

# CERTIFICATE

of conformity with the following European Directives

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

This certifies that below described products of the applicant:

**Shenzhen Hopewind Technology Co., Ltd.**

A1 area, Building 6 of Jinhaoyuan, Yanshan Road, Yanchuan Street,  
Song-gang Town, Bao'an District, Shenzhen, 518105

PEOPLE'S REPUBLIC OF CHINA

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

<b>Product(s):</b>	<b>Grid-connected PV inverter</b>
<b>Model type(s):</b>	<b>hopeSun80KTL-M; hopeSun 75KTL; hopeSun70KTL-M; hopeSun70KTL; hopeSun60KTL-M; hopeSun60KTL; hopeSun50KTL; hopeSun50KTL-M; hopeSun40KTL; hopeSun40KTL-M; hopeSun36KTL</b>
<b>Standard(s):</b>	<b>EN 62109-1:2010; EN 62109-2:2011</b>

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 20 406749 - 082
Test report no.:	492011452.002
File no.:	PVP07109/20B-01



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

Essen, 2020-09-15

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.

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**Description of product(s):**

Model type(s) .....	hopeSun 36KTL		
General Information:			
Type of inverter .....	Non-Isolated	Over voltage Category (OVC) ..:	PV Input: II, AC Output: III
Protective Class .....	Class I	Enclosure Protection (IP).....:	IP65
Operating Temperature Range [°C] .....	-40 to 60 ( >40 derating)	Pollution degree (PD) .....	PD 3(external) PD 2(internal)
Weight [kg] .....	72	Size (W x H x D) [mm] .....	650*705*275
Firmware Control board .....	V104.000.000		
Firmware LCD .....	V101.000.000		
PV Input:			
Vmax [Vd.c.].....:	1100	Isc [Ad.c.].....:	15*8
MPP Voltage Range [Vd.c.] .....	250-1000	MPP Full Power Voltage Range [Vd.c.].....:	540-880
Max. Input Current [Ad.c.].....:	12*8	Back-feed Current [A] .....	0
MPPT tracking.....:	4		
AC Output:			
Rated Output Voltage [Va.c.] .....	400/230; 3P+N+PE	Rated Output Frequency [Hz]...:	50/60



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Rated Output Power [kW] .....	36	Max. Apparent Power [kVA] .....	39.6
Max. Output Current [Aa.c.] .....	57.2	Power Factor $\cos\phi$ [ $\lambda$ ].....	[-0.8,0.8]

Model type(s) .....	hopeSun 40KTL		
General Information:			
Type of inverter .....	Non-Isolated	Over voltage Category (OVC) ..	PV Input: II, AC Output: III
Protective Class .....	Class I	Enclosure Protection (IP).....	IP65
Operating Temperature Range [°C] .....	-40 to 60 ( >40 derating)	Pollution degree (PD) .....	PD 3(external) PD 2(internal)
Weight [kg] .....	72	Size (W x H x D) [mm] .....	650*705*275
Firmware Control board .....	V104.000.000		
Firmware LCD .....	V101.000.000		
PV Input:			
Vmax [Vd.c.].....	1100	Isc [Ad.c.].....	15*8
MPP Voltage Range [Vd.c.] .....	250-1000	MPP Full Power Voltage Range [Vd.c.].....	540-880
Max. Input Current [Ad.c.].....	12*8	Back-feed Current [A] .....	0
MPPT tracking.....	4		



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AC Output:			
Rated Output Voltage [Va.c.] .....	400/230; 3P+N+PE	Rated Output Frequency [Hz]..:	50/60
Rated Output Power [kW] .....	40	Max. Apparent Power [kVA] .....	44
Max. Output Current [Aa.c.] .....	64	Power Factor $\cos\phi$ [ $\lambda$ ].....	[-0.8,0.8]

