

CERTIFICATE

Upower Electric Co., Ltd

4th Floor, Block A, Huafeng Zhigu, No. 62, Yinhe Road, Heao Community, Yuanshan Street, Longgang District, Shenzhen, Guangdong, China

is authorized to provide the product(s) mentioned below with the mark as illustrated:



Description of product(s) (details see Annex 2):

Off-Grid Energy Storage Inverter

It is certified by **TÜV NORD CERT GmbH** that the product(s) described above has(have) been assessed according to the certification program mentioned below and found in compliance with the requirements of below specified certification fundamental(s). This certification is based on evaluation results as documented in test report(s) referenced below and production site(s) audit results as documented in factory inspection report(s) referenced in Annex 1. This certificate is valid in conjunction with these quoted report(s).

Certification program:	P31-VA-01 Rev. 02 / 04.20	
Certification fundamental(s):	IEC 62109-1:2010, IEC 62109-2:2011 IEC 62477-1:2012+AMD1:2016	
Registered no.:	44 780 23 406749 - 097	
Manufacturer and factory(-ies):	See Annex 1	
Report no.:	492012209.001, 492012210.001	Valid from: 2023-04-13
File no.:	PVP05002/22E-07, PVP05002/22E-08	Valid until: 2028-03-28



TÜV NORD CERT GmbH
Certification Body
Energy Storage System

TÜV NORD CERT GmbH

Am TÜV 1, D-45307 Essen

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Please also pay attention to the information stated overleaf.



Essen, 2023-04-13

ANNEX

Annex 1, Page 1 of 1

to Certificate registration no. 44 780 23 406749 - 097

Manufacturer:

Upower Electric Co., Ltd

4th Floor, Block A, Huafeng Zhigu, No. 62, Yinhe Road, Heao Community, Yuanshan Street, Longgang District, Shenzhen, Guangdong, China

Factory(-ies):

Upower Electric Co., Ltd

4th Floor, Block A, Huafeng Zhigu, No. 62, Yinhe Road, Heao Community, Yuanshan Street, Longgang District, Shenzhen, Guangdong, China

Factory inspection report no.: 862010679.001

Remark:

Factory inspection is mandatory to be performed annually. Please refer to factory inspection report for detailed information.

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ANNEX

Annex 2, Page 1 of 6

to Certificate registration no. 44 780 23 406749 - 097

Description of product(s):

Model type	UFox-X-035ES		
General information			
Type of inverter	Non-Isolated	Separated by	-
Safety class	Class I	IP grade	IP20
Over-voltage category	DC Input: II AC Output: III	Pollution degree	External PD3 Internal PD2
Firmware of control board	067.01/SK068.01	-	-
PV input			
V _{max} [V d.c.]	450	I _{sc} [V d.c.]	22
MPP voltage range [V d.c.]	120~430	-	-
Battery terminal			
Battery voltage range [V d.c.]	44.8~57.6	Battery type	LiFePO ₄
Max. charging/discharging current [A d.c.]	100	-	-
AC terminal (Grid/Stand-alone)			
Rated output voltage [V a.c.]	220/230/240	Rated output frequency[Hz]	50/60
Rated output power [W a.c.]	3500	Max. apparent power[VA a.c.] :	3500
Max. output current [A a.c.]	16	-	-



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Model type	UFox-X-050ES		
General information			
Type of inverter	Non-Isolated	Separated by	-
Safety class.....	Class I	IP grade.....	IP20
Over-voltage category.....	DC Input: II AC Output: III	Pollution degree	External PD3 Internal PD2
Firmware of control board	067.01/SK068.01	-	-
PV input			
V _{max} [V d.c.]	450	I _{sc} [V d.c.].....	22
MPP voltage range [V d.c.]	120~430	-	-
Battery terminal			
Battery voltage range [V d.c.]	44.8~57.6	Battery type	LiFePO ₄
Max. charging/discharging current [A d.c.]	100	-	-
AC terminal (Grid/Stand-alone)			
Rated output voltage [V a.c.]	220/230/240	Rated output frequency[Hz]	50/60
Rated output power [W a.c.]	5000	Max. apparent power[VA a.c.] :	5000
Max. output current [A a.c.].....	22.7	-	-



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ANNEX

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Model type	UFox-X-070ES		
General information			
Type of inverter	Non-Isolated	Separated by	-
Safety class.....	Class I	IP grade.....	IP20
Over-voltage category.....	DC Input: II AC Output: III	Pollution degree	External PD3 Internal PD2
Firmware of control board	067.01/SK068.01	-	-
PV input			
V _{max} [V d.c.]	450	I _{sc} [V d.c.].....	22/22
MPP voltage range [V d.c.]	120~430	-	-
Battery terminal			
Battery voltage range [V d.c.]	44.8~57.6	Battery type	LiFePO ₄
Max. charging/discharging current [A d.c.]	200	-	-
AC terminal (Grid/Stand-alone)			
Rated output voltage [V a.c.]	220/230/240	Rated output frequency[Hz]	50/60
Rated output power [W a.c.]	7000	Max. apparent power[VA a.c.] :	7000
Max. output current [A a.c.].....	32	-	-



