

# Pixii Power Base



## Flexible grid tied energy storage system

The Power Base is a complete energy storage system on a steel frame, for easy deployment. It can include up to 12 PowerShaper cabinets with a maximum power capacity up to 600kW and a separate AC connection cabinet.

The PowerShaper2 can house different battery models and chemistries making it possible to match requirements for a wide range of applications. For more power oriented services, LFP batteries provide the better option. For more 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. All cabling between the AC distribution cabinet and the PowerShaper cabinets is installed and tested in the factory.

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
- Integrated & battery inverter solution
- Wide range of functions
- Compact
- Fast response
- Galvanically isolated AC to DC
- 48V battery voltage for ease of service

Performance data		Performance data	
Nominal AC voltage	230/400VAC	Weight (fully equipped) - LFP 100Ah (10x battery & 15x PixiiBox)	9 970kg (16S 3U Battery) 9 370kg (15S 3U Battery)
Frequency	50Hz		
Max AC current (TN)	996A	Weight (fully equipped) - NMC 250Ah (8x battery & 12x PixiiBox)	10 882kg (14S 4U Battery)
Nominal DC voltage	~48V		
Minimum operating temperature	-20 °C	Cabinet protection class	IP55
Maximum operating temperature	45 °C	Steel S235	C4(H) 240um painting RAL7035
Dimensions (w x d x h)	6 058 x 2 338 x 2 349 mm	ISO twistlock corner fittings	
Non slip aluminum floor cover		Environmental management	Fan Cooled (Aircon Optional)

Typical max system performance vs SoC.						
Battery type		100Ah - 16S LFP		100Ah - 15S LFP		250Ah - 14S NMC
Max kWh <sup>1</sup>	600kWh		576kWh		1 200kWh	
Max power (in kW) <sup>2)</sup>						
SoC	Charge	Discharge	Charge	Discharge	Charge	Discharge
90%	560	550	450	450	110	450
70%	560	550	450	450	450	430
50%	560	550	450	450	450	420
30%	560	535	450	450	450	395
10%	560	525	450	450	450	270

1) Nominal values 2) Values are for batteries at room temperature (25°C). If batteries are colder or warmer, this may affect the maximum power due to battery imbalance or temperature derating.

Functions	
Peak shaving	Reduce your demand charges and save cost by shaving the peaks of your power consumption.
Arbitrage	Support loads from the battery when electricity rates are high, and charge the 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 direct excess energy to batteries for later use during peak hours.
Local power boost	Increase maximum available power capacity by adding smart energy storage systems in parallel with the grid. In locations with temporary overloads, energy storage systems can cover the overload and avoid grid upgrades.
Voltage support	Active and reactive power insertion/consumption for voltage compensation.
Balance services/ Flexibility markets	Unlock the value of your battery energy storage system and monetize your system's flexibility by offering available capacity to ancillary services like FFR, FCR, standard ramp FCAS services and more.

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 4777-2:2020, EN50549-1:2019 Type A & B, C10/11 VDE-AR-N 4105:2018-11, VDE-AR-N 4110:2018-11 (prototype), EREC G99 Issue 1 – Amendment 6, 09 March 2020
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)