

POWER HUB GRID 20'

STATIONARY STORAGE - 20FT CONTAINER - 2 kWh



TRANSFORMING STORED ENERGY INTO STRATEGIC INFRASTRUCTURE.

The XAP POWER HUB GRID 20 is a high-capacity containerized Battery Energy Storage System designed to meet the growing demand for energy resilience across industrial sites, critical infrastructures and renewable energy projects. Combining scalable storage capacities from 50 kWh to 2 MWh within a standard 20-foot ISO container, it provides a flexible and future-ready solution for organizations seeking greater energy security and operational continuity.

Built around modular 50 kWh energy blocks, the GRID 20 enables progressive deployment while maintaining a common architecture for supervision, maintenance and future expansion. Its advanced battery management technology and bidirectional power conversion capabilities ensure reliable operation, optimized energy balancing and seamless integration into modern electrical infrastructures.

Designed and assembled in France, the POWER HUB GRID 20 is more than an energy storage system—it is a strategic energy asset. Supporting grid stabilization, renewable energy integration, backup power and charging infrastructure applications, it delivers a scalable, sovereign and industrial-grade solution that helps organizations strengthen energy independence while accelerating electrification.

STORE — STABILIZE — DELIVER.

INFRASTRUCTURE-GRADE STORAGE, INDOOR-ENGINEERED.

SCALABLE FROM 50 KWH TO 2 MWH:

Configure the system progressively using up to forty-four modular 50 kWh energy packs while preserving a common architecture.

CLUSTER BMS ARCHITECTURE:

Up to ten synchronized XAP Battery Management Units operate in master-master redundancy, eliminating single points of failure.

ULTRA-FAST EV CHARGING:

Native support for high-power charging infrastructures up to 220 kW DC, enabling next-generation mobility hubs.

GRID-FORMING CAPABILITY:

Supports black-start operation, frequency regulation, reactive power compensation and autonomous microgrid islanding.

CYBER-SECURE:

Signed firmware, encrypted communication channels and secured supervisory interfaces protect critical energy assets.

SOVEREIGNTY:

Designed, integrated and qualified by our team as a strategic alternative to standardized imported BESS solutions.

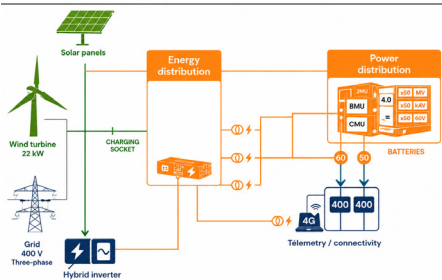
MOTORSPORT HERITAGE:

Embedded electronics derived from race-proven systems and developed according to ISO 26262 ASIL-B engineering methodologies.

GRID RESILIENCE. INDUSTRIAL CONFIDENCE:

From regional microgrids to critical infrastructure support. Up to 2 MWh of intelligent, configurable and scalable energy storage.

Designed for operators who cannot compromise on availability.



► BATTERY - BMS/CMU - DC/DC - CASING: **STATIONARY STORAGE - 20FT CONTAINER - UP TO 2 MWh**

TECHNICAL SPECIFICATIONS

Stored Energy	Up to 2 MWh (1 to 44 × 50 kWh Packs)
DC Bus Voltage	400V Nominal
AC Converters	44 × 30 kW Units
Continuous Output Power	up to 1320 kW (AC)
AC Voltage	400 V Three-Phase, 50 Hz
BMS Architecture	Up to 10 × XAP Proprietary BMU – 4 Channels
Cooling	Forced-Air with Thermal Zoning and Redundancy
Communication	CAN, CAN-FD, Modbus TCP, Ethernet, Wireless 4G/5G
Reversibility	Full Bidirectional Operation
Operating Modes	On-Grid, Off-Grid, Microgrid, Peak Shaving, Black-Start, Frequency Regulation
Telemetry	20 Hz Multi-Cluster Synchronized
Fast Charging Support	Up to 220 kW DC Fast Charging

MECHANICS

Container Type	ISO 20 ft Standard
Dimensions (L × W × H)	6,058 × 2,438 × 2,591 mm
Total Mass	Approximately 12,000 kg (2 MWh Configuration)
Lifting	ISO Corner Castings, Twist-Lock Compatible
Enclosure Rating	IP55 Outdoor
Surface Treatment	Marine-Grade Paint System
HVAC	Industrial Climate Control with Redundant Cooling
Access	Double-Leaf Access Doors
Ventilation	Emergency Ventilation Grilles
Floor	Reinforced Steel Floor with Optional Seismic Anchoring

SAFETY

Fire Detection	Aerosol + FM-200 Extinguishing System (Optional)
Gas Detection	H ₂ , CO ₂ and VOC Monitoring Multi-Zone BattSafe Integration
Emergency Shutdown	External Lockable Button + Remote Shutdown Capability
BESS Compliance	IEC 62933
Battery Compliance	IEC 62619
Transport Compliance	UN 38.3
Grid Compliance	EN 50549 / UTE C15-712-3
EMC Compliance	EN 61000-6-2 / EN 61000-6-4
Cybersecurity	Signed Firmware & Encrypted Communications
Functional Safety	ISO 26262 ASIL-B Inherited Architecture
Certification	CE Marking

TYPICAL APPLICATIONS

Critical Infrastructure Backup
Datacenters
Hospitals and Healthcare Facilities
Industrial Manufacturing Sites
Renewable Energy Buffer Storage
Utility Peak Shaving
Regional Microgrids
EV Charging Hubs
Smart Grid Demonstrators
Municipal Energy Projects
Military and Civil Protection Installations
Energy Communities and Local Grids

REFERENCES

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