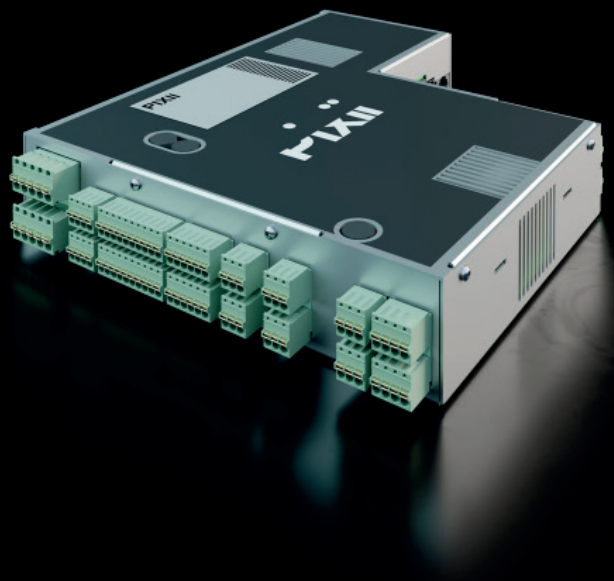
www.pixii.com



Pixii Gateway

Controller and communication hub

Intelligent energy optimization. Supports demand response, peak shaving, voltage support, and other services for efficient, revenue-driven operation.

Seamless connectivity and control - Multi-protocol communication with advanced battery and thermal management for reliable performance.

Advanced control and connectivity

The Pixii Gateway is a built-in powerful controller, enabling you to connect with, monitor, and control all components within the system, as well as external sensors and other hardware at your site.

Flexible configuration and control

The Pixii Gateway allows you to configure a wide range of services, monitor and optimize performance, collect energy data, manage alarms, and take part in the energy flexibility market to open new revenue streams.

It runs on Pixii OS, giving you full flexibility with MQTT and Modbus protocols, allowing you to integrate with 3rd party management software and connected hardware.

The Pixii Gateway can act as an individual controller, or as a master, controlling a cluster of Pixii cabinets as one.

Centralized communication and coordination

The Pixii Gateway is the controller and communication hub for all Pixii systems.

It communicates securely with all elements within the system and the outside world for system monitoring and advanced control, enabling both local flexibility and the opportunity for coordination and flexible fleet management.

Advanced service management and optimization

With built-in services and the ability to set priority and scheduling of services, Pixii Gateway provides full control over your Pixii Battery Energy Storage System (BESS).

Whether you want to use it for peak shaving, PV self-consumption, arbitrage, grid or voltage support, or flexibility markets, your Pixii BESS will always be ready for optimal performance.

Seamless integration with external systems

Pixii Gateway enables secure integration with on-site and off-site Energy Management Systems (EMS), site controllers, and third-party equipment such as EV chargers, meters, and more.

Typical applications

- Peak shaving: Cut demand charges by reducing power peaks.
- Arbitrage: Use stored energy when prices are high, charge when low.
- PV self-consumption: Maximize solar use by storing excess energy for peak hours.
- Local power boost: Add storage to increase capacity and avoid grid upgrades.
- Voltage support: Improve grid quality with voltage-based phase balancing and power compensation.
- Flexibility markets: Monetize storage by providing capacity for ancillary and balancing services.

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Pixii Gateway

Digital inputs

Configurable digital in	Can be configured for custom application
OVP fault alarm	Over Voltage Protection fault alarm
Smoke detector	Smoke detector
Fuse fault alarm	Fuse fault alarm
Door	Door open
Filter removed	Filter removed
Emergency Switch – Clg	Emergency switch detection

Digital inputs

Humidity sensor	Humidity sensor
Digital inputs 1-2	Used for the built-in ripple control receiver or as customizable digital inputs
Generator status	Generator start input signal
Generator status	Generator stop input signal
Fuel cell status	K1 offgrid status
PV	SW1 Key switch status offgrid

Digital outputs

Input contactor control	Used to control input contactor1	230Vac, 5A NO/NC relay
Islanding contactor control	Used to control input contactor2	230Vac, 5A NO/NC relay
Heater control	Contactor optional 1	230Vac, 5A high inrush NO relay
Load contactor control	Heater	230Vac, 5A high inrush NO relay
Relay external 1-3	Relay external 1-3	12 Vdc open collector
Optional signal relay 1	Generator start or optional signal relay 1	30Vac 60Vdc, 5A NO/NC relay
Optional signal relay 2	Generator stop or optional signal relay 2	30Vac/60Vdc, 5A NO/NC relay

Analog inputs

Temperature 1-3 PWR	Temp power +5Vdc	5 VDC
Temperature 1-3	Temperature 1-3	1-wire interface
Symmetry 1-2	DC side earth fault detection	0-80 V
Analog input 1-5	Optional or for DRM mode	Flexible (0-80 V)

Electrical specifications

DC Input	Dual 30-60Vdc/5Amax
DC Output	12DC/500mA, 48V to external loads possible through secondary supply

Environmental specifications

Operating temperature range	-20° C to 45° C
Storage temperature range	-20° C to 60° C

Mechanical specifications

Dimensions (w x d x h)	265 x 213 x 45 mm
Weight	960g

Applicable standards

EN 61010-1, IEC 61010-1

Key functions

Peak shaving	Reduce your demand charges and save costs 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	Enables grid operators (DSO's/DNO's/DNSP's) to enhance quality of supply on long weak lines significantly. Unique functionality for voltage-based phase balancing active/ reactive power 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.

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