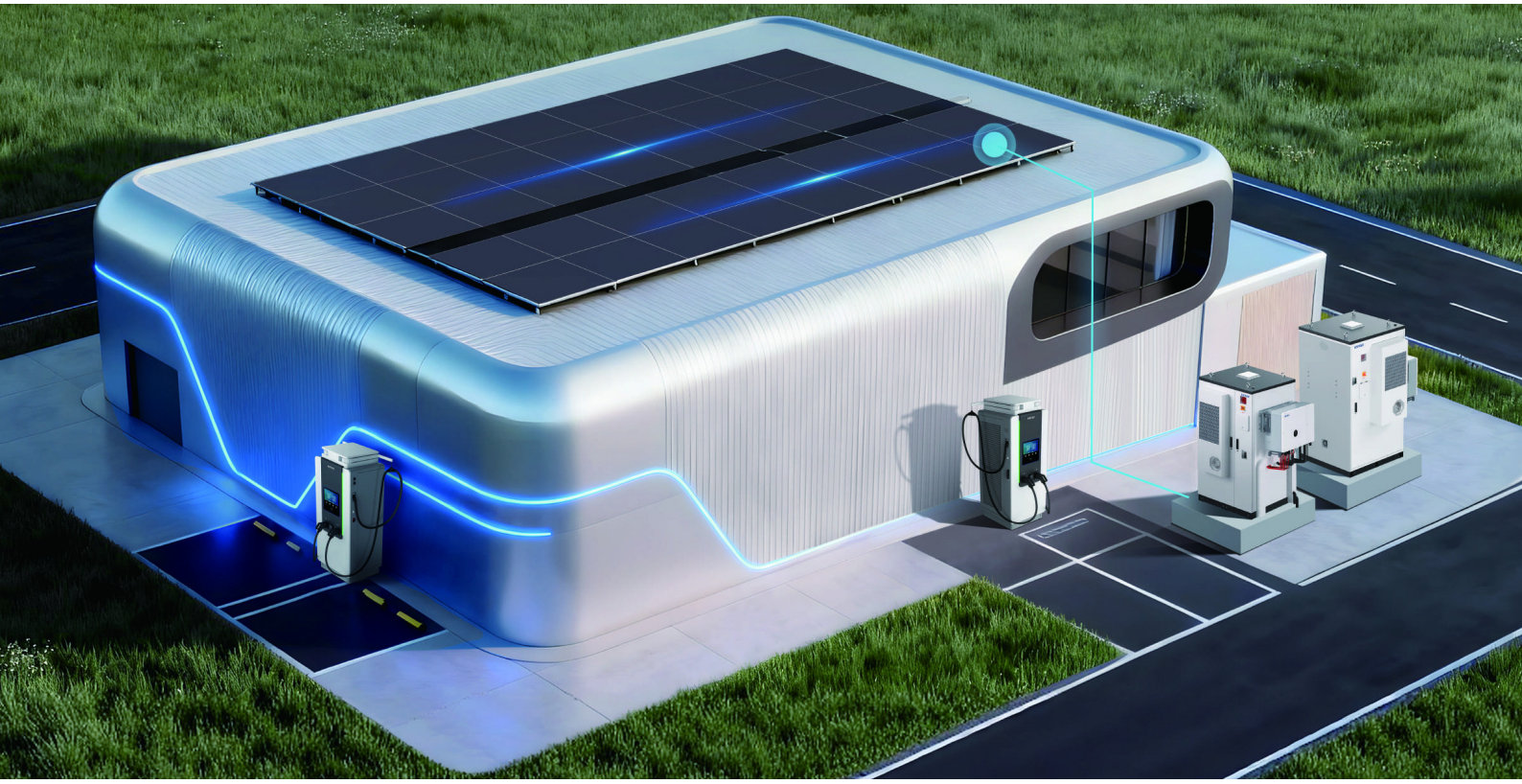
D-CORP INVEST PRESENTS

KSTAR

C&I ENERGY SOLUTIONS

Commercial & industrial portfolio
Middle East & Africa · 2026 edition



ENERGY STORAGE
BluePulse & BlueCore

SOLAR INVERTERS
30-125 kW ranges

EV CHARGING
GreenFlow & modules

GREEN KOMMERCIAL SOLUTION

A focused introduction. The complete product specifications, diagrams and manufacturer project references.

EXPLORE THE RANGE

Your KSTAR portfolio.

Each product section includes an overview and its full technical data.

01 **BluePulse / 20-50 kW, 280 Ah** 04
BC70DE2 / BC89DE2 / BC107DE2

02 **BluePulse / 20-50 kW, 314 Ah** 06
BC80DE2A / BC100DE2A / BC120DE2A

03 **BluePulse / 80-125 kW, 280 Ah** 08
BC197DE2 / BC215DE2 / BC233DE2

04 **BluePulse / 80-125 kW, 314 Ah** 10
BC220DE2A / BC240DE2A / BC260DE2A

05 **BluePulse / 20-50 kW, liquid cooling** 12
BC208DLE

06 **BluePulse / 80-125 kW, liquid cooling** 14
BC208DLE / BC260DLE

07 **BlueCore / Indoor storage** 16
BC-PACK-20.1-20S-157A / HV boxes

08 **BluePulse / 100-125 kW PCS** 18
KAC100DH / KAC125DH

09 **BlueKernel / 30-50 kW** 20
G30KT7 / G40KT7 / G50KT7

10 **KSG / 30-40 kW** 22
KSG-30KT-M1 / KSG-40KT-M1

11 **G Series / 50-80 kW** 24
G50KT / G60KT / G80KT

12 **BlueKernel / 125 kW** 26
G125KT7

13 **BlueKernel LV / 75 kW** 28
G75KTL

14 **GreenFlow / DC chargers** 30
CDA24D / CDA48D

15 **EV charging module / 40 kW** 32
CR1040

16 **Automatic switching cabinets** 34
STS100D / STS250D

17 **Second-level EMS** 36
EMS01D communication box

18 **Power Control Box** 38
SPC01

19 **Stick Logger** 40
LSW-5 / LSE-3 / LDW

20 **Smart Energy Meter** 42
YDS60-80

21 **Smart Meter** 44
SDM630MCT V2

KSTAR in brief 03 **Projects** 46-53 · **Support** 54 · **D-Corp** 55

THE MANUFACTURER IN BRIEF

Powering the future.

Founded in 1993, KSTAR develops power electronics and new-energy solutions, including PV inverters, energy storage and EV charging equipment for residential, commercial, industrial and utility applications.



REACH REPORTED IN THE 2026 MEA BROCHURE

180+
Countries & regions

68 GW
PV installation

30+
Years of history

SELECTED MILESTONES

1993 — **KSTAR established**
The company begins in the UPS field.

2010 — **Public listing**
Listed on the Shenzhen Stock Exchange.

2019 — **CATL partnership**
Joint-venture factory established with CATL.

This D-Corp Invest edition keeps the manufacturer product tables, drawings and technical footnotes from the supplied 2026 brochure. Specifications and model options remain those of that source edition.

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
- No external switching device is required, on/off-grid switching time about 10ms, support direct output backup load

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

- Small size, small footprint
- 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
Charge / Discharge Rate	Max. 0.5 C		
DoD	90%		
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 Temperature	-30°C ~ +50°C		
Max. Operation Altitude	≤ 3000 (>2000m Derating)		
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		

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 Input	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
Rated AC Output	29 A	36 A	43 A	43 A	58.0 A	72 A	72 A
Max. AC Continuous Input	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%	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 Mornitoring	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	-25 ~ 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						

BluePulse Series NEW

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



Versatile Application

- Ideal for factories, hotels, and farms with DC / AC-coupled solar-storage
- No external switching device is required, on/off-grid switching time about 10ms, support direct output backup load

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

- Small size, small footprint
- 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
Charging / Discharge Rate	0.5 C		
Standard Charging / Discharging Current	157 A / 157 A		
DoD	90%		
General Parameters			
Dimensions (W x H x D)	1062 x 2083 x 1371 mm		
Weight	< 1.36 T	< 1.5 T	< 1.64 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 (>2000m Derating)		
Communication Port	Ethernet; CAN; RS-485		
Communication Protocol	CAN; MODBUS TCP / IP		
Cooling Method	Air Conditioner		
Warranty	5 Year Product Warranty; 10 Year Performance Warranty		
Certification	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
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 Input	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
Rated AC Output	29 A	36 A	43 A	43 A	58.0 A	72 A	72 A
Max. AC Continuous Input	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%	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 Mornitoring	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	-25 ~ 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						

BluePulse Series NEW

KAC80DP2 / KAC100DP2 / KAC110DP2 / KAC125DP2
BC197DE2 / BC215DE2 / BC233DE2

Versatile Application

- Ideal for factories, hotels, and farms with DC / AC-coupled solar-storage
- No external switching device is required, on/off-grid switching time about 10ms, support direct output backup load

