Notified Body TÜV Rheinland LGA Products GmbH



Tillystraße 2 90431 Nürnberg - Germany

recognized by the

Bundesnetzagentur für Elektrizität, Gas, Telekommunikation, Post und Eisenbahnen herewith issues an

EU-Type Examination Certificate

Notified under No. 0197

within the meaning of Annex III, Part A, Module B of the EMC Council Directive 2014/30/EU on compliance with the EMC protection requirements

Certificate Holder:

Pylon Technologies Co., Ltd.

No. 73, Lane 887, Zu Chongzhi Road, Zhangjiang Hi-Tech Park, Pudong

201203 Shanghai

P.R. China

Product:

Lithium-ion battery

(Rechargeable Li-ion Battery)

Type Identification:

US3000C US2000C

Serial No.: n.a.

Remark: Refer to test report NN20SMJA 001 for details.

The technical design of the apparatus type has been verified based on the technical documentation presented by the manufacturer according to Annex III Module B of the Directive. As far as the assessed essential requirements apply, the Notified Body of TÜV Rheinland LGA Products GmbH confirms, that the technical design of the apparatus meets the essential requirements of the Directive 2014/30/EU Annex I. This certificate becomes void in case of equipment design changes or changes to the essential requirements which were not taken into account during the examination. The certificate consists of this page and enclosed evaluation report.

Registration No.:

AV 50483005 0001

Evaluation Report No.: NN20SMJA 001 issued

Date 05.11.2020

Notified Bod

O. Schäfer



ification Body

CERTIFICATE

of Conformity EC Council Directive 2014/30/EU **Electromagnetic Compatibility**

Registration No.: AE 50521683 0001

Report No.: NN20SMJA 002

Holder:

Pylon Technologies Co., Ltd. No. 73, Lane 887, Zu Chongzhi Road, Zhangjiang Hi-Tech Park, Pudong 201203 Shanghai

P.R. China

Product: Lithium-ion battery

(Rechargeable Li-ion Battery)

Identification: US3000C US2000C

Serial No.: n.a.

Remark: Refer to test report NN20SMJA 002 for details.

Tested acc. to: EN IEC 61000-6-1:2019

EN IEC 61000-6-2:2019 EN 61000-6-3:2007+A1 EN IEC 61000-6-4:2019 IEC 61000-6-1:2016 IEC 61000-6-2:2016 IEC 61000-6-3:2006+A1 IEC 61000-6-4:2018

This certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical Report and documentation are at the Licence Holder's disposal. This is to certify that the tested sample is in conformity with all provisions of Annex I of Council Directive 2014/30/EU. This certificate does not imply assessment of the production of the product and does not permit the use of a TÜV Rheinland mark of conformity. The holder of the certificate is authorized to use according to the a.m. Directive. this certificate in connection with the EC declaration of conformity

Date 20.10.2021

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg

The CE marking may only be used if all relevant and effective EC Directives are complied with.



Pylon Technologies Co., Ltd.

Date : 20.10.2021

Our ref. : XX 01 Your ref.: X. W.

No. 73, Lane 887, Zu Chongzhi Road, Zhangjiang Hi-Tech Park, Pudong 201203 Shanghai P.R. China

Ref : AE Certificate of Conformity EMC

Type of Equipment: Rechargeable Li-ion Battery

Model Designation : See Certificate Certificate No. : AE 50521683 0001 Report No. : NN20SMJA 002

Dear Ladies and Gentlemen,

We herewith confirm that a sample of the above mentioned technical equipment has been tested and was found to be in accordance with the relevant requirements.

Enclosed please find your Certificate of Conformity.

We appreciate your kind support and would like to offer our assistance and continuous services in the future.

With kind regards,

Certification Body

L'ahe h Xinhua Lu

CC: Pylon Technologies Co., Ltd.

Enclosure

CERTIFICATE



of Conformity

Registration No.:

AK 50493803 0001

Report No.:

CN21CY49 001

Holder:

Pylon Technologies Co., Ltd. No. 73, Lane 887, Zu Chongzhi Road, Zhangjiang Hi-Tech Park, Pudong 201203 Shanghai

P.R. China

Product:

Battery

(Rechargeable Li-ion Battery)

Identification:

Type Designation: US3000C

Serial Number

: Enigneering Sample

Remark(s)

: Refer to test report CN21CY49 001

for details.

