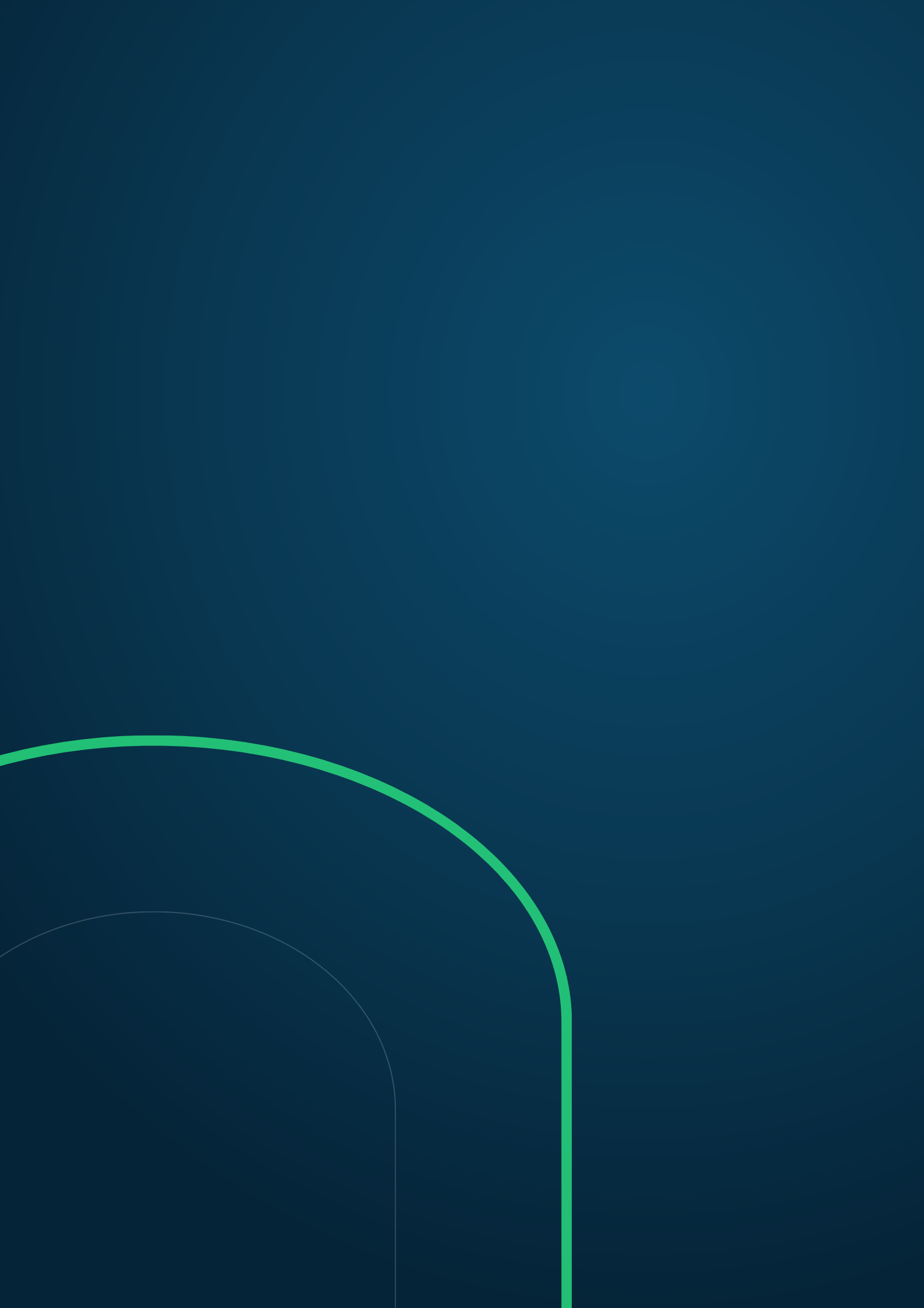




CATALOGUE 2026

Energy storage systems

Racks · Cabinets · Power Pro · Powerbolt · BK EMS



CONTENTS

The BK Energies range



Racks **LiqRack · AirRack**

DC blocks of up to 372.7 kWh at 1,500 Vdc, with liquid or air cooling.

LiqRack 1P416S

LiqRack 1P384S

AirRack 1P416S

AirRack 150Ah 1P360S

PAGE

05


Cabinets **DC cabinets**

Outdoor liquid-cooled LFP battery cabinets, to connect to the project PCS.

BK241 · 241 kWh

BK261 · 261 kWh

BK418 · 418 kWh

PAGE

09


Power Pro **All-in-one**

Battery, PCS, BMS, EMS, HVAC and fire suppression in a single 400 V outdoor cabinet.

