

# CERTIFICATE

of conformity with the following European Directives

**Low Voltage Directive 2014/35/EU**

This certifies that below described products of the applicant:

**Xiamen Kehua Digital Energy Tech Co., Ltd.**

Room 208-38, Hengye Building, No. 100 Xiangxing Road, Torch  
High-tech Zone (Xiangan) Industrial Zone,  
Xiamen, China

comply to the essential requirements of the above mentioned European Directive and the following standards,  
taking into account the German national deviations:

**Product(s):** PV Grid-Tied Inverter

**Model type(s):** SPI8K-B X2, SPI10K-B X2, SPI12K-B X2, SPI15K-B X2, SPI17K-B X2,  
SPI20K-B X2, SPI23K-B X2, SPI25K-B X2, SPI25K-B X2P

This certificate of conformity is based on the evaluation of samples of the product. It does not imply an assessment of the production and it does not permit the use of a mark of conformity or of a safety mark of the TÜV NORD CERT GmbH. The holder of this certificate may use this Certificate together with his EC-Declaration of Conformity.

Certification program:	P33-VA-01 Rev. 02 / 04.20
Certification fundamental(s):	EN 62109-1:2010; EN 62109-2:2011
Registered no.:	44 799 22 406749 - 076
Report no.:	492012074.001
File no.:	PVP03019/22B-02

TÜV NORD CERT GmbH  
Certification Body  
Balance of System (BOS) for Photovoltaics

Essen, 2022-06-23

TÜV NORD CERT GmbH

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Please also pay attention to the information stated overleaf.



The CE marking may be affixed on the product if all relevant and effective Directives are complied with.



# ANNEX

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**to Certificate registration no. 44 780 22 406749 - 076**

## Description of product(s):

Model type.....:	SPI8K-B X2		
General information			
Type of Inverter .....	Non-Isolated	Separated by .....	Non Transformer
Safety Class .....	Class I	IP grade.....:	IP66
Over-Voltage Category .....	PV Input: II AC Output: III	Pollution Degree.....:	External PD3 Internal PD2
Hardware Version .....	V3.0	Software Version.....:	V3.00
PV input			
V <sub>max</sub> [V d.c.] .....	1100	I <sub>sc</sub> [V d.c.].....:	18.75*2
MPP Voltage Range [V d.c.] .....	180~1100	Max. Input Current [A d.c.] .....	15*2
AC output			
Rated output voltage [V a.c.].....:	400, 3W+N+PE	Rated Output Frequency[Hz] ..:	50/60
Rated Output Power [kW a.c.] ...:	8	Max. Apparent Power[kVA a.c.] .....:	8.8
Max. Output Current [A a.c.] .....	12.7	Power Factor .....	[-0.80, 0.80]

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Model type ..... :	SPI10K-B X2		
General information			
Type of Inverter ..... :	Non-Isolated	Separated by ..... :	Non Transformer
Safety Class ..... :	Class I	IP grade..... :	IP66
Over-Voltage Category ..... :	PV Input: II AC Output: III	Pollution Degree..... :	External PD3 Internal PD2
Hardware Version ..... :	V3.0	Software Version..... :	V3.00
PV input			
V <sub>max</sub> [V d.c.] ..... :	1100	I <sub>sc</sub> [V d.c.]..... :	18.75*2
MPP Voltage Range [V d.c.] ..... :	180~1100	Max. Input Current [A d.c.] ..... :	15*2
AC output			
Rated output voltage [V a.c.]..... :	400, 3W+N+PE	Rated Output Frequency[Hz] .. :	50/60
Rated Output Power [kW a.c.] ... :	10	Max. Apparent Power[kVA a.c.] ..... :	11
Max. Output Current [A a.c.] ..... :	15.9	Power Factor ..... :	[-0.80, 0.80]

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Model type ..... :	SPI12K-B X2		
General information			
Type of Inverter ..... :	Non-Isolated	Separated by ..... :	Non Transformer
Safety Class ..... :	Class I	IP grade..... :	IP66
Over-Voltage Category ..... :	PV Input: II AC Output: III	Pollution Degree..... :	External PD3 Internal PD2
Hardware Version ..... :	V3.0	Software Version..... :	V3.00
PV input			
V <sub>max</sub> [V d.c.] ..... :	1100	I <sub>sc</sub> [V d.c.]..... :	18.75*2
MPP Voltage Range [V d.c.] ..... :	180~1100	Max. Input Current [A d.c.] ..... :	15*2
AC output			
Rated output voltage [V a.c.]..... :	400, 3W+N+PE	Rated Output Frequency[Hz] .. :	50/60
Rated Output Power [kW a.c.] ... :	12	Max. Apparent Power[kVA a.c.] ..... :	13.2
Max. Output Current [A a.c.] ..... :	19.1	Power Factor..... :	[-0.80, 0.80]

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Model type ..... :	SPI15K-B X2		
General information			
Type of Inverter ..... :	Non-Isolated	Separated by ..... :	Non Transformer
Safety Class ..... :	Class I	IP grade..... :	IP66
Over-Voltage Category ..... :	PV Input: II AC Output: III	Pollution Degree..... :	External PD3 Internal PD2
Hardware Version ..... :	V3.0	Software Version..... :	V3.00
PV input			
V <sub>max</sub> [V d.c.] ..... :	1100	I <sub>sc</sub> [V d.c.]..... :	37.5/18.75
MPP Voltage Range [V d.c.] ..... :	180~1100	Max. Input Current [A d.c.] ..... :	30/15
AC output			
Rated output voltage [V a.c.]..... :	400, 3W+N+PE	Rated Output Frequency[Hz] .. :	50/60
Rated Output Power [kW a.c.] ... :	15	Max. Apparent Power[kVA a.c.] ..... :	16.5
Max. Output Current [A a.c.] ..... :	23.8	Power Factor..... :	[-0.80, 0.80]