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

- Small size, small footprint
- Long-lasting battery cycle life

Easy Operation

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



Outdoor Battery Cabinet Parameters

Technical Parameters	BC197DE2	BC215DE2	BC233DE2
Battery Type	LFP		
Battery Module Capacity	17.92 kWh		
Cell Type	280 Ah		
Number of Modules	11	12	13
Total Battery Capacity	197.12 kWh	215.04 kWh	232.96 kWh
Nominal Voltage	704 V	768 V	832 V
Operating Voltage Range	627 ~ 792 V	684 ~ 864 V	741 ~ 936 V
Charge / Discharge Rate	0.5 C		
DoD	90%		
General Parameters			
Dimensions (W x H x D)	1324 x 2415 x 1440 mm		
Weight	< 2.4 T	< 2.55 T	< 2.7 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 (>2000m Derating)		
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		

Product Specifications	KAC80DP2	KAC100DP2	KAC110DP2	KAC125DP2
PV Side				
MPPT Voltage Range	250 ~ 950 V (Max. 1000 V)			
MPPT Rated Voltage	720 V			
MPPT Rated Voltage (Full Load)	450 ~ 800 V	550 ~ 800 V	600 ~ 800 V	700 ~ 800 V
Max. PV Power	160 kWp	200 kWp	220 kWp	250 kWp
Number of MPPT / Strings per MPPT	8 / 2			
Max. Current per MPPT	45 A			
Battery Side				
Battery Voltage Range	200 ~ 950 V			
Battery Rated Voltage Range	250 ~ 850 V			
Max. DC Current	160 A (80 A x 2)			
Max. DC Power	88 kW	110 kW	121 kW	125 kW
Number of DC Inputs	2			
AC Side (On Grid)				
Nominal AC Output Power	80 kW	100 kW	110 kW	125 kW
Max. AC Output Power	88 kVA	110 kVA	121 kVA	125 kVA
Rated AC Output Current	116 A	144 A	159 A	181 A
Max.AC Input Current	227 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	80 kW	100 kW	110 kW	125 kW
Max. AC Output Power (Single-phase)	50 kW			
Max. Output Current	227 A			
Genset Input				
Max. Input Current	227 A			
Efficiency				
Max. Efficiency	98%			
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)	1120 x 760 x 365 mm			
Weight	135 kg			
Topology	Transformerless			
IP Protection	IP66			
Operation Temperature Range	-25 ~ 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			

BluePulse Series NEW

KAC80DP2 / KAC100DP2 / KAC110DP2 / KAC125DP2
BC220DE2A / BC240DE2A / BC260DE2A

Versatile Application

- Ideal for factories, hotels, and farms with DC / AC-coupled solar-storage
- No external switching device is required, on/off-grid switching time about 10ms, support direct output backup load

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

- Small size, small footprint
- Long-lasting battery cycle life

Easy Operation

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



Technical Parameters	BC220DE2A	BC240DE2A	BC260DE2A
Battery Type	LiFe (LiFePO4)		
Battery Module Capacity	20.09 kWh		
Number of Modules	11	12	13
Total Battery Capacity	221.05 kWh	241.15 kWh	261.24 kWh
Nominal Voltage	704 V	768 V	832 V
Operating Voltage Range	627 ~ 792 V	684 ~ 864 V	741 ~ 936 V
Charging / Discharge Rate		0.5 C	
Standard Charging / Discharging Current	157 A / 157 A		
DoD	90%		
General Parameters			
Dimensions (W x H x D)	1324 x 2415 x 1440 mm		
Weight	< 2.45 T	< 2.60 T	< 2.71 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 (>2000m Derating)		
Communication Port	Ethernet ; CAN ; RS485		
Communication Protocol	CAN; MODBUS TCP / IP		
Cooling Method	Air Conditioner		
Warranty	5 Year Product Warranty; 10 Year Performance Warranty		
Certification	UN38.3; MSDS; IEC 62040; IEC 62477; IEC 62619; IEC 63056; IEC 61000-6-2/4		

Product Specifications	KAC80DP2	KAC100DP2	KAC110DP2	KAC125DP2
PV Side				
MPPT Voltage Range	250 ~ 950 V (Max. 1000 V)			
MPPT Rated Voltage	720 V			
MPPT Rated Voltage (Full Load)	450 ~ 800 V	550 ~ 800 V	600 ~ 800 V	700 ~ 800 V
Max. PV Power	160 kWp	200 kWp	220 kWp	250 kWp
Number of MPPT / Strings per MPPT	8 / 2			
Max. Current per MPPT	45 A			
Battery Side				
Battery Voltage Range	200 ~ 950 V			
Battery Rated Voltage Range	250 ~ 850 V			
Max. DC Current	160 A (80 A x 2)			
Max. DC Power	88 kW	110 kW	121 kW	125 kW
Number of DC Inputs	2			
AC Side (On Grid)				
Nominal AC Output Power	80 kW	100 kW	110 kW	125 kW
Max. AC Output Power	88 kVA	110 kVA	121 kVA	125 kVA
Rated AC Current	116 A	144 A	159 A	181 A
Max. AC Current	227 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	80 kW	100 kW	110 kW	125 kW
Max. AC Output Power (Single-phase)	50 kW			
Max. Output Current	220 A			
Genset Input				
Max. Input Current	220 A			
Efficiency				
Max. Efficiency	98%			
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)	1120 x 760 x 365 mm			
Weight	135 kg			
Topology	Transformerless			
IP Protection	IP66			
Operation Temperature Range	-25 ~ 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			

BluePulse Series NEW

KAC20DP2 / KAC25DP2 / KAC29.9DP2 / KAC30DP2 / KAC40DP2 / KAC49.9DP2 / KAC50DP2
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

- Multi-scenario adaptation & Flexible solution configuration
- Scalable up to 8.32 MWh
- Floor space reduced by 25%

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	90%
General Parameters	
Dimensions (W x H x D)	1040 x 1370 x 2234 mm
Weight	< 2.5 T
Installation Site	Outdoor
IP Protection	IP54
Anti Corrosion Level	C4
Operation Humidity	5% ~ 95% (No Condensing)
Operation Temperature	-20°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 Waarranty,10 Year Performance Warranty
Certification	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
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 Input	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
Rated AC Output	29 A	36 A	43 A	43 A	58.0 A	72 A	72 A
Max. AC Continuous Input	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%	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 Mornitoring	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	-25 ~ 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						

BluePulse Series NEW

KAC80DP2 / KAC100DP2 / KAC110DP2 / KAC125DP2
BC208DLE / BC260DLE



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

- Multi-scenario adaptation & Flexible solution configuration
- Scalable up to 10.4 MWh
- Floor space reduced by 25%

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	BC260DLE
Battery Type	LiFe (LiFePO4)	
Battery Module Capacity	52.24 kWh	
Number of Modules	4	5
Total Battery Capacity	208.99 kWh	261.24 kWh
Nominal Voltage	665.5 V	832 V
Operating Voltage Range	592.8 ~ 748.8 V	741 ~ 936 V
Charge / Discharge Rate	0.5 C	
Standard Charging / Discharging Current	157 A / 157 A	
DoD	90%	
General Parameters		
Dimensions (W x H x D)	1040 x 1370 x 2234 mm	
Weight	< 2.5 T	
Installation Site	Outdoor	
IP Protection	IP54	
Anti Corrosion Level	C4	
Operation Humidity	5% ~ 95% (No Condensing)	
Operation Temperature	-20°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 Waarranty,10 Year Performance Warranty	
Certification	UN38.3; MSDS; IEC 62040; IEC 62477; IEC 62619; IEC 63056; IEC 61000-6-2/4	

Product Specifications	KAC80DP2	KAC100DP2	KAC110DP2	KAC125DP2
PV Side				
MPPT Voltage Range	250 ~ 950 V (Max. 1000 V)			
MPPT Rated Voltage	720 V			
MPPT Rated Voltage (Full Load)	450 ~ 800 V	550 ~ 800 V	600 ~ 800 V	700 ~ 800 V
Max. PV Power	160 kWp	200 kWp	220 kWp	250 kWp
Number of MPPT / Strings per MPPT	8 / 2			
Max. Current per MPPT	45 A			
Battery Side				
Battery Voltage Range	200 ~ 950 V			
Battery Rated Voltage Range	250 ~ 850 V			
Max. DC Current	160 A (80 A x 2)			
Max. DC Power	88 kW	110 kW	121 kW	125 kW
Number of DC Inputs	2			
AC Side (On Grid)				
Nominal AC Output Power	80 kW	100 kW	110 kW	125 kW
Max. AC Output Power	88 kVA	110 kVA	121 kVA	125 kVA
Rated AC Current	116 A	144 A	159 A	181 A
Max. AC Current	227 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	80 kW	100 kW	110 kW	125 kW
Max. AC Output Power (Single-phase)	50 kW			
Max. Output Current	227 A			
Genset Input				
Max. Input Current	227 A			
Efficiency				
Max. Efficiency	98%			
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)	1120 x 760 x 365 mm			
Weight	135 kg			
Topology	Transformerless			
IP Protection	IP66			
Operation Temperature Range	-25 ~ 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			