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Model type	UFox-X-100ES		
General information			
Type of inverter	Non-Isolated	Separated by	-
Safety class.....	Class I	IP grade.....	IP20
Over-voltage category.....	DC Input: II AC Output: III	Pollution degree	External PD3 Internal PD2
Firmware of control board	067.01/SK068.01	-	-
PV input			
V _{max} [V d.c.]	450	I _{sc} [V d.c.].....	22/22
MPP voltage range [V d.c.]	120~430	-	-
Battery terminal			
Battery voltage range [V d.c.]	44.8~57.6	Battery type	LiFePO ₄
Max. charging/discharging current [A d.c.]	200	-	-
AC terminal (Grid/Stand-alone)			
Rated output voltage [V a.c.]	220/230/240	Rated output frequency[Hz]	50/60
Rated output power [W a.c.]	10000	Max. apparent power[VA a.c.] :	10000
Max. output current [A a.c.].....	45.4	-	-

ANNEX

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Model type	UFox-X-100ET		
General information			
Type of inverter	Non-Isolated	Separated by	-
Safety class.....	Class I	IP grade.....	IP20
Over-voltage category.....	DC Input: II AC Output: III	Pollution degree	External PD3 Internal PD2
Firmware of control board	067.01/SK068.01	-	-
PV input			
V _{max} [V d.c.]	450	I _{sc} [V d.c.].....	22/22/22
MPP voltage range [V d.c.]	120~430	-	-
Battery terminal			
Battery voltage range [V d.c.]	44.8~57.6	Battery type	LiFePO ₄
Max. charging/discharging current [A d.c.]	300	-	-
AC terminal (Grid/Stand-alone)			
Rated output voltage [V a.c.]	220/380, 230/400, 240/415, 3P/N/PE	Rated output frequency[Hz]	50/60
Rated output power [W a.c.]	10000	Max. apparent power[VA a.c.] .:	10000
Max. output current [A a.c.].....	16	-	-



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Model type	UFox-X-150ET		
General information			
Type of inverter	Non-Isolated	Separated by..... :	-
Safety class..... :	Class I	IP grade..... :	IP20
Over-voltage category..... :	DC Input: II AC Output: III	Pollution degree	External PD3 Internal PD2
Firmware of control board	067.01/SK068.01	-	-
PV input			
V _{max} [V d.c.]	450	I _{sc} [V d.c.]..... :	22/22/22
MPP voltage range [V d.c.]	120~430	-	-
Battery terminal			
Battery voltage range [V d.c.]	44.8~57.6	Battery type	LiFePO ₄
Max. charging/discharging current [A d.c.]	300	-	-
AC terminal (Grid/Stand-alone)			
Rated output voltage [V a.c.]	220/380, 230/400, 240/415, 3P/N/PE	Rated output frequency[Hz] :	50/60
Rated output power [W a.c.]	15000	Max. apparent power[VA a.c.] .:	15000
Max. output current [A a.c.]..... :	22.7	-	-

Remark:

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

CERTIFICATE

of conformity with the following European Directives

Low Voltage Directive 2014/35/EU

This certifies that below described products of the applicant:

Upower Electric Co., Ltd

4th Floor, Block A, Huafeng Zhigu, No. 62, Yinhe Road, Heao Community, Yuanshan Street, Longgang District, Shenzhen, Guangdong, 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):	Off-Grid Energy Storage Inverter
Model type(s):	UFox-X-035ES, UFox-X-050ES, UFox-X-070ES, UFox-X-100ES, UFox-X-100ET, UFox-X-150ET

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:	P31-VA-01 Rev. 02 / 04.20
Certification fundamental(s):	EN 62109-1:2010, EN 62109-2:2011 EN 62477-1:2012+A1:2017, EN 62477-1:2012+A12:2021
Registered no.:	44 799 23 406749 - 085
Report no.:	492012209.001, 492012210.001
File no.:	PVP05002/22E-07, PVP05002/22E-08

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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 

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Description of product(s):

Model type	UFox-X-035ES		
General information			
Type of inverter	Non-Isolated	Separated by	-
Safety class	Class I	IP grade	IP20
Over-voltage category	DC Input: II AC Output: III	Pollution degree	External PD3 Internal PD2
Firmware of control board	067.01/SK068.01	-	-
PV input			
Vmax [V d.c.]	450	Isc [V d.c.]	22
MPP voltage range [V d.c.]	120~430	-	-
Battery terminal			
Battery voltage range [V d.c.]	44.8~57.6	Battery type	LiFePO ₄
Max. charging/discharging current [A d.c.]	100	-	-
AC terminal (Grid/Stand-alone)			
Rated output voltage [V a.c.]	220/230/240	Rated output frequency[Hz]	50/60
Rated output power [W a.c.]	3500	Max. apparent power[VA a.c.]	3500
Max. output current [A a.c.]	16	-	-