Tested acc. to:

IEC 62040-1:2017

The certificate of conformity refers to the above mentioned product. This is to certify that the specimen is in conformity with the assessment requirement mentioned above. This certificate does not imply assessment of the production of the product and does not permit the use of a TUV Rheinland mark of conformity.

Certification Body

Date 27.01.2021

Weichun Li

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg



Pylon Technologies Co., Ltd. Elvis Xu

Our ref. : DB 01

Date : 27.01.2021

Your ref.: Elvis Xu

No. 73, Lane 887, Zu Chongzhi Road, Zhangjiang Hi-Tech Park, Pudong

201203 Shanghai

P.R. China

Ref : AK Certificate of Conformity

Type of Equipment : Rechargeable Li-ion Battery

Model Designation : See Certificate Certificate No. : AK 50493803 0001

: CN21CY49 001 Report No.

Dear Elvis Xu,

We herewith confirm that a sample of the above mentioned technical equipment has been tested and was found to be in accordance with the relevant requirements.

Enclosed please find your Certificate of Conformity.

We appreciate your kind support and would like to offer our assistance and continuous services in the future.

With kind regards,

Certification Body

CC: Pylon Technologies Co., Ltd.

Enclosure

CERTIFICATE



of Conformity

Registration No.:

AK 50485614 0001

Report No.:

NN20G39D 001

Holder:

Pylon Technologies Co., Ltd. No. 73, Lane 887, Zu Chongzhi Road, Zhangjiang Hi-Tech Park, Pudong 201203 Shanghai P.R. China

Product:

Battery

(Rechargeable Li-ion Battery)

Identification:

Type Designation : US3000C

Serial Number

: Enigneering Sample

Remark(s)

: Refer to test report NN20G39D 001

for details.

Tested acc. to:

EN 62477-1:2012+A11+A1 IEC 62477-1:2012+A1

The certificate of conformity refers to the above mentioned product. This is to certify that the specimen is in conformity with the assessment requirement mentioned above. This certificate does not imply assessment of the production of the product and does not permit the use of a JUV Rheinland mark of conformity.

Date 09.11.2020

Weichun Li

Certification Body

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg



Pylon Technologies Co., Ltd. Elvis Xu

Date : 09.11.2020 Our ref. : XGJ 01 Your ref.: Elvis Xu

No. 73, Lane 887, Zu Chongzhi Road, Zhangjiang Hi-Tech Park, Pudong 201203 Shanghai P.R. China

Ref : AK Certificate of Conformity

Type of Equipment : Rechargeable Li-ion Battery

Model Designation : See Certificate Certificate No. : AK 50485614 0001 Report No. : NN20G39D 001

Dear Elvis Xu,

We herewith confirm that a sample of the above mentioned technical equipment has been tested and was found to be in accordance with the relevant requirements.

Enclosed please find your Certificate of Conformity.

We appreciate your kind support and would like to offer our assistance and continuous services in the future.

With kind regards,

Certification Body

Weichun Li

CC: Pylon Technologies Co., Ltd.

Enclosure

Certificate



Zertifikat Nr. Certificate No. R 50485157

Blatt Sheet 0001

Ihr Zeichen Client Reference

Elvis Xu

Unser Zeichen Our Reference 01-XGJ-NN204ZKD 001

Ausstellungsdatum 09.11.2020

Date of Issue (day/mo/yr)

Genehmigungsinhaber License Holder

Pylon Technologies Co., Ltd. No. 73, Lane 887, Zu Chongzhi Road, Zhangjiang Hi-Tech Park, Pudong 201203 Shanghai P.R. China

Fertigungsstätte Manufacturing Plant

Pylon Technologies Co., Ltd.

Plant 8,

No.505 Kunkai Road, JinXi Town. Kunshan City

Jiangsu

P.R. China

Prüfzeichen Test Mark



Bauart geprüft Sicherheit Regelmäßige Produktions überwachung

www.tuv.com ID 1111231671

Geprüft nach Tested acc. to

IEC 62619:2017 IEC 63056:2020

Zertifiziertes Produkt (Geräteidentifikation) Certified Product (Product Identification)

Lizenzentgelte - Einheit License Fee - Unit

Energiespeichersystem (Rechargeable Li-Ion Battery)

Type designation

: US3000C

10

Containing cell

Maximum current of the recommended charger [A]: 90A : PF37M

Rated capacity [Ah]

: 74AH

Nominal voltage [Vd.c.]