BlueCore Series NEW

C&I Indoor Storage Battery

Safety Reliable

Easy Installation

High Efficiency

Expandable System

90% DOD

- Scalable to 261.17 kWh
- 90% Depth of Discharge
- Floor Mounting
- Easy installation
- Intelligent Fan cooling
- IP21 Protection Level
- High Voltage and High Efficiency
- Compatible with KAC50DP2, KAC125DP2



Battery Model	BC-PACK-20.1-20S-157A
Technical Parameters	
Battery type	LFP (LiFePO4)
Battery Cell Brand	EVE
Norminal Capacity	20.09 kWh
Norminal Voltage	64 V
Operating Voltage Range	57 ~ 72 V
Charging / Discharging Rate	0.5 C
Standard Charging / Discharging Current	157 A / 157 A
Depth of Discharge	90%
Module Connection	3 ~ 13 (Max. 13 Modules in Series)
Total Battery Capacity	60.27 ~ 261.17 kWh
Genenral Parameters	
Dimensions(WxHxD)	554 x 970 x 290 mm
Weight	< 180 kg
Installation Site	Indoor
IP Protection	IP21
Anti Corrosion Level	C2
Operation Humidity	0 ~ 95% (No Condensing)
Operation Temperature	Charging: 0 ~ 50℃; Discharging: -20 ~ 50℃
Max. Operation Altitude	≤ 3000 (>2000m Derating)
Communication Prot	Etherne / CAN / RS-485
Communication Protocol	CAN / TCP
Cooling Method	Intelligent Fan Cooling
Warranty	5 Year Product Warranty, 10 Year Performance Warranty

HV Box Model	BC-SG-360	BC-SG-936
Technical Parameters		
Dimensions(WxHxD)	554 x 970 x 290 mm	
Weight	80 kg	
Max. Charge / Discharge Current	157 A	
Current Measurement Range	-157 ~ 157 A	
Operation Humidity	0 ~ 95% (No Condensing)	
Operation Temperature	-25 ~ 55℃	
IP Protection	IP21	
Installation Site	Indoor	
Cooling Method	Natural cooling	
Display	LCD	
Communication Interfaces	CAN; RS-485; Ethernet	
Battery Module Connection	3 ~ 5	6 ~ 13
Rated Voltage Range	171 ~ 360 V	342 ~ 936 V

BluePulse Series

KAC100DH / KAC125DH - BC215DE2 / BC233DE2

Safe & Reliable

- CATL LFP Battery Cell
- Double Fire Suppression System Design

Economical & Efficient

- Save CapEx, Expanding as Required
- Efficient and Energy-saving HVAC Design

Simple & User-friendly

- Pre-installed in Factory for Easy Installation on site
- Integrated BMS / EMS, Suitable for Various Applications
- Effortless Operation, Cloud Control



Outdoor Battery Cabinet Parameters

Technical Parameters	BC215DE2	BC233DE2
Battery Type	LFP	
Battery Module Capacity	17.92 kWh	
Cell Type	280 Ah	
Number of Modules	12	13
Total Battery Capacity	215.04 kWh	232.96 kWh
Nominal Voltage	768 V	832 V
Operating Voltage Range	684 ~ 864 V	741 ~ 936 V
Charge / Discharge Rate	0.5 C	
DoD	90%	
General Parameters		
Dimensions (W x H x D)	1300 x 2380 x 1445 mm	
Weight	< 2.5 T	< 2.6 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 (>2000m Derating)	
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	

Product Specifications	KAC100DH	KAC125DH
Battery Side		
Max. Input Voltage	1500 V	
Min. Input Voltage	600 V	
DC Voltage at Nominal Operation	650 ~ 1400 V	
Max. DC Current	187 A	233.8 A
Max. DC Input Power	112 kW	140 kW
Number of DC Inputs	1	
AC Side (On Grid)		
Nominal AC Output Power	100 kW	125 kW
Max. AC Output Power	110 kW	137.5 kW
Max. AC Current	159 A	199 A
Nominal AC Voltage	400 Vac, 3P + PE (N)	
AC Voltage Range	400 Vac, (-15% + 10%)	
Nominal Grid Frequency / Frequency Range	50 Hz / 60 Hz (±5 Hz)	
THDi	≤ 3% (Rated Power)	
Adjustable PF Range	> 0.99	
AC Side (Off Grid) [1)]		
Nominal AC Voltage	400 Vac, 3P + PE (N)	
THDv	< 1.5% (Resistive Load)	
Nominal Grid Frequency / Frequency Range	50 Hz / 60 Hz (±5 Hz)	
Nominal AC Output Power	100 kW	125 kW
Max. AC Output Power	110 kVA	137.5 kVA
Efficiency		
Max. Efficiency	> 98%	
Protection		
Reverse Connection Protection	Yes	
DC Switch	Yes	
Over-Temperature Protection	Yes	
Insulation Monitoring	Yes	
DC / AC Surge Protection	Type II (DC side); Type II (AC side)	
General Parameters		
Dimensions (W x H x D)	650 x 952 x 310 mm	
Installation	Wall Mounted / Plug in	
Weight	93 kg	
Topology	Transformerless	
IP Protection	IP66	
Anti Corrosion Leve	C4	
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	
Certificates	EN 50549-1:2019; EN 50549-2:2019; IEC 61000-6-2/4; IEC 62477-1: 2012; NC RFG; C10/C11; GB/T 34120; GB/T 34133:2023	

1) For off-grid application, STS250D automatic switching cabinet is needed.

BlueKernel Series NEW

Three Phase / On-grid / 30–50 kW

- Max. PV Voltage up to 1100 V
  Type II DC / AC SPD
- Reactive Power Control
  WiFi Logger Standard / 4G Logger Optional
- DC / AC Ratio up to 1.5
  IP66 Protection
- High Efficiency up to 98.8%
  Smaller and Lighter



MODEL	G30KT7	G40KT7	G50KT7
Input (DC)			
Recommended Max. PV Array Input Power @STC	45 kW	60 kW	75 kW
Max. DC Voltage	1100 V		
Nominal Voltage	620 V		
Start Voltage	200 V		
MPPT Voltage Range	120 ~ 1000 V		
MPPT Voltage Range (Full load)	550 ~ 850 V		
Number of MPPT	3	4	4
Max. Number of String per MPPT	2 / 2 / 1	2 / 2 / 1 / 1	2 / 2 / 2 / 2
Max. Input Current per MPPT	40 A / 40 A / 20 A	40 A / 32 A / 20 A / 20 A	40 A / 40 A / 32 A / 32 A
Max. Short-circuit Current per MPPT	50 A / 50 A / 30 A	50 A / 40 A / 30 A / 30 A	50 A / 50 A / 40 A / 40 A
Output (AC)			
Nominal AC Output Power	30000 W	40000 W	50000 W
Max. AC Output apparent Power	33000 VA	44000 VA	55000 VA
Max. AC Output active Power	33000 W	44000 W	55000 W
Nominal Voltage	400 / 230 V, 380 / 220 V, 3P+N+PE		
AC Grid Frequency Range	50 Hz / 60 Hz		
Max. Output Current	50 A	66.7 A	75.8 A
Power Factor (Φ)	0.8 inductive(under-excited) to 0.8 capacitive(over-excited)		
THDi	< 3% (Nominal Power)		
Efficiency			
Max. Efficiency	98.8%		
Euro Efficiency	98%		
Protection devices			
DC Switch	Yes		
Output Over Current Protection	Yes		
Anti-islanding Protection	Yes		
DC Reverse Polarity Protection	Yes		
Insulation Detection	Yes		
DC / AC Surge Protection	DC: Type III; Type II optional; AC: Type III; Type II optional		
Residual Current Monitoring	Yes		
AFCI	Optional		
PID Recovery	Optional		
General Specifications			
Dimensions (W x H x D)	575 x 450 x 225 mm		
Weight	24.2 kg	27.7 kg	29.4 kg
Operating Temperature Range	–30℃ ~ +60℃		
Cooling Type	Fan cooling		
Max. Operating Altitude	5000 m (> 4000 m derating)		
Max. Operating Humidity	0 ~ 100%		
AC Output Terminal Type	OT		
IP Class	IP66		
Topology	Transformerless		
PV Input Terminal Type	MC4		
Display	LCD		
Certification & Standard	EN/IEC 62109-1/2; IEC/EN 61000-6-2; IEC/EN 61000-6-4; IEC 61683; IEC 60068; IEC 60529; IEC 62116; IEC 61727;		

* To be used with the SDM630MCT-V2 energy meter, users need to select and supply their own CT, with a specification of 1 A or 5 A.