BK112H · 112 kWh / 50 kW

BK241 · 241 kWh / 125 kW

BK261 · 261 kWh / 125 kW

BK289 · 289 kWh / 125 kW

BK522 · 522 kWh / 250 kW

PAGE

11


Powerbolt **Containers**

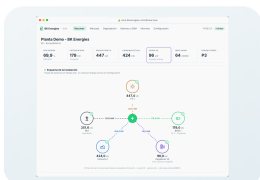
Multi-MWh DC block in a 20-ft container, ready for transport and connection to the PCS.

Powerbolt 3.34 MWh

Powerbolt 5.015 MWh

Powerbolt 6.25 MWh

PAGE

17


BK EMS **Software**

Monitoring, forecasting, arbitrage and plant control, with 24/7 operation.

EMS Core

EMS Pro

EMS Max

PAGE

19

Services

Consulting, engineering, EPC and O&M.

22

References

16 projects, 233 MWh.

23

ENERGY STORAGE SYSTEM INTEGRATORS

Storage with a brain of its own

We integrate LFP cells, power electronics, protection and our own EMS to deliver fully operational BESS, from 100 kWh to 200 MWh.

+20

years in the energy
sector

+50

professionals

+1,000

PV, BESS and
hybridisation projects

200 MWh

largest system
delivered

From cell to container, all integrated in-house



Cell

LFP 280–587 Ah



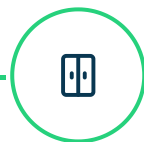
Pack

11.5–46.6 kWh



Rack

172.8–372.7 kWh



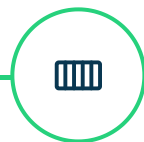
Cabinet

up to 418 kWh



Power Pro

all-in-one



Powerbolt

3.34–6.25 MWh



PV, BESS and industrial hybridisation: +1,000 projects by our team.

One single team

- ✓ Design and engineering in Asturias, Spain
- ✓ Factory integration and testing
- ✓ Commissioning in Spain, Europe and Latin America
- ✓ 24/7 operation with our own EMS

MEMBERS OF

UNEF · AEPIBAL · Ecopilas



01

Racks

1,500 V DC BLOCKS FOR TAILOR-MADE PROJECTS

Series-connected packs with rack BMS, protection and communications. The building block of the Powerbolt containers.



Liquid cooling

LiqRack*

High-voltage rack with liquid-cooled packs in parallel. +20 % service life compared with air cooling.

- ✓ Cell-to-cell $\Delta T \leq 2\text{ }^{\circ}\text{C}$
- ✓ IP67 pack
- ✓ Operation -40 to $60\text{ }^{\circ}\text{C}$
- ✓ Functional safety class B

	LiqRack 280Ah 1P416S	LiqRack 280Ah 1P384S
BATTERY		
Cell	LFP 280 Ah	LFP 280 Ah
Configuration	1P416S	1P384S
Pack	8 × LiqPack 1P52S	8 × LiqPack 1P48S
Rated energy	372.7 kWh	344 kWh
Rated voltage	1,331.2 V	1,228.8 V
Operating range	900–1,500 Vdc	900–1,500 Vdc
Charge / discharge rate	0.5C	0.5C
MECHANICAL		
Dimensions (W × D × H)	860 × 1,153 × 2,333 mm	860 × 1,068 × 2,333 mm
Weight	≈ 3,200 kg	≈ 3,000 kg
CERTIFICATIONS		
Standards	IEC 62619 · IEC 61000 · UL 1642 · UL 1973	GB/T 36276 · IEC 62619 · IEC 61000 · UL 1642 · UL 1973

* Indicative technical parameters, subject to final factory design and configuration. Please refer to the final datasheet for each project.



Air cooling

AirRack*

Air-cooled rack in parallel: a simpler, more cost-effective architecture, with high discharge capability in the 150 Ah version.

- ✓ Up to 1C discharge
- ✓ 900–1,500 Vdc
- ✓ Modular design
- ✓ Functional safety class B

	AirRack 280Ah 1P416S	AirRack 150Ah 1P360S
BATTERY		
Cell	LFP 280 Ah	LFP 150 Ah
Configuration	1P416S	1P360S
Pack	AirPack 1P16S	AirPack 1P24S
Rated energy	372.7 kWh	172.8 kWh
Rated voltage	1,331.2 V	1,152 V
Operating range	900–1,500 Vdc	900–1,500 Vdc
Charge / discharge rate	0.5C	1C
MECHANICAL		
Dimensions (W × D × H)	1,142 × 835 × 2,418 mm	960 × 788 × 2,341 mm
Weight	≈ 3,200 kg	≈ 1,700 kg
CERTIFICATIONS		
Standards	GB/T 36276	IEC 62619 · IEC 61000

* Indicative technical parameters, subject to final factory design and configuration. Please refer to the final datasheet for each project.

