Test Report -Products







Report No.: 180236791a 001 Page 1 of 8

Client: REPT BATTERO ENERGY CO., LTD.

Contact Information: No. 205, Binhai 6th Road, Konggang New District, Longwan District,

Wenzhou Zhejiang, P.R. China

Identification/ Rechargeable Prismatic Lithium-ion Cell

*Model No(s):* CB3914895EA

Sample obtaining method: Sending by customer

Condition at delivery: Test item complete and undamaged.

Sample Receiving date: 2022-06-10

Testing Period:2022-06-10 to 2022-06-20Place of testing:Chemical laboratory Ningbo

Test Specification: Test result:

Customer's requirement:

 Cadmium, Lead, Chromium (VI), Mercury, Polybrominated biphenyls (PBB) PASS and Polybrominated diphenyl ethers (PBDE), ROHS Phthalates (BBP, DBP, DEHP, DIBP)

According to RoHS(recast): Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment, 2011/65/EU Annex II and its amendment Directive (EU) 2015/863

Other information:

Country of Origin: China

For and on behalf of TÜV Rheinland/CCIC (Ningbo) Co., Ltd.

2022-06-22

Zhou Zoey / Project Manager

Date Name/Position

Sample information is provided by customer. Test result is drawn according to the kind and extent of tests performed.

This test report relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.

'Decision Rule" document announced in our website (https://www.tuv.com/landingpage/en/qm-gcn/) describes the statement of conformity and its rule of enforcement for test results are applicable throughout this test report.



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**Material List:** 

Rechargeable Prismatic Lithium-ion Cell Item:

CB3914895EA

Material No.	Material	Color	Location
A001	Metal	silver	refer to photo
A002	Metal	silver	refer to photo
A003	Metal	silver	refer to photo
A004	Metal	golden	refer to photo
A005	Metal	golden	refer to photo
A006	Plastic	black	refer to photo
A007	Plastic	blue	refer to photo
A008	Plastic	blue	refer to photo
A009	Plastic	white	refer to photo
A010	Plastic	transparent	refer to photo
A011	Plastic	black	refer to photo
A012	Metal	copper	refer to photo
A013	Plastic	black	refer to photo
A014	Metal	silver	refer to photo
A015	Plastic	transparent	refer to photo



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## 1.Screening Test by XRF spectroscopy

Test Method: Cadmium, Lead, Mercury, Chromium, Bromine

-- With reference to IEC 62321-3-1:2013

## **Test Result:**

Material No.	Cd	Cr	Pb	Hg	Br
A001	BL	BL	BL	BL	n.a.
A002	BL	BL	BL	BL	n.a.
A003	BL	BL	BL	BL	n.a.
A004	BL	BL	BL	BL	n.a.
A005	BL	BL	BL	BL	n.a.
A006	BL	BL	BL	BL	d.(*1)
A007	BL	BL	BL	BL	BL
A008	BL	BL	BL	BL	BL
A009	BL	BL	BL	BL	BL
A010	BL	BL	BL	BL	BL
A011	BL	BL	BL	BL	BL
A012	BL	BL	BL	BL	n.a.
A013	BL	BL	BL	BL	BL
A014	BL	BL	BL	BL	n.a.
A015	BL	BL	BL	BL	BL

Abbreviation: Pb = Lead

Cadmium Cd Hg Mercury Cr Chromium Bromine Br Not appliable n.a. BLBelow limit OL Over limit d. Detected



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### Remark:

- (\*1) The screening result was detected in the inconclusive region or over limits, thus the further wet chemistry tests are suggested.
- (\*2) Component(s)/ materials(s) with an area of less than 2 mm x 2 mm will not be selected for testing according to RoHS Directive 2011/65/EU due to technical reason. For the test sample does not have detail materials information provided by client, visually identical materials (e.g. wire insulation, solder points, etc.) will be considered as the same material. Solder points on a printing circuit board will be examined several times based on optical anomalies or discoloration of the solder point(s) unless the solder point(s) is obviously generated automatically during production.

All other materials will be sampled and tested at one test point representatively.

### XRF Screening limits for different matrices :

	Concentration (%)					
Material	Cd	Cr	Pb	Hg	Br	
Polymeric	BL≤0.006 <x<0.014≤ OL</x<0.014≤ 	BL≤0.064 <x< th=""><th>BL≤0.067<x<0.133≤ OL</x<0.133≤ </th><th>BL≤0.066<x< 0.134≤OL</x< </th><th>BL≤0.029<x< th=""></x<></th></x<>	BL≤0.067 <x<0.133≤ OL</x<0.133≤ 	BL≤0.066 <x< 0.134≤OL</x< 	BL≤0.029 <x< th=""></x<>	
Metallic	BL≤0.006 <x<0.014≤ OL</x<0.014≤ 	BL≤0.064 <x< th=""><th>BL≤0.067<x<0.133≤ OL</x<0.133≤ </th><th>BL≤0.066<x< 0.134≤OL</x< </th><th>n.a.</th></x<>	BL≤0.067 <x<0.133≤ OL</x<0.133≤ 	BL≤0.066 <x< 0.134≤OL</x< 	n.a.	
Composite materials	BL≤0.004 <x<0.016≤ OL</x<0.016≤ 	BL≤0.044 <x< th=""><th>BL≤0.047<x<0.153≤ OL</x<0.153≤ </th><th>BL≤0.046<x< 0.154≤OL</x< </th><th>BL≤0.024<x< th=""></x<></th></x<>	BL≤0.047 <x<0.153≤ OL</x<0.153≤ 	BL≤0.046 <x< 0.154≤OL</x< 	BL≤0.024 <x< th=""></x<>	

Remark: The symbol "X" marks the region where further investigation is necessary.



