KACO new energy.

DESIGNED IN **GERMANY.**

blueplanet 50.0 NX3/60.0 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 CO_2 footprint

blueplanet
50.0 NX3/60.0 NX3

MULTI-MPPT STRING INVERTERS
COMMERCIAL AND INDUSTRIAL
PHOTOVOLTAIC SYSTEMS

The highly efficient blueplanet 50.0 NX3 and 60.0 NX3 solar PV inverters ensure a superior system yield and are compatible with bifacial and high-power PV modules. Commissioning can be carried out locally as well as remotely. Updates can also be installed from afar.
Both inverters offer a variety of expansion options.

Technical

Reliable

IP66 rating for outdoor use
Integrated DC-switch
International standards
With 4K4H climatic category for harsh environments
Zero feed-in function

Efficient

Max. efficiency 98.6%
Active cooling
Self-consumption <1W
Wide DC voltage window: min. 200 V, max. 1000 V
Shade management – improved generation under non-ideal conditions

Highlights.

Smart

High number of communication options: LAN/ WiFi/ RS485
Plug & Play concept
Smart monitoring via App
AC Daisychaining with 2 devices

Convenient

Lightweight: 45 kg
Only basic tools needed
SUNCLIX connectors
No need to open lid
Compact, wall-mounted design

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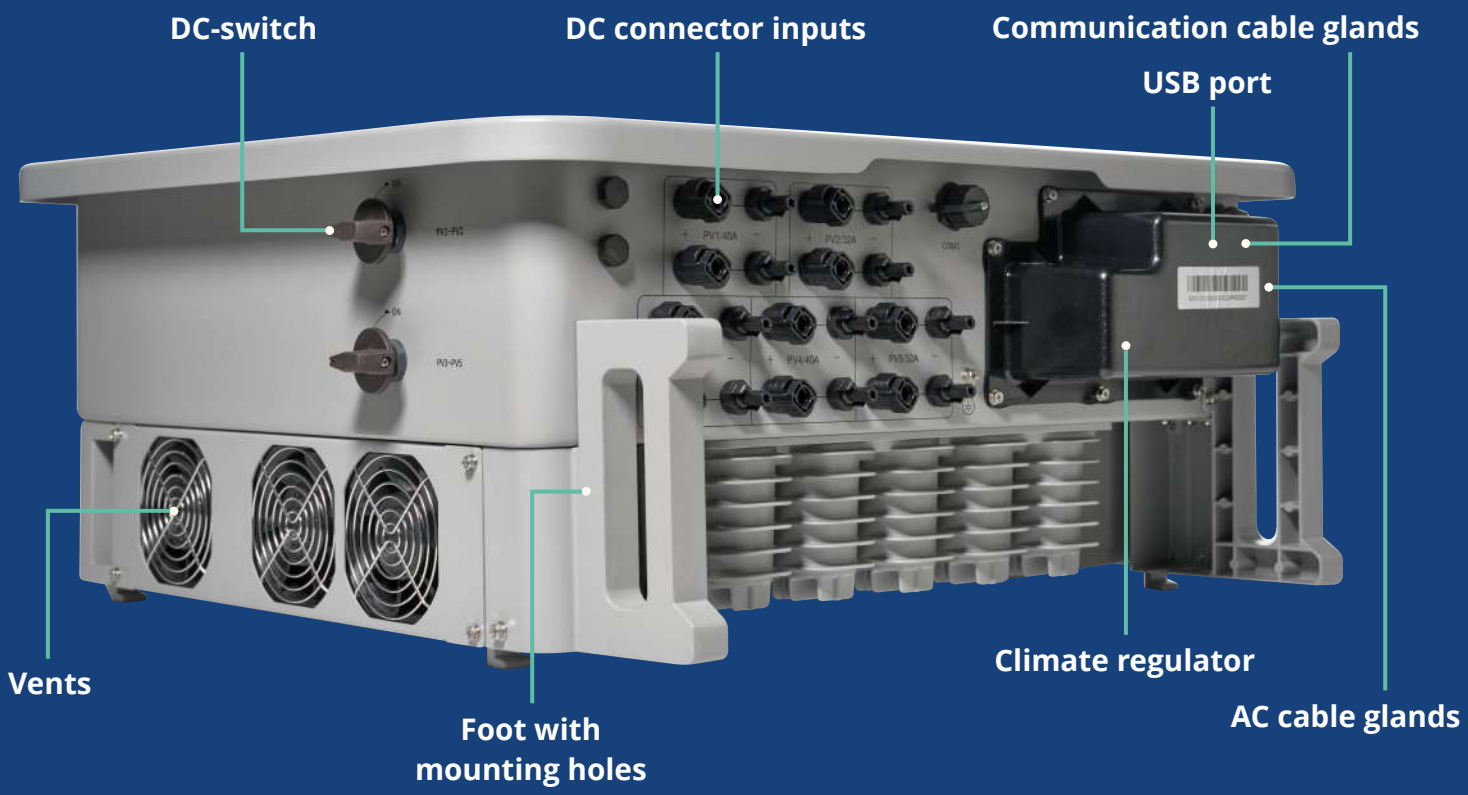
Flexible

