



PowerShaper

50kW/51kWh, Aircon, LFP



Save costs through battery services like peak shaving, PV self-consumption, power boost and backup power.



The BESS that pays for itself by generating revenue from various electricity markets to maximize ROI.

Flexible grid tied battery energy storage

The PowerShaper product family is a modular and scalable all-in-one energy storage solution. Cabinets integrate PixiiBox converter modules, battery modules, and Pixii Gateway, and can be tailored to your needs for on- or off-grid use with local or EMS control.

Built for future-proof performance

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

Secure, connected, and compliant

Our 48V systems are built for always-on operation. Encrypted communications, secure remote access, and full GDPR compliance, enabling uninterrupted connectivity, real-time insight, and maximum ROI through value stacking.

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.

Modular and scalable BESS platform

PowerShaper is available in outdoor, indoor, and air-conditioned versions. Scales easily from kW/kWh to MW/MWh with multi-cabinet configurations.

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.

Active cooling for demanding sites

Equipped with integrated air-conditioning, PowerShaper Aircon is built for demanding environments and supports stable operation in high ambient temperatures.

Highlights

- Active aircon cooling system
- Safe and stable LFP batteries
- Modular and scalable
- Galvanic isolation (AC-DC)
- European quality & GDPR compliance
- Safe ~48V installation and operation

Key functions

- Dynamic load balancing
- Backup & off-grid operation support
- Peak shaving
- Electricity market participation



PowerShaper Aircon is a modular BESS that grows with your system's needs

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AC specifications		Efficiency		Battery	
Grid connection type ²	IT / TT / TN	Max. efficiency (inverter)	96.9%	Battery ID	LFP 100Ah 16S 3U 19in A
Phase config. (grid) ³	1ph / 3ph	Communication and connectivity		Battery chemistry	LFP
AC voltage (-10/+15%)	230V / 400V	Wired interfaces	Ethernet LAN, RS 485 (Modbus), Digital IO	Cells in series (qty)	16
Nominal AC voltage range	207 - 260V	Wireless interfaces	Wi-Fi hotspot (local AP), 4G (optional kit)	Battery block capacity (Ah)	100Ah
Nominal frequency (grid)	50Hz	Internal comm. protocols	CAN bus, Modbus TCP/RTU	Battery block capacity (kWh)	5.12kWh
Nominal AC current	72Arms (3Ph+N+PE)	External comm. protocols	MQTT	Max. depth of disch. (DoD)	90%
Max. AC current (input)	83Arms (3Ph+N+PE)	Safety		Max. charge/discharge cur.	100/100A
Nom. cont. AC power (±2%) ¹	50kW	Ingress Protection (IP)	IP55	Max. C-rate	1C
Max. AC power (±2%)	50kWp	Protection class	I	Rack height (Units)	3U
Max. apparent power	50kVA	Overvoltage category (OVC)	III	Over-current protection	Breakers, Electronic
Max. reactive power	45kVAr	Max. short-circuit current	10kA	Dimensions (HxWxD)(mm)	130.5x440x400
Power factor (Cos φ leading)	0.5 - 1	Min. required SC current	1kA	Net. weight (battery block)	41kg
Power factor (Cos φ lagging)	0.5 - 1	Operating conditions		Battery connection type	Quick
THDi (grid connection)	<5%	Operating environment	Outdoor	Cycle life (cycles @%DoD) ¹	3850 (90%)
Off-grid operation support ⁴	Yes	Thermal management	Heater, Aircon		
Generator backup support	Yes	Acoustic noise 1m distance	<64dB(A)		
Phase config. (genset) ⁵	1ph, 3ph	Operating amb. temp. range ¹	-20 - +50°C		
Frequency range (genset)	45 - 66Hz	Operating relative humidity ²	5 - 95% NC		
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. IT/TT connection requires connection kit. 3. A 3-phase connection requires at least three PixiiBoxes, one for each phase. 4. Single cabinet only. Requires off-grid control system. Local modification for load prioritization. 5. A 3-phase connection requires at least three PixiiBoxes, one for each phase.					
DC specifications		Physical specifications		Warranty and compliance	
Installed capacity (max)	51.2kWh	Dimensions (HxWxD)(mm)	2115x706x1064	Security and safety standards	
Usable capacity (max)	46.1kWh	Net. weight (cabinet only)	265kg	IEC/EN 62477-1, RED (2014/53/EU) - Cybersecurity (effective Aug 2025)	
Max. system capacity	51.2kWh	Net weight (equipped) ¹	705kg	Grid standards ¹	
Nominal DC voltage	~48V	Color	RAL 7035	AS/NZS 4777.2 (AU+NZ), EREC G99 (Type A & B) (UK), IEC/EN 50549-1 (Type A & B) (EU), TF 3.3.1 (Type A & B) (NO), VDE-AR-N 4105 (DE), VDE-AR-N 4110 (DE)	
1. Derating from 45°C 2. Non-condensing.					
Physical specifications		EMC standards		Environment standards	
Dimensions (HxWxD)(mm)	2115x706x1064	Status indicator (type)	-	ETSI EN 300 019-2-1 (Class 1.2), ETSI EN 300 019-2-2 (Class 2.3), ETSI EN 300 019-2-3 (Class 3.2)	
Net. weight (cabinet only)	265kg	Installed batteries (3U)	10	Battery standards	
Net weight (equipped) ¹	705kg	Max. batt. capacity (3U)	10	IEC/EN 62619, UL1973, UN38.3	
Color	RAL 7035	Installed PixiiBoxes	15	Warranty (years/cycles) ²	
Status indicator (type)	-	Max. PixiiBox capacity	15	See note	
Installed batteries (3U)	10				
Max. batt. capacity (3U)	10				
Installed PixiiBoxes	15				
Max. PixiiBox capacity	15				

1. Includes PixiiBoxes and batteries.

1. Temp. 25±5°C and C-rate:1C, EOL: 70% SoH or 5800 cycles @90%DoD Temp. 25±5°C and C-rate:0.5C, EOL: 70% SoH

Warranty and compliance

Security and safety standards

IEC/EN 62477-1, RED (2014/53/EU) - Cybersecurity (effective Aug 2025)

Grid standards¹

AS/NZS 4777.2 (AU+NZ), EREC G99 (Type A & B) (UK), IEC/EN 50549-1 (Type A & B) (EU), TF 3.3.1 (Type A & B) (NO), VDE-AR-N 4105 (DE), VDE-AR-N 4110 (DE)

EMC standards

IEC/EN 61000-6-1, IEC/EN 61000-6-2, IEC/EN 61000-6-3, IEC/EN 61000-6-4

Environment standards

ETSI EN 300 019-2-1 (Class 1.2), ETSI EN 300 019-2-2 (Class 2.3), ETSI EN 300 019-2-3 (Class 3.2)

Battery standards

IEC/EN 62619, UL1973, UN38.3

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. AS/NZS 4777.2, EREC G99 (Type A & B), IEC/EN 50549-1 (Type A & B), TF 3.3.1 (Type A & B) and VDE-AR-N 4105 currently valid for PixiiBox. System approval pending.

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