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# 2.Cadmium, Lead, Chromium (VI), Mercury, Polybrominated biphenyls (PBB) and Polybrominated diphenyl ethers (PBDE)

Test Method:

Total Cadmium, Lead, Mercury, Chromium

- Ref. to IEC 62321-4:2013+AMD1:2017 and IEC 62321-5:2013

Chromium (VI)

- For Metal material - Ref. to IEC 62321-7-1:2015

- For Plastic or Electronic material - Ref. to IEC 62321-7-2:2017

- For Leather material - Ref. to EN ISO 17075-1:2017

PBBs, PBDEs - Ref. to IEC 62321-6:2015

### **Test Result:**

	Cd	Cr(VI)	Pb	Hg	PBBs (*)	PBDEs (*)
Maximum Permissible Limit (%)	0.01	0.1	0.1	0.1	0.1	0.1

	(27)		(%	)		
Material No.	Cd	Cr^	Pb	Hg	PBBs (*)	PBDEs (*)
			RL (	%)		
	0.001	0.001	0.001	0.001	0.01	0.01
A006	n.a.	n.a.	n.a.	n.a.	< RL	< RL

Abbreviation: Pb = Lead

Cd = Cadmium
Hg = Mercury
Cr = Chromium

Cr(VI) = Chromium(VI)

PBBs = Total Polybrominated Biphenyls

PBDEs = Total Polybrominated Diphenyl Ethers

< = less than

RL = Reporting Limit n.a. = Not Applicable

^ = The total Chromium have been determined

% = percentage



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## Remark:

(\*) The reporting limit for each individual PBBs and individual PBDEs are :

	Reporting Limit (%)		
	Bromobiphenyl	0.01	
	Dibromobiphenyl	0.01	
	Tribromobiphenyl	0.01	
	Tetrabromobiphenyl	0.01	
PBBs	Pentabromobiphenyl	0.01	
	Hexabromobiphenyl	0.01	
	Heptabromobiphenly	0.01	
	Octabromobiphenyl	0.01	
	Nonabromobiphenyl	0.01	
	Decabromobiphenyl	0.01	
	Bromodiphenylether	0.01	
	Dibromodiphenyl ether	0.01	
	Tribromodiphenyl ether	0.01	
	Tetrabromodiphenyl ether	0.01	
PBDEs	Pentabromodiphenyl ether	0.01	
	Hexabromodiphenyl ether	0.01	
	Heptabromodiphenyl ether	0.01	
	Octabromodiphenyl ether	0.01	
	Nonabromodiphenyl ether	0.01	
	Decabromodiphenyl ether	0.01	



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## 3. BBP, DBP, DEHP, DIBP content

Test Method: IEC 62321-8:2017

**Test Result:** 

	BBP	DBP	DEHP	DIBP
Maximum permissible Limit (%)	0.1	0.1	0.1	0.1

3563		(%)				
	Material No.	BBP	DBP	DEHP	DIBP	
Test No.		RL (%)				
		0.005	0.005	0.005	0.005	
T001	A006 + A007 + A008	< RL	< RL	< RL	< RL	
T002	A009 + A010 + A011	< RL	< RL	< RL	< RL	
T003	A013 + A015	< RL	< RL	< RL	< RL	

Abbreviation:

BBP= Benzylbutyl phthalate

DBP= Dibutyl phthalate

DEHP= Bis(2-ethylhexyl) phthalate DIBP= Diisobutyl phthalate

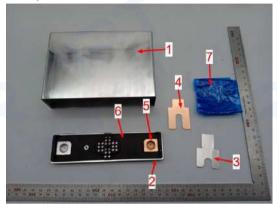
< = less than

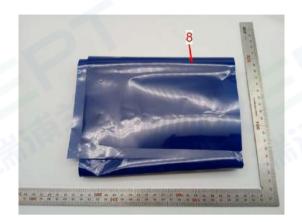
RL = Reporting Limit N.A. = Not Applicable %= percentage

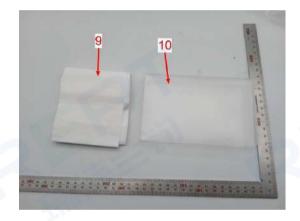


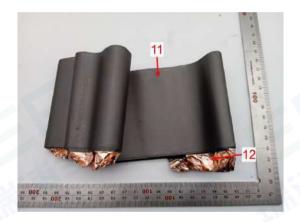
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## Sample Photos

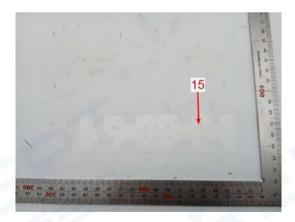














### General Terms and Conditions of Business of TÜV Rheinland in Greater China

These General Terms and Condisions of Business of TÜV Rheinland in Greater China ("CTCE") is made between the client and one or more member entitles of TÜV Rheinland in Terter to Marinda China. Hone Kong and Talwan. The client hereof includes: China hereof refers to Marinda China. Hone Kong and Talwan. The client hereof includes: (i) a natural person capable to form legally binding contracts under the applicable laws who concludes the contract not for the purpose of a daily user. The contract of the contr

companies previous within the scope of contract performance.