Model type(s) .....	hopeSun 40KTL-M		
General Information:			
Type of inverter .....	Non-Isolated	Over voltage Category (OVC) ..:	PV Input: II, AC Output: III
Protective Class .....	Class I	Enclosure Protection (IP).....	IP65
Operating Temperature Range [°C] .....	-40 to 60 ( >40 derating)	Pollution degree (PD) .....	PD 3(external) PD 2(internal)
Weight [kg] .....	72	Size (W x H x D) [mm].....	650*705*275
Firmware Control board .....	V104.000.000		
Firmware LCD .....	V101.000.000		
PV Input:			
Vmax [Vd.c.].....	1100	Isc [Ad.c.].....	15*8



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MPP Voltage Range [Vd.c.] .....	250-1000	MPP Full Power Voltage Range [Vd.c.].....	540-880
Max. Input Current [Ad.c.] .....	12*8	Back-feed Current [A] .....	0
MPPT tracking.....	4		
AC Output:			
Rated Output Voltage [Va.c.] .....	500; 3P+PE	Rated Output Frequency [Hz] ..	50/60
Rated Output Power [kW] .....	40	Max. Apparent Power [kVA] .....	44
Max. Output Current [Aa.c.] .....	50.8	Power Factor cosφ [λ].....	[-0.8,0.8]

Model type(s) .....	hopeSun 50KTL-M		
General Information:			
Type of inverter .....	Non-Isolated	Over voltage Category (OVC) ..	PV Input: II, AC Output: III
Protective Class .....	Class I	Enclosure Protection (IP).....	IP65
Operating Temperature Range [°C] .....	-40 to 60 ( >40 derating)	Pollution degree (PD) .....	PD 3(external) PD 2(internal)
Weight [kg] .....	72	Size (W x H x D) [mm] .....	650*705*275
Firmware Control board .....	V104.000.000		
Firmware LCD .....	V101.000.000		



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PV Input:			
Vmax [Vd.c.].....:	1100	Isc [Ad.c.].....:	15*8
MPP Voltage Range [Vd.c.].....:	250-1000	MPP Full Power Voltage Range [Vd.c.].....:	540-880
Max. Input Current [Ad.c.].....:	12*8	Back-feed Current [A].....:	0
MPPT tracking.....:	4		
AC Output:			
Rated Output Voltage [Va.c.].....:	500; 3P+PE	Rated Output Frequency [Hz]..:	50/60
Rated Output Power [kW].....:	50	Max. Apparent Power [kVA].....:	55
Max. Output Current [Aa.c.].....:	64	Power Factor cosφ [λ].....:	[-0.8,0.8]

Model type(s).....:	hopeSun 50KTL		
General Information:			
Type of inverter.....:	Non-Isolated	Over voltage Category (OVC) ..:	PV Input: II, AC Output: III
Protective Class.....:	Class I	Enclosure Protection (IP).....:	IP65
Operating Temperature Range [°C].....:	-40 to 60 ( >40 derating)	Pollution degree (PD).....:	PD 3(external) PD 2(internal)



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Weight [kg] .....	92	Size (W x H x D) [mm] .....	650*705*283
Firmware Control board .....	V104.000.000		
Firmware LCD .....	V101.000.000		
PV Input:			
Vmax [Vd.c.] .....	1100	Isc [Ad.c.] .....	15*9
MPP Voltage Range [Vd.c.] .....	250-1000	MPP Full Power Voltage Range [Vd.c.] .....	540-880
Max. Input Current [Ad.c.] .....	12*9	Back-feed Current [A] .....	0
MPPT tracking .....	3		
AC Output:			
Rated Output Voltage [Va.c.] .....	400/230; 3P+N+PE	Rated Output Frequency [Hz] .....	50/60
Rated Output Power [kW] .....	50	Max. Apparent Power [kVA] .....	55
Max. Output Current [Aa.c.] .....	80	Power Factor cosφ [λ] .....	[-0.8,0.8]

