

# 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 System &  
Portable Suitcase Energy Storage System

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<br>IEC 62477-1:2012+AMD1:2016 |                         |
| Registered no.:                 | 44 780 23 406749 - 278   |                         |
| Manufacturer and factory(-ies): | See Annex 1  |                         |
| Report no.:                     | 492012207.001, 492012208.001                                     | Valid from: 2023-08-30  |
| File no.:                       | PVP05002/22E-05, PVP05002/22E-06                                 | Valid until: 2028-08-29 |



TÜV NORD CERT GmbH  
Certification Body  
Energy Storage System



Essen, 2023-08-30

# ANNEX

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**to Certificate registration no. 44 780 23 406749 - 278**

**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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TÜV NORD CERT GmbH  
Certification Body  
Energy Storage System

TÜV NORD CERT GmbH

Am TÜV 1, D-45307 Essen

Essen, 2023-08-30

[www.tuev-nord-cert.de](http://www.tuev-nord-cert.de)

[prodcert@tuev-nord.de](mailto:prodcert@tuev-nord.de)

# ANNEX

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to Certificate registration no. 44 780 23 406749 - 278

Description of product(s):

| Model or Type designation       | UBird-X-Mini-30E | UBird-X-Plus-50E |
|---------------------------------|------------------|------------------|
| <b>Battery terminal</b>         |                  |                  |
| Rated Voltage [Vd.c.]           | 51.2             |                  |
| MPP Voltage Range [Vd.c.]       | 44.8~57.6        |                  |
| Max. Current [Ad.c.]            | 67               | 100              |
| Internal Battery Capacity [kWh] | 3.43             | 5.12             |
| Internal Battery Type           | LiFePO4          |                  |
| <b>Back-up output terminal</b>  |                  |                  |
| Rated Output Voltage [Va.c.]    | 220/230/240      |                  |
| Rate Frequency [Hz]             | 50/60            |                  |
| Max. Output Power [W]           | 3000             | 5000             |
| Max. Output Current [Aa.c.]     | 13.7             | 22.7             |
| <b>On-grid input terminal</b>   |                  |                  |
| Grid Voltage Range [Va.c.]      | 170~280          |                  |
| Frequency [Hz]                  | 50/60            |                  |
| Max. Current [Aa.c.]            | 13.7             | 22.7             |
| <b>PV input terminal</b>        |                  |                  |
| Max. PV Power [W]               | 1800             | 4500             |
| Max. PV Voltage [Vd.c.]         | 145              |                  |
| MPPT Voltage Range [Vd.c.]      | 60~115           |                  |
| Max. PV Isc [Ad.c.]             | 30               | 80               |
| <b>System:</b>                  |                  |                  |

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|                             |        |
|-----------------------------|--------|
| Ingress Protection          | IP43   |
| Operating Temperature Range | 0-50°C |

| Model or Type designation       | UFox-Mini-30E | UFox-Plus-30E |
|---------------------------------|---------------|---------------|
| <b>Battery terminal</b>         |               |               |
| Rated Voltage [Vd.c.]           | 51.2          |               |
| MPP Voltage Range [Vd.c.]       | 44.8~57.6     |               |
| Max. Current [Ad.c.]            | 67            | 100           |
| Internal Battery Capacity [kWh] | 3.43          | 5.12          |
| Internal Battery Type           | LiFePO4       |               |
| <b>Back-up output terminal</b>  |               |               |
| Rated Output Voltage [Va.c.]    | 220/230/240   |               |
| Rate Frequency [Hz]             | 50/60         |               |
| Max. Output Power [W]           | 3000          | 3000          |
| Max. Output Current [Aa.c.]     | 13.7          | 13.7          |
| <b>On-grid input terminal</b>   |               |               |
| Grid Voltage Range [Va.c.]      | 170~280       |               |
| Frequency [Hz]                  | 50/60         |               |
| Max. Current [Aa.c.]            | 13.7          | 13.7          |
| <b>PV input terminal</b>        |               |               |
| Max. PV Power [W]               | 1800          | 1800          |
| Max. PV Voltage [Vd.c.]         | 145           |               |
| MPPT Voltage Range [Vd.c.]      | 60~115        |               |
| Max. PV Isc [Ad.c.]             | 30            | 30            |

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|                             |        |
|-----------------------------|--------|
| <b>System:</b>              |        |
| Ingress Protection          | IP20   |
| Operating Temperature Range | 0-50°C |

| Model or Type designation       | UFox-Plus-35E | UFox-Plus-50E |
|---------------------------------|---------------|---------------|
| <b>Battery terminal</b>         |               |               |
| Rated Voltage [Vd.c.]           | 51.2          |               |
| MPP Voltage Range [Vd.c.]       | 44.8~57.6     |               |
| Max. Current [Ad.c]             | 100           | 100           |
| Internal Battery Capacity [kWh] | 5.12          | 5.12          |
| Internal Battery Type           | LiFePO4       |               |
| <b>Back-up output terminal</b>  |               |               |
| Rated Output Voltage [Va.c.]    | 220/230/240   |               |
| Rate Frequency [Hz]             | 50/60         |               |
| Max. Output Power [W]           | 3500          | 5000          |
| Max. Output Current [Aa.c.]     | 16            | 22.7          |
| <b>On-grid input terminal</b>   |               |               |
| Grid Voltage Range [Va.c.]      | 170~280       |               |
| Frequency [Hz]                  | 50/60         |               |
| Max. Current [Aa.c.]            | 16            | 22.7          |
| <b>PV input terminal</b>        |               |               |
| Max. PV Power [W]               | 4500          | 6000          |
| Max. PV Voltage [Vd.c.]         | 450           |               |
| MPPT Voltage Range [Vd.c.]      | 120~430       |               |

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|                             |        |    |
|-----------------------------|--------|----|
| Max. PV Isc [Ad.c.]         | 22     | 22 |
| <b>System:</b>              |        |    |
| Ingress Protection          | IP20   |    |
| Operating Temperature Range | 0-50°C |    |

| Model or Type designation       | UFox-WP-35E | UFox-WP-50E |
|---------------------------------|-------------|-------------|
| <b>Battery terminal</b>         |             |             |
| Rated Voltage [Vd.c.]           | 51.2        |             |
| MPP Voltage Range [Vd.c.]       | 44.8~57.6   |             |
| Max. Current [Ad.c.]            | 100         | 100         |
| Internal Battery Capacity [kWh] | 10.24       | 10.24       |
| Internal Battery Type           | LiFePO4     |             |
| <b>Back-up output terminal</b>  |             |             |
| Rated Output Voltage [Va.c.]    | 220/230/240 |             |
| Rate Frequency [Hz]             | 50/60       |             |
| Max. Output Power [W]           | 3500        | 5000        |
| Max. Output Current [Aa.c.]     | 16          | 22.7        |
| <b>On-grid input terminal</b>   |             |             |
| Grid Voltage Range [Va.c.]      | 170~280     |             |
| Frequency [Hz]                  | 50/60       |             |
| Max. Current [Aa.c.]            | 16          | 22.7        |
| <b>PV input terminal</b>        |             |             |
| Max. PV Power [W]               | 4500        | 6000        |
| Max. PV Voltage [Vd.c.]         | 450         |             |

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|                             |         |    |
|-----------------------------|---------|----|
| MPPT Voltage Range [Vd.c.]  | 120~430 |    |
| Max. PV Isc [Ad.c.]         | 22      | 22 |
| <b>System:</b>              |         |    |
| Ingress Protection          | IP44    |    |
| Operating Temperature Range | 0-50°C  |    |

Remark:

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