KSG Series

Three Phase / On-grid / 30–40 kW

- Max. PV Voltage up to 1100 V
- Type II DC / AC SPD
- Compatible for Big Capacity PV Panel
- WiFi Logger Standard / 4G Logger Optional
- DC / AC Ratio up to 1.5
- IP66 Protection
- High Efficiency up to 98.7%
- Smaller and Lighter

MODEL	KSG-30KT-M1	KSG-40KT-M1
Input (DC)		
Max. DC Voltage	1100 V	
Nominal Voltage	650 V	
Start Voltage	250 V	
MPPT Voltage Range	200 ~ 1000 V	
Number of MPPT Tracker	3	
Strings per MPPT Tracker	2	
Max. input Current per MPPT	30 A	
Max. Short-circuit Current per MPPT	10 A	
Output (AC)		
Nominal AC Output Power	30000 W	40000 W
Max. AC Apparent Power	33000 VA	44000 VA
Nominal AC Voltage	230 / 400 V, 3P+N+PE	
AC Grid Frequency Range	50 / 60 Hz (±5 Hz)	
Max. Output Current	47.8 A	63.8 A
Power Factor (cosΦ)	0.8 inductive(under-excited) to 0.8 capacitive(over-excited)	
THDi	< 3% (Nominal Power)	
Efficiency		
Max. Efficiency	98.7%	98.7%
Euro Efficiency	98.4%	98.4%
Protection Devices		
DC Switch	Yes	
Output Over Current	Yes	
Anti-islanding Protection	Yes	
DC Reverse Polarity Protection	Yes	
String Fault Detection	Optional	
DC / AC Surge Protection	DC Type II; AC Type III; Type II Optional	
Insulation Detection	Yes	
AC Short Circuit Protection	Yes	
General Specifications		
Dimensions (W x H x D)	380 x 483 x 223 mm	380 x 483 x 227 mm
Weight	25.5 kg	32.5 kg
Operating Temperature Range	–25℃ ~ +60℃	
Cooling Type	Fan cooling	
Max. Operating Altitude	4000 m	
Max. Operating Humidity	0 ~ 100% (No condensation)	
AC Output Terminal Type	Connector	
IP Class	IP66	
Topology	Transformerless	
Communication	RS-485 / Wifi / Ethernet	
Display	LCD	
Certification & Standard	EN/IEC 62109-1/2; IEC/EN 61000-6-2; IEC/EN 61000-6-4; IEC 61683; IEC 60068; IEC 60529; IEC 62116; IEC 61727; EN 50549-1; VDE-AR-N-4105; VDE 0126-1-1; CEI-021; G 99; C10/11; NB/T 32004-2018;	

* To be used with the SDM630MCT-V2 energy meter, users need to select and supply their own CT, with a specification of 1 A or 5 A.

G Series

Three Phase / On-grid / 50–80 kW

- Max. PV Voltage up to 1100 V
- Type II DC / AC SPD
- Reactive Power Control
- WiFi Logger Standard / 4G Logger Optional
- DC / AC Ratio up to 1.5
- IP66 Protection
- High Efficiency up to 98.6%
- Smaller and Lighter



MODEL	G50KT	G60KT	G80KT
Input (DC)			
Max. DC Voltage		1100 V	
Nominal Voltage		650 V	
Start Voltage		250 V	
MPPT Voltage Range		200 ~ 1000 V	
Number of MPPT		4	
Strings per MPPT	2	2	3
Max. input Current per MPPT	32 A	32 A	45 A
Max. Short-circuit Current per MPPT	48 A	48 A	60 A
Output (AC)			
Nominal AC Output Power	50000 W	60000 W	80000 W
Max. AC Apparent Power	55000 VA	66000 VA	88000 VA
Nominal AC Voltage		230 / 400 V, 3P+N+PE	
AC Grid Frequency Range		50 Hz / 60 Hz (±5 Hz)	
Max. Output Current (@220V)	83.3 A	100 A	127.5 A
Power Factor (cosΦ)		0.8 inductive(under-excited) to 0.8 capacitive(over-excited)	
THDi		< 3% (Nominal Power)	
Efficiency			
Max. Efficiency	98.5%	98.5%	98.6%
Euro Efficiency	98.2%	98.2%	98.3%
Protection Devices			
DC Switch		Yes	
Output Over Current		Yes	
Anti-islanding Protection		Yes	
DC Reverse Polarity Protection		Yes	
String Fault Detection		Optional	
PID Recovery		Optional	
Night SVG		Optional	
DC / AC Surge Protection		Type II	
Residual Current Monitoring		Yes	
AC Short Circuit Protection		Yes	
General Specifications			
Dimensions (W x H x D)		548 x 540 x 289 mm	
Weight	48.7 kg	48.7 kg	52.2 kg
Operating Temperature Range		–25℃ ~ +60℃	
Cooling Type		Fan cooling	
Max. Operating Altitude		4000 m	
Max. Operating Humidity		0 ~ 100% (No condensation)	
AC Output Terminal Type		OT Terminal	
IP Class		IP66	
Topology		Transformerless	
Communication		RS-485 / Wifi / Ethernet	
Display		LCD	
Certification & Standard	EN/IEC 62109-1; EN/IEC 62109-2; IEC/EN 61000-6-1; IEC/EN 61000-6-3; IEC/EN 61000-6-2; IEC/EN 61000-6-4; IEC 61683; IEC 60068; IEC 60529; IEC 62116; IEC 61727; EN 50549-1; NC RfG; VDE-AR-N-4105; VDE 0126; CEI 0-21; NTS V2.1; UNE 217001; UNE 217002		

* To be used with the SDM630MCT-V2 energy meter, users need to select and supply their own CT, with a specification of 1 A or 5 A.



BlueKernel Series NEW

Three Phase / On-grid / 125 kW

- Max. PV Voltage up to 1100 V
- Type II DC / AC SPD
- Compatible for Big Capacity PV Panel
- WiFi Logger Standard / 4G Logger Optional
- DC / AC Ratio up to 1.5
- IP66 Protection
- High Efficiency up to 98.7%
- Smaller and Lighter

MODEL	G125KT7
Input (DC)	
Max. DC Voltage	1100 V
Max. Input Current per MPPT	45 A
Max. Short-circuit Current per MPPT	60 A
Start Voltage	300 V
MPPT Voltage Range	200 ~ 1000 V
Nominal Voltage	650 V
Number of MPPT	8
Strings per MPPT	2
Output (AC)	
Nominal AC Output Power	125 kW
Max. AC Apparent Power	125 kVA
Nominal AC Voltage	230 / 400 V, 3W +PE, 3W+N+PE
AC Grid Frequency Range	50 Hz / 60 Hz (±5 Hz)
Max. Output Current	181.2 A
Power Factor (cosΦ)	0.8 inductive(under-excited) to 0.8 capacitive(over-excited)
THDi	< 3% (Nominal Power)
Efficiency	
Max. Efficiency	98.7%
Euro Efficiency	98.5%
Protection Devices	
DC Switch	Yes
Anti-islanding Protection	Yes
Output Over Current Protection	Yes
DC Reverse Polarity Protection	Yes
String Fault Detection	Optional
DC / AC Surge Protection	DC Type II; AC Type II
AC Short Circuit Protection	Yes
AFCI Function	Optional
Night SVG Function	Optional
PID Recovery	Optional
Insulation Detection	Yes
Residual Current Monitoring	Yes
General Specifications	
Dimensions (W x H x D)	965 x 700 x 355 mm
Weight	85 kg
Operating Temperature Range	-30 ~ 60℃
Cooling Type	Fan Cooling
Max. Operating Altitude	5000 m (> 4000 m Derating)
Max. Operating Humidity	0 ~ 100%
IP Class	IP66
Noise (dB)	≤ 80 dB
Topology	Transformerless
Communication	RS-485 / PLC / WIFI / Ethernet
Display	LED , Bluetooth + APP
Certification & Standard	IEC 62109-1/-2; EN IEC 61000-6-1/2/3/4; EN IEC 61000-3-11/12; EN IEC 62920; IEC 61727; IEC 62116; IEC 61683; IEC 60068-2-1/2/14/30; EU RoHS Directive; EN 50549-1/2; EN 50549-10; CEI 0-16; NC RFG; C10/11; UNE 217001; UNE 217002; NTS V2.1; PEA/MEA

* To be used with the SDM630MCT-V2 energy meter, users need to select and supply their own CT, with a specification of 1 A or 5 A.

