



**BUREAU  
VERITAS**

# Certificate of compliance

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

**Product:** Grid-tied photovoltaic inverter

**Model:** KACO blueplanet 50.0 TL3 M1 WM OD IIGM  
KACO blueplanet 50.0 TL3 M1 WM OD IIGB  
KACO blueplanet 50.0 TL3 M1 WM OD IIGX  
KACO blueplanet 50.0 TL3 M1 WM OD FRGX  
KACO blueplanet 50.0 TL3 M1 WM OD IIGS

## Use in accordance with regulations:

Automatic disconnection device with three-phase mains surveillance in accordance with IEC 61727:2004 and IEC62116:2014 for photovoltaic systems with a three-phase parallel coupling via an inverter in the public mains supply. The automatic disconnection device is an integral part of the aforementioned inverters.

## Applied rules and standards:

### IEC 61727:2004

Photovoltaic (PV) systems – Characteristics of the utility interface

### IEC 62116:2014

Test procedure of islanding prevention measures for utility-interconnected photovoltaic inverters

### IEEE 1547:2003, IEEE 1547.1:2005 (harmonics, d.c.-injection, voltage and frequency disconnection, reconnection)

IEEE Standard Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems

### AS 4777.3:2005 (grid protection requirements)

Grid connection of energy systems via inverters – inverter requirements and grid protection requirements

*The following deviations for Thailand were applied:*

*Electricity Grid System Connection Requirements B.E. 2551 of Provincial Electricity Authority (PEA 2016) with attachment for Proclamation No. 6.2 for plants till and above 500kW:*

*under voltage limit (level 1): 198,0V  
under voltage limit (level 2): 110,0V  
over voltage limit (level 1): 242,0V  
overvoltage limit (level 2): 264,0V  
lower frequency limit: 46,9Hz  
upper frequency limit: 52,1Hz  
loss of main detection limit: 1s*

At the time of issue of this certificate the safety concept of an aforementioned representative product corresponds to the valid safety specifications for the specified use in accordance with regulations.

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**Certification body**

  
Holger Schaffer



Certification body of Bureau Veritas Consumer Products Services Germany GmbH  
Accredited according to DIN EN ISO/IEC 17065