Any standard terms and conditions of the client of any nature shall not apply and shall hereby be expressly excluded. No standard contractual terms and conditions of the client shall form part of the contract even if TU Rheinland does not explicitly object to them; and the contract with the client without TUV Rheinland having to refer to them separately in each individual care.

Unless otherwise agreed, all quotations submitted by TÜV Rheinland can be changed by TÜV Rheinland without notice prior to its acceptance and confirmation by the other party.

The context shall come into effect for the agreed terms upon the quotation letter of TÜV. Rheinland or a separate contractual document being signed by both contracting parties, or upon the works requested by the client being carried out by TÜV Rheinland if the client instructs TÜV Rheinland without receiving a quotation from TÜV Rheinland (quotation), TÜV Rheinland is, in its sed discretion, remitted to accept the order by giving written notice of such acceptance (including notice sent via electronic means) or by performing the requested services.

services.
The contract term starts upon the coming into effect of the contract in accordance with article 3.1 and shall continue for the term agreed in the contract.
If the contract provides for an extension of the contract term, the contract term will be extended by the term provided for in the contract unless terminated in writing by either party with a three-month notice prior to the end of the contractual term. 3.3

Scope of services

The scope and type of the services to be provided by TÜV Rheinland shall be specified in the contractually agreed service scope of TÜV Rheinland by both parties. If no such separate service scope of TÜV Rheinland by both parties. If no such separate service scope of TÜV Rheinland shall be decisive for the service be be provided. Unless otherwise agreed, services beyond the scope of the service description (e.g. checking the correctness and functionality of parts, products, processes, installations, organizations not listed in the service description, as well as the intended use and application of such just and one due, in particular, no responsibility and part products, process or plant, unless this is expressly stated in the order. The agreed services shall be performed in compliance with the regulations in force at the time the contract is entered into.

TÜV Rheinland is entitled to determine, in its sole discretion, the method and nature of the assessment unless otherwise agreed in writing or if mandatory provisions require a specific procedure to be followed.

TOV Rheinland is entitled to determine, in it is now assessment unless otherwise agreed in writing of it mandatory provisions require a specific procedure to be followed.

The provision of the provision of the provision of the provision of any gusrantee of the Correctness (proving plant of the provision of the accuracy or the accuracy or

in accordance with regulations, unless these questions are expressly covered by the contract. In the case of impection work. TVV Rehelland shall not be responsible for the accuracy or checking of the safety programmes or safety regulations on which the inspections are based, unless otherwise expressly agreed in writing.

If mandatory legal regulations and standards or official requirements for the agreed service scope change after conclusion of the contract, which a written notice to the client, TVV Rehelland shall be entitled to additional remuneration for resulting additional expenses. The services to be provided by TVV Rehelland shall be entitled to additional remuneration for resulting additional expenses. The services to be provided by TVV Rehelland under the contract or agreed exclusively with the client. A contract of third parties with the services of TVV Rehelland, as well as making reports, etc.) is not part of the agreed services. This also applies if the client passes on work results - in full or in extracts - to third parties in accordance with clause 11.4.

5.1

Performance periodicidates
The contractingly agend periodicidates of performance are based on satirmates of the work involved which are prepared in the with the details provided by the client. They shall only be binding in being confirmed as binding by TVD Reheland in writing.
If binding periodic of performance have been agreed, these periods shall not commence until the client has submitted all required concerned to TVD Reheland.
If binding periodic of performance have been agreed, these periodic shall not commence until the client has submitted all required concerned to TVD Reheland. It is all extensions of agreed periodicidates of performance not caused by TVD Reheland.
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The client shall guarantee that all cooperation required on its part, its agents or third parties will be provided in good time and at no cost to  $T\bar{U}V$  Rheinland.

be provised in good limit and at no cost of 100 Kneinland.

Design documents, supplies, auditing staff, etc. necessary for performance of the services shall be made available free of charge by the client. Moreover, collaborative action of the client must be undertaken in accordance with legal provisions, standards, safety regulations and accident prevention instructions. And the client represents and warrants or

The product, service or management system to be certified complies with applicable laws and regulations; and

It doesn't have any illegal and dishonest behaviours or is not included in the list of Enterprises with Serious Illegal and Dishonest Acts of People's Republic of China.

If the client breaches the aforesaid representations and warranties, TÜV Rheinland is entitled to i) immediately terminate the contract/order without prior notice; and ii) withdraw the issued testing report/certificates if any.

