



blueplanet 100 NX3/125 NX3

MULTI-MPPT STRING INVERTERS
COMMERCIAL AND INDUSTRIAL
PHOTOVOLTAIC SYSTEMS

Inverters for the industrial PV revolution.

As early as 1999, KACO new energy revolutionized the solar industry with the first series-ready string inverter without transformer.

Today, our inverters can be found in photovoltaic markets worldwide and are prepared for systems of any size – from residential homes to decentralized multi-megawatt solar parks.

Since 2019, KACO new energy has been a subsidiary of Siemens AG and is still based in Germany.

With KACO new energy included.

- 25 years of experience and trust
- Designed and manufactured in Neckarsulm
- Exceeding the standard, extensive test programs
- Comprehensive service portfolio
- Advanced cyber security technology
- Small CO₂ footprint

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The blueplanet 100 NX3 M8 and 125 NX3 M10 are ideally suited for complex and irregular rooftop installations due to their flexible multi-MPPT technology.

The two inverters offer many add-ons and are compatible with bifacial as well as high-power PV modules.

SiC technology makes the blueplanet 100 NX3 and 125 NX3 efficiency leaders. In addition, they ensure a superior system yield and are particularly robust due to their specific component design.



Technical Highlights.

Flexible

Two power ratings: 100 and 125 kVA for complex rooftops 8/10 MPPTs for flexible PV system design (2 strings per MPPT) 30 A input current per MPPT Compatible with bifacial and high power PV modules

Efficient

Max. efficiency 99.1%
Wide DC voltage window: min. 250 V, max. 1000 V
Wide AC voltage range: 300 V – 460 V
Very late derating, no shutdown from 50 °C
Up to 200% DC oversizing
Global MPP-Tracking

Reliable

IP66 rating for outdoor use
Integrated DC-switches
Test programs far above standard
With 4K4H climatic category for harsh environments
Vibration and shock tested

Smart

High number of interface options: LAN/RS485/USB Reactive power at night possible Set up via Wifi AC Daisychaining with 2 devices Sophisticated maintenance concept, e.g. fan replacement

Convenient

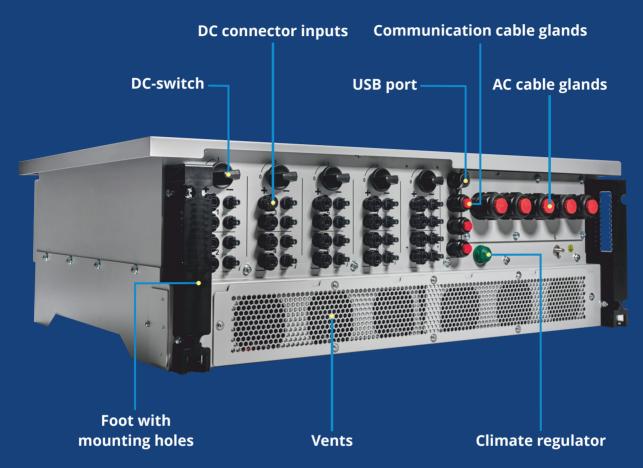
Lightweight: 85 kg
Only basic tools needed
SUNCLIX connectors
Compact wall mount design

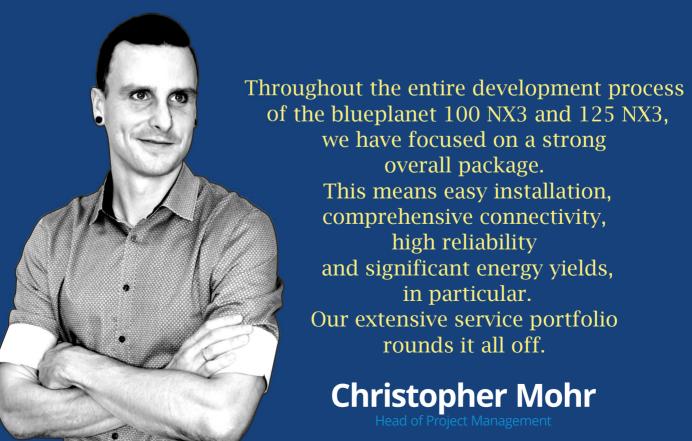
Safe

Arc fault detection and interruption SPD AC Type 2 / DC Type 1+2 pluggable and replaceable Data storage on servers in the EU and Germany State-of-the-art cyber security technology Integrated section switches



Outer connection area of the inverters.





