



**BUREAU
VERITAS**

Certificate of compliance

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

Product: Grid-tied photovoltaic inverter

Model: Powador 60.0 TL3
See annex for detailed model description

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 2013) 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: 47,9Hz
upper frequency limit: 51,1Hz
loss of main detection limit: 2s*

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.

Report number: 12TH0351-IEC61727_2
Certificate number: U16-0319
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Certification body



Dieter Zitzmann



Deutsche
Akkreditierungsstelle
D-ZE-12024-01-00

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



Annex to the certificate of compliance No. U16-0319

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Additional models

Extract from test report: N/A

Report Nr.: 12TH0351

Model / Type

Powador 60.0 TL3 – M – INT
Powador 60.0 TL3 – XL – INT
Powador 60.0 TL3 – XL – INT – SPD 1+2
Powador 60.0 TL3 – XL – F – INT
Powador 60.0 TL3 – XL – F – SPD 1+2