The client shall bear any additional cost incurred on account of work having to be redone or being delayed as a result of late, incorrect or incomplete information provided by or lack of proper cooperation from the client. Even where a fixed or maximum price is agreed, TUV Rheinland shall be entitled to charge extra fees for such additional expense.

If the scope of performance is not laid down in writing when the order is placed, invoicing shall be based on costs actually incurred. If no price is agreed in writing, invoicing shall be made in accordance with the price list of TUV Rheinland valid at the time of performance. Unless otherwise agreed, work shall be invoiced according to the progress of the work. If the execution of an order extends over more than one month and the value of the contract or the agreed fixed price exceeds \$2,500.00 or equivalent value in local currency. TUV Rheinland may demand payments on account or in installments.

Payment terms

All invoice amounts shall be due for payment within 30 days of the invoice date without deduction on receipt of the invoice. No discounts and rebates shall be granted.

Springers shall be made to the bear's account of TUV Rheinland as indicated on the invoice, standard of the invoice of the standard of the invoice of the standard of the invoice of the standard of t s. ns to the invoices of TÜV Rheinland shall be submitted in writing within two weeks of

Objections to the invoices of TÜV Rheinland shall be submitted in writing within two weeks of receiped of the invoices.

TÜV Rheinland shall be entitled to demand appropriate advance payments.

TÜV Rheinland shall be entitled to fraise its fees at the beginning of a month if overheads and/or purchase costs have increased. In this case, TÜV Rheinland shall notify the client in writing of the rise in fees. This notification shall be issued one month prior to the date on which the rise in fees shall come into effect (period of notice of changes in fees). If the rise in fees remains under 5% per contractual year, the client shall not have the right to terminate the contract. If the rise in fees exceeds 5% per contractual year, the client shall be entitled to terminate the contractual by the vide of the period of notice of changes in fees. If the contract terminate the contractual by the vide of the period of notice of changes in fees. If the contract the period of notice of changes in fees. If the contract of the expiry of the notice period.

### Acceptance of work

Any part of the work result ordered which is complete in itself may be presented by  $T\bar{U}V$  Rheinland for acceptance as an instalment. The client shall be obliged to accept it

immediately. If acceptance is required or contractually agreed in an individual case, this shall be deemed to have taken place two (2) weeks after completion and handover of the work, unless the client refuses acceptance within this period stating at least one fundmental breach of contract by TIM Publicians. ent is not entitled to refuse acceptance due to insignificant breach of contract by TÜV

The client is not entitled to refuse acceptance due to insignificant breach of contract by TUV remeinland. 
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Confidentiality

For the purpose of these terms and conditions, "confidential information," means all know-how, trade secrets, documents, images, drawings, expertise, information, data, test results, reports, samples, project documents, princing and financial information, customer and supplier information, and marketing techniques and materials, reports, that the supplier information, and marketing techniques and materials, reports, that is supplied, transferred or otherwise disclosed by one Party (the "disclosing party") to the other Party (the expressity) of the data and knowhow collected, composite or discretised between the expressity of the data and knowhow collected, composite or otherwise obtained by TUV Rheinland (non-personal and not proprietary to the client) within the scope of the provision of services by TUV Rheinland (non-personal and not proprietary to the client) within the scope of the provision of services by TUV Rheinland (non-personal and not proprietary to the client) and the scope of the provision of the discoling party shall mark all confidential information disclosed in written from as confidential before passing it onto the receiving party. The same applies to confidential information transmitted by e-mail. Exconfidential information is adiculated only, the receiving party shall mark all confidential information is disclosed only, the receiving party shall not always the scopic of the proprietary to the purpose of the discoling party shall mark all the scope of the purpose of the purpos

biddle count accreditation bodies or third parties that are involved in the performance of the contract, must be treated by the receiving party with the same level of confidentiality as the receiving party uses to protect its own confidential information, but never with a lesser level of confidentiality than that which is reasonably required.

The protection of the confidentiality than that which is reasonably required. The protection of the confidentiality than that which is reasonably required. The protection of the confidentiality than that which is reasonably required. The protection of the confidentiality than that which is reasonably required. The protection of the confidentiality that the receiving party undertakes to oblige these employees to observe the same level of secretory as set forth in this confidentiality clause. Information for which the receiving party can turnish proof that: It was generably whom at the time of disclosure or has become general knowledge without violation of this confidentiality clause by the receiving party, or which information or confidentiality clause by the receiving party or party can be party can be party can be provided by the disclosure by the disclosure party, shall the receiving party or party developed it itself, irrespective of disclosure by the disclosing party, shall the receiving party or party can be considered to the confidential to the receiving party or party can be considered to the receiving party or party can be considered to the confidential to the confidential

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the receiving party already possessed this information prior to disclosure by the disclosing party shall provide point in the first provided prior that for the property of the disclosure by the disclosing party, shall not be deemed to constitute "confidential information" as defined in this confidential value. All confidential information shall remain the property of the disclosing party. The receiving party hereby agrees to immediately (i) return all confidential information, including all copies, to the information of the confidential information, including all copies, and in the property of the disclosing party in writing, at any time if so requested by the disclosing party to that the latest and without special request after termination or perity of the contract. This does not each of the client solely for the purpose of Rheinland is entitled to make life copies of such reports, certificates and confidential information that forms the basis for preparing these reports and certificates in order to evidence the correctness of its results and for general documentation propose required by laws, regulations and the requirement of vidential procedures of TUV Phainland.

