

CERTIFICATE

of conformity with the following European Directives

Low Voltage Directive 2014/35/EU

This certifies that below described products of the applicant:

Shanghai Hoenergy Power Technology Co., Ltd.

Building 1, 1888 Wangyuan Road, Fengxian District, Shanghai, P.R.
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):	Hybrid Solar Inverter
Model type(s):	iINV-HB1-3.0KL, iINV-HB1-3.6KL, iINV-HB1-4.0KL iINV-HB1-4.6KL, iINV-HB1-5.0KL, iINV-HB1-6.0KL
Standard(s):	EN 62109-1:2010, EN 62109-2:2011

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.

Registered no.:	44 799 22 406749 - 084
Report no.:	492012102.001
File no.:	PVP03089/22E-01



TÜV NORD CERT GmbH
Certification Body
Energy Storage System

Essen, 2022-07-12

TÜV NORD CERT GmbH

Langemarckstraße 20 45141 Essen

www.tuev-nord-cert.de

prodcert@tuev-nord.de

Please also pay attention to the information stated overleaf.

ANNEX

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to Certificate registration no. 44 799 22 406749 - 084

Description of product(s):

Model type	iINV-HB1-3.0KL		
General information			
Safety class.....	Class I	Type of Isolation	Non Isolated
IP grade	IP65	Altitude.....	2000m
Firmware [DSP / MCU]	V1.01.01	LCD [version].....	V1.00.01
DC input(PV)			
Max. Input voltage [V d.c.]	500	Isc [A d.c.]	17.5*2
MPPT Voltage Range [V d.c.].....	125-500.	MPPT Full Power Voltage Range [V d.c.]	150-500
Max. Input Current [A d.c.].....	14*2.	Max. input Power [W d.c.].....	4600
Battery parameter			
Battery Rated Voltage [V d.c.] ...:	48	Battery Voltage Range [V d.c.] ..:	40-58
Max. Charging Current [A d.c.] ..:	95	Max. Discharging Current [A d.c.] ..:	62.5
Max. Charging Power [W d.c.] ...:	5000	Max. Discharging Power [W d.c.] ..:	3000
AC output (On-grid/ Back-up)			
Max. Output Apparent Power [VA a.c.]	3000	Max. Output Current [A a.c.].....:	13
Rated voltage [V a.c.]	230	Rated Frequency [Hz].....	50/60
Power Factor cosφ [λ].....	[-0.99,0.99]	-	-



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Model type	iINV-HB1-3.6KL		
General information			
Safety class	Class I	Type of Isolation	Non Isolated
IP grade	IP65	Altitude	2000m
Firmware [DSP / MCU]	V1.01.01	LCD [version]	V1.00.01
DC input(PV)			
Max. Input voltage [V d.c.]	500	Isc [A d.c.]	17.5*2
MPPT Voltage Range [V d.c.]....	125-500.	MPPT Full Power Voltage Range [V d.c.]	150-500
Max. Input Current [A d.c.].....	14*2.	Max. input Power [W d.c.].....	4600
Battery parameter			
Battery Rated Voltage [V d.c.] ...	48	Battery Voltage Range [V d.c.] ..	40-58
Max. Charging Current [A d.c.] ...	95	Max. Discharging Current [A d.c.]	75
Max. Charging Power [W d.c.]....	5000	Max. Discharging Power [W d.c.]	3600
AC output (On-grid/ Back-up)			
Max. Output Apparent Power [VA a.c.]	3600	Max. Output Current [A a.c.].....	16
Rated voltage [V a.c.]	230	Rated Frequency [Hz].....	50/60
Power Factor cosφ [λ].....	[-0.99,0.99]	-	-



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Model type	iINV-HB1-4.0KL		
General information			
Safety class	Class I	Type of Isolation	Non Isolated
IP grade	IP65	Altitude	2000m
Firmware [DSP / MCU]	V1.01.01	LCD [version]	V1.00.01
DC input(PV)			
Max. Input voltage [V d.c.]	500	Isc [A d.c.]	17.5*2
MPPT Voltage Range [V d.c.].....	125-500.	MPPT Full Power Voltage Range [V d.c.]	150-500
Max. Input Current [A d.c.].....	14*2.	Max. input Power [W d.c.].....	6000
Battery parameter			
Battery Rated Voltage [V d.c.] ...	48	Battery Voltage Range [V d.c.] ..	40-58
Max. Charging Current [A d.c.] ..	95	Max. Discharging Current [A d.c.]	83.3
Max. Charging Power [W d.c.] ...	5000	Max. Discharging Power [W d.c.]	4000
AC output (On-grid/ Back-up)			
Max. Output Apparent Power [VA a.c.]	4000	Max. Output Current [A a.c.].....	17.4
Rated voltage [V a.c.]	230	Rated Frequency [Hz].....	50/60
Power Factor cosφ [λ].....	[-0.99,0.99]	-	-



