



**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, Powador 72.0 TL3,
Powador 39.0 TL3, Powador 48.0 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 IEC62116:2008 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 62116:2008

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

IEC 62109-1:2010

Safety of power converters for use in photovoltaic power systems - Part 1: General requirements

IEC 62109-2:2011

Safety of power converters for use in photovoltaic power systems - Part 2: Particular requirements for inverters

The following values according IEC61727 and IEC62116 were applied:

under voltage limit (level 1): 195,5V
under voltage limit (level 2): 115,0V
over voltage limit (level 1): 253,0V
overvoltage limit (level 2): 310,0V
lower frequency limit: 49,0Hz
upper frequency limit: 51,0Hz
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
12TH0351-IEC62116_2
12TH0351-IEC62109-1_5
12TH0351-IEC62109-2

Certificate number: U17-0575

Date of issue: 2017-10-13



Certification body

Holger Schaffer



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



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Additional models

Extract from test report: N/A

Report Nr.: 12TH0351

Model / Type

Powador 39.0 TL3 - M 1
Powador 39.0 TL3 - M- INT
Powador 39.0 TL3 - XL - F - SPD 1+2
Powador 39.0 TL3 - XL INT

Powador 48.0 TL3 - M - INT - Park
Powador 48.0 TL3 - XL - F - SPD 1+2 - Park

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

Powador 72.0 TL3 - M - INT - Park
Powador 72.0 TL3 - XL - INT - Park
Powador 72.0 TL3 - XL - F - SPD 1+2 - Park