10.7

### Copyrights and rights of use, publications 11.1

Copyrights and rights of use, publications
TÜV Rheinland shall retain all exclusive copyrights in the reports, expert reports/coinions, test
reports/results, results, calculations, presentations etc. prepared by TÜV Rheinland, unless
otherwise agreed by the parties in a separate agreement. As the owner of the copyrights, TÜV
Rheinland is feet to grant others the right to use the vork results for individual or all types of
The client receives a simple, unlimited, non-transferable, non-sublicensable right of use to the
contents of the work results produced within the scope of the contract, unless otherwise
agreed by the parties in a separate agreement. The client may ordly use such reports, expert
the scope of the contract crit work results reported in clause 11.2 of the GTCB
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11.6

### Liability of TÜV Rheinland

Liability of TÜV Rheinland

Irrespective of the legal basis, to the fullest obent permitted by applicable law, in the event of a breach of contractual obligations or tort, the liability of TÜV Rheinland for all damages, losses and reimbursement of expenses caused by TÜV Rheinland, its legal representatives and/or employees shall be limited to: (i) in the case of a contract with a fixed overall fee, three times the overall fee for the entire contract; (ii) in the case of a contract for annually recurring services, the agreed entural fee; (iii) his the case of a contract expressly chapted on a time and the case of a time of the case of time of the case of a time of the case of a time of the case of time of the case

vicarious agents. Such limitation shall not apply to damages for a person's death, physical injury of illness, and a fundamental breach of context, TVD Rehindend will be liable even where minor negligence is involved. For this purpose, a "fundamental breach" is breach of a material contractual obligation, the performance of which permits the due performance of the contract. Any claim for damages resonably foreseen as a possible consequence of such breach of contract shall be limited to the amount of damages resonably foreseen as a possible consequence of such breach of contract as the contract and the contract to the clean.

contract to the client.
The limitation periods for claims for damages shall be based on statutory provisions.
None of the provisions of this article 12 changes the burden of proof to the disadvantage of the

12.4

13.1

When passing on the services provided by TÜV Rheinland or parts thereof to third parties in Greater China or other regions, the client must comply with the respectively applicable regulations of national and international export control to the performance of a contract with the client is subject to the proviso that there are no obstacles to performance due to national or international foreign trade legislations or embarges and/or with immediate effect and the client shall compensate for the losses incured thereof by TÜV Rheinland.

The client understands and agrees that TÜV Rheinland processes personal data (including but not limited to personal information) of the client and its related parties (including but not limited to the supplier of the client) for the purpose of fulfilling is contract. The client confirms that it has obtained the prior consent of the data subject, which entities TÜV Rheinland to access, use, or process the personal data that the client collected or processed by itself and data. TÜV Rheinland will use and process the data is no condence with the relevant legal basis. If any personal data has to be disclosed or transferred to any third party or any overseas party outside of the district in which the personal data was collected, the client also confirms that it has obtained the prior consent of the data subject. TÜV Rheinland will sure any outsides of the district in which the personal data was collected, the client also confirms that it has obtained the prior consent of the data subject. TÜV Rheinland will carry out cross-border asculing related laws and regulations in China and the local country. TÜV Rheinland will sale measures to avoid any leakage, abuste, mainplations, damage or unauthorized access of personal data. The personal data will be deleted immediately as soon as a corresponding reason for deletion arise. Data subject may excesse the following rights: right of information, where the right to revoke their consent at any time with felfect for the future, as well as the right to file a complaint with the competent data protection supervisory authority. For further details on the processing of personal data by TÜV Rheinland will as the person responsible or contract on the processing of personal data by TÜV Rheinland will as the person responsible or contract on the processing of personal data by TÜV Rheinland will as the person responsible or contract on the processing of personal data by TÜV Rheinland will as the person responsible or contract on the processing of personal data by TÜV Rheinland was the p

Retention of test material and documentation

The test samples submitted by the client to TUV Rheinland for testing will be scrapped following testing or will be returned to the client at the client's expense. The only exceptions are test samples, which are placed in storage on the basis of statutory regulations or of another Charges apply if the test samples are stored at the premises of TUV Rheinland. The cost of placing a test sample into storage will be disclosed to the client in the quotation. It reference samples or documentations are given to the client to be placed in storage at their premises, the reference samples or documentations must be made available to TUV references, the reference samples or documentations are given to the client to be placed in storage at their premises, the reference samples or documentations are given to the client to be placed in storage at their premises, the reference samples or documentation are given to the control of the cont 15.4