BlueKernel Series (LV)

Three Phase / On-grid / 75 kW

- Max. PV Voltage up to 800 V
  Type II DC / AC SPD
- PLC communication
  WiFi Logger Standard / 4G Logger Optional
- DC / AC Ratio up to 1.5
  IP66 Protection
- High Efficiency up to 98.7%
  Smaller and Lighter



MODEL	G75KTL
Input (DC)	
Max. DC Voltage	800 V
Max. Input Current per MPPT	45 A
Max. Short-circuit Current per MPPT	60 A
Start Voltage	300 V
MPPT Voltage Range	200 ~ 800 V
Nominal Voltage	370 V
Number of MPPT	9
Strings per MPPT	2
Output (AC)	
Nominal AC Output Power	75 kW
Max. AC Apparent Power	75 kVA
Nominal AC Voltage	127 V / 220 V, 3W+PE, 3W+N+PE
AC Grid Frequency Range	50 Hz / 60 Hz (±5 Hz)
Max. Output Current	196.9 A
Power Factor (cosΦ)	0.8 inductive(under-excited) to 0.8 capacitive(over-excited)
THDi	< 3% (Nominal Power)
Efficiency	
Max. Efficiency	98.7%
Euro Efficiency	98.3%
Protection Devices	
DC Switch	Yes
Anti-islanding Protection	Yes
Output Over Current Protection	Yes
DC Reverse Polarity Protection	Yes
String Fault Detection	Optional
DC / AC Surge Protection	DC Type II; AC Type II
AC Short Circuit Protection	Yes
AFCI Function	Optional
Night SVG Function	Optional
PID Recovery	Optional
Insulation Detection	Yes
Residual Current Monitoring	Yes
General Specifications	
Dimensions (W x H x D)	965 x 700 x 355 mm
Weight	85 kg
Operating Temperature Range	-30 ~ 60℃
Cooling Type	Fan Cooling
Max. Operation Altitude	5000 m (> 4000 m Derating)
Max. Operating Humidity	0 ~ 100%
IP Class	IP66
Noise (dB)	≤ 80 dB
Topology	Transformerless
Communication	RS-485 / PLC / WIFI / Ethernet
Display	LED, Bluetooth + APP
Certification & Standard	IEC 62109-1/-2; EN IEC 61000-6-1/2/3/4; EN IEC 61000-3-11/12; EN IEC 62920; IEC 61727; IEC 62116; IEC 61683; IEC 60068-2-1/2/14/30; EU RoHS Directive; PORTARIA No 140

* To be used with the SDM630MCT-V2 energy meter, users need to select and supply their own CT, with a specification of 1 A or 5 A.

GreenFlow DC Charger

Three Phase / Floor Mounted / 240 kW / 480 kW

Integrated PV-ESS-Charging Solution

Independent EMS platform developed by KSTAR could create an integrated system solution involving all KSTAR devices

Dynamic Load Management

Dynamic load management and balancing are supported since the overload can be effectively avoided via EMS platform

Dual-connector HPC

Dual-connector supports simultaneous charging with an ultra-high output power

3rd-party Charging Management System

Integrate with mainstream backend platform to provide various functions with easy operation



CATEGORY	CDA24D	CDA48D
General Info		
Dimensions (W x H x D)	850 × 2200 × 650 mm	850 × 2200 × 850 mm
Cable Length	5 M (7 M is optional)	
Input Performance		
Power Supply	L1+L2+L3+PE+N	
Rated Voltage	400 V AC ±10%	
Frequency	45 ~ 65 Hz	
Output Performance		
Output Voltage	150 ~ 1000 V DC	
Output Current	Rated 350 A (boost 500 A)	Air cooling: Rated 350 A (boost 500 A) Liquid cooling: Rated 500 A (boost 650 A)
Rated Power	120 kW / 160 kW / 180 kW / 240 kW	300 kW / 320 kW / 360 kW / 400 kW / 420 kW / 480 kW
Charging Module	30 kW / 40 kW	30 kW / 40 kW
Connector Type	CCS2+CCS2	
HMI		
LED Indicator	RGB LED	
LCD Display	15.6" display with 4 buttons	
Emergency Stop	Yes	
Communication		
Payment Method	RFID Card / QR Code / Payter POS Terminal	
PLC Communication	DIN70121 and ISO15118	
Ethernet	Yes	
Wi-Fi and 4G	Yes	
OCPP	OCPP 1.6 J	
Operation Platform	ROAD (expandable to other platforms)	
Electrical Parameters		
Efficiency	Max 96%	
THD	≤ 5% (100% load)	
Power Factor	≥ 0.99 (50% ~ 100% load)	
Ripple Factor	≤ ±1%	
Noise Emission	≤ 65 dB	
EMC Compliance	Class A	
Safety		
Energy Meter	Class B (±1% accuracy) with MID certified	
Protection Rating	IP54	
Impact Resistance	IK10	
Electrical Protection	Over voltage protection, under voltage protection, overload protection, short circuit protection, open circuit protection, leakage protection, grounding protection, over temperature protection, lightning protection	
Certification Standard	EN 300328 V 2.2.2:2019 ; EN 300330 V 2.1.1:2017 ; EN 301489-1 V 2.2.3:2019 ; EN 301489-3 V2.3.2:2023 ; EN 301489-17 V 3.3.1:2024 ; EN 301489-52 V 1.2.1:2021 ; EN 301908-1 V 15.2.1:2023 ; EN 301908-13 V 13.2.1:2022 ; EN 61851-23:2014 ; EN 61851-24:2014 ; EN IEC 61000-6-2:2019 ; EN IEC 61000-6-4:2019 ;EN IEC 61851-21-2:2021 ; EN IEC 61851-1:2019 ; EN IEC 62311:2020 ; EN 18031-1:2024 ; EN 18031-2:2024 ; EN 18031-3:2024	
Working Environment		
Installation	Floor mounted on plinth or base	
Working Temperature	-30°C ~ +75°C (full power output below 55°C; power derates above 55°C; system will shutdown above 75°C)	
Storage Temperature	-40°C ~ +80°C	
Humidity	5% ~ 95%	
Altitude	≤ 2000 m	



Charging Module

Three Phase / 40 kW

Refined Component

SiC-based components are used to improve the charging efficiency, reduce size and enhance thermal management

Ultra Wide Constant Power Range

Provide a constant power output from 150 Vdc to 1000 Vdc

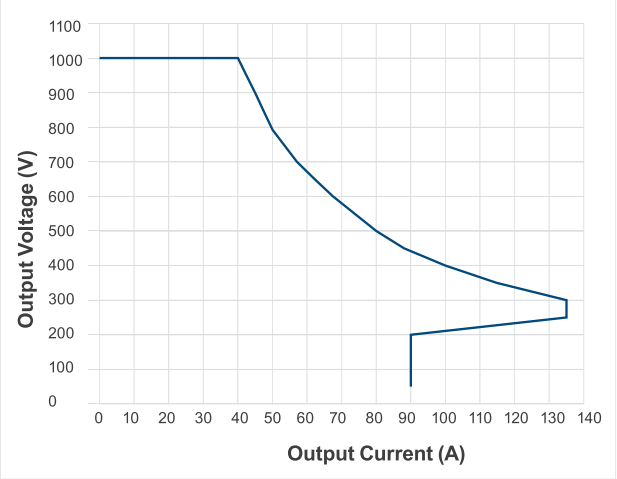
Hot Swapping Technology

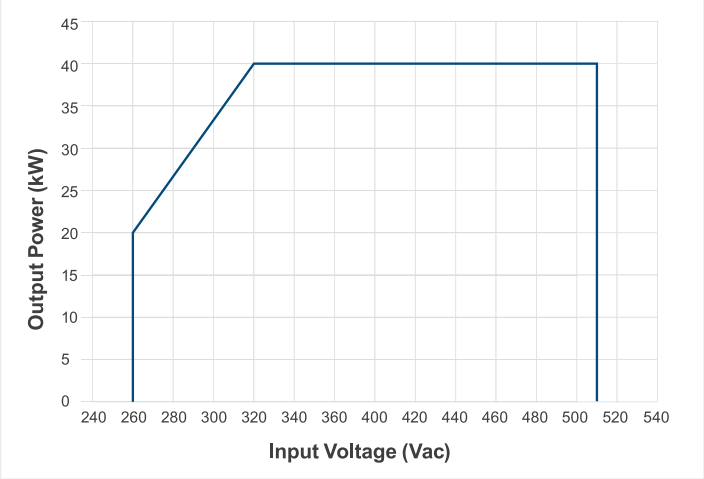
Connecting or disconnecting the charging module to the system while in standby will not cause any disturbance to the system

Digital Equalization Technology

Advanced digital equalization technology allows automatic current balancing between modules, with a current imbalance of less than ±5% of the rated current

CATEGORY	CR1040
Product Dimension	459 x 360 x 85 mm
Weight	20 kg
Power Supply	L1+L2+L3+PE+N
Rated Power	40 kW
Frequency	45 ~ 65 Hz
Input Voltage	260 ~ 525 Vac
Output Voltage	150 ~ 1000 Vdc
Current Range	0.5 ~ 133 A
Efficiency	Max 96.5%
THD	≤ 5% (100% load)
Power Factor	≥ 0.99 (50% ~ 100% load)
Ripple Factor	≤ ±1%
Noise Emission	≤ 65dB
EMC Compliance	Class B
Working Temperature	"-30°C~ +75°C (full power output below 55°C; power derates above 55°C; system will shutdown above 75°C)"
Standby Power	6 W

