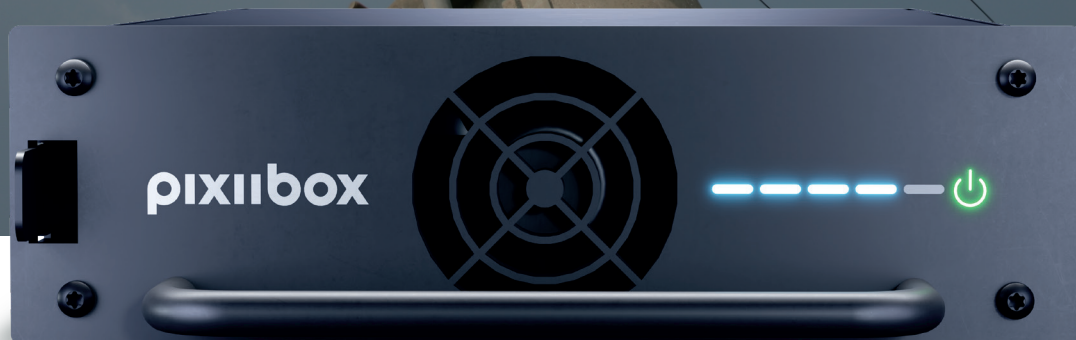


PixiiBox

Bi-directional AC/DC converter



The PixiiBox is a fully bi-directional energy conversion module for energy storage systems. Operating as a rectifier, it can charge and maintain several battery technologies. Reversing the energy flow, operating as a grid tied inverter, it can feed energy back to the grid in accordance with international grid standards.

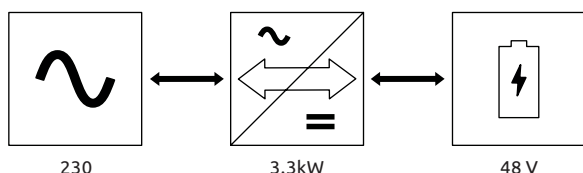
The modularity enables scalability to match any power requirements from 3 to 300kW and an unmatched serviceability and reliability.

The PixiiBox can, based on its own measurements and internal settings, take immediate actions to support the grid or, through the Pixii Gateway, be controlled remotely.

Besides being able to operate as a rectifier and a grid-tied inverter, the PixiiBox can perform additional functions, saving energy and supporting distribution grids.

Highlights

- Grid tied
- Modular
- Hot pluggable
- Fast response
- 4 quadrant operation
- High efficiency
- Galvanically isolated
- Compact



PixiiBox

Bi-directional AC/DC converter, 48/3300

Performance data		Performance data	
Power AC (bi-directional)	3.3kW	Minimum operating temperature	-20 °C
Nominal AC voltage	230Vac	Maximum operating temperature	65 °C (derating from 45 °C)
Frequency	50 or 60 Hz	Maximum operating altitude	3 000 m
THDi	<5 %	Maximum operating humidity	95 % RH
Frequency	50 Hz	Weight	2 kg
Nominal DC voltage	~48V	Dimensions (w - h - d)	145 x 42 x 339 mm
Peak efficiency (bi-directional)	96.5 %		
Power factor control (lead/lag)	0.5		

Rectifier mode / Input		Rectifier mode / Output	
Voltage range (according to selected grid Codes)	100 - 277Vac Full load from 207Vac	Voltage range (standard)	42.2 - 59.0Vdc
Frequency	45 - 66 Hz	Voltage range (extended) ¹⁾	42.0 - 65.0Vdc
Peak efficiency (bi-directional)	96.5 %	Dynamic regulation 10 - 90 % / 90 - 10 %	5 % within 50 ms
		Max ripple (20 MHz BW)	150 mV p-p

Inverter mode / Input		Inverter mode / Output	
Voltage range (nominal range)	44 - 59Vdc Full load from 49Vdc	Voltage range (according to set grid codes)	100 - 277Vac Full load from 207Vac
Max current	71A	Max current	16.6A

Applicable standards:	
Internal communication	CAN-bus
Safety	IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 62368-1, IEC/EN 60950-1
Grid	VDE-AR-N 4105, EN 50549-1, TR 3.3.1, AS/NZS 4777.2, EREC G99
EMC	IEC/EN 61000-6-1, IEC/EN 61000-6-2, IEC/EN 61000-6-3, IEC/EN 61000-6-4
Environment	ETSI EN 300 019:2-2 (Class 2.3), ETSI EN 300 019:2-3 (Class 3.2)
Acoustic noise (@1m and 25 °C)	60 dBA
Protection AC port	Fuse (25 A), Mechanical relays with Basic isolation and anti-islanding
Protection DC port	Fuse (2 x 50 A), overvoltage shutdown, Short circuit protection, Hot plug-in inrush current limitation.

¹⁾ Extended DC voltage range (special version with some power derating).