PRODUCTION

Designed in Asturias. Integrated and **factory tested**

Luoyang

Henan, China

Production centre

Lianyungang

Jiangsu, China

Production centre

Oviedo

ASIPO III, Llanera

Headquarters &
showroom

Madrid

Tarancón (Cuenca)

Sales office

40 GWh

annual production capacity of the
plants

90 s

to complete a 1P52S pack on the
automated line

100 %

of units tested (FAT) before
leaving the factory

From cell to system, in eight stages

01

Cell
inspection

02

Laser
welding

03

BMU and
BMS

04

Pack
assembly

05

Rack
integration

06

Testing and
quality

07

Final
assembly +
FAT

08

Packing and
shipping



Incoming inspection of LFP cells.



Finished packs line before integration.

Serial-number traceability for every pack, rack and system. Quality dossier supplied with each unit.



02

Cabinets

LIQUID-COOLED DC CABINETS

Outdoor LFP battery cabinets, ready to connect to the project's inverter.



DC cabinet · Liquid cooling

Cabinet BK*

DC battery cabinet without inverter: connects to the project PCS with no risk of circulating currents or short circuits between clusters.

241

kWh · BK241

261

kWh · BK261

418

kWh · BK418

314

Ah · LFP cell

✓ LFP 314 Ah cell

✓ IP55 outdoor

✓ Core $\Delta T < 2^{\circ}\text{C}$

✓ Passes UL 9540A at unit level

	BK241	BK261	BK418
BATTERY			
Rated energy	241 kWh	261.25 kWh	418.00 kWh
Configuration	1P240S	1P260S	1P416S
Rated voltage	768 Vdc	832.0 Vdc	1,331.2 Vdc
Voltage range	648–864 V	676–936 V	1,081.6–1,497.6 V
Rated current (0.5C)	157 A	157 A	157 A
Max. current (5 min)	193 A	193 A	193 A
Depth of discharge	100 %	100 %	100 %
MECHANICAL & ENVIRONMENT			
Dimensions (D × W × H)	On request	On request	1,300 × 1,300 × 2,373.5 mm
Weight	On request	On request	3,930 kg
Protection	IP55	IP55	IP55
Cooling	Liquid	Liquid	Liquid
Altitude	≤ 2,000 m	≤ 2,000 m (up to 4,500 m on request)	≤ 2,000 m (up to 4,500 m on request)

CERTIFICATIONS

IEC 62619

IEC 62933

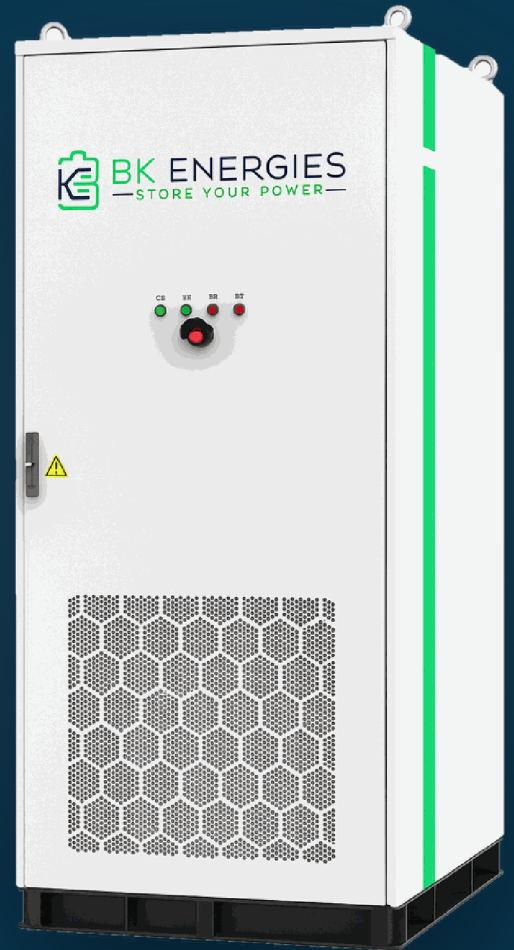
IEC 61000

UL 1973

UL 9540A

System auxiliary consumption ≤ 4,000 W with pump (220 Vac). Charge and discharge temperature for guaranteed service life: $25 \pm 5^{\circ}\text{C}$.

* Indicative technical parameters, subject to final factory design and configuration. Please refer to the final datasheet for each project.

