

# CERTIFICATE

### Hiconics Eco-energy Drive Technology Co., Ltd.

No.3 Boxing 2nd Road, Beijing Economic and Technological Development Zone, 100176 Beijing, PEOPLE'S REPUBLIC OF CHINA

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



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

**Lithium-ion Battery Pack** 

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 63056:2020

Registered no.:

44 780 23 406749 - 166

Manufacturer and factory(-ies):

See Annex 1

Test report no.:

492012461.001

File no .:

PVP10075/22E-02

Valid from: 2023-06-14

Valid until: 2028-06-13

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Essen, 2023-06-14

TÜV NORD CERT GmbH

Am TÜV 1, D-45307 Essen

www.tuev-nord-cert.de

prodcert@tuev-nord.de

Please also pay attention to the information stated overleaf.



Annex 1, Page 1 of 1

#### to Certificate registration no. 44 780 23 406749 - 166

#### Manufacturer:

Hiconics Eco-energy Drive Technology Co., Ltd.

No.3 Boxing 2nd Road, Beijing Economic and Technological Development Zone, 100176 Beijing, PEOPLE'S REPUBLIC OF CHINA

#### Factory(-ies):

Factory:

**Enerlution Power Technology Co., Ltd.** 

Plant 2, No. 33, Qiuju Road, Baiyan Science Park, High-tech Zone, Hefei City, Anhui Province, P.R. China

Factory inspection report no.: 862010742.001

#### Remark:

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

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Annex 2, Page 1 of 8

#### to Certificate registration no. 44 780 23 406749 - 166

Description of product(s):

Model type(s): HEC2-BHP138r1

Cell type: CB59

Battery designation: IFpP/41/150/112/[((10S)3S)2S]M/-20+60/95

Rated capacity: 72Ah
Nominal voltage: 192V

Watt-hour: 13.8kWh

Recommended charge method: Charging the battery with 36A constant current until 213V, then constant

voltage until charging current reduces to 0.05C

Maximum charge current: 40A Maximum charge voltage: 213V

Charge temperature range: From -20°C to 60°C

Recommended discharge method: Discharging the battery with 36A constant current to discharge cut-off

voltage 153V

Maximum discharge current: 40A

Discharge cut-off voltage: 153V

Discharge temperature range: From -20°C to 60°C

Nominal weight: 150.5kg

Nominal dimension: 1300mm×665mm×223mm

Storage temperature range: From -20°C to 60°C

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Annex 2, Page 2 of 8

### to Certificate registration no. 44 780 23 406749 - 166

Description of product(s):

Model type(s): HEC2-BHP207r1

Cell type: CB59

Battery designation: IFpP/41/150/112/[((10S)3S)3S]M/-20+60/95

Rated capacity: 72Ah
Nominal voltage: 288V

Watt-hour: 20.7kWh

Recommended charge method: Charging the battery with 36A constant current until 319.5V, then

constant voltage until charging current reduces to 0.05C

Maximum charge current: 40A

Maximum charge voltage: 319.5V

Charge temperature range: From -20°C to 60°C

Recommended discharge method: Discharging the battery with 36A constant current to discharge cut-off

voltage 229.5V

Maximum discharge current: 40A

Discharge cut-off voltage: 229.5V

Discharge temperature range: From -20°C to 60°C

Nominal weight: 224.5kg

Nominal dimension: 2060mm×665mm×223mm

Storage temperature range: From -20°C to 60°C

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Annex 2, Page 3 of 8

### to Certificate registration no. 44 780 23 406749 - 166

Description of product(s):

Model type(s):

HEC2-BHP276r1

Cell type:

**CB59** 

Battery designation:

IFpP/41/150/112/[((10S)3S)4S]M/-20+60/95

Rated capacity:

72Ah

Nominal voltage:

384V

Watt-hour:

27.6kWh

Recommended charge method:

Charging the battery with 36A constant current until 426V, then constant

voltage until charging current reduces to 0.05C

Maximum charge current:

40A

Maximum charge voltage:

426V

Charge temperature range:

From -20°C to 60°C

Recommended discharge method:

Discharging the battery with 36A constant current to discharge cut-off

voltage 306V

Maximum discharge current:

40A

Discharge cut-off voltage:

306V

Discharge temperature range:

From -20°C to 60°C

Nominal weight:

298.5kg

Nominal dimension:

2820mm×665mm×223mm

Storage temperature range:

From -20°C to 60°C

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Annex 2, Page 4 of 8

#### to Certificate registration no. 44 780 23 406749 - 166

Description of product(s):