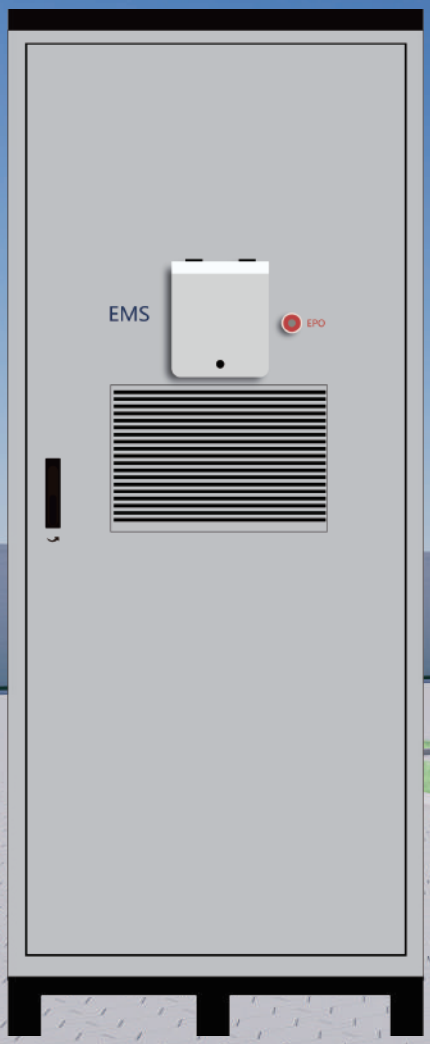




STS100D / STS250D
Automatic Switching Cabinet

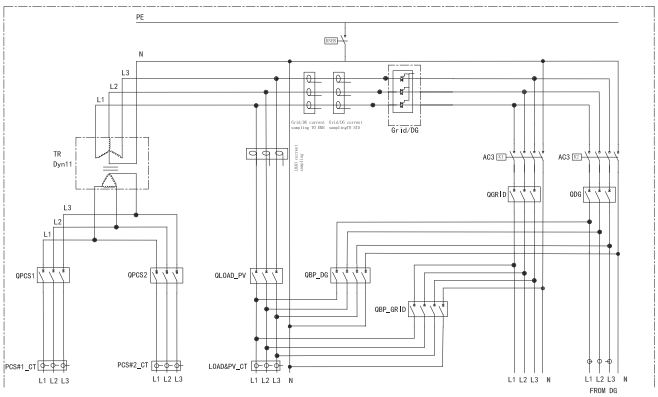
On-grid / Off-grid / 100–250 kVA

- On & Off-grid switching < 20 ms, support backup Load
- Integrated EMS, supports multiple operation modes
- Integrated Off-grid isolation transformer
- Supports multi-source access to Grid & PCS & DG power

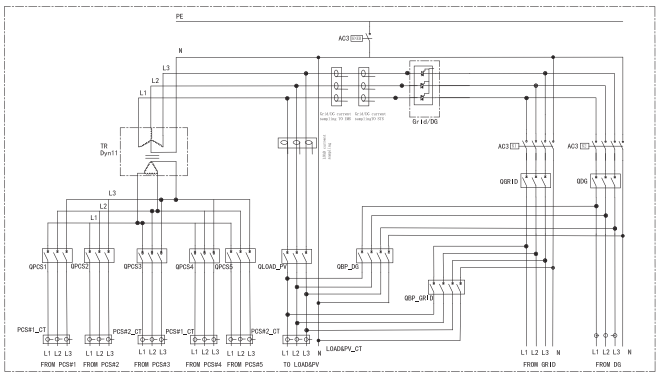


Block Diagram:

STS100D CABINET



STS250D CABINET



Parameter	STS100D	STS250D
Rated Voltage	400 V	400 V
Rated Current	217 A	536 A
PCS Rated Current	144 A	360 A
Rated Frequency	50 / 60 Hz	50 / 60 Hz
PCS Rated Power	100 kVA	250 kVA
Max. Grid Input Power	150 kVA	370 kVA
Switch Time Between On / Off-grid	≤ 20 ms	≤ 20 ms
PCS Input Breaker	125 A x 2	125A x 5 / 250A x 2*
Max. Grid Input Breaker	250 A	630 A
DG Input Breaker	250 A	630 A
Load Breaker	250 A	630 A
Grid / DG Bypass Breaker	250 A	630 A x 2
Isolation Transformer	100 kVA	250 kVA
Lightning Protection	Type II	Type II
Protection Degree	IP54	IP54
Relative Humidity	0 ~ 100%	0 ~ 100%
Operating Temperature	-25°C ~ +45°C	-25°C ~ +45°C
Cooling Type	Air Cooling	Air Cooling
Dimensions (W x H x D)	900 x 2380 x 930 mm	1300 x 2380 x 930 mm
Weight	950 kg	1640 kg
Operating Altitude	≤ 3000 m	≤ 3000 m
Communication	RS-485 / 4G / Ethernet	RS-485 / 4G / Ethernet
Installation	Tower - type	Tower - type

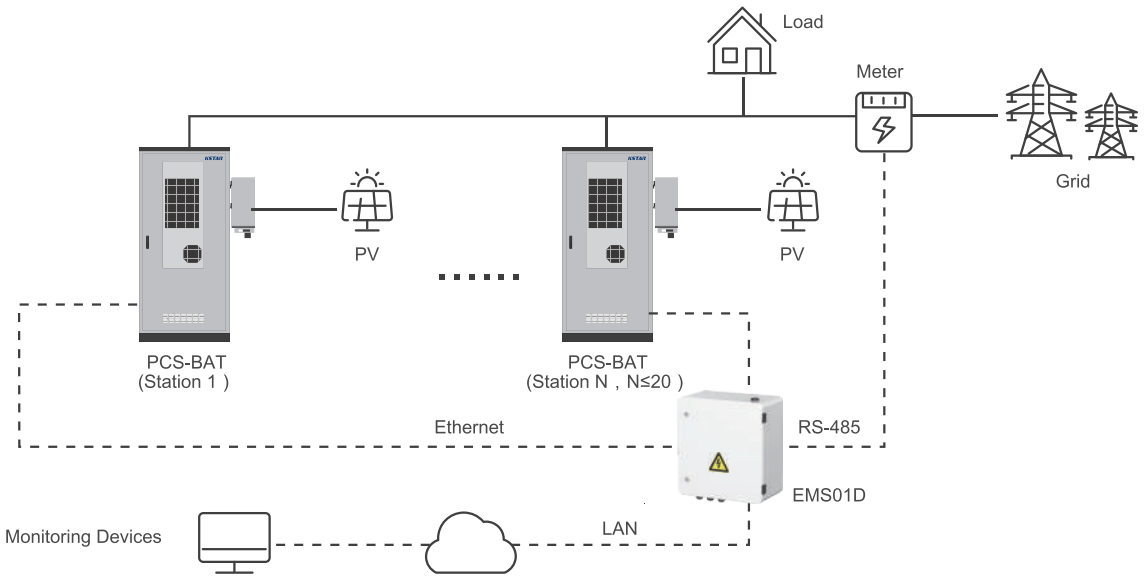
* One STS100D can be connected to a maximum of two KAC50DP.
** STS250D can connect a maximum of five KAC50DP, and the STS250D-B is designed to connect a maximum of two KAC125DH units (following the same schematic as the STS100D).



EMS01D
Second-level EMS Communication Box

- Dual power source, 220 VAC and 24 VDC for higher reliability
- Support remote monitoring via Ethernet / WiFi / 4G, and local monitoring via web page
- IP65 outdoor design
- Up to 20 portals available for southbound communication interfaces
- Various accessible interfaces including DI / DO, USB, SD, RS-485

MODEL	EMS01D
Southbound Communication	
Southbound EMS Communication Method	Ethernet (Electrical)
Max. Number of Southbound EMS	20
Max. Distance of Southbound Communication	100 m
Ethernet Port Parameter	10 / 100 Mbps Adaptive
Northbound Communication	
Northbound Communication Method (Default)	Ethernet (Electrical / Optical Fiber)
Northbound Communication Method (Optional)	WLAN / 4G
Local Display	Embedded Web
Indicator Lights	Power, Running, Fault + Ethernet Status Indicators
Port Parameter	
Number of RS-485 Interfaces	7
USB Interface	1 with USB2.0
SD Interface	1
Digital Input Detection Interface	8
Digital Output Control Interface	4, NO + NC
Indicator Lights	Power, Running, Fault + Ethernet Status Indicators
Environmental Parameters	
Operating Temperature Range	-30℃ ~ +55℃
Storage Temperature Range	-40℃ ~ +70℃
Operating Relative Humidity	5% ~ 95% (No condensation)
Electrical Parameters	
Power Supply	DC / AC Redundant Power Supply
AC Power Supply Voltage Range	90 ~ 264 Vac
DC Power Supply Voltage Range	13 ~ 36 Vdc
Standby Power Consumption	< 40 W
Mechanical Parameters	
O&M Method	Front Panel Access
Dimensions (W x H x D)	560 x 600 x 300 mm
Weight	35 kg
IP Degree	IP65
Installation Method	Wall / Bracket / Floor Mounted
Certification & Standard	EN55032, EN IEC 61000-3-2, EN 61000-3-3, EN 55035, ETSI EN 301511, ETSI EN 301489, ETSI EN 300328, ETSI EN 300906, EN 62368-1, EN 50665, EN 62311





SPC01
Power Control Box

The SPC01 Power Control Box is designed to realize the function of power limitation or zero-export control in accordance with local grid codes and regulations. It is being used with KSTAR three-phase PV grid-tied inverters (3-125 kW) via RS-485 interface. The built-in smart meter collects the power of the grid-tied side of the PV power station in real time.

