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|-----------------------------------|--|
| Product Certificate Number | 20457-14-CER |
| Applicant | KACO new energy GmbH Carl-Zeiss-Str. 1 74172. Neckarsulm.Germany |
| Series | KACO blueplanet |
| Models/ | KACO blueplanet 87.0 TL3 M1 WM OD IIF0 KACO blueplanet 87.0 TL3 M1 WM OD IIFX KACO blueplanet 92.0 TL3 M1 WM OD IIG0 KACO blueplanet 92.0 TL3 M1 WM OD IIGX KACO blueplanet 125 TL3 M1 WM OD IIP0 KACO blueplanet 125 TL3 M1 WM OD IIPX KACO blueplanet 137 TL3 M1 WM OD IIP0 KACO blueplanet 137 TL3 M1 WM OD IIPX KACO blueplanet 150 TL3 M1 WM OD IIQ0 KACO blueplanet 150 TL3 M1 WM OD IIQX |
| Type of generating unit | Photovoltaic Inverter |
| Technical Data | See page 2 and 3 |
| Network connection code | VDE-AR-N 4105: 2018-11. Generators connected to the low-voltage distribution network – Technical requirements for the connection to and parallel operation with low-voltage distribution networks. |

Having assessed the test report number 20278-3-TR performed by CERE (Accredited Laboratory N° 5314.01) and 103550889CRT-002d performed by INTERTEK (Accredited Laboratory N° 1249.01) based on the requirements of the EN ISO/IEC 17025:2005.

The above-mentioned generating unit complies with the requirements of the:

VDE-AR-N 4105: 2018-11. Generators connected to the low-voltage distribution network – Technical requirements for the connection to and parallel operation with low-voltage distribution networks.

This certification is according the CERE internal process PET-CERE-09 Rev 19 based on the requirements of the EN ISO/IEC 17065:2012. For this certification process the conformity assessment activities were based on:

- Testing of production samples selected by CERE.
- Audit of quality system according ISO 9001 with certificate number: 2018-0076483-00 issued by a certification body accredited according EN ISO/IEC 17021.
- Inspection of the manufacturing process.

This certificate cancels and supersedes the certificate 20278-3-CER issued on September 30, 2019.

