

Welcome to KACO new energy

Best inverters for photovoltaics, battery storage,
and energy management

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Made in Germany

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- Cyber Security

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blueplanet 100/125 NX3

- Technical Highlights/Data USPs
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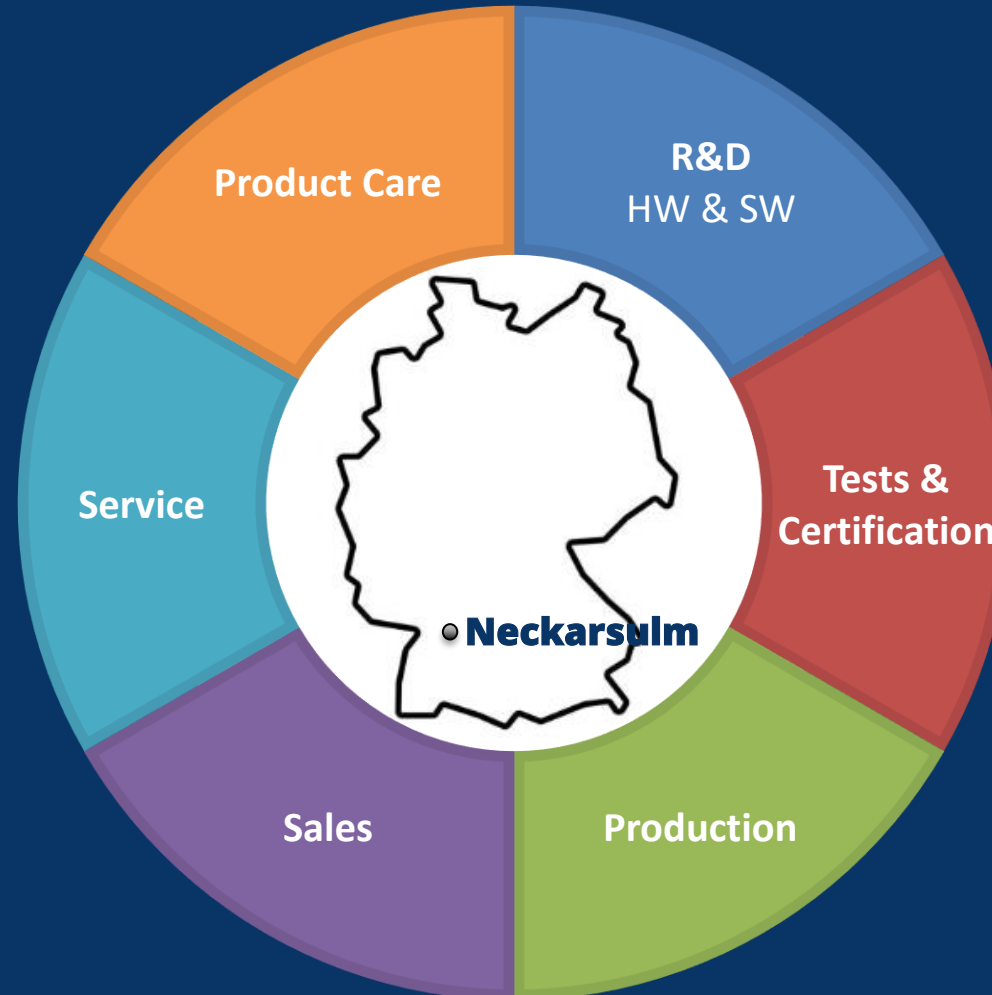
Conclusion

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Made in Germany.

Product Lifecycle



Tier-1 in the EU

- Housing
- PCBA (power board)
- Cable sets
- Plastic parts
- Packaging
- Chokes



Next Generation - blueplanet 100/125 NX3

- Outstanding efficiency thanks to SiC technology
- Developed and produced in Germany
- Minimal CO2 footprint
- High cybersecurity standard

Environmental Product Declaration.

Materials composition

The following chart outlines the overall material composition of the calculated reference product. Product weight of 83,37 kg adds up with packaging weight of 6,78 kg to a total weight of 90,15 kg. Packaging consists of Box, Foil Film Wrap Bag, Label, Paper.