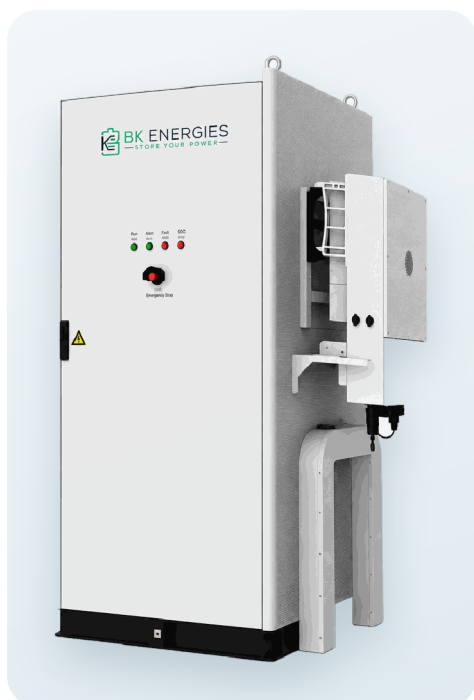


03

Power Pro

ALL-IN-ONE FOR INDUSTRY

Battery, bidirectional PCS, BMS, EMS, HVAC and fire suppression integrated and tested in a single outdoor cabinet.


Hybrid · Air cooling
POWER PRO

BK112H*

Compact all-in-one system with LFP battery and hybrid inverter: accepts PV directly and switches to island mode in under 20 ms.

112

kWh

50

kW AC

100

kW PV

<20

ms to island

PV INPUT

Max. PV input power	100 kW
Max. input voltage	1,000 V
MPPT range / rated voltage	180–850 V / 600 V
Start-up voltage	200 V
Number of MPPTs	2
Max. input / short-circuit current	6 × 45 A / 6 × 55 A

BATTERY

Cell	LFP 3.2 V · 314 Ah
Configuration	1P112S
Energy	112.53 kWh
Range / rated voltage	302.4–403.2 V / 358.4 V
Service life	8,000 cycles (0.5P, 25 ± 2 °C, 70 % SOH)

AC SIDE

Rated power	50 kW
Grid voltage	400 V (340–436 V) · 3P+N+PE
Frequency	50/60 Hz (45–55 / 55–65 Hz)
Max. output current	79.8 A
Switch to island	< 20 ms

SYSTEM

Dimensions	1,355 × 1,300 × 2,300 mm
Weight	1,500 kg
System efficiency	> 86 %
Ambient temperature	–20 ... 55 °C
Humidity	≤ 95 % RH non-condensing
Cooling	Air
Fire suppression	Aerosol
Communication	RS485 · Ethernet · CAN
Max. altitude	2,000 m

CERTIFICATIONS

IEC 62933

IEC 62477

IEC 62619

IEC 63056

IEC 61000

UN 38.3

* Indicative technical parameters, subject to final factory design and configuration. Please refer to the final datasheet for each project.


Liquid cooling
POWER PRO
BK241*

Compact 1 × 1.35 m footprint with 125 kW of power: around two hours of autonomy at rated power.

241

kWh

125

kW

137.5

kW max.

IP54

outdoor

BATTERY

Cell	LFP 3.2 V · 314 Ah
Configuration	1P240S
Energy	241 kWh
Voltage range	648–864 V
Service life	8,000 cycles (0.5P, 25 ± 2 °C, 70 % SOH)

SYSTEM

Dimensions	1,000 × 1,350 × 2,300 mm
Weight	2,450 kg
System efficiency	> 88 %
Max. PCS efficiency	98 %
Noise	< 75 dB
Protection	IP54 (IP67 pack)
Ambient temperature	–30 ... 55 °C
Humidity	≤ 95 % RH non-condensing
Cooling	Liquid
Fire suppression	Aerosol
Communication	RS485 · Ethernet
Max. altitude	2,000 m

AC SIDE

Rated power	125 kW
Max. AC power	137.5 kW
Rated voltage	400 Vac
AC voltage range	340–440 V (–15 % ... +10 %)
Rated current	182 A
Frequency	50/60 Hz ± 2.5 Hz
Power factor	–1 ... +1
THDi	≤ 3 %
Off-grid output (THDu)	< 3 % with linear load
Unbalanced load	100 %

CERTIFICATIONS
GB/T 34120
GB/T 36276
IEC 62477
IEC 62619
IEC 61000

* Indicative technical parameters, subject to final factory design and configuration. Please refer to the final datasheet for each project.


Liquid cooling
POWER PRO

BK261*

Same enclosure as the BK241 with more energy: 261 kWh and 125 kW with liquid cooling.

261

kWh

125

kW

137.5

kW max.