: 48

Upper limit charging voltage[Vd.c.]: 54

System designation: IFpP/13/141/238/[(2P5S)3S]M/0+50/95

End of discharghing voltage[Vd.c.] : 40.5

Continued on page 0002

10

ANLAGE (Appendix): 1.0

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht. This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg



Certificate



Zertifikat Nr. Certificate No. R 50485157

Blatt Sheet 0002

Ihr Zeichen Client Reference

Unser Zeichen Our Reference

Ausstellungsdatum

Date of Issue

Elvis Xu

01-XGJ-NN204ZKD 001

09.11.2020

(day/mo/yr)

Genehmigungsinhaber License Holder

Pylon Technologies Co., Ltd. No. 73, Lane 887, Zu Chongzhi Road, Zhangjiang Hi-Tech Park, Pudong 201203 Shanghai

P.R. China

Fertigungsstätte Manufacturing Plant

Pylon Technologies Co., Ltd.

Plant 8,

No.505 Kunkai Road, JinXi Town,

Kunshan City Jiangsu

P.R. China

Prüfzeichen Test Mark



Bauart geprüft Sicherheit Regelmäßige roduktions überwachung

www.tuv.com

Geprüft nach Tested acc. to

IEC 62619:2017 IEC 63056:2020

Zertifiziertes Produkt (Geräteidentifikation) Certified Product (Product Identification)

Lizenzentgelte - Einheit License Fee - Unit

Energiespeichersystem (Rechargeable Li-Ion Battery)

as page 0001 continuation

Charging temperature [°C] : -8 to 55 Discharging temperature [°C] : -10 to 55 : IP20 Ingress Protection (IP)

Protection Class Pollution degree (PD) Altitude[m] : 4000

Remark(s):

The installation has to be carried out according to the attached installation instruction.

Any additional requirements in countries where the product is going to be marketed have to be considered additionally.

ANLAGE (Appendix): 1.0

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht. This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg



CERTIFICATE



of

Conformity

Electromagnetic Compatibility Regulations 2016 (UK SI 2016 No. 1091)

Registration No.:

AO 50521696 0001

Test Report No.:

NN20SMJA 002

Holder:

Pylon Technologies Co., Ltd. No. 73, Lane 887, Zu Chongzhi Road, Zhangjiang Hi-Tech Park, Pudong

201203 Shanghai

P.R. China

Product:

Lithium-ion battery

(Rechargeable Li-ion Battery)

Identification:

US3000C US2000C

Serial No.: n.a.

Remark: Refer to test report NN20SMJA 002 for details.

Tested acc. to:

BS EN IEC 61000-6-1:2019 BS EN IEC 61000-6-2:2019 BS EN IEC 61000-6-4:2019 BS EN 61000-6-3:2007+A1 BS EN 61000-6-1:2007 BS EN 61000-6-2:2005 BS EN 61000-6-4:2007+A1

This certificate of conformity is based on an evaluation of a sample of the above mentioned product, technical report and documentation. This certificate does not imply the assessment of the production of the product and does not permit the use of a TUV Rheinland mark of conformity.

Shanghai, <u>20.10.2021</u>

TÜV Rheinland (China) Ltd. - No. 01/03B-08, Ploor 7 and No. 01/04B-08, Floor 11, AVIC Building, No. 10B, Central Road East 3rd Ring Road, Chaoyang District, Beijing P.R. China 100022



UK

Certification Body



Pylon Technologies Co., Ltd.

Date : 20.10.2021

Our ref.: XX 01 Your ref.: X. W.

No. 73, Lane 887, Zu Chongzhi Road, Zhangjiang Hi-Tech Park, Pudong 201203 Shanghai P.R. China

Ref: AO Conf. Electromagnetic Com. Reg. 2016

Type of Equipment : Rechargeable Li-ion Battery

Model Designation : See Certificate Certificate No. : AO 50521696 0001 Report No. : NN20SMJA 002

Dear Ladies and Gentlemen,

We herewith confirm that a sample of the above mentioned technical equipment has been tested and was found to be in accordance with the relevant requirements.

Enclosed please find your Certificate of Conformity.

We appreciate your kind support and would like to offer our assistance and continuous services in the future.

With kind regards,

Certification Body

Xinhua Lu

CC: Pylon Technologies Co., Ltd.