16.1

Termination of the contract

Notwithstanding clause 3.3 of the GTCB, TÜV Rheinland and the client are entitled to terminate the contract in its entirely or, in the case of services combined in one contract, each of the combined parts of the contract individually and independently of the continuation of the remaining services with six (6) mortifier notice to the end of the contractually agreed term. The combined is not to the contract of the contract which is contract which includes but a loss or a suspension of its accreditation or notification. For good causes, TÜV Rheinland may consider giving a written notice to the client to terminate the contract which includes but not limited to the following:

a) the dient close not immediately notify TÜV Rheinland of changes in the conditions within the all the client traces or immediately notify TÜV Rheinland of changes in the conditions within the all the client traces or immediately notify TÜV Rheinland of clanges in the conditions within the client traces. The contract is considerable or immediately notified to the client insulates the contract of the client misuses the conflictation or certification mark or uses it is violation of the contract;

b) the client misuses the conflictate or certification mark or uses it is violation of the contract;

c) in the event of any serious of the client misuses of the client tour serious of the client misuses the conflictation of the financial circumstances of the client cours and as a result the payment chains of TÜV Rheinland under the contract are considerably endingent and the payment chains of TÜV Rheinland or depression or against of the client course of the contract of the payment chains of TÜV Rheinland or the contract is considerably where a considerably one or notification, or official or offici

17.2

withdrawn (for example during the performance of monitoring audis). Clause 16.3 applies accordingly.

Force Majeure

\*\*Force Majeure\*\*

\*\*Force Ma

### **18.** 18.1.

Hardship
The Parlies are bound to perform their contractual duties even if events have rendered performance more onerous than could reasonably have been anticipated at the time of the Notwithstanding paragraph 1 of this Clause, where a Party proves that:

The continued performance of its contractual duties has become excessively onerous due to an event beyond its reasonable control which it could not reasonably have been expected to have taken into account at the time of the continuation of the contract, and that attained and the control of the contract and that are also and the control of the control of the contract, and that are also and the control of the

19.3

agreement of the other Party.

Partial invalidity, written form, place of jurisdiction and dispute resolution.

All amendments and supplements must be in writing in order to be effective. This also applies to amendments and supplements to this clause 171.

It also applies to amendments and supplements to this clause 171.

Description of the property of the propert



## **Certificate** of conformity with the following **European Directive**

Registered No.:

NE1105240056

## Electromagnetic Compatibility Directive 2014/30/EU

Reference of applicant

Date of application

File reference

Test report No.

Date of issue

Expiry date

10.04.2024

TWR2404008

TWR2404008 001

17.04.2024

16.04.2029

This is to certify that the following product complies to all the provisions of the above mentioned European Directive and the following standards:

**Product:** 

Rechargeable Li-ion Battery System

Type designation:

HEC2-BHP50r2, HEC2-BHP100r2, HEC2-BHP150r2, HEC2-BHP200r2,

HEC2-BHP200r2-A, HEC2-BHP300r2, HEC2-BHP400r2

Serial No.:

Engineering Samples of HEC2-BHP100r2, HEC2-BHP200r2

**Applicant:** 

Hiconics Eco-energy Drive Technology Co., Ltd.

No.3 Boxing 2nd Rd, Beijing Economic and Technological Development

Zone, DaxingDistrict, 100176, Beijing, China

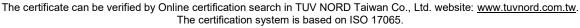
Standard(s):

EN IEC 61000-6-1:2019, EN IEC 61000-6-3:2021,

IEC 61000-6-1:2016, IEC 61000-6-3:2020

This Certificate of conformity is based on the evaluation of sample(s) of the above mentioned 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 Group. This is to certify that the tested sample is in compliance with the essential requirements referred to in Annex I of Council Directive 2014/30/EU. This certificate can be used by holder in connection with the EC declaration of conformity indicating conformity according to Electromagnetic Compatibility Directive.

Email:info.pc@tuv-nord.com www.tuv-nord.com







# CERTIFICATE

of conformity with the following European Directives

Low Voltage Directive 2014/35/EU

This certifies that below described products of the applicant:

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

No.3 Boxing 2nd Road, Beijing Economic and Technological Development Zone, Daxing District, 100176, Beijing, 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): Rechargeable Li-ion Battery System

Model type(s): HEC2-BHP50r2, HEC2-BHP100r2, HEC2-BHP150r2, HEC2-BHP200r2,

HEC2-BHP200r2-A, HEC2-BHP300r2, HEC2-BHP400r2

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.

P31-VA-01 Rev. 02 / 04.20 Certification program:

Certification fundamental(s): EN IEC 62040-1:2019, EN IEC 62040-1:2019/A11:2021

44 799 24 406749 - 129 Registered no.:

492013057.001 Report no .: PVP03094/24E-04 File no.:

TÜV NORD ÇERT GmbH Certification Body **Energy Storage System** 

TÜV NORD CERT GmbH Am TÜV 1, D-45307 Essen

prodcert@tuev-nord.de www.tuev-nord-cert.de

Essen, 2024-04-10

Please also pay attention to the information stated overleaf.