IP54

outdoor

BATTERY

Cell	LFP 3.2 V · 314 Ah
Configuration	1P260S
Energy	261 kWh
Range / rated voltage	702–936 V / 832 V
Service life	8,000 cycles (0.5P, 25 ± 2 °C, 70 % SOH)

SYSTEM

Dimensions	1,000 × 1,350 × 2,300 mm
Weight	2,670 kg
System efficiency	> 88 %
Max. PCS efficiency	98 %
Noise	< 75 dB
Protection	IP54 (IP67 pack)
Ambient temperature	–30 ... 55 °C
Humidity	≤ 95 % RH non-condensing
Cooling	Liquid
Fire suppression	Aerosol
Communication	RS485 · Ethernet
Max. altitude	2,000 m

AC SIDE

Rated power	125 kW
Max. AC power	137.5 kW
Rated voltage	400 Vac
AC voltage range	340–440 V (–15 % ... +10 %)
Rated current	182 A
Frequency	50/60 Hz ± 2.5 Hz
Power factor	–1 ... +1
THDi	≤ 3 %
Off-grid output (THDu)	< 3 % with linear load
Unbalanced load	100 %

CERTIFICATIONS

GB/T 34120
GB/T 36276
IEC 62477
IEC 62619
IEC 61000
UN 38.3

* Indicative technical parameters, subject to final factory design and configuration. Please refer to the final datasheet for each project.


Liquid cooling
POWER PRO
BK289*

The highest energy in the 125 kW format: 289 kWh at 921.6 V with liquid cooling.

289

kWh

125

kW

150

kW · 60 s

IP55

outdoor

BATTERY

Cell	LFP 3.2 V · 314 Ah
Energy	289 kWh
Range / rated voltage	720–1,000 V / 921.6 V
Service life	≥ 8,000 cycles (70 % capacity)
Charge / discharge rate	0.5P

SYSTEM

Dimensions	1,588 × 1,380 × 2,450 mm
Weight	3,050 kg
Max. efficiency	> 89 %
Noise	< 75 dB
Protection	IP55
Ambient temperature	–30 ... 55 °C (derating > 45 °C)
Humidity	0–95 % non-condensing
Cooling	Liquid
Fire suppression	Aerosol
Communication	RS485 · CAN · Modbus TCP

AC SIDE

Rated power	125 kW
Overload	1.2 P _n for 1 minute
Rated voltage	400 Vac
AC voltage range	300–460 V
Rated current	182 A
Frequency	50/60 Hz
Power factor	–1 ... +1
THDi	≤ 3 %
Off-grid output (THDu)	< 3 % with linear load
Unbalanced load	100 %

CERTIFICATIONS

IEC 62619

IEC 60730-1

IEC 63056

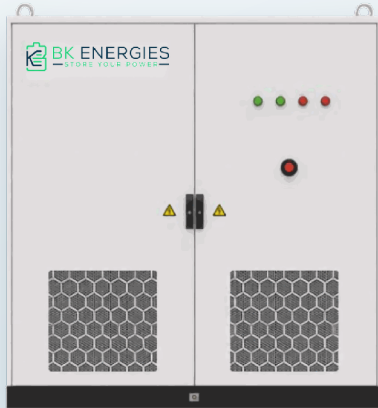
IEC 61000

IEC 60529

IEC 62040 / 62477

UN 38.3

* Indicative technical parameters, subject to final factory design and configuration. Please refer to the final datasheet for each project.



Liquid cooling

POWER PRO

BK522*

The most powerful Power Pro: 250 kW and 522 kWh in a single cabinet, equivalent to two 261 kWh units.

522

kWh

250

kW

360

A

IP55

outdoor

BATTERY

Cell	LFP 3.2 V · 314 Ah
Configuration	2P260S
Energy	522.5 kWh (25 °C, 0.5P)
Range / rated voltage	702–936 V / 832 V
Service life	8,000 cycles (0.5P, 25 ± 2 °C, 70 % SOH)

SYSTEM

Dimensions	1,900 × 1,350 × 2,300 mm
Weight	5,340 kg
System efficiency	≥ 88 %
Noise	< 75 dB
Protection	IP55
Ambient temperature	–30 ... 55 °C
Humidity	≤ 95 % RH non-condensing
Cooling	Liquid
Fire suppression	Aerosol
Communication	Ethernet · CAN · RS485
Max. altitude	2,000 m

AC SIDE

Rated power	250 kW
Overload	1.1× continuous · 1.2× for 1 min
Rated voltage	400 V (–15 % ... +15 %) · 3P+N+PE
Rated current	360 A
Frequency	50/60 Hz (45–55 / 55–65 Hz)
Power factor	–1 ... +1
THDi	≤ 3 %
Off-grid output (THDu)	< 3 % with linear load
Unbalanced load	100 %

CERTIFICATIONS

IEC 62933

IEC 62477

IEC 62619

IEC 63056

IEC 61000

UN 38.3

* Indicative technical parameters, subject to final factory design and configuration. Please refer to the final datasheet for each project.



04

Powerbolt

MULTI-MWH CONTAINERS

DC block in a 20-foot container with liquid-cooled racks, integrated BMS, HVAC and fire suppression.