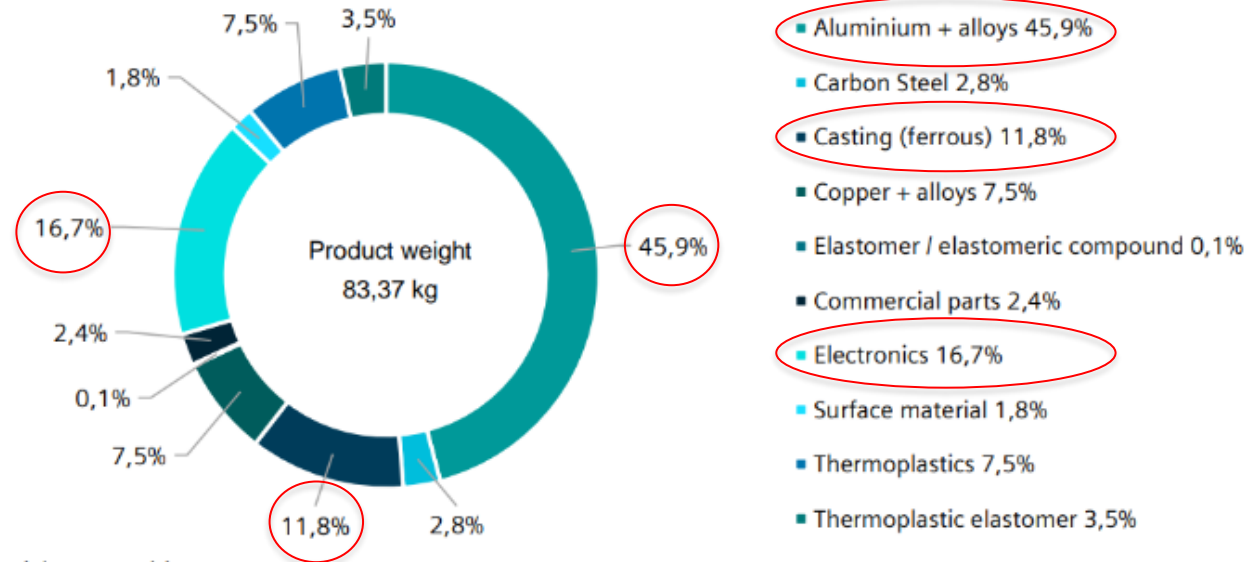





Figure 2 Materials composition

Life cycle stages and reference scenarios

Manufacturing	Operations	End-of-Life
 <p>This stage covers the extraction of natural resources, production of raw materials, transport, manufacturing, packaging and transport distances.</p>	 <p>This stage covers the product's distribution, installation, use and maintenance. Different operating conditions e.g., use of eco-energy-mix can lead to deviations from the standard scenario.</p>	 <p>This stage covers the disassembly, material recycling and thermal treatment of all recyclable materials as well as the disposal of all other materials.</p>
Scenarios	Scenarios	Scenarios
<p>Energy model used: Supplier: EU-28: Electricity grid mix</p> <p>KACO location: DE: Green Electricity</p> <p>Transportation model used: According to EN 50693, and primary data supplier location</p>	<p>Energy model used: EU-28: Electricity grid mix</p> <p>Use scenario: 4,78 W – 12h per day for a reference lifetime of 20 years</p> <p>Transportation model used: Container Ship, New Panamax 120000 DWT 14000 TEU 19000.0 km Truck, 7.5 t – 12 t gross weight 1000.0 km</p>	<p>Energy model used: EU-28: Electricity grid mix</p> <p>Avoided burden method</p>

Environmental Product Declaration.

Climate Change

This chart shows the overall impact of the product on climate change – total. The operations phase is the lifecycle phase with the biggest overall impact. Different operating conditions can lead to deviations from the reference scenario. The distribution stage of the reference product is not shown in the chart due to its relatively small contribution to climate change and its impact is included in the operation bar.