Model type(s) .....	hopeSun 60KTL		
General Information:			
Type of inverter .....	Non-Isolated	Over voltage Category (OVC) :	PV Input: II, AC Output: III



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Protective Class .....	Class I	Enclosure Protection (IP).....	IP65
Operating Temperature Range [°C] .....	-40 to 60 ( >40 derating)	Pollution degree (PD) .....	PD 3(external) PD 2(internal)
Weight [kg] .....	92	Size (W x H x D) [mm] .....	650*705*283
Firmware Control board .....	V104.000.000		
Firmware LCD .....	V101.000.000		
PV Input:			
Vmax [Vd.c.].....	1100	Isc [Ad.c.] .....	15*12
MPP Voltage Range [Vd.c.] .....	250-1000	MPP Full Power Voltage Range [Vd.c.].....	540-880
Max. Input Current [Ad.c.] .....	12*12	Back-feed Current [A] .....	0
MPPT tracking.....	4		
AC Output:			
Rated Output Voltage [Va.c.] .....	400/230; 3P+N+PE	Rated Output Frequency [Hz] ..	50/60
Rated Output Power [kW] .....	60	Max. Apparent Power [kVA] .....	66
Max. Output Current [Aa.c.] .....	95	Power Factor cosφ [λ].....	[-0.8,0.8]



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Model type(s) .....	hopeSun 60KTL-M		
General Information:			
Type of inverter .....	Non-Isolated	Over voltage Category (OVC) ..	PV Input: II, AC Output: III
Protective Class .....	Class I	Enclosure Protection (IP).....	IP65
Operating Temperature Range [°C] .....	-40 to 60 ( >40 derating)	Pollution degree (PD) .....	PD 3(external) PD 2(internal)
Weight [kg] .....	92	Size (W x H x D) [mm] .....	650*705*283
Firmware Control board .....	V104.000.000		
Firmware LCD .....	V101.000.000		
PV Input:			
Vmax [Vd.c.].....	1100	Isc [Ad.c.].....	15*12
MPP Voltage Range [Vd.c.] .....	250-1000	MPP Full Power Voltage Range [Vd.c.].....	540-880
Max. Input Current [Ad.c.].....	12*12	Back-feed Current [A] .....	0
MPPT tracking.....	4		
AC Output:			
Rated Output Voltage [Va.c.] .....	500; 3P+PE	Rated Output Frequency [Hz]..	50/60
Rated Output Power [kW] .....	60	Max. Apparent Power [kVA] .....	66



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Max. Output Current [Aa.c.] .....	76	Power Factor $\cos\phi$ [ $\lambda$ ].....	[-0.8,0.8]
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Model type(s) .....	hopeSun 70KTL		
General Information:			
Type of inverter .....	Non-Isolated	Over voltage Category (OVC) ..	PV Input: II, AC Output: III
Protective Class .....	Class I	Enclosure Protection (IP).....	IP65
Operating Temperature Range [°C] .....	-40 to 60 (>40 derating)	Pollution degree (PD) .....	PD 3(external) PD 2(internal)
Weight [kg] .....	92	Size (W x H x D) [mm].....	650*705*283
Firmware Control board .....	V104.000.000		
Firmware LCD .....	V101.000.000		
PV Input:			
Vmax [Vd.c.].....	1100	Isc [Ad.c.].....	15*12
MPP Voltage Range [Vd.c.] .....	250-1000	MPP Full Power Voltage Range [Vd.c.].....	540-880
Max. Input Current [Ad.c.].....	12*12	Back-feed Current [A] .....	0
MPPT tracking.....	4		
AC Output:			



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Rated Output Voltage [Va.c.] .....	400/230; 3P+N+PE	Rated Output Frequency [Hz]..:	50/60
Rated Output Power [kW] .....	70	Max. Apparent Power [kVA] .....	77
Max. Output Current [Aa.c.] .....	111	Power Factor cosφ [λ].....:	[-0.8,0.8]