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Model type ..... :	SPI17K-B X2		
General information			
Type of Inverter ..... :	Non-Isolated	Separated by ..... :	Non Transformer
Safety Class ..... :	Class I	IP grade..... :	IP66
Over-Voltage Category ..... :	PV Input: II AC Output: III	Pollution Degree..... :	External PD3 Internal PD2
Hardware Version ..... :	V3.0	Software Version..... :	V3.00
PV input			
V <sub>max</sub> [V d.c.] ..... :	1100	I <sub>sc</sub> [V d.c.]..... :	37.5+18.75
MPP Voltage Range [V d.c.] ..... :	180~1100	Max. Input Current [A d.c.] ..... :	30+15
AC output			
Rated output voltage [V a.c.]..... :	400, 3W+N+PE	Rated Output Frequency[Hz] .. :	50/60
Rated Output Power [kW a.c.] ... :	17	Max. Apparent Power[kVA a.c.] ..... :	18.7
Max. Output Current [A a.c.] ..... :	27	Power Factor ..... :	[-0.80, 0.80]

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Model type ..... :	SPI20K-B X2		
General information			
Type of Inverter ..... :	Non-Isolated	Separated by ..... :	Non Transformer
Safety Class ..... :	Class I	IP grade..... :	IP66
Over-Voltage Category ..... :	PV Input: II AC Output: III	Pollution Degree..... :	External PD3 Internal PD2
Hardware Version ..... :	V3.0	Software Version..... :	V3.00
PV input			
V <sub>max</sub> [V d.c.] ..... :	1100	I <sub>sc</sub> [V d.c.]..... :	2*37.5
MPP Voltage Range [V d.c.] ..... :	180~1100	Max. Input Current [A d.c.] ..... :	2*30
AC output			
Rated output voltage [V a.c.]..... :	400, 3W+N+PE	Rated Output Frequency[Hz] .. :	50/60
Rated Output Power [kW a.c.] ... :	20	Max. Apparent Power[kVA a.c.] ..... :	22
Max. Output Current [A a.c.] ..... :	31.8	Power Factor..... :	[-0.80, 0.80]

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Model type ..... :	SPI23K-B X2		
General information			
Type of Inverter ..... :	Non-Isolated	Separated by ..... :	Non Transformer
Safety Class ..... :	Class I	IP grade..... :	IP66
Over-Voltage Category ..... :	PV Input: II AC Output: III	Pollution Degree..... :	External PD3 Internal PD2
Hardware Version ..... :	V3.0	Software Version..... :	V3.00
PV input			
V <sub>max</sub> [V d.c.] ..... :	1100	I <sub>sc</sub> [V d.c.]..... :	37.5*2
MPP Voltage Range [V d.c.] ..... :	180~1100	Max. Input Current [A d.c.] ..... :	30*2
AC output			
Rated output voltage [V a.c.]..... :	400, 3W+N+PE	Rated Output Frequency[Hz] .. :	50/60
Rated Output Power [kW a.c.] ... :	23	Max. Apparent Power[kVA a.c.] ..... :	25.3
Max. Output Current [A a.c.] ..... :	36.5	Power Factor ..... :	[-0.80, 0.80]



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Model type ..... :	SPI25K-B X2		
General information			
Type of Inverter ..... :	Non-Isolated	Separated by ..... :	Non Transformer
Safety Class ..... :	Class I	IP grade..... :	IP66
Over-Voltage Category ..... :	PV Input: II AC Output: III	Pollution Degree..... :	External PD3 Internal PD2
Hardware Version ..... :	V3.0	Software Version..... :	V3.00
PV input			
V <sub>max</sub> [V d.c.] ..... :	1100	I <sub>sc</sub> [V d.c.]..... :	37.5*2
MPP Voltage Range [V d.c.] ..... :	180~1100	Max. Input Current [A d.c.] ..... :	30*2
AC output			
Rated output voltage [V a.c.]..... :	400, 3W+N+PE	Rated Output Frequency[Hz] .. :	50/60
Rated Output Power [kW a.c.] ... :	25	Max. Apparent Power[kVA a.c.] ..... :	27.5
Max. Output Current [A a.c.] ..... :	39.7	Power Factor..... :	[-0.80, 0.80]

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Model type ..... :	SPI25K-B X2P		
General information			
Type of Inverter ..... :	Non-Isolated	Separated by ..... :	Non Transformer
Safety Class ..... :	Class I	IP grade..... :	IP66
Over-Voltage Category ..... :	PV Input: II AC Output: III	Pollution Degree..... :	External PD3 Internal PD2
Hardware Version ..... :	V3.0	Software Version..... :	V3.00
PV input			
V <sub>max</sub> [V d.c.] ..... :	1100	I <sub>sc</sub> [V d.c.]..... :	50+25
MPP Voltage Range [V d.c.] ..... :	180~1100	Max. Input Current [A d.c.] ..... :	40+20
AC output			
Rated output voltage [V a.c.]..... :	400, 3W+N+PE	Rated Output Frequency[Hz] .. :	50/60
Rated Output Power [kW a.c.] ... :	25	Max. Apparent Power[kVA a.c.] ..... :	27.5
Max. Output Current [A a.c.] ..... :	39.7	Power Factor ..... :	[-0.80, 0.80]

Remark:

For detailed product information, please refer to CDF (Constructional Data Form) in Annex 1 of test report.