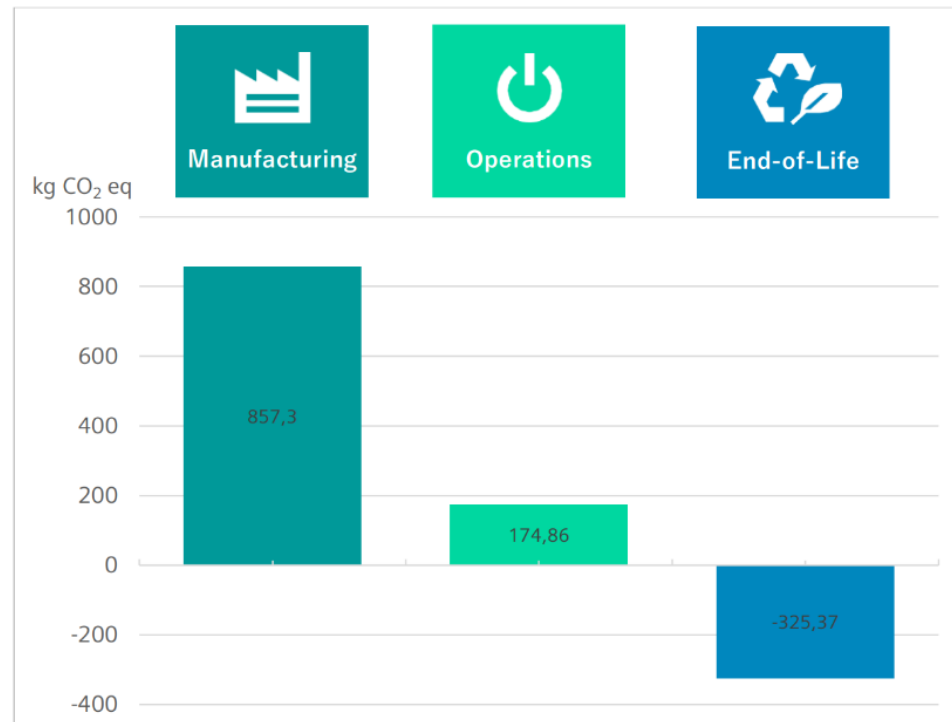


Figure 3 Global warming potential

TOTAL: 707 kg CO₂ eq.

End-of-Life results



The end-of-life stage was modelled by shredding of the device, followed by sorting and material separation process.

It leads to:

- an overall **product recyclability of up to 70 %** mainly due to high metal content
- an **energy recoverability of up to 22 %** from plastic materials
- a **minimum disposal rate of 8 %**

The exact final values depend on the used recycling processes and add up to 100%.

Note: The device shall not be disposed of as unsorted municipal waste. Special treatment for specific components may be mandated by law or recommended for environmental reasons. Observe all local and applicable laws.

Siemens Cyber Security.

To ensure best in class yield, the software, in addition to robust hardware, is of particular importance.

KACO new energy follows Siemens guidelines for this purpose:

All software processes undergo thorough risk analysis and all software components are checked in advance and continuously.

Only servers in Germany and the EU are used for data storage.



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blueplanet 100 NX3/125 NX3

K A C O 
new energy.

**MULTI-MPPT STRING INVERTER FOR
COMMERCIAL AND INDUSTRIAL
PHOTOVOLTAIC SYSTEMS**



**MADE IN
GERMANY.**

Technical Highlights



Flexible

Two power classes: 100 & 125 kVA for complex rooftops

8/10 MPPT for flexible PV system design (2 strings per MPPT)

30 A input current per MPPT (**60A by combining two inputs**)

Compatible with bifacial and high-performance PV modules



Efficient

Max. efficiency 99.1%

Wide DC voltage window: min. 200 V max. 1000 V

Wide AC voltage range 305 V - 560 V

Very late temperature derating from 50°C (no shutdown)

DC side up to 200% overloading

MPPTs with same power → Can be grouped



Practical

Lightweight: 85 kg

Only simple tools required

SUNCLIX connectors

Compact design and mounting frame for wall mounting

Removable AC and DC SPDs (optional variant)

Noise emission <60db (A)



Reliable

Design life > 20 years

IP66 protection class for outdoor use

Integrated DC switches

Test programs far beyond the standard

Vibration and shock tested

Integrated arc fault detection (optional variant)



