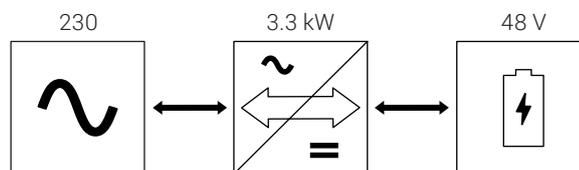


Datasheet:

# PixiiBox 48/3300

**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.

## Key features & services

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

General data	
Power AC (bi-directional)	3.3 kW
Nominal AC voltage	230 Vac
Frequency	50 or 60 Hz
THDi	<5 %
Nominal DC voltage	48 Vdc
Peak efficiency (bi-directional)	96.5 %

General data	
Power factor control (lead/lag)	0.5
Maximum operating altitude	3000 m
Maximum operating temperature	65 °C (derating from 45 °C)
Minimum operating temperature	-20 °C
Maximum operating humidity	95 % RH
Weight	2 kg

Rectifier mode / Input	
Voltage range (according to selected grid Codes)	100 - 277 Vac Full load from 207 Vac
Frequency	45 - 66 Hz

Rectifier mode / Output	
Voltage range (standard)	42.2 - 59.0 Vdc
Voltage range (extended) <sup>1)</sup>	42.0 - 65.0 Vdc
Dynamic regulation 10 - 90 % / 90 - 10 %	5 % within 50 ms
Max ripple (20 MHz BW)	150 mV <sub>p-p</sub>

Inverter mode / Input	
Voltage range (nominal range)	44 - 59 Vdc Full load from 49 Vdc
Max current	71 A

Inverter mode / Output	
Voltage range (according to set grid codes)	100 - 277 Vac Full load from 207 Vac
Max current	16.6 A

Application standards and specifications	
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.
Dimensions (w - h - d)	Width 145 mm, Height 42 mm, Depth 339 mm

<sup>1)</sup> Extended DC voltage range (special version with some power derating).