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KACO 25.0 NX3 M3 Multi MPPT String Inverters

Product Usage Instructions

- Ensure the inverter is installed in a well-ventilated area with proper clearance for cooling.
- Connect the DC input from the PV panels to the designated input terminals on the inverter.
- Connect the AC output to the grid connection point following local regulations.

Commissioning and Monitoring

- Use the user-friendly app to set up and commission the inverter for operation.
- Monitor real-time data such as power output and system performance using the monitoring interface.

Maintenance

- Regularly check for any dust or debris accumulation on the inverter and clean if necessary.
- Ensure all connections are secure and free from corrosion or damage.

The power of independence

- Functional, robust design for easy and flexible installation options
- 25, 30, and 33 kVA output power for new projects, retrofitting, and repowering
- Compatible with bifacial and high-power PV modules
- 3 MPPTs for a versatile PV system design (2 strings per MPPT)
- 32 A or 40 A input current per MPPT
- Higher yields through oversizing and shading management
- Various interface options for flexible system integration
- User-friendly app for setup, commissioning, and real-time monitoring

Technical Data

DC input data

DC input data	25.0 NX3 M3	30.0 NX3 M3	33.0 NX3 M3
Max. recommended PV generator power	37 500 W	45 000 W	49 500 W
MPP range		450 – 850 V	
Operating range		180 – 1000 V	
Rated DC voltage / start voltage		630 V / 200 V	
Max. no-load voltage		1100 V	
Max. input current	3x 32 A	3x 32 A	2x 32 A / 1 x 40 A
Max. short circuit current $I_{sc\,max}$	3x 40 A	3x 40 A	2x 40 A / 1 x 50 A
Number of MPP trackers		3	
Connections per tracker		2	
DC surge protection		Type 2	

AC output data

Rated output	25 000 W	30 000 W	33 000 W
Max. power	25 000 VA	30 000 VA	33 000 VA
Rated voltage	220 V / 380 V (3-N-PE) 230 V / 400 V (3-N-PE) 240 V / 415 V (3-N-PE)		
Voltage range (Ph-Ph)	160-300 V (Ph-N) / 277-519 V (Ph-Ph)		
Rated frequency (range)	50 Hz / 60 Hz (45 – 65 Hz)		
Rated current	-		
Max. current	39.9 A	43.0 A	52.6 A
Reactive power / cos phi	0.80 ind.– 0.80 cap.		
Total harmonic distortion (THD)	<3 %		
Number of grid phases	3		
AC surge protection	Type 2		

General data

Max. efficiency	97.4 %	97.7 %	98.0 %
Europ. efficiency	97.2 %	97.4 %	97.6 %
Standby consumption	<1 W		
Circuitry topology	transformerless		

Mechanical data

Display	LEDs		
Control units	App (supports mobile devices)		
Interfaces	WiFi, LAN, Ethernet, Modbus TCP-IP in reference to Sunspec / Sunspec Modbus RTU, KACO Legacy Protocol		
DC connection	DC plugs (Phoenix Contact Sunclix)		
AC connection	OT / DT		
Ambient temperature	-25 °C – +60 °C		
Humidity	0 – 100 % (non-condensing)		
Max. installation elevation (above MSL)	3 000 m		
Climatic category (acc. to IEC 60721-3-4)	4K4H		
Cooling	temperature controlled fan		
Protection class	Ip66 / NEMA 4X		
Noise emission	<50 db (A)		
H x W x D	600 x 573 x 245 mm		
Weight	30.5 kg	30.5 kg	32.4 kg

Certifications

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

- The text and figures reflect the current technicol state at the time of printing. Subject to technical changes. Errors and omissions excepted
- This current version replaces all older versions. Download the most currentversion at: www.kaco-newenergy.com. kaco-newenergy.com

FAQ

- **Q: What is the maximum PV generator power supported by the inverter?**
  - **A:** The inverter supports a maximum PV generator power of 45,000 W.
- **Q: How many MPP trackers does the inverter have?**
  - **A:** The inverter has 3 MPP trackers for versatile PV system design.
- **Q: Is the inverter compatible with high-power PV modules?**
  - **A:** Yes, the inverter is compatible with bifacial and high-power PV modules.

Documents / Resources

KACO 25.0 NX3 M3 Multi MPPT String Inverters [pdf] Owner's Manual
25.0 NX3 M3, 30.0 NX3 M3, 25.0 NX3 M3 Multi MPPT String Inverters, 25.0 NX3 M3, Multi MPPT String Inverters, MPPT String Inverters, String Inverters, Inverters

References

- User Manual

KACO25.0 NX3 M3, 25.0 NX3 M3 Multi MPPT String Inverters, 30.0 NX3 M3, Inverters, KACO, MPPT String Inverters, Multi MPPT String Inverters, String Inverters

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