20-ft container · Liquid cooling

Powerbolt*

Plug & play with minimal civil works, thermal-acoustic insulation, autonomous HVAC and centralised control.

3.34

MWh

5.015

MWh

6.25

MWh

1,500

Vdc

	Powerbolt 3.34 MWh	Powerbolt 5.015 MWh	Powerbolt 6.25 MWh
SYSTEM			
Rated energy	3,343.97 kWh	5.015 MWh @ 0.5C	6,251 kWh
Power (0.5P)	1,672 kW	2,500 kW (PCS: 6 × 417 kW or 2 × 1.25 MW)	<i>On request</i>
DC voltage	1,123.2–1,497.6 V	1,123.2–1,497.6 V	1,331.2 V rated
DC efficiency (RTE)	—	96 % @ 0.25P · 95 % @ 0.5P	<i>On request</i>
BATTERY			
Cell	LFP 3.2 V · 314 Ah	LFP 3.2 V · 314 Ah	LFP 587 Ah
Configuration	—	1P416S × 12	1P416S × 8
Max. discharge / charge current	—	157 A × 12 / 193 A × 12 (5 min)	<i>On request</i>
Service life	8,000 cycles (0.5P, 25 ± 2 °C, 70 % SOH)	8,000 cycles (0.5P, 25 ± 2 °C, 70 % SOH)	<i>On request</i>
ENVIRONMENT & CONTROL			
Operating temperature	–20 ... 50 °C	–20 ... 50 °C	<i>On request</i>
Protection	IP55	IP55 (IP67 pack)	IP54 (customisable)
Fire suppression	Aerosol	Aerosol	Three-tier: pack, cluster and container
Communication	CAN · Ethernet	CAN · Ethernet	<i>On request</i>
Functional safety	—	Class B	—
Corrosion protection	C4	C4	C5
MECHANICAL			
Dimensions (W × D × H)	6,058 × 2,438 × 2,896 mm	6,058 × 2,438 × 2,896 mm (20HC)	6,058 × 2,438 × 2,896 mm
Weight	≤ 35 t	≤ 46 t	≈ 50 t

3.34 MWH

GB/T 36276

UN 38.3

5.015 MWH

GB/T 36276

IEC 62619

IEC 63056

IEC 62477

IEC 61000

IEC 62933-5-2

UN 38.3

* Indicative technical parameters, subject to final factory design and configuration. Please refer to the final datasheet for each project.



