Pixii
Power Base

Flexible grid tied energy storage system

The Power Base is a complete energy storage system on a steel frame with the footprint of a standard ISO 20 foot container. It can include up to 12 PowerShaper2 cabinets with a maximum power capacity up to 600kW.

The PowerShaper2 can house different battery models and chemistries making it possible to match special requirements for a wide range of applications. For more power oriented services, LFP batteries provide the better option. For energy oriented services, NMC batteries can provide higher energy density and capacity.

The PowerBase comes pre-configured from the factory with the desired number of PowerShaper 2 cabinets. The AC distribution cabinet is also installed with wiring to all PowerShaper 2 cabinets.

The PowerBase can be placed on a level ground or on 8 solid resting points.

This reduces on site preparations, civil work and installation work significantly and also makes the PowerBase a movable unit although it cannot be transported with batteries installed.

Highlights

- Modular and scalable
- For applications 10kW to 1 MW
- Compact energy storage
- Fast response (charge to discharge)
- Integrated & battery inverter solution
- Wide range of functions
- Galvanically isolated AC to DC
- 48V battery voltage for ease of service

Battery type	Max no:	MaxkW*	MaxkWh*
NMC 12,9kWh	96	480kW	1,2MWh
NMC 15,2kWh	96	480kW	1,44MWh
LFP 5kWh	120	580kW	600kWh

*) Nominal capacity. Actual capacity depends of environment, application and use-case.

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Performance data

Max Power (bi-directional)	Up to 600kW
Nominal AC voltage	230/400VAC
Frequency	50 or 60Hz
Max AC current (50kW)	4 x 240A
Nominal DC voltage	48Vdc
Steel S235	
C5-M 320 μm painting	RAL7035

Performance data

Minimum operating temperature	-20 °C
Maximum operating temperature	45 °C
Dimensions (w x d x h)	6058 x 2338 x 2349mm
Weight (fully equipped)	10,000-12,000 kg
Cabinet protection class	IP 55
Non slip aluminum floor cover	
ISO twistlock corner fittings	

Functions

Voltage support	Monitor and maintain ideal line voltage in remote locations at low cost, by using our power management and storage solution as a buffer, enabling you to inject and absorb active/reactive power to and from the grid.
Peak shaving	Reduce your demand charges and save cost by shifting your power dependency from grid to battery, shaving the peaks of your power consumption. It also allows you to boost available power without having to upgrade your grid connection.
Grid support	Improve local peak power capacity by increasing maximum power capacity through smart energy storage systems. In locations with temporary overloads, energy storage systems can be installed to cover the overload to avoid having to upgrade larger parts of the grid.
Arbitrage	Support loads from battery when electricity rates are high, and charge battery when electricity rates are low.
PV self-consumption	Get the most out of your solar investment and reduce your dependency on the grid through smart power management, enabling you to re-direct excess power generation to batteries for later use during peak hours.
Flexibility markets	Unlock the value of your battery energy storage system and monetize your system's flexibility by selling stored energy or providing ancillary services, such as frequency regulation, to the electricity grid.

Applicable standards

Safety	IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 62040-1, IEC/EN 62477, (Batteries) IEC 62619, IEC 62368, UN38.3
Grid	AS/NZS 4777-2, 50549-1,TF 3.3.3 B1, EREC G99 (others pending)
EMC	IEC/EN 61000-6-1, IEC/EN 61000-6-2, IEC/EN 61000-6-3, IEC/EN 61000-6-4
Environment	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)