Annex 1, Page 1 of 7

## to Certificate registration no. 44 799 24 406749 - 129

Description of product(s):

Model type(s):

HEC2-BHP50r2

Rated capacity:

50Ah

Nominal voltage:

102.4V

Watt-hour:

5120Wh

Recommended charge method:

Charging the battery system with 25A constant current until 112V, then

constant voltage until charging current reduces to 0.05C

Maximum charge current:

25A (0.5C)

Maximum charge voltage:

116.8V

Charge temperature range:

From -20°C to 55°C

Recommended discharge method:

Discharging the battery system with 25A constant current to discharge

cut-off voltage 92.8V

Maximum discharge current:

25A (0.5C)

Discharge cut-off voltage:

80V

Discharge temperature range:

From -20°C to 55°C

Nominal weight:

69±4kg

Nominal dimension:

800±20mm×530±30mm×160±20mm

Storage temperature range:

From -20°C to 55°C (3 months) From -20°C to 35°C (1 year)

IP rating/ Enclosure index:

IP65

Elevation [m]:

≤2000m

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TÜV NORD CERT GmbH Certification Body Energy Storage System



Annex 1, Page 2 of 7

## to Certificate registration no. 44 799 24 406749 - 129

Description of product(s):

HEC2-BHP100r2 Model type(s):

Rated capacity: 50Ah

Nominal voltage: 204.8V Watt-hour: 10240Wh

Recommended charge method: Charging the battery system with 25A constant current until 224V, then

constant voltage until charging current reduces to 0.05C

Maximum charge current: 25A (0.5C)

Maximum charge voltage: 223.6V

Charge temperature range: From -20°C to 55°C

Recommended discharge method: Discharging the battery system with 25A constant current to discharge

cut-off voltage 185.6V

Maximum discharge current: 25A (0.5C)

Discharge cut-off voltage: 160V

Discharge temperature range: From -20°C to 55°C

Nominal weight: 124±6kg

Nominal dimension: 800±20mm×840±30mm×160±20mm

From -20°C to 55°C (3 months) From -20°C to 35°C (1 year)

IP rating/ Enclosure index: **IP65** 

Elevation [m]: ≤2000m

TÜV NORD CERT GmbH Certification Body Energy Storage System

Storage temperature range:



Annex 1, Page 3 of 7

## to Certificate registration no. 44 799 24 406749 - 129

Description of product(s):

Model type(s): HEC2-BHP150r2

Rated capacity: 50Ah
Nominal voltage: 307,2V

Watt-hour: 15360Wh

Recommended charge method: Charging the battery system with 25A constant current until 336V, then

constant voltage until charging current reduces to 0.05C

Maximum charge current: 25A (0.5C)

Maximum charge voltage: 350.4V

Charge temperature range: From -20°C to 55°C

Recommended discharge method: Discharging the battery system with 25A constant current to discharge

cut-off voltage 278.4V

Maximum discharge current: 25A (0.5C)

Discharge cut-off voltage: 240V

Discharge temperature range: From -20°C to 55°C

Nominal weight: 179±8kg

Nominal dimension: 800±20mm×1150±30mm×160±20mm

Storage temperature range: From -20°C to 55°C (3 months)

From -20°C to 35°C (1 year)

IP rating/ Enclosure index: IP65

Elevation [m]: ≤2000m

TÜV NORD CERT GmbH Certification Body Energy Storage System



Annex 1, Page 4 of 7

## to Certificate registration no. 44 799 24 406749 - 129

Description of product(s):

Model type(s): HEC2-BHP200r2

Rated capacity: 50Ah
Nominal voltage: 409.6V

Watt-hour: 20480Wh

Recommended charge method: Charging the battery system with 25A constant current until 448V, then

constant voltage until charging current reduces to 0.05C

Maximum charge current: 25A (0.5C)

Maximum charge voltage: 467.2V

Charge temperature range: From -20°C to 55°C

Recommended discharge method: Discharging the battery system with 25A constant current to discharge

cut-off voltage 371.2V

Maximum discharge current: 25A (0.5C)

Discharge cut-off voltage: 320V

Discharge temperature range: From -20°C to 55°C

Nominal weight: 234±10kg

Nominal dimension: 800±20mm×1460±30mm×160±20mm

Storage temperature range: From -20°C to 55°C (3 months)

From -20°C to 35°C (1 year)

IP rating/ Enclosure index: IP65

Elevation [m]: ≤2000m

TÜV NORD CERT GmbH Certification Body Energy Storage System



Annex 1, Page 5 of 7

## to Certificate registration no. 44 799 24 406749 - 129

Description of product(s):

Model type(s):

HEC2-BHP200r2-A

Rated capacity:

100Ah

Nominal voltage:

204.8V

Watt-hour:

20480Wh

Recommended charge method:

Charging the battery system with 50A constant current until 224V, then

constant voltage until charging current reduces to 0.05C

Maximum charge current:

50A (0.5C)

Maximum charge voltage:

233.6V

Charge temperature range:

From -20°C to 55°C

Recommended discharge method:

Discharging the battery system with 50A constant current to discharge

cut-off voltage 185.6V

Maximum discharge current:

50A (0.5C)

Discharge cut-off voltage:

160V

Discharge temperature range:

From -20°C to 55°C

Nominal weight:

248±12kg

Nominal dimension:

