



# PixiiBox 48/3300

Multi-function two port power conversion unit



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



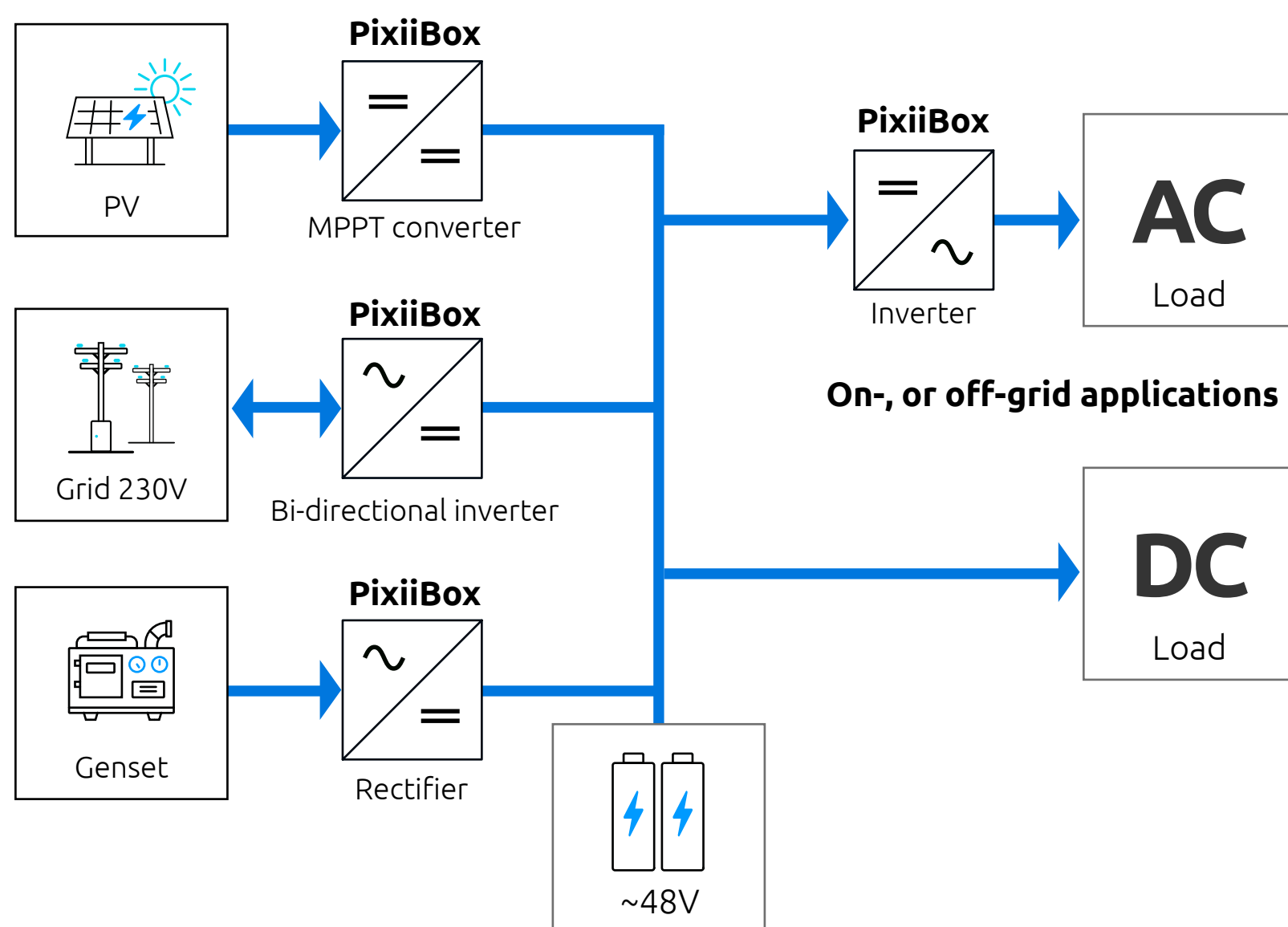
Generate additional revenue by selling battery capacity in various electricity markets to maximise your ROI.

## All-in-one box

The PixiiBox is a multi-functional power conversion unit for energy storage systems. It operates as a single-phase, bidirectional grid-tied inverter, an MPPT converter for PV panels, and a rectifier or inverter. This flexibility allows seamless integration into diverse system designs.

### Modular, scalable and flexible

The modular design enables scalability to meet any power requirements, with hot-swappable modules ensuring unmatched serviceability and reliability. The PixiiBox can autonomously support the grid or be remotely controlled through the Pixii Gateway. Its compact, efficient, and versatile design makes it an ideal solution for energy savings and grid stability. Can be used as single and 3-phase configurations.

