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PowerNode All-in-one

125kW / 261kWh, Multi-cooling, LFP

Delivers 261kWh of nominal energy in a compact, IP55-rated outdoor cabinet for demanding environments

Scalable and modular by design - expand capacity effortlessly from 261kWh to multi-MWh systems

Compact and scalable - all in one system

From grid-connected BESS supporting FCAS, arbitrage, and balancing support to off-grid BESS and SAPS. Smarter microgrid control, remote diagnostics, and future-proof flexibility with a high-density, liquid-cooled battery cabinet for outdoor energy storage.

Built for future-proof performance

Engineered and designed in Europe. Combining robust engineering with high-quality components to deliver modular, scalable and reliable energy storage for critical applications and demanding environments.

Resilient by design, reliable in use

Pixii BESS feature built-in redundancy, active monitoring, and automated recovery protocols. This ensures secure operation even under failure or cyber threat, ideal for mission-critical energy storage needs.

Comprehensive Service Level Agreement (SLA) and support

Proactive maintenance, fast response, and certified installers help maximize uptime and extend lifespan. SLAs secure optimal performance and ROI throughout the system lifetime.

All-in-one

Combines battery storage, power conversion and intelligent energy management in one compact outdoor system, built on Pixii's proven modular platform.

Safe and intelligent

Liquid cooling, fire suppression, smoke detection and IP55 ensure safe operation. Pixii EMS optimises energy distribution, load management and battery performance.

Flexible and scalable

Scales to multi-megawatt systems for peak shaving, renewables, EV charging, backup and microgrids. Front access and standard interfaces simplify maintenance and integration.

Highlights

- Liquid-cooled LFP battery modules
- Black start islanding
- Droop control & spinning reserve
- Overload: 150%@150ms, 120%@1min
- 1 sec. Frequency Services (FCAS)

Key functions

- Peak shaving & grid support
- Demand charge reduction
- EV charging + AC coupled PV
- Grid forming capabilities



Supports multi-cabinet expansion, allowing the system to grow with your needs.

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AC specifications

Grid connection type	IT/TN
Phase config. (grid)	3ph
Wiring method	3 ph. 3-wire 3 ph. 4-wire
AC voltage (-15/+15%)	230V/400V
Nominal frequency (grid)	50/60Hz
Nominal AC current	180A
Peak SC current (RMS)	297A@ 11ms
Nom. cont. AC power (±2%)[1]	125kW
Max. reactive power	125kVAr
Power factor (Cos φ leading)	0.99 / -1~1
THDi (grid connection)	<3%
Off-grid operation support[2]	Yes
Generator backup support	Yes

1. The stated power and energy capacities are baseline, or nominal values. Actual performance can vary and may be constrained by several factors, including the state of charge (SoC), state of health (SoH) of the system, as well as thermal conditions.
2. Grid forming.

DC specifications

Max. DC current	203A
Nominal DC voltage 3 ph. 3-wire	615V - 950V
Nominal DC voltage 3 ph. 4-wire	650V - 950V

Configuration and voltage range

Configuration	1P260S
Nominal Voltage (V)	832V
Voltage Range (V)	728V - 936V
Max. charge/discharge cur.	0.5C @25°C

Efficiency and performance*

System overload	110%, 137.5kW
System overload (1min)	120%, 150.0kW
System overload (150ms)	150%, 187.5kW
Maximum efficiency	98.5%
Nom. apparent power (C/D)	125kVA

** Subject to temperature derating*

Communication and connectivity

Wired interfaces	Ethernet LAN, (MQTT), Digital IO Ethernet (RJ45) into BAMS
External comm. protocols	MQTT, Modbus TCP/IP

Safety

Ingress Protection (IP) Cabinet	IP55
Ingress Protection (IP) Battery module	IP67
Overvoltage category (OVC)	III
Fire suppression	Integrated
AC breaker	250A MCCB 4 pole
DC breaker	250A MCCB 2 pole
Max. short-circuit current	<15kA

Operating conditions

Operating environment	Outdoor
Thermal management[1]	Multi-cooling
Acoustic noise 1m distance[2]	<70dBA
Operating amb. temp. range[3]	-30°C- +50°C
Operating relative humidity[4]	5% - 95%
Max. operating altitude[5]	<4000m

1. Battery section has liquid cooling while the power conversion compartment is fan cooled.
2. Final test results pending.
3. Derating from >45°C.
4. Non-condensing.
5. Pollution level II. Derating >2000m

Heat management system

Power supply	220 ~ 240Vac
Cooling capacity	5kW
Cooling power	2.5kW
Heating capacity	2kW
Total current - cooling	13.4A
Total current - heating	9.4A

Physical specifications

Dimensions (HxWxD)(mm)	2300x1120x1300
Net. weight (fully equipped)	2600kg
Color[1]	RAL 7035
Status indicator (type)	LED

1. Light grey

Battery module

Battery chemistry	LFP
Cells in series (qty)	52
Battery cell capacity (Ah)	314Ah
Battery module capacity	52.2kWh
Max. depth of disch. (DoD)	95%
Max. C-rate	0.5C
Configuration	1P52S
Nominal Voltage (V)	166.4V
Voltage Range (V)	130V - 187.2V (95% DoD)
Over-current protection	Internal fuse + DC Control Box
Dimensions (HxWxD)(mm)	237x800x1152
Net. weight	340kg
Battery connection type	Quick, plug-in connection
Cycle life (cycles @%DoD)[1]	>8000 (95%)

1. Temp. 25°C , EOL: 70% SoH

Warranty and compliance

Security and safety
GB/T 34120, GB/T 34133, IEC/EN 62109-1, IEC/EN 62116. **Pending:** IEC/EN 62040-1, IEC/EN 62477-1, IEC/EN 62933-5-1, IEC/EN 62933-5-2, IEC/EN 62619, IEC/EN 63056, IEC 60730-1, UL 1973, UL 9540A, UN 38.3

Grid[1]
AS/NZS 4777.2 (AU+NZ), VDE-AR-N 4105 (DE), VDE-AR-N 4110 (DE), VDE-AR-V 0124-100 (DE), VDE-AR-V 4120 (DE), IEC/EN 50549-1 Type A & B (EU), EREC G99 Type A & B (UK), EREC G99 Type C & D Upgrade (UK), UNE 217001 (ES), UNE 217002 (ES)

EMC
IEC/EN 61000-6-1, IEC/EN 61000-6-2 (pending), IEC/EN 61000-6-3, IEC/EN 61000-6-4

Environmental compliance
RoHS, REACH, ETSI EN 300 019-2-1, ETSI EN 300 019-2-2

Warranty (years/cycles)[2]	See note

1. Designed in accordance with the relevant national and international standards listed above. Certification to specific revisions available on request. Additional local requirements may apply.

2. Warranty terms may vary based on your SLA agreement. Please review the warranty document for details.

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