Enclosure

Tel: (8610)6566 6660 Fax: (8610)6566 6667 e-mail: info@bj.chn.tuv.com Internet: http://www.chn.tuv.com



Certificate of Compliance

Certificate: 80045633

Master Contract: 274187

Project:

80111384

Date Issued:

2022-04-29

Issued To:

Pylon Technologies Co., Ltd.

No. 73, Lane 887, Zu Chongzhi Road,

Zhangjiang Hi-Tech Park,

Pudong District, Shanghai, 201203

China

Attention: Lanqiang Li

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US

Scola Chen

Issued by: Scola Chen



PRODUCTS

CLASS - C370112 - BATTERY SYSTEM for use in Stationary Applications CLASS - C370182 - BATTERY SYSTEM FOR USE IN STATIONARY APPLICATIONS Certified to US Standards

Rechargeable Lithium ion Battery Pack for use in stationary application, Model US3000C.

Electrical Ratings:

D - 44 D l -	Battery Pack Ratings				
Battery Pack Model	Normal	Normal Capacity, Ah/Wh	Battery Pack Configuration*	Enclosure IP Rating	Battery Module
US3000C	48	74Ah/3552Wh	(2p5s) *3	IP20	XM1674

Note*: Battery Pack consists of 3 modules XM1674, which are in series connected. The Module XM1674 consists of 10pcs Cells, which are connected in 2 parallel-5 series configurations.



 Certificate:
 80045633
 Master Contract:
 274187

 Project:
 80111384
 Date Issued:
 2022-04-29

Manufacturer's Specified Charging Parameters for Battery Pack

Battery Pack Model	Temperature Range, °C	Normal Charging Voltage, Vdc	Normal Charging Current, A	Maximum Charging Voltage, Vdc	Maximum Charging Current, A
US3000C	0~50	53.5	37	54	74 (0~45 Deg. C) 37 (45~50 Deg. C)

Manufacturer's Specified Discharging Parameters for Battery Pack:

Battery Pack Model	Temperature Range, °C	Normal Discharging Current, A	End-of- discharge voltage, Vdc	Maximum Discharging Power, W	Maximum Discharging Current, A
US3000C	-10~50	37	40.5		74

Conditions of Acceptability:

- 1. The battery pack including its battery management system has been tested according to the functional-safety requirements of ANSI/CAN/UL-1973:2018, Second Edition. Solid state circuits and software controls relied upon as the primary safety protection, have been evaluated to the Standard for Safety: Automatic Electrical Controls Part 1, CSA/UL 60730-1. Any change to the software and electronic controls of the BMS may require additional testing.
- 2. The enclosure was evaluated only to establish an IP rating of IP20 with the Standard for Degrees of Protection Provided by Enclosure (IP Code) IEC 60529.
- 3. Product is evaluated for indoor use and shall avoid being used in moisture environment, and not being used near marine environments.
- 4. Further evaluation for Resistance of Moisture and/or Salt Fog shall be required for the battery pack intended to be used in the end product where moisture and/or salt fog condition were applied.
- 5. Manual disconnect device shall be required during the installation of the end products.
- 6. Corrosion due to electrochemical action is to be determined for conductive parts in contact with terminals when subjecting to the installation of the end products.
- 7. Equipment Application Location: Stationary
- 8. Access Location: Operator Accessible.
- 9. The installation was not evaluated. The battery system shall be installed in accordance with NFPA 70 or other applicable installation code.
- 10. Dielectric Voltage Withstand Test was performed with the test potential of 2000Vac/2828 Vdc, a higher test potential shall be considered in the end product if higher overvoltage category specified.
- 11. Overvoltage Category(OVC): 2
- 12. Pollution Degree(PD): 2
- 13. Altitude for Operation: Up to 2000 m.

APPLICABLE REQUIREMENTS



 Certificate:
 80045633
 Master Contract:
 274187

 Project:
 80111384
 Date Issued:
 2022-04-29

ANSI/CAN/UL-1973:2018, Second Edition - Batteries for Use in Stationary, Vehicle Auxiliary Power and Light Electric Rail (LER) Applications.

MARKINGS

See CSA report.

Notes:

Products certified under Class C370112, C370182 have been certified under CSA's ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). www.scc.ca





Supplement to Certificate of Compliance

Certificate: 80045633 Master Contract: 274187

The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
80111384	2022-04-29	Update report of 80045633. Added an alternate IC_CPU
80045633	2020-10-30	Original certification of Rechargeable Lithium ion Battery Pack for use in stationary application, Model US3000C.