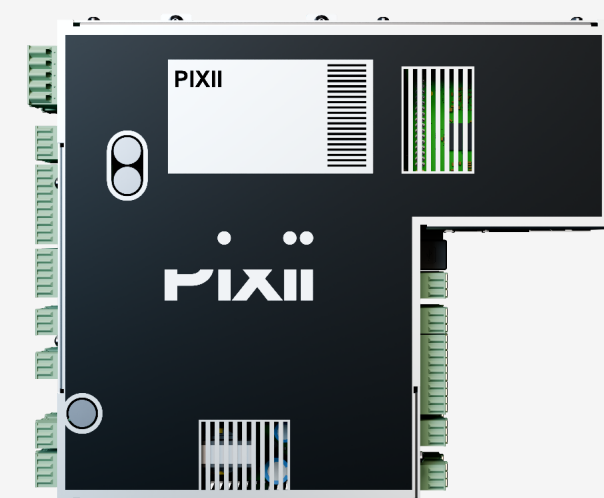


## Highlights

- Compact and flexible design
- Modular and scalable
- Hot-swappable module
- Fast response
- 4 quadrant operation
- High efficiency
- Galvanically isolated for safety
- Supports grid stability and energy savings

## Typical applications

- Commercial and industrial BESS
- Hybrid, micro grid and off-grid
- Telecom installations
- EV charging
- Residential



The PixiiBox is using the Pixii Gateway together with Pixii Cloud for monitoring and control.

# PixiiBox 48/3300

AC specifications	
Phase configuration (grid) <sup>1)</sup>	1 and 3
Nominal AC voltage) <sup>2)</sup>	230V
Operational AC voltage range	100 to 264V
Nominal frequency (grid)	50 or 60 Hz
Max. AC current (input)	16.6A
Max. AC power (±2%)	3.334kW
Apparent power	3.334kVA
Reactive power	3.000kVAr
THDi (grid connection)	<3%
Power factor (grid, Cos φ lagg.)	0.5 to 1
Power factor (grid, Cos φ lead.)	0.5 to 1
Phase configuration (genset) <sup>3)</sup>	1 and 3
Frequency range (genset)	45 to 66Hz

1) A 3-phase connection requires at least three PixiiBoxes, one for each phase. 3-phase supports star (Y) and delta (Δ) topologies.  
2) Region dependent according to grid codes. Derating below 201V.  
3) A 3-phase connection requires at least three PixiiBoxes, one for each phase.

DC specifications	
DC voltage range (battery)	44 to 58V
Max. DC battery current (input)	69A
Max. DC battery current (output)	71A
Max. charge power to batt.	3.300kW
Max. discharge power from batt.	3.550kW

PV input specifications (MPPT)	
PV strings per MPPT	1
DC nominal voltage range	100 to 380V
Max. DC input voltage	420V
Max. input current per MPPT	16A
Max. PV peak pwr. per MPPT	5kWp

Efficiency	
Max. efficiency (grid)	96.90%
Max. efficiency (MPPT)	97.40%
Weighted Euro efficiency (MPPT)	96.60%

Operating modes <sup>1)</sup>	
Rectifier	AC/DC
Inverter	DC/AC
Solar converter (MPPT)	DC/DC
Bi-directional inverter	AC/DC

1) Each PixiiBox is configured to operate in a single mode, as determined by its DIP switch settings.

Telecom specifications	
Max ripple (20 MHz BW)	150 mV p-p
Dynamic regulation 10 - 90 % / 90 - 10 %	5 % within 50 ms

Physical specifications	
Dimensions (HxWxD) (mm)	42x339x145
Net. weight	2 kg
Color	RAL 9005
Status indicator	LED
System connector type	Board edge connector

Operating conditions	
Thermal management	Fan
Acoustic noise @1 m. distance	< 60 dBA
Operating temp. range <sup>1)</sup>	-20 to 65 °C
Operating rel. humidity <sup>2)</sup>	5 to 95 % NC
Max. operation altitude	3000 m

1) Derating from 45 °C  
2) Non-condensing. Recommended relative humidity 30 - 60 % non-condensing.

Communication and connectivity	
Wired interfaces	RS-485
Internal comm. protocols	CAN-bus

Safety	
Ingress Protection (IP)	IP20
Protection class	I
Overvoltage Category (OVC)	II
HV port protection (fuse)	25A
HV port protection (type)	Mechanical relays, anti-islanding
LV port protection (fuse)	2 x 50A
LV port protection (type)	Over-voltage, short-circuit, inrush limit
Max. SC current per MPPT	20A
Hot-swappable	Yes

Compliance and warranty	
<b>Safety standards</b> IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 62477-1, IEC/EN 62368-1	

<b>Grid standards</b> AS/NZS 4777-2:2020, EN50549-1:2019 Type A & B, VDE-AR-N 4105:2018-11, VDE-AR-N 4110:2018-11 (prototype), EREC G99 Issue 1 – Amendment 6, 09 March 2020, Wymogi ogólnego stosowania 18-12-2018 Type A, TR 3.3.1 Type A
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<b>EMC standards</b> IEC/EN 61000-6-1, IEC/EN 61000-6-2, IEC/EN 61000-6-3, IEC/EN 61000-6-4
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<b>Environment standards</b> ETSI EN 300 019:2-1 (Class 1.2) <sup>1)</sup> , ETSI EN 300 019:2-2 (Class 2.3), ETSI EN 300 019:2-3 (Class 3.2)
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Warranty in years <sup>2)</sup>	5
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1) Designed according to  
2) Warranty terms may vary based on your SLA agreement. Please review the [warranty document](#) for details.