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Model type	:	UFox-X-050ES			
General information					
Type of inverter	:	Non-Isolated	Separated by	:	-
Safety class	:	Class I	IP grade	:	IP20
Over-voltage category	:	DC Input: II AC Output: III	Pollution degree	:	External PD3 Internal PD2
Firmware of control board	:	067.01/SK068.01	-		-
PV input					
Vmax [V d.c.]	:	450	Isc [V d.c.]	:	22
MPP voltage range [V d.c.]	:	120~430	-		-
Battery terminal					
Battery voltage range [V d.c.]	:	44.8~57.6	Battery type	:	LiFePO ₄
Max. charging/discharging current [A d.c.]	:	100	-		-
AC terminal (Grid/Stand-alone)					
Rated output voltage [V a.c.]	:	220/230/240	Rated output frequency[Hz]	:	50/60
Rated output power [W a.c.]	:	5000	Max. apparent power[VA a.c.]	:	5000
Max. output current [A a.c.]	:	22.7	-		-



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Model type	UFox-X-070ES		
General information			
Type of inverter	Non-Isolated	Separated by	-
Safety class	Class I	IP grade	IP20
Over-voltage category	DC Input: II AC Output: III	Pollution degree	External PD3 Internal PD2
Firmware of control board	067.01/SK068.01	-	-
PV input			
Vmax [V d.c.]	450	Isc [V d.c.]	22/22
MPP voltage range [V d.c.]	120~430	-	-
Battery terminal			
Battery voltage range [V d.c.]	44.8~57.6	Battery type	LiFePO ₄
Max. charging/discharging current [A d.c.]	200	-	-
AC terminal (Grid/Stand-alone)			
Rated output voltage [V a.c.]	220/230/240	Rated output frequency[Hz]	50/60
Rated output power [W a.c.]	7000	Max. apparent power[VA a.c.]	7000
Max. output current [A a.c.]	32	-	-



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Model type	UFox-X-100ES		
General information			
Type of inverter	Non-Isolated	Separated by	-
Safety class	Class I	IP grade	IP20
Over-voltage category	DC Input: II AC Output: III	Pollution degree	External PD3 Internal PD2
Firmware of control board	067.01/SK068.01	-	-
PV input			
Vmax [V d.c.]	450	Isc [V d.c.]	22/22
MPP voltage range [V d.c.]	120~430	-	-
Battery terminal			
Battery voltage range [V d.c.]	44.8~57.6	Battery type	LiFePO4
Max. charging/discharging current [A d.c.]	200	-	-
AC terminal (Grid/Stand-alone)			
Rated output voltage [V a.c.]	220/230/240	Rated output frequency[Hz]	50/60
Rated output power [W a.c.]	10000	Max. apparent power[VA a.c.]	10000
Max. output current [A a.c.]	45.4	-	-



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Model type	UFox-X-100ET		
General information			
Type of inverter	Non-Isolated	Separated by	-
Safety class	Class I	IP grade	IP20
Over-voltage category	DC Input: II AC Output: III	Pollution degree	External PD3 Internal PD2
Firmware of control board	067.01/SK068.01	-	-
PV input			
Vmax [V d.c.]	450	Isc [V d.c.]	22/22/22
MPP voltage range [V d.c.]	120~430	-	-
Battery terminal			
Battery voltage range [V d.c.]	44.8~57.6	Battery type	LiFePO ₄
Max. charging/discharging current [A d.c.]	300	-	-
AC terminal (Grid/Stand-alone)			
Rated output voltage [V a.c.]	220/380, 230/400, 240/415, 3P/N/PE	Rated output frequency[Hz]	50/60
Rated output power [W a.c.]	10000	Max. apparent power[VA a.c.]	10000
Max. output current [A a.c.]	16	-	-



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Model type	:	UFox-X-150ET			
General information					
Type of inverter	:	Non-Isolated	Separated by	:	-
Safety class	:	Class I	IP grade	:	IP20
Over-voltage category	:	DC Input: II AC Output: III	Pollution degree	:	External PD3 Internal PD2
Firmware of control board	:	067.01/SK068.01	-		-
PV input					
Vmax [V d.c.]	:	450	Isc [V d.c.]	:	22/22/22
MPP voltage range [V d.c.]	:	120~430	-		-
Battery terminal					
Battery voltage range [V d.c.]	:	44.8~57.6	Battery type	:	LiFePO ₄
Max. charging/discharging current [A d.c.]	:	300	-		-
AC terminal (Grid/Stand-alone)					
Rated output voltage [V a.c.]	:	220/380, 230/400, 240/415, 3P/N/PE	Rated output frequency[Hz]	:	50/60
Rated output power [W a.c.]	:	15000	Max. apparent power[VA a.c.]	:	15000
Max. output current [A a.c.]	:	22.7	-		-

Remark:

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



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