Certificate



Zertifikat Nr. Certificate No. R 50487638

Blatt Sheet 0001

Ihr Zeichen Client Reference

Elvis Xu

Unser Zeichen Our Reference 01-XGJ-CN209KQ2 001 Ausstellungsdatum

25.11.2020

Date of Issue (day/mo/yr)

Genehmigungsinhaber License Holder

Pylon Technologies Co., Ltd. No. 73, Lane 887, Zu Chongzhi Road, Zhangjiang Hi-Tech Park, Pudong 201203 Shanghai P.R. China

Fertigungsstätte Manufacturing Plant

Pylon Technologies Co., Ltd.

Plant 8,

No.505 Kunkai Road, JinXi Town, Kunshan City

Jiangsu

P.R. China

Prüfzeichen Test Mark



Bauart geprüft Sicherheit Regelmäßige Produktions überwachung

ID 1111232730

Geprüft nach Tested acc. to

VDE-AR-E 2510-50:2017 2 PfG 2698/08.19

Zertifiziertes Produkt (Geräteidentifikation) Certified Product

(Product Identification)

Lizenzentgelte - Einheit License Fee - Unit

10

Energiespeichersystem (Rechargeable Li-ion Battery)

Type designation

: US3000C

Total Storage Energy

: 3.552kWh

Nominal voltage Nominal current : 48V : 14.8A : 90A

Maximum charging current Maximum discharging current : 90A Rated capacity

: 74Ah : I

Protection Class Ingress Protection (IP)

: IP20 : PD2

Continued on page 0002

Pollution degree (PD)

10

ANLAGE (Appendix): 1.0

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht. This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg



Certificate



Zertifikat Nr. Certificate No. R 50487638

Blatt Sheet 0002

Ihr Zeichen Client Reference

Elvis Xu

Unser Zeichen Our Reference 01-XGJ-CN209KQ2 001 Ausstellungsdatum 25.11.2020

Date of Issue (day/mo/yr)

Genehmigungsinhaber License Holder

Pylon Technologies Co., Ltd. No. 73, Lane 887, Zu Chongzhi Road, Zhangjiang Hi-Tech Park, Pudong 201203 Shanghai P.R. China Fertigungsstätte Manufacturing Plant

Pylon Technologies Co., Ltd.

Plant 8,

No.505 Kunkai Road, JinXi Town,

Kunshan City Jiangsu

P.R. China

Prüfzeichen Test Mark



Bauart geprüft Sicherheit Regelmäßige Produktionsüberwachung

www.tuv.com

Geprüft nach Tested acc. to

VDE-AR-E 2510-50:2017 2 PfG 2698/08.19

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)

Lizenzentgelte - Einheit License Fee - Unit

Energiespeichersystem (Rechargeable Li-ion Battery)

as page 0001 continuation

Charging temp. upper limit : 55°C Charging temp. lower limit : -8°C Dsicharging temp. lower limit : -10°C Altitude : 4000m

Remark(s):

The installation has to be carried out according to the attached installation instruction.

Any additional requirements in countries where the product is going to be marketed have to be considered additionally.

ANLAGE (Appendix): 1.0

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht. This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg





Pylon Technologies Co., Ltd.

Date : 25.11.2020

Our ref.: XGJ 01 Your ref.: Elvis Xu

No. 73, Lane 887, Zu Chongzhi Road, Zhangjiang Hi-Tech Park, Pudong 201203 Shanghai P.R. China

Ref : R TÜV-Bauart-Zeichen o. Akkred. Nr.

Type of Equipment : Rechargeable Li-ion Battery

Model Designation: See Certificate Certificate No.: R 50487638 0001 Report No.: CN209KQ2 001

Dear Elvis Xu,

The above specified equipment has been tested and found to be in accordance with the relevant requirements.

Please find enclosed your certificate as specified above.

If cancellation of the certificate is submitted by 15 November in a given year, no fee will be charged for the following year.

The certificate is issued with the reservation that the license holder applies all information required in § 6 of the ProdSG related to name and address of the manufacturer or his authorized representative / importer, including their respective contact addresses on the product prior to marketing of the product in the European Economic Area.

With kind regards,

Certification Body

cc: Pylon Technologies Co., Ltd.

Enclosure

证书的详细资料请登陆www.certipedia.com查阅,或拨打我司客服热线800 999 3668 / 400 883 1300咨询