



**BUREAU
VERITAS**

Type Certificate

Applicant: KACO new energy GmbH
Carl-Zeiss-Straße 1
74172 Neckarsulm
Germany

| Type of power generating unit: | Grid-tied photovoltaic inverter | KACO blueplanet 1000 TL3 M1 IS OD DEX0* (BP1000 TL3 OD DE) | KACO blueplanet 875 TL3 M1 IS OD DEX0* (BP875 TL3 OD DE) | KACO blueplanet 750 TL3 M1 IS OD DEX0* (BP750 TL3 OD DE) |
|--------------------------------|--|--|--|--|
| Technical data: | Nominal apparent power: | 1000 kVA | | |
| | Nominal active power | 1000 kW | 875 kW | 750 kW |
| | Active power: ($\cos\phi = 0,95$; $U = 0,95 U_n$) | 950 kW | 875 kW | 750 kW |
| | Nominal voltage: | 370 V, 3P+PE | | |
| | Nominal frequency: | 50 Hz | | |

* Further types see supplementary sheets to this certificate

Firmware version: BP-TL-OD-1.04r-3.8k-1.0-1.47 (further versions see supplementary sheet 2)

Grid connection regulation: BDEW guideline „Generation Systems in the Medium-voltage Grid“
Guideline for the connection and parallel operation of generation systems in the BDEW medium-voltage grid, 2008 and amendment up to 1/2013

Pertinent standards / DIN EN 61400-21:2008

Guidelines: Technical guidelines: FGW TG 3 Rev. 23, FGW TG 4 Rev. 7, FGW TG 8 Rev. 6

The power generating unit, stated in the certificate, was tested and certified according to the technical guidelines referenced to in the grid connection regulation. The electrical characteristics fulfill the requirements of the grid connection regulation:

- Generation and control of active and reactive power
- Generating unit's reaction to system incidents (Reactive current characteristic according to TransmissionCode 2007)
- Protection on generating unit level (Note in appendix p.46)**
- Report of power quality
- Validated type model: KACO_15-099_TR4_Blueplanet_BP_TL3_V1

The manufacturer has proven the certification of his quality management system according to ISO 9001.

** A necessary connecting terminal plate has to be installed separately.

The certificate includes the following information:

- Technical data of the power generating unit, additional components and implemented software versions
- The schematic layout of the power generating unit
- Summarized information on the characteristic of the power generating unit

BV project number: 14TH0260

Certificate no.: 15-099_1

Issued: 2015-03-15

Valid until: 2020-12-17

Certification Department

Dieter Zitzmann

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**BUREAU
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Certificate supplement 1 (15-099_1)

Derived power generating units:

| | | |
|--------------------------------|--|--|
| Type of power generating unit: | Grid-tied photovoltaic inverter | KACO blueplanet 1000 TL3 M1 IS OD DEX1 KACO blueplanet 1000 TL3 M1 IS OD DEX2 KACO blueplanet 1000 TL3 M1 IS OD DEX3 KACO blueplanet 1000 TL3 M1 IS OD DEX4 KACO blueplanet 1000 TL3 M1 IS OD DEX5 KACO blueplanet 1000 TL3 M1 IS OD DEX6 KACO blueplanet 1000 TL3 M1 IS OD DEX7 KACO blueplanet 1000 TL3 M1 IS OD DEX8 KACO blueplanet 1000 TL3 M1 IS OD DEX9 |
| Technical data: | Nominal apparent power: | 1000 kVA |
| | Nominal active power | 1000 kW |
| | Active power: ($\cos\varphi = 0,95$; $U = 0,95 U_n$) | 950 kW |
| | Nominal voltage: | 370 V, 3P+PE |
| | Nominal frequency: | 50 Hz |
| Type of power generating unit: | Grid-tied photovoltaic inverter | KACO blueplanet 875 TL3 M1 IS OD DEX1 KACO blueplanet 875 TL3 M1 IS OD DEX2 KACO blueplanet 875 TL3 M1 IS OD DEX3 KACO blueplanet 875 TL3 M1 IS OD DEX4 KACO blueplanet 875 TL3 M1 IS OD DEX5 KACO blueplanet 875 TL3 M1 IS OD DEX6 KACO blueplanet 875 TL3 M1 IS OD DEX7 KACO blueplanet 875 TL3 M1 IS OD DEX8 KACO blueplanet 875 TL3 M1 IS OD DEX9 |
| Technical data: | Nominal apparent power: | 1000 kVA |
| | Nominal active power | 875 kW |
| | Active power: ($\cos\varphi = 0,95$; $U = 0,95 U_n$) | 875 kW |
| | Nominal voltage: | 370 V, 3P+PE |
| | Nominal frequency: | 50 Hz |

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2020-12-17

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**BUREAU
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Certificate supplement 2 (15-099_1)

Derived power generating units:

| | | |
|---------------------------------------|---|---|
| Type of power generating unit: | Grid-tied photovoltaic inverter | KACO blueplanet 750 TL3 M1 IS OD DEX1 KACO blueplanet 750 TL3 M1 IS OD DEX2 KACO blueplanet 750 TL3 M1 IS OD DEX3 KACO blueplanet 750 TL3 M1 IS OD DEX4 KACO blueplanet 750 TL3 M1 IS OD DEX5 KACO blueplanet 750 TL3 M1 IS OD DEX6 KACO blueplanet 750 TL3 M1 IS OD DEX7 KACO blueplanet 750 TL3 M1 IS OD DEX8 KACO blueplanet 750 TL3 M1 IS OD DEX9 |
| Technical data: | Nominal apparent power: | 1000 kVA |
| | Nominal active power | 750 kW |
| | Active power: ($\cos\phi = 0,95$; $U = 0,95 U_n$) | 750 kW |
| | Nominal voltage: | 370 V, 3P+PE |
| | Nominal frequency: | 50 Hz |

Approved firmware versions:

| Name | Version XCU67 | Version XCU28 |
|----------------------------------|---------------|---------------|
| BP-TL-OD-1.04r-3.8k-1.0-1.47 | 1.04r | 3.8k |
| BP-TL-OD-1.04r SP2-3.9k-1.0-1.47 | 1.04r SP2 | 3.9k |

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Valid until:

2020-12-17

Certification Department

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