Powerful

Support number of inverters up to 80
Long distance of inverter communication up to 1000 m

Easy to install

Wall / rack-mounted
IP65 for outdoor installation

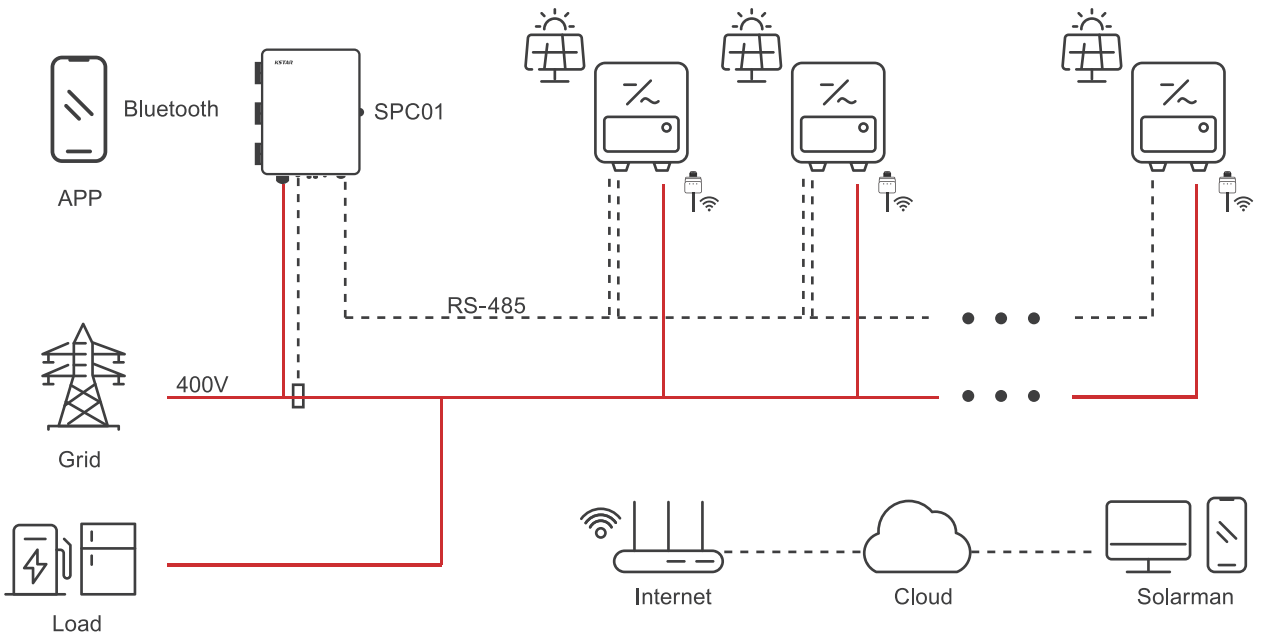
Flexible Connectivity

Support multiple communication modes
Upload operating data to cloud server in real time

Strong Adaptability

Zero-export response time < 2s
Support remote update

Technical Specifications	SPC01
Input	
Rated Input Voltage	230 Vac (L-N) / 400 Vac (L-L)
Input Voltage Range	173 ~ 480 Vac
Gird Connection Type	3W + N + PE
Rated Input Frequency	50 / 60 Hz
Input Frequency Range	45 ~ 65 Hz
Lightning Protection Grade	Grade C
Communication	
Inverter Communication Terminals	RS-485*5
Max. Number of Inverter	80 (Each terminal connects up to 16 inverters)
Max. Distance of Inverter Communication	1000 m
Communication	Ethernet / WiFi / 4G (Optional)
HMI	Bluetooth + Indicator Light
Function	
Communication Failure Shutdown	Yes
Remote Update	Yes
Zero Export	Yes
Zero-export Response Time	2s
Zero-export Control Accuracy	3%
Mechanical Parameter	
Dimensions (W x H x D)	420 × 320 × 132 mm
Weight	5.3 kg
Operation Temperature Range	-25 - +60℃
Cooling Type	Natural Convection
Max. Operation Altitude	3000 m
Operation Humidity	0 ~ 100% (No Condensation)
IP Class	IP65
Installation	Wall / Rack Mounted



Stick Logger

LSW-5 / LSE-3 / LDW

The stick logger enables long-term, effective monitoring of the solar and energy system by collecting the inverter's operating and power generation data. The cloud platform offers strong data support, while the collected data is sent to the monitoring platform via different interfaces, such as WiFi, Ethernet, 4G and more. Real-time and historical system data is displayed in clear, intuitive charts, allowing users to monitor the system anytime, anywhere.

- Remote Control
- Remote Upgrade
- Plug and Play
- 7/24 Monitoring



MODEL	LSW-5	LSE-3	LDW
Wireless Parameters			
Remote Way	WiFi	Ethernet	Ethernet / WiFi
Number of connect inverters	1	1	10
Data Transmission Interval	Default: 5 mins (1 ~ 15 mins Optional)		
External Interface	Plug	Plug	DIN-Rail (Wiring RS-485)
Hardware Parameters			
Working Voltage	DC 5 V ~ DC 12 V		
Working Power	1.5 W	1 W	2 W
Indicator Light	One connected to inverter One connected to router One heartbeat indicator light		
Data Storage	Default: 8M Byte Flash	Default: 2M Byte Flash	Default: 2M Byte Flash
Working Temperature	-30°C ~ +70°C		
Working Humidity	Relative humidity: 10% ~ 90%, No Condensation		
Storage Temperature	-45°C ~ +90°C		
Storage Humidity	< 40%		
IP Grade	IP65	IP65	IP20
Software AT+Instruction set Parameters			
Serial Communication Rate	Default: 9600 bps (1200 ~ 115200 bps Optional)		
Configuration	AT+Instruction Set Localweb Configuration Remote Server Bluetooth		
Firmware Upgrade	Local Web Upgrade Remote Update		
Working Mode	AP + STA		
Others	Real-time Control, Data Resuming		

* Please contact KSTAR to get recommendations on appropriate stick loggers as accessories tailored to various products.
** For LDW logger, we need to configure both "power module" (left) and "datalogger module" (right).

YDS60-80
Smart Energy Meter

YDS60-80 is a DIN rail energy meter for three phase measuring.
With integrated RS-485 interface, it allows real-time reading of all relevant data,
such as energy (total and partial), current, voltage, frequency, active and reactive power.



MODEL	YDS60-80
General	
Network System	3P3W / 3P4W
Nominal Voltage	3 × 230 / 400 Vac, 50 / 60 Hz
Current Measurement Range	Direct Connected: from 0A to 80 A, CT Connected: > 80 A
Voltage Measurement Range	Direct Connected: from 90 V to 500 V, PT Connected: from 500 V to 1000 V
Power Consumption	≤ 1.5 W
Mounting	On 35mm DIN rail
Measurement Category	Category III
Pollution Degree	2
Measurement Accuracy	
Current (Direct Connected)	0.5% from 8 A to 80 A, ±0.4 A from 0.4 A to 8 A
Current (CT Connected)	0.5% from 0.5 A to 5 A, ±0.025 A from 0.025 A to 0.5 A
Phase Voltage	Class 0.5
Line Voltage	Class 0.5
Frequency	±0.02 Hz from 45 Hz to 65 Hz
Power	Class 1
Power Factor	±0.02 from -1 to 1
Active Energy	Class 1
Reactive Energy	Class 2
Environmental Conditions	
Operating Temperature	-25℃ to 60℃
Storage Temperature	-40℃ to 85℃
Humidity	5% to 95% RH (non-condensing)
Altitude	≤ 2000 m
Voltage Input (Ph-N)	
Operating Voltage	3 × 230 / 400 Vac, 50 / 60 Hz
Power Dissipation Voltage Circuits	< 0.5 VA per phase
Measurement Range	AC 30 V to 265 V
Current Input	
Rated Current	3 x 1.5(6) A
Power Dissipation Current Circuits	< 0.2 VA per phase
Measurement Range	AC 0.05 A to 6 A
Communication	
Communication Protocol	Modbus
Communication Port	RS-485, half-duplex
Baud Rate	4800 bps / 9600 bps (default) / 19200 bps / 115200 bps
Stop Bit	1 (default) / 2
Check Bit	None (default) / Odd / Even

* YDS60-80 smart energy meter is being used along with BluePulse Series C&I ESS.
** It V2 has not included Current Transformers. For system larger than 50 kW, CT connection is required. Please select the CT that meets the following requirements:
1. The selected CT's primary rating should be larger than the maximum current passing through the system's AC busbar.
2. Maximum Current = system capacity / 230 / 3
*** Please consult KSTAR for more details.