Two power ratings: 50 kVA / 60 kVA for particularly complex roof tops (incl. retrofit)
5 MPPTs for flexible PV system design (2 strings per MPPT)
40 A / 32 A input current per MPPT compatible with 182/210 mm PV wafers

Outer connection area of the inverters.



The new blueplanet 50.0 NX3 and 60.0 NX3 are pure powerhouses. In addition to flexibility, reliability and maximum efficiency, they also score points with a new, striking and timelessly aesthetic design. You can look forward to further inverter series from the KACO new energy “Generation Y", which will be unmistakable thanks to the visual upgrade.

Ronak Shah
Head of Sales Europe

Technical Data.

DC input data	50.0 NX3 M5	60.0 NX3 M5
Max. recommended PV generator power	75 000 W	90 000 W
MPP range	385 – 850 V	405 – 850 V
Operating range	200 – 1000 V	200 – 1000 V
Rated DC voltage / start voltage	630 V / 250 V	630 V / 250 V
Max. no-load voltage	1100 V	1100 V
Max. input current	40 / 32 / 32 / 40 / 32	40 / 32 / 32 / 40 / 32
Max. short circuit current $I_{sc\ max}$	60 / 48 / 48 / 60 /48	60 / 48 / 48 / 60 /48
Number of MPP trackers	5	5
Max. connections per tracker	2	2
AC output data		
Rated output	50 000 VA	60 000 VA
Max. power	50 000 VA	60 000 VA
Rated voltage	220 V / 380 V (3 / N / PE) 230 V / 400 V (3 / N / PE) 240 V / 415 V (3 / N / PE)	220 V / 380 V (3 / N / PE) 230 V / 400 V (3 / N / PE) 240 V / 415 V (3 / N / PE)
Voltage range (Ph-Ph)	180 V - 305 V / 312 V - 528 V	180 V - 305 V / 312 V - 528 V
Rated frequency (range)	50 Hz / 60 Hz (45 – 65 Hz)	50 Hz / 60 Hz (45 – 65 Hz)
Rated current	3x75.8 A (@220V/380V) 3x72.5 A (@230V/400V) 3x69.5 A (@240V/415V)	3x91.0 A (@220V/380V) 3x87.0 A (@230V/400V) 3x83.4 A (@240V/415V)
Max. current	83.6 A	95.3 A
Reactive power / cos phi	0.80 ind.– 0.80 cap.	0.80 ind. – 0.80 cap.
Total harmonic distortion (THD)	≤ 3 %	≤ 3 %
Number of grid phases	3	3
General data		
Max. efficiency	98.6 %	98.6 %
Europ. efficiency	98.4 %	98.4 %
Standby consumption	1 W	1 W
Circuitry topology	transformerless	transformerless
Mechanical data		
Display	LEDs	LEDs
Control units	APP (supports mobile devices)	
Interfaces	Ethernet (Modbus TCP based on SunSpec), RS485 (KACO-protocol & Modbus RTU based on SunSpec)	
DC connection	DC-connector (Phoenix Contact Sunclix)	
AC connection	OT / DT	
Ambient temperature	-25 °C – +60 °C [1)]	-25 °C – +60 °C [1)]
Humidity	0 – 100 %	0 – 100 %
Max. installation elevation (above MSL)	3000 m	3000 m
Climatic category (acc. to IEC 60721-3-4)	4K4H	4K4H
Cooling	temperature controlled fan	temperature controlled fan
Protection class	IP66	IP66
Noise emission	≤ 55 db (A)	≤ 55 db (A)
H x W x D	670 mm x 580 mm x 270 mm	670 mm x 580 mm x 270 mm
Weight	45 kg	45 kg

Certifications	
Safety & EMC	IEC 62109-1/2, EN 61000-6-1/-2/-4, EN 61000-3-11/-12, EN 55011 group 1, class B EN 62920 class B
Grid connection rule	overview see homepage / download area

[1)] Power derating at high ambient temperatures