Smart

Large number of interface options: LAN/RS485/USB

Communication protocols: MODBUS TCP/ MODBUS RTU

Reactive power at night possible

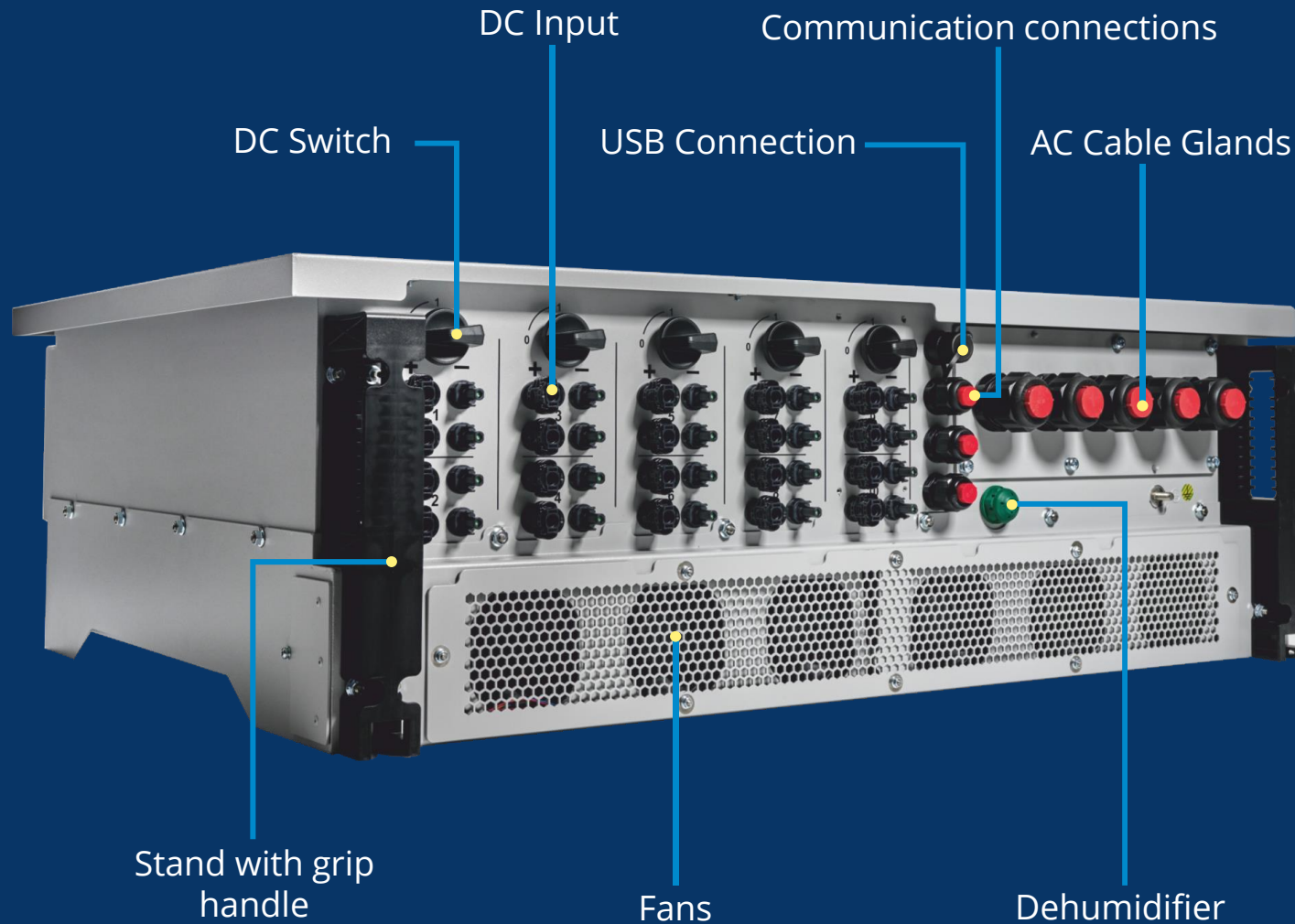
Setup via Wi-Fi

AC daisy chaining with 2 devices

Thoughtful maintenance concept e.g., fan replacement

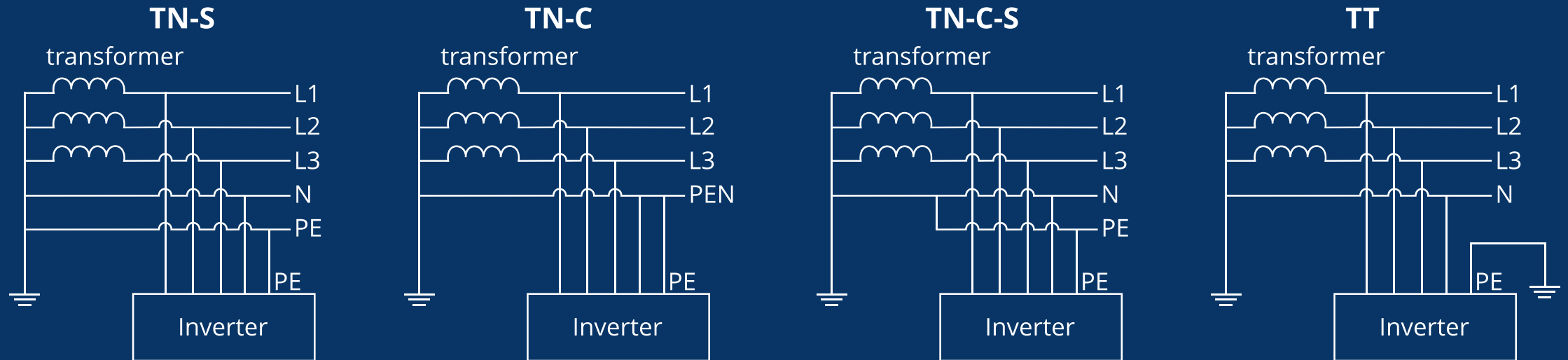
MADE IN GERMANY.