Technical Data.

DC input data	100 NX3 M8	125 NX3 M10		
Max. recommended PV generator power	200 000 W	250 000 W		
MPP range	550 – 850 V	550 – 850 V		
Operating range	200 – 1 000 V	200 – 1 000 V		
Rated DC voltage / start voltage	620 V / 250 V	620 V / 250 V		
Max. no-load voltage	1 100 V	1 100 V		
Max. input current	30 A per tracker	30 A per tracker		
Max. short circuit current I _{sc max}	37.5 A per tracker	37.5 A per tracker		
Max. Number of MPP tracker	8	10		
Connection per tracker	2	2		
AC output data				
Rated output	100 000 VA	125 000 VA @ 400 V 120 000 VA @ 380 V 113 464 VA @ 360 V		
		(90% Unom) acc. to AR-N-VDE 4110		
Max. power	100 000 VA	125 000 VA		
Line voltage	400 V (3P+(N)+PE)	400 V (3P+(N)+PE)		
Voltage range (Ph-Ph)	<u>300 – 460 V</u>	300 – 460 V		
Rated frequency (range)	50 Hz / 60 Hz (45 – 65 Hz)	50 Hz / 60 Hz (45 – 65 Hz)		
Rated current	<u>3 x 144.3 A</u>	3 x 180.4 A		
Max. current	<u>3 x 182.0 A</u>	3 x 182.0 A		
Reactive power / cos phi	0-60 % Snom / 0.80 ind. – 0.80 cap.	0-60 % Snom / 0.80 ind. – 0.80 cap.		
Max. total harmonic distortion (THD)	≤ 3 %	_ ≤3%		
Number of grid phases	3	3		
General data				
Max. efficiency	99.0 %	99.1 %		
Europ. efficiency	98.8 %	98.7 %		
Standby consumption	4.8 W	4.8 W		
Circuitry topology	transformerless	transformerless		
Mechanical data				
Display	LEDs	LEDs		
Control units	webserver, supp	webserver, supports mobile devices		
Interfaces		Ethernet (Modbus TCP SunSpec), RS485 (Modbus RTU SunSpec) USB, Wifi (via Wifi Stick)		
Fault signalling relay	potential-free N	 potential-free NOC max. 30 V / 1 A		
DC connection	PV connector (Phoenix, as	PV connector (Phoenix, assembly without special tools)		
AC connection	cable lug, max. 240	cable lug, max. 240 mm² (0.372 in²) Cu or Al		
Ambient temperature	-25 °C – +60 °C ¹⁾	-25 °C – +60 °C ¹)		
Humidity	0 – 100 %	0 – 100 %		
Max. installation elevation (above MSL)	3 000 m	3 000 m		
Min. distance from coast	C4 protection class	C4 protection class		
Cooling	temperature controlled fan	temperature controlled fan		
Protection class	 IP66	 IP66		
Noise emission	 ≤ 60 db (A)			
HxWxD	740 mm x 1023 mm x 330 mm	740 mm x 1023 mm x 330 mm		
Weight	 	_		
Certifications				
Safety &EMC	EN 55011 g	IEC 62109-1/-2, EN 61000-6-1/-2/-4, EN 61000-3-11/-12, EN 55011 group 1, class A EN 62920 Emission class A		
Grid connection rule		overview see homepage / download area		
GHa conficction raic	overview see nomepage/ download area			

1) Power derating at high ambient temperatures

Versions	В	M	MF	L
AC surge protection	Type 2	Type 2 pluggable (Type 1+2 upgradeable)	Type 2 pluggable (Type 1+2 upgradeable)	Type 2 pluggable (Type 1+2 upgradeable)
DC surge protection	Type 2	Type 1+2 pluggable	Type 1+2 pluggable	Type 1+2 pluggable
Arc fault detection and interruption	-	-	-	Acc. to IEC 63027 region A







Get in touch with us.

Contact for distributors

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Contact for installers



















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