Model type(s): HEC2-BHP345r1

Cell type: CB59

Battery designation: IFpP/41/150/112/[((10S)3S)5S]M/-20+60/95

Rated capacity: 72Ah

Nominal voltage: 480V

Watt-hour: 34.5kWh

Recommended charge method: Charging the battery with 36A constant current until 532.5V, then

constant voltage until charging current reduces to 0.05C

Maximum charge current: 40A Maximum charge voltage: 532.5V

Charge temperature range: From -20°C to 60°C

Recommended discharge method: Discharging the battery with 36A constant current to discharge cut-off

voltage 382.5V

Maximum discharge current: 40A

Discharge cut-off voltage: 382.5V

Discharge temperature range: From -20°C to 60°C

Nominal weight: 372.5kg

Nominal dimension: 3580mm×665mm×223mm

Storage temperature range: From -20°C to 60°C

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Annex 2, Page 5 of 8

#### to Certificate registration no. 44 780 23 406749 - 166

Description of product(s):

Model type(s): HEC2-BHP276r1-A

Cell type: CB59

Battery designation: IFpP/41/150/112/[(((10S)3S)2S)2P]S/-20+60/95

Rated capacity: 144Ah Nominal voltage: 192V

Watt-hour: 27.6kWh

Recommended charge method: Charging the battery with 40A constant current until 213V, then constant

voltage until charging current reduces to 0.05C

Maximum charge current: 40A Maximum charge voltage: 213V

Charge temperature range: From -20°C to 60°C

Recommended discharge method: Discharging the battery with 40A constant current to discharge cut-off

voltage 153V

Maximum discharge current: 40A

Discharge cut-off voltage: 153V

Discharge temperature range: From -20°C to 60°C

Nominal weight: 301kg

Nominal dimension: 1300mm×1415mm×223mm

Storage temperature range: From -20°C to 60°C

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Annex 2, Page 6 of 8

### to Certificate registration no. 44 780 23 406749 - 166

Description of product(s):

Model type(s): HEC2-BHP414r1

Cell type: CB59

Battery designation: IFpP/41/150/112/[(((10S)3S)3S)2P]S/-20+60/95

Rated capacity: 144Ah
Nominal voltage: 288V

Watt-hour: 41.4kWh

Recommended charge method: Charging the battery with 40A constant current until 319.5V, then

constant voltage until charging current reduces to 0.05C

Maximum charge current: 40A

Maximum charge voltage: 319.5V

Charge temperature range: From -20°C to 60°C

Recommended discharge method: Discharging the battery with 40A constant current to discharge cut-off

voltage 229.5V

Maximum discharge current: 40A

Discharge cut-off voltage: 229.5V

Discharge temperature range: From -20°C to 60°C

Nominal weight: 449kg

Nominal dimension: 2060mm×1415mm×223mm

Storage temperature range: From -20°C to 60°C

TÜV NORD CERT GmbH Certification Body Energy Storage System



Annex 2, Page 7 of 8

#### to Certificate registration no. 44 780 23 406749 - 166

Description of product(s):

Model type(s): HEC2-BHP552r1

Cell type: CB59

Battery designation: IFpP/41/150/112/[(((10S)3S)4S)2P]S/-20+60/95

Rated capacity: 144Ah
Nominal voltage: 384V

Watt-hour: 55.2kWh

Recommended charge method: Charging the battery with 40A constant current until 426V, then constant

voltage until charging current reduces to 0.05C

Maximum charge current: 40A

Maximum charge voltage: 426V

Maximum charge voltage: 426V

Charge temperature range: From -20°C to 60°C

Recommended discharge method: Discharging the battery with 40A constant current to discharge cut-off

voltage 306V

Maximum discharge current: 40A

Discharge cut-off voltage: 306V

Discharge temperature range: From -20°C to 60°C

Nominal weight: 597kg

Nominal dimension: 2820mm×1415mm×223mm

Storage temperature range: From -20°C to 60°C

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Annex 2, Page 8 of 8

#### to Certificate registration no. 44 780 23 406749 - 166

Description of product(s):

Model type(s): HEC2-BHP690r1

Cell type: CB59

Battery designation: IFpP/41/150/112/[(((10S)3S)5S)2P]S/-20+60/95

Rated capacity: 144Ah
Nominal voltage: 480V

Watt-hour: 69kWh

Recommended charge method: Charging the battery with 40A constant current until 532.5V, then

constant voltage until charging current reduces to 0.05C

Maximum charge current: 40A

Maximum charge voltage: 532.5V

Charge temperature range: From -20°C to 60°C

Recommended discharge method: Discharging the battery with 40A constant current to discharge cut-off

voltage 382.5V

Maximum discharge current: 40A

Discharge cut-off voltage: 382.5V

Discharge temperature range: From -20°C to 60°C

Nominal weight: 745kg

Nominal dimension: 3580mm×1415mm×223mm

Storage temperature range: From -20°C to 60°C

Remark:

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

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