Model type(s) .....	hopeSun 70KTL-M		
General Information:			
Type of inverter .....	Non-Isolated	Over voltage Category (OVC) ..:	PV Input: II, AC Output: III
Protective Class .....	Class I	Enclosure Protection (IP).....:	IP65
Operating Temperature Range [°C] .....	-40 to 60 (>40 derating)	Pollution degree (PD) .....	PD 3(external) PD 2(internal)
Weight [kg] .....	92	Size (W x H x D) [mm] .....	650*705*283
Firmware Control board .....	V104.000.000		
Firmware LCD .....	V101.000.000		
PV Input:			
Vmax [Vd.c.].....:	1100	Isc [Ad.c.] .....	15*12
MPP Voltage Range [Vd.c.] .....	250-1000	MPP Full Power Voltage Range [Vd.c.].....:	540-880



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Max. Input Current [Ad.c.] .....	12*12	Back-feed Current [A] .....	0
MPPT tracking.....	4		
AC Output:			
Rated Output Voltage [Va.c.] .....	500; 3P+PE	Rated Output Frequency [Hz]..:	50/60
Rated Output Power [kW] .....	70	Max. Apparent Power [kVA] .....	77
Max. Output Current [Aa.c.] .....	89	Power Factor cosφ [λ].....	[-0.8,0.8]

Model type(s) .....	hopeSun 75KTL		
General Information:			
Type of inverter .....	Non-Isolated	Over voltage Category (OVC) .:	PV Input: II, AC Output: III
Protective Class .....	Class I	Enclosure Protection (IP).....	IP65
Operating Temperature Range [°C] .....	-40 to 60 (>40 derating)	Pollution degree (PD) .....	PD 3(external) PD 2(internal)
Weight [kg] .....	92	Size (W x H x D) [mm].....	650*705*283
Firmware Control board .....	V104.000.000		
Firmware LCD .....	V101.000.000		
PV Input:			
Vmax [Vd.c.].....	1100	Isc [Ad.c.].....	15*14



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MPP Voltage Range [Vd.c.] .....	250-1000	MPP Full Power Voltage Range [Vd.c.].....	540-880
Max. Input Current [Ad.c.] .....	12*14	Back-feed Current [A] .....	0
MPPT tracking.....	4		
AC Output:			
Rated Output Voltage [Va.c.] .....	400/230; 3P+N+PE	Rated Output Frequency [Hz] ..	50/60
Rated Output Power [kW] .....	75	Max. Apparent Power [kVA] .....	82.5
Max. Output Current [Aa.c.] .....	119	Power Factor cosφ [λ].....	[-0.8,0.8]

Model type(s) .....	<b>hopeSun 80KTL-M</b>		
General Information:			
Type of inverter .....	Non-Isolated	Over voltage Category (OVC) ..	PV Input: II, AC Output: III
Protective Class .....	Class I	Enclosure Protection (IP).....	IP65
Operating Temperature Range [°C] .....	-40 to 60 (>40 derating)	Pollution degree (PD) .....	PD 3(external) PD 2(internal)
Weight [kg] .....	92	Size (W x H x D) [mm] .....	650*705*283
Firmware Control board .....	V104.000.000		



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Firmware LCD .....	V101.000.000		
PV Input:			
Vmax [Vd.c.].....	1100	Isc [Ad.c.].....	15*14
MPP Voltage Range [Vd.c.] .....	250-1000	MPP Full Power Voltage Range [Vd.c.].....	540-880
Max. Input Current [Ad.c.].....	12*14	Back-feed Current [A].....	0
MPPT tracking.....	4		
AC Output:			
Rated Output Voltage [Va.c.] .....	500; 3P+PE	Rated Output Frequency [Hz]..:	50/60
Rated Output Power [kW] .....	80	Max. Apparent Power [kVA] .....	88
Max. Output Current [Aa.c.] .....	102	Power Factor cosφ [λ].....	[-0.8,0.8]

Remark:

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