External Connection Area



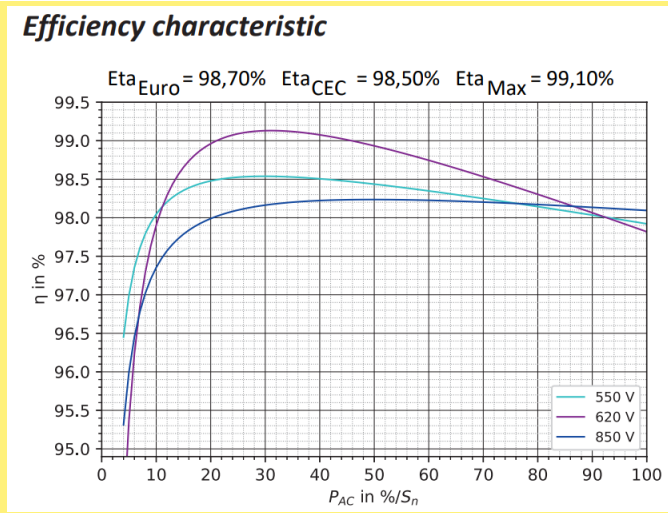
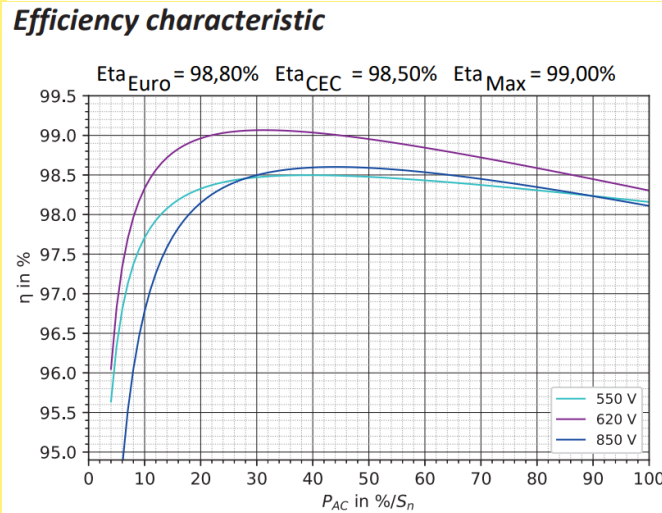
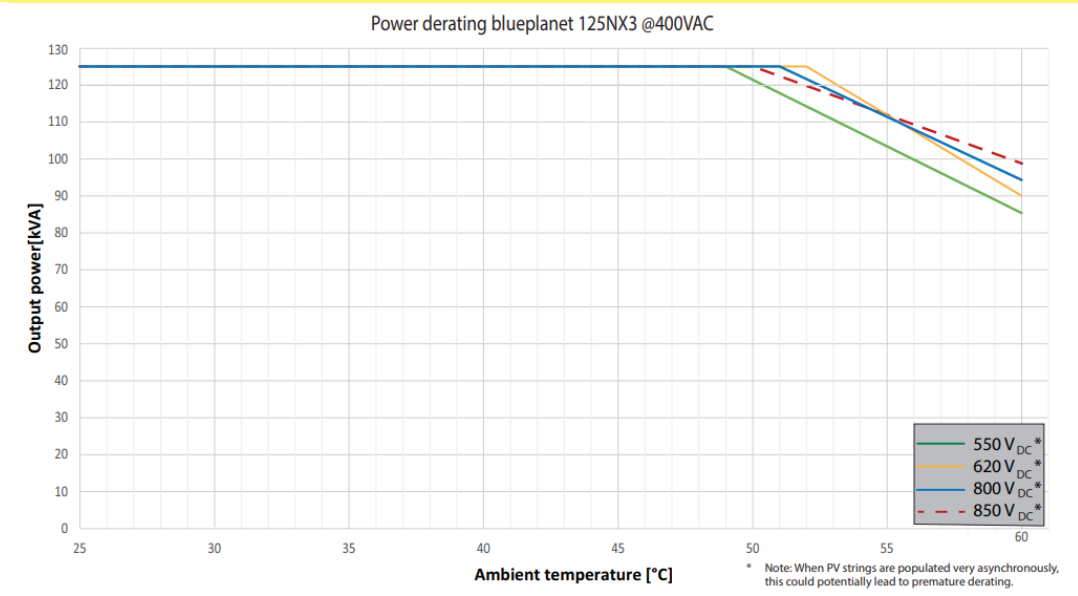
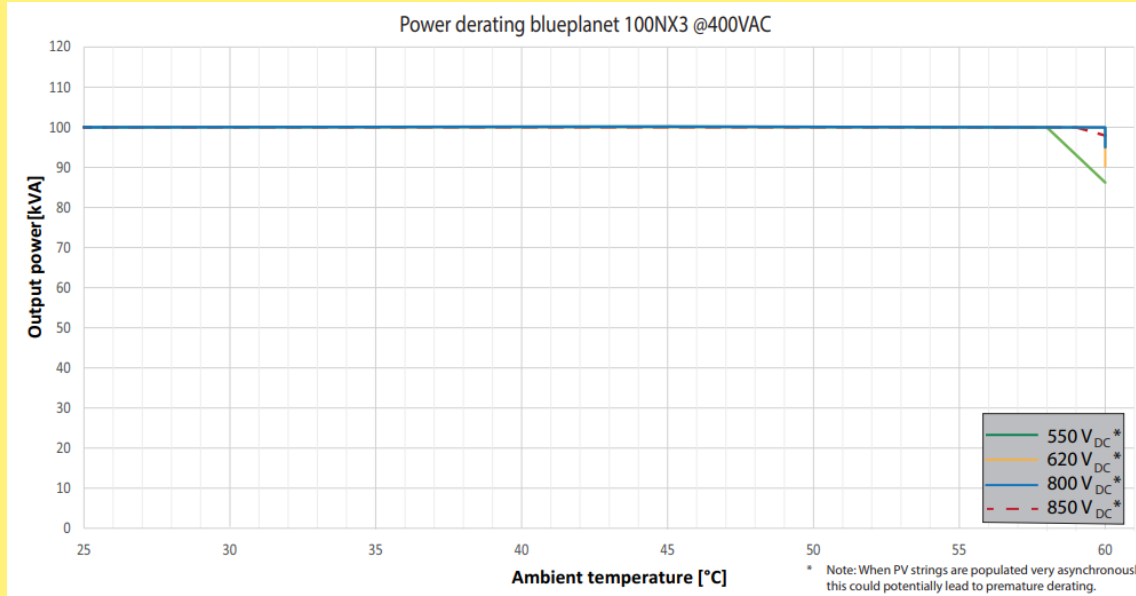
Integration into the AC Grid

Supported Grid Types



Integration of the blueplanet 100 NX3 / 125 NX3 into most AC grid types possible

Temperature Derating & Efficiency



Installation Video.

Installation of the blueplanet 100 / 125 NX3 solar PV inverters

Conclusion „Made in Germany“.

1. Technical Highlights

2. Environmental Product Declaration

3. High Quality & Service

4. Siemens Cyber Security

THANK YOU FOR YOUR ATTENTION

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