Madrid at January 31, 2020. This certificate is valid until September 30, 2022

Miguel Martínez Lavin
Certification Manager

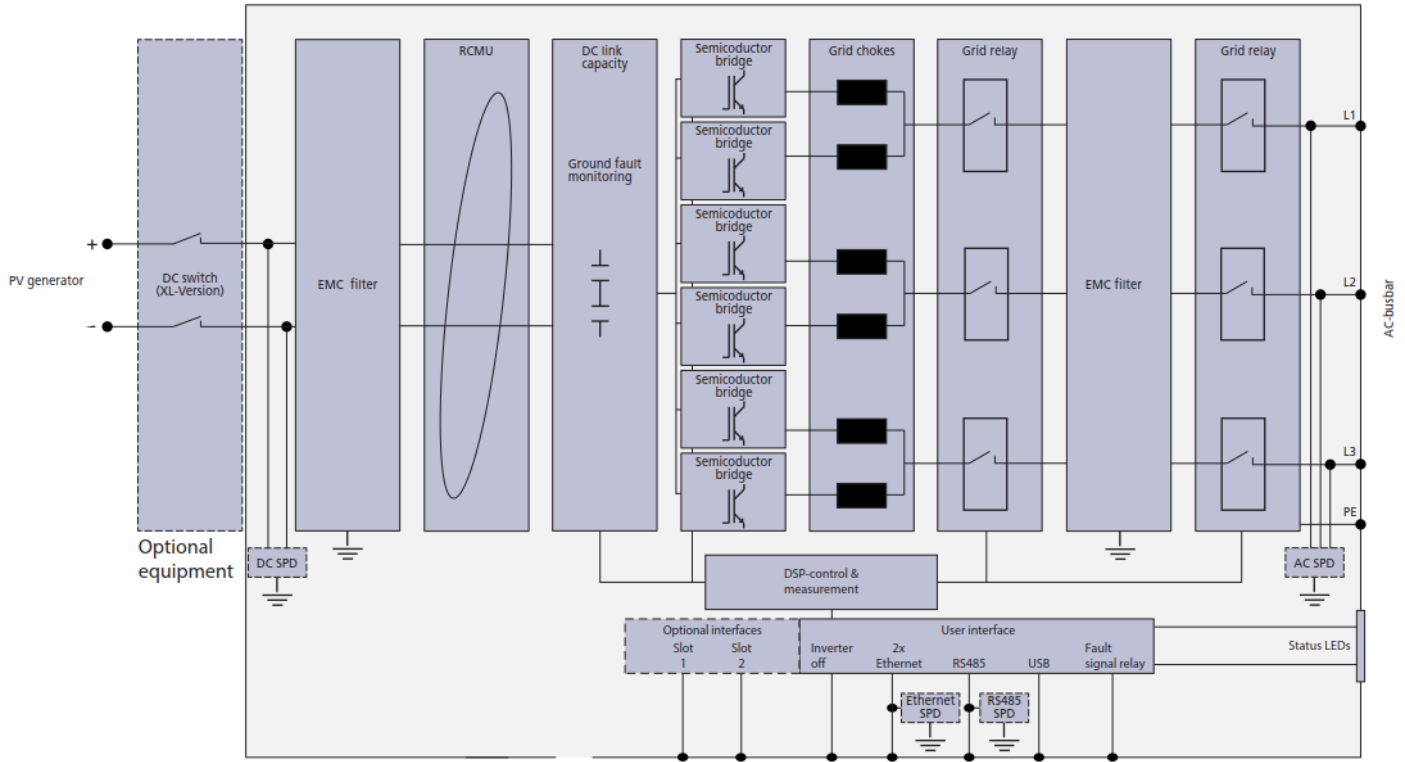
Technical data

| KACO blueplanet | | |
|--|---|---------------|
| | 87.0 TL3 | 92.0 TL3 |
| DC INPUT DATA | | |
| Max. recommended PV generator power | 130500 W | 138000 W |
| MPP range | 563 – 1300 V | 591 – 1300 V |
| Operating range | 563 – 1450 V | 591 – 1450 V |
| Rated DC voltage / start voltage | 600 V/ 645 V | 620 V/ 675 V |
| Max. no load voltage | 1500 V | |
| Max. input current | 160 A | |
| Max. short circuit current $I_{sc\ max}$ | 300 A | |
| AC OUTPUT DATA | | |
| Rated output | 87000 VA | 92000 VA |
| Max. power | 87000 VA | 92000 VA |
| Line voltage | 380 V (3P+PE) | 400 V (3P+PE) |
| Voltage range (ph-ph) | 300 – 580 V | |
| Rated frequency (range) | 50 Hz / 60 Hz (45 Hz – 65 Hz) | |
| Rated current | 3 x 132,3 A | |
| Max. current | 3 x 132,3 A | |
| Reactive current / cos phi | 0 – 100 % Som / 0.3 ind. – 0.30 cap | |
| Max. total harmonic distortion (THD) | ≤ 3 % | |
| GENERAL DATA | | |
| Circuitry topology | transformerless | |
| MECHANICAL DATA | | |
| Control units | webservice, supports mobile devices | |
| Interfaces | Ethernet (Modbus TCP, Sunspec) RS485 (Modbus RTU, Sunspec, KACO-protocol) USB, optional: 4-DI, WIFI | |
| Ambient temperature | -25 °C – +60 °C | |
| Humidity | 0 – 100 % | |
| DC switch | Model 0: Without DC Switch Model X: With DC Switch | |

| KACO blueplanet | | | |
|--|---|----------------|-----------------|
| | 125 TL3 | 137 TL3 | 150 TL3 |
| DC INPUT DATA | | | |
| Max. recommended PV generator power | 187500 W | 205500 W | 225000 W |
| MPP range | 875-1300 V | | 960-1300 V |
| Operating range | 875-1450 V | | 960-1450 V |
| Rated DC voltage / start voltage | 900 V / 1000 V | | 1000 V / 1100 V |
| Max. no load voltage | 1500 V | | |
| Max. input current | 160 A | | |
| Max. short circuit current $I_{sc\ max}$ | 300 A | | |
| AC OUTPUT DATA | | | |
| Rated output | 125000 VA | 137000 VA | 150000 VA |
| Max. power | 137500 VA | 137000 V | 150000 VA |
| Line voltage | 600 V (3P+PE) | | 660 V (3P+PE) |
| Voltage range (ph-ph) | 480 – 760 V | | |
| Rated frequency (range) | 50 Hz / 60 Hz (45 – 65 Hz) | | |
| Rated current | 3 x 120.3 A | 3 x 132.3 A | 3 x 131.2 A |
| Max. current | 3 x 132.3 A | 3 x 132.3 A | 3 x 132.3 A |
| Reactive current / cos phi | 0 – 100 % Som / 0.3 ind. – 0.30 cap | | |
| Max. total harmonic distortion (THD) | ≤ 3 % | | |
| GENERAL DATA | | | |
| Circuitry topology | Transformerless | | |
| MECHANICAL DATA | | | |
| Control units | webserver, supports mobile devices | | |
| Interfaces | Ethernet (Modbus TCP, Sunspec) RS485 (Modbus RTU, Sunspec, KACO-protocol) USB, optional: 4-DI, WIFI | | |
| Ambient temperature | -25 °C – +60 °C | | |
| Humidity | 0 – 100 % | | |
| DC switch | Model 0: Without DC Switch Model X: With DC Switch | | |

Electrical Diagram of KACO blueplanet Series

KACO blueplanet 87.0TL3 - 150.0TL3 M1



The sample selected to test was representative of the production.
The sample was selected in:

Sample Report Number:

The inspection of manufacturing process was performed in:
On 20th of November of 2019

Inspection Report Number:

KACO new energy GmbH
Werner-von-Siemens Allee, 1.
74172 Neckarsum, Germany

20278-1-TM
11515-3-TM

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11515-19-2-IF