SDM630MCT V2
Smart Meter

DIN Rail Energy Meter for Single and Three Phase Electrical Systems

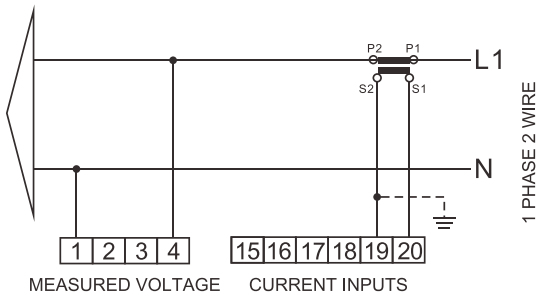
- Measures kWh kVArh, kW, kVAr, kVA, P, F, PF, Hz, dmd, V, A, THD, etc.
- Bi-directional measurement IMP & EXP
- Two pulse outputs
- RS-485 Modbus
- Din rail mounting 35 mm
- 1 A / 5 A CT connection
- Better than Class 1 / B accuracy



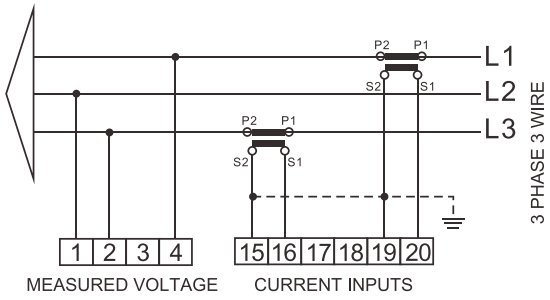
MODEL	SDM630MCT V2
Type of Measurement	**RMS including harmonics on three phase AC system (3P,3P+N)**
Power	1% of range maximum
Active Energy	IEC 62053-22 Class 0.5S; IEC 62053-21 Class 1.0
Reactive Energy	IEC 62053-23 Class 2
Frequency	0.2% of mid-frequency
Current	0.5% of range maximum
Voltage	0.5% of range maximum
Power Factor	1% of unity (0.01)
Input	
CT Secondary	1 A / 5 A
CT Primary	1 ~ 9999 A
Rated Voltage (Un)	380 / 400 Vac
Operational Voltage	173 to 480 Vac (L-L)
Communications	
Communication Protocol	Modbus RTU
Communication Address	1 ~ 247
Transmission Distance	1000 m Maximum
Transmission Speed	1200 bps ~ 38400 bps
Parity	None (default), Odd, Even
Stop Bits	1
Response Time	< 100 ms

* SDM630MCT V2 smart meter is recommended to be used along with C&I string inverters.
** SDM630MCT has not included Current Transformers. Users should choose the CT that meets the following requirements:
1. The selected CT's primary rating should be larger than the maximum current passing through the system's AC busbar.
2. Maximum Current = system capacity / 230 / 3*1.2.
*** Please consult KSTAR for more details.

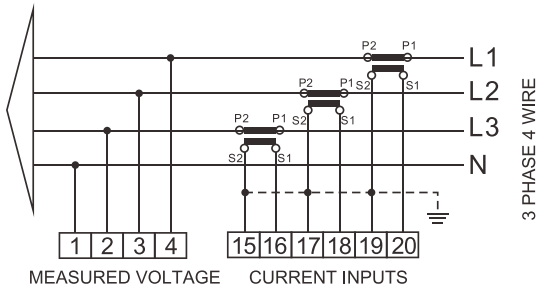
1P2W 1CT



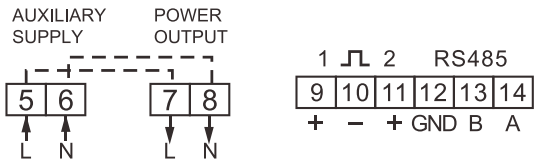
3P3W 2CT



3P4W 3CT



Other terminals





01 C&I ESS Project in the Netherlands



02 C&I ESS Project in Spain



04 C&I ESS Project in the Netherlands



03 C&I ESS Project in Bulgaria



05 C&I ESS Project in Czech Republic



06 EPS Factory's Green Revolution Turkey, 900kW KSG-120CL-M0




bilyaları


DİKKAT!
INVERTER
DİKKAT



07 C&I ESS Project in Hungary



08 C&I ESS Project in the Netherlands



09 Energy Cost Reduction for Mineral Water Factory
Turkey, 900kW KSG-120CL-M0







SUPPORT & CONTINUITY

Connected expertise.

KSTAR describes 24/7 technical support, remote energy monitoring and maintenance tools designed to support the operating life of its solar and storage systems.





MONITORING & SERVICE

- Remote monitoring and system data visualization
- Fault detection, maintenance and configuration tools
- Historical data analysis and grid interaction
- Worldwide service network and testing facilities

YOUR D-CORP INVEST CONTACT

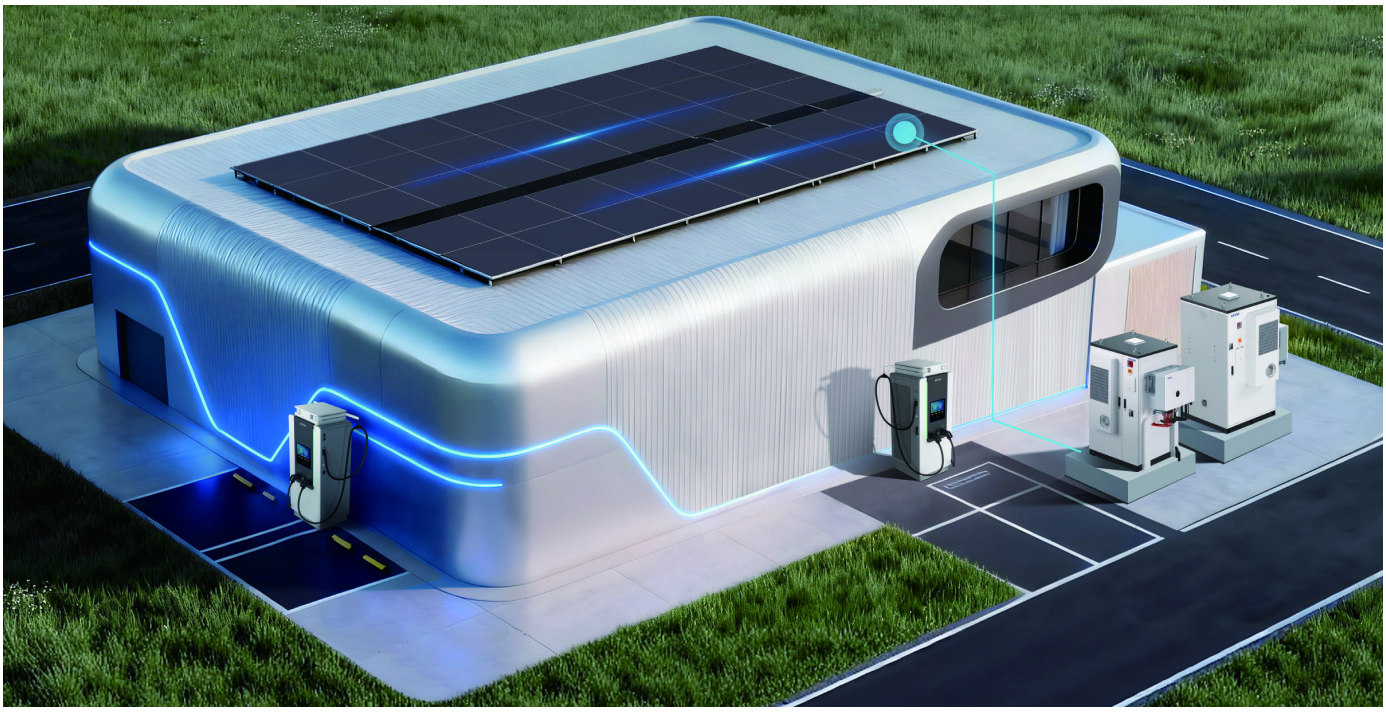
For a KSTAR project, visit our Nouakchott showroom or contact D-Corp Invest via WhatsApp: +222 34 34 76 76.

Manufacturer service descriptions are summarized from the supplied KSTAR brochure.

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