05

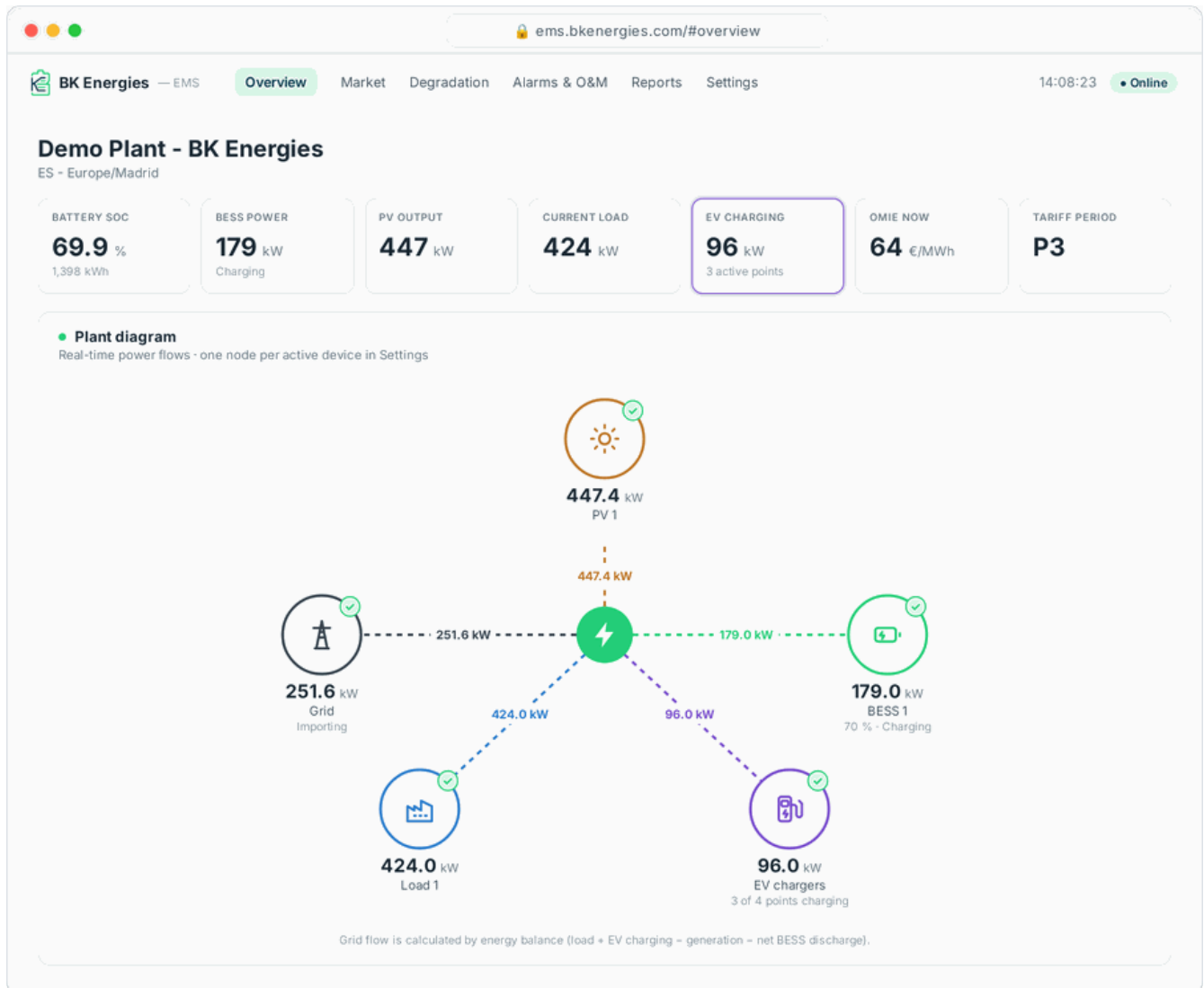
BK EMS

THE BATTERY IS THE MUSCLE. THE EMS DECIDES.

In-house software that monitors, optimises and controls the battery, PV, grid and consumption in real time.

PLATFORM

The whole system, on one screen



ON SITE

Local EMS

- Runs next to the battery, with local control
- Monitoring per unit and per cell
- Thermal, environmental and safety control
- Alarms, history and operating strategies



CENTRALISED

Operations EMS

- Several plants at once from the control centre
- AI-based hourly scheduling
- Decides based on market prices
- Peak shaving and automatic strategies

Local and remote control. Over-the-air (OTA) software updates, no site visits needed.

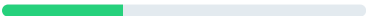
Six modules, the whole plant

 Overview SoC, power, PV, consumption, OMIE price and tariff period, with live plant power flows.	 Market OMIE day-ahead and intraday, 2.0TD–6.4TD tariffs or indexed pricing, and the capturable daily spread.	 Degradation 10-year SoH projection with p10–p90 band and the year capacity crosses 80 %.
 Alarms & O&M Alarms by severity, maintenance tasks and intervention log.	 Reports Daily PDF report with energy, economic value, battery health and alarms.	 Settings Hot-add devices via Modbus TCP, with profiles by inverter brand.

Automatic operating modes

 Self-consumption Stores surplus solar	 Backup Reserve for grid outages	 Export Sells in the best-paid hours	 EV charging No grid upgrade needed	 SoC limits Priorities per mode
--	--	--	---	---

Three tiers, one platform

INDUSTRY & COMMERCE EMS Core  Self-consumption, peak shaving and backup in factories, warehouses and microgrids. Fits with: Power Pro · Cabinets	MULTI-ASSET EMS Pro  Coordinates several sources and batteries: large industry, small and mid-size PV, gensets and hybrids. Fits with: Cabinets · Hybrids & STS	UTILITY-SCALE EMS Max  Forecasting, market operation and grid-operator compliance in PV + BESS plants. Fits with: Powerbolt
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Integration and cybersecurity