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Model type	iINV-HB1-4.6KL		
General information			
Safety class	Class I	Type of Isolation	Non Isolated
IP grade	IP65	Altitude	2000m
Firmware [DSP / MCU]	V1.01.01	LCD [version]	V1.00.01
DC input(PV)			
Max. Input voltage [V d.c.]	500	Isc [A d.c.]	17.5*2
MPPT Voltage Range [V d.c.].....	125-500.	MPPT Full Power Voltage Range [V d.c.]	170-500
Max. Input Current [A d.c.].....	14*2.	Max. input Power [W d.c.].....	6000
Battery parameter			
Battery Rated Voltage [V d.c.] ...	48	Battery Voltage Range [V d.c.]..	40-58
Max. Charging Current [A d.c.] ..	95	Max. Discharging Current [A d.c.]	95.8
Max. Charging Power [W d.c.]....	5000	Max. Discharging Power [W d.c.]	4600
AC output (On-grid/ Back-up)			
Max. Output Apparent Power [VA a.c.]	4600	Max. Output Current [A a.c.].....	20
Rated voltage [V a.c.]	230	Rated Frequency [Hz].....	50/60
Power Factor cosφ [λ].....	[-0.99,0.99]	-	-



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Model type	iINV-HB1-5.0KL		
General information			
Safety class	Class I	Type of Isolation	Non Isolated
IP grade	IP65	Altitude	2000m
Firmware [DSP / MCU]	V1.01.01	LCD [version]	V1.00.01
DC input(PV)			
Max. Input voltage [V d.c.]	500	Isc [A d.c.]	17.5*2
MPPT Voltage Range [V d.c.].....	125-500.	MPPT Full Power Voltage Range [V d.c.]	180-500
Max. Input Current [A d.c.].....	14*2.	Max. input Power [W d.c.].....	7000
Battery parameter			
Battery Rated Voltage [V d.c.] ...	48	Battery Voltage Range [V d.c.] ...	40-58
Max. Charging Current [A d.c.] ...	95	Max. Discharging Current [A d.c.]	104.2
Max. Charging Power [W d.c.] ...	5000	Max. Discharging Power [W d.c.]	5000
AC output (On-grid/ Back-up)			
Max. Output Apparent Power [VA a.c.]	5000	Max. Output Current [A a.c.].....	21.7
Rated voltage [V a.c.]	230	Rated Frequency [Hz].....	50/60
Power Factor cosφ [λ].....	[-0.99,0.99]	-	-



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Model type	iINV-HB1-6.0KL		
General information			
Safety class	Class I	Type of Isolation	Non Isolated
IP grade	IP65	Altitude	2000m
Firmware [DSP / MCU]	V1.01.01	LCD [version]	V1.00.01
DC input(PV)			
Max. Input voltage [V d.c.]	500	Isc [A d.c.]	17.5*2
MPPT Voltage Range [V d.c.]....	125-500.	MPPT Full Power Voltage Range [V d.c.]	220-500.
Max. Input Current [A d.c.].....	14*2.	Max. input Power [W d.c.].....	7000
Battery parameter			
Battery Rated Voltage [V d.c.] ...	48	Battery Voltage Range [V d.c.] ..	40-58
Max. Charging Current [A d.c.] ..	95	Max. Discharging Current [A d.c.]	110
Max. Charging Power [W d.c.] ...	5000	Max. Discharging Power [W d.c.]	5000
AC output (On-grid/ Back-up)			
Max. Output Apparent Power [VA a.c.]	6000	Max. Output Current [A a.c.].....	26
Rated voltage [V a.c.]	230	Rated Frequency [Hz].....	50/60
Power Factor cosφ [λ].....	[-0.99,0.99]	-	-

Remark:

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



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