IEC 61850
 Modbus TCP
 OPC-UA
 Open API
 IoT
 OTA
 OMIE
 AEMET

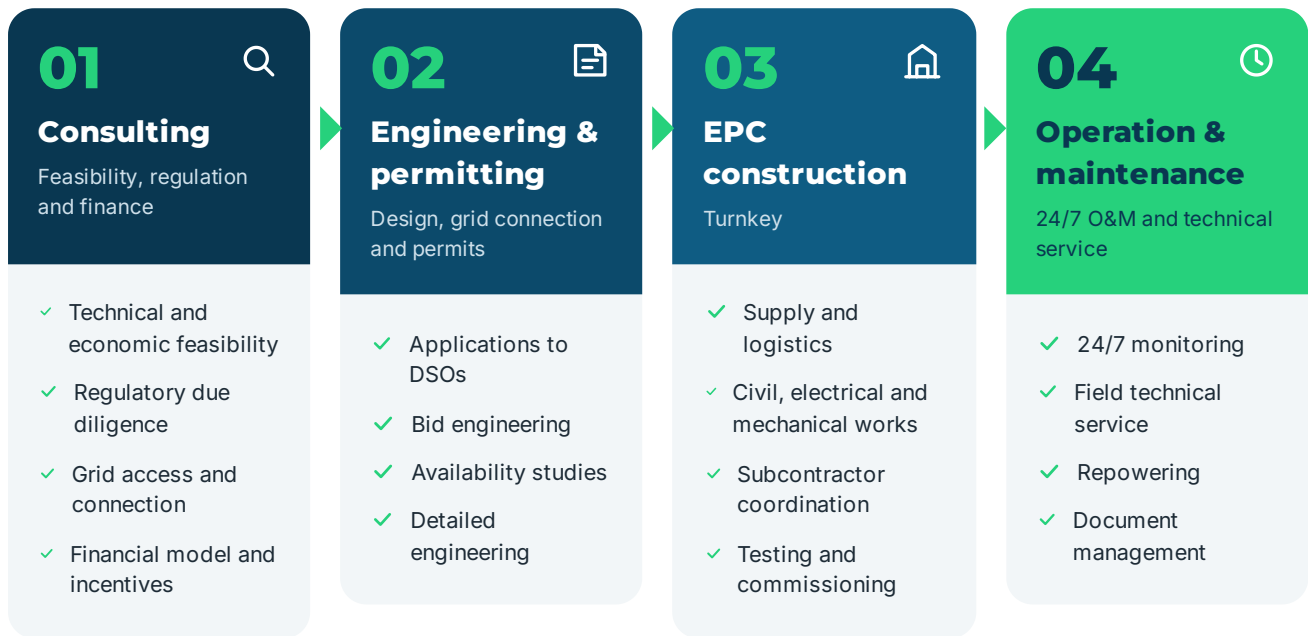
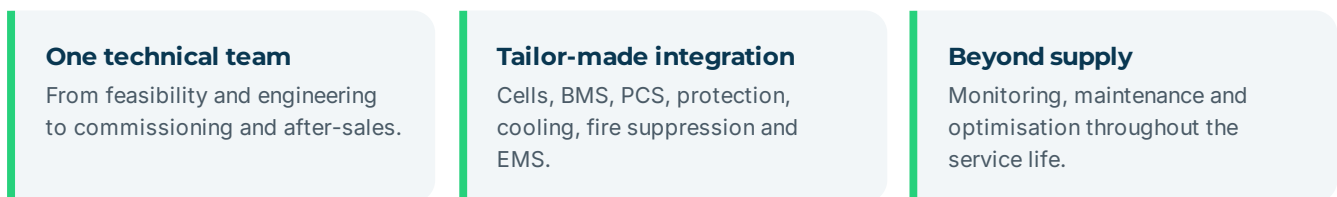
PPC

 Encryption TLS 1.2 / 1.3	 Perimeter Built-in firewall	 Access Role-based users	 Independence In-house software
--	---	---	--

SERVICES

From first figures to operation, a single point of contact

Hire us for a specific phase or for the whole cycle. Either way, in-house engineering and the same team.


Why BK

In-house EMS, PPC and SCADA


PROJECTS

Batteries in operation, from 20 kWh to 188 MWh

16

published references

**233
MWh**

across these references

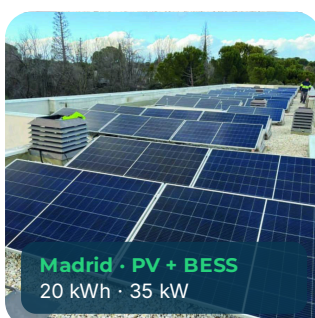
115 MW

of conversion power

2

 countries: Spain and
China

PV hybridisation	Lianyungang (Jiangsu, China) PV 940 MW		188 MWh	94 MW
Utility	Luoyang (Henan, China)		20 MWh	10 MW
Utility	Toledo		10 MWh	5 MW
PV hybridisation	Ocaña (Toledo) 2,150 kVA		5 MWh	2 MW
E-mobility	Rivas-Vaciamadrid (Madrid) Charging 3 × 360 kW		2.731 MWh	1.375 MW
Industrial & C&I	Balaguer (Lleida)		1.672 MWh	645 kW
Industrial & C&I	Catalonia		1.3 MWh	625 kW
Industrial & C&I	Castilla-La Mancha		1.2 MWh	—
Industrial & C&I	Castilla-La Mancha		836 kWh	430 kW
STS backup	Jaén Static transfer switch		522 kWh	250 kW
Industrial & C&I	Basque Country		430 kWh	200 kW
Industrial & C&I	Seville		418 kWh	215 kW
Off-grid	Navarre		215 kWh	100 kW
Industrial & C&I	Basque Country		215 kWh	100 kW
Residential	Madrid		100 kWh	50 kW
Residential	Madrid		20 kWh	35 kW





Have an energy storage project? Let's talk.

HEADQUARTERS & SHOWROOM

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33428 Cayés, Llanera (Asturias) ·
Spain

SALES OFFICE

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