1600±20mm×840±30mm×160±20mm

Storage temperature range:

From -20°C to 55°C (3 months)

From -20°C to 35°C (1 year)

IP rating/ Enclosure index:

IP65

Elevation [m]:

≤2000m

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TÜV NORD CERT GmbH Certification Body Energy Storage System



Annex 1, Page 6 of 7

## to Certificate registration no. 44 799 24 406749 - 129

30720Wh

Description of product(s):

Watt-hour:

Model type(s): HEC2-BHP300r2

Rated capacity: 100Ah
Nominal voltage: 307.2V

Recommended charge method: Charging the battery system with 50A constant current until 336V, then

constant voltage until charging current reduces to 0.05C

Maximum charge current: 50A (0.5C)

Maximum charge voltage: 350.4V

Charge temperature range: From -20°C to 55°C

Recommended discharge method: Discharging the battery system with 50A constant current to discharge

cut-off voltage 278.4V

Maximum discharge current: 50A (0.5C)

Discharge cut-off voltage: 240V

Discharge temperature range: From -20°C to 55°C

Nominal weight: 358±16kg

Nominal dimension: 1600±20mm×1150±30mm×160±20mm

Storage temperature range: From -20°C to 55°C (3 months)

From -20°C to 35°C (1 year)

IP rating/ Enclosure index: IP65

Elevation [m]: ≤2000m

TÜV NORD CERT GmbH Certification Body Energy Storage System



Annex 1, Page 7 of 7

# to Certificate registration no. 44 799 24 406749 - 129

Description of product(s):

Model type(s):

HEC2-BHP400r2

Rated capacity:

100Ah

Nominal voltage:

409.6V

Watt-hour:

40960Wh

Recommended charge method:

Charging the battery system with 50A constant current until 448V, then

constant voltage until charging current reduces to 0.05C

Maximum charge current:

50A (0.5C)

Maximum charge voltage:

467.2V

Charge temperature range:

From -20°C to 55°C

Recommended discharge method:

Discharging the battery system with 50A constant current to discharge

cut-off voltage 371.2V

Maximum discharge current:

50A (0.5C)

Discharge cut-off voltage:

320V

Discharge temperature range:

From -20°C to 55°C

Nominal weight:

468±20kg

Nominal dimension:

1600±20mm×1460±30mm×160±20mm

Storage temperature range:

From -20°C to 55°C (3 months)

From -20°C to 35°C (1 year)

IP rating/ Enclosure index:

**IP65** 

Elevation [m]:

≤2000m

Remark:

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

TÜV NORD CERT GmbH Certification Body Energy Storage System



V-TAC Europe Ltd, Bulgaria, Plovdiv 4000 9B, Lyuben Karavelov blvd. VAT Number:BG201233995 manager@v-tac.eu TEL:+359 2 905 6650

# **EU Declaration of Conformity**

We, V-TAC Europe Ltd., declare with full responsibility that the product:

Inverter: HEC2-S3.68Hr2, HEC2-S3.8Hr2, HEC2-S5.0Hr2, HEC2-S6.0Hr2, HEC2-T8.0Hr2-Eu,

HEC2-T10.0Hr2-Eu, HEC2-T12.0Hr2-Eu, HEC2-T15.0Hr2-Eu.

**ESS:** HEC2-BHP50r2, HEC2-BHP100r2, HEC2-BHP150r2, HEC2-BHP200r2-A, HEC2-BHP300r2, HEC2-BHP100r2-EU, HEC2-BHP150r2-EU, HEC2-BHP200r2-EU,

HEC2-BHP200r2-A-EU, HEC2-BHP300r2-A-EU,

HEC2-BHP400r2-A-EU.

Comply with the following directives and regulations,

- · Electromagnetic Compliance Directive 2014/30/EU
- Low Voltage Directive 2014/35/EU
- RoHS Directive 2011/65/EU and its amendment EU 2015/863
- REACH Directive EC 1907/2006

and the following standards which were applied in accordance with the mentioned directives:

EN 62109-1:2010

EN 62109-2:2011

EN 61000-6-1:2019

EN 61000-6-3:2021

EN 62477-1:2012/A12:2021

Year when CE was affixed 2024 Place of Issue - Plovdiv, Bulgaria

Date of Issue - 18/11/2024

Name: Rumen Folev Position: Manager

Signature: \_\_\_

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V-TAC Europe Ltd, Bulgaria, Plovdiv 4000 9B, Lyuben Karavelov blvd. VAT Number:BG201233995 manager@v-tac.eu TEL:+359 2 905 6650

# **EU Declaration of Conformity**

## **Conformity of the Factory Production Control**

0035-CPR-1090-1.03386.TÜVRh.2024.002

In compliance with Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 (the Construction

Products Regulation or CPR), this certificate applies to the following construction product:

Construction product : Structural components and kits for aluminium structures to EXC2 according to EN 1090-3 Intended use : for load-bearing structures in all types of buildings

Intended use : for load-bearing structures in all types of buildings CE – marking method : ZA.3.2 and ZA.3.4 acc. to EN 1090-1:2009+A1:2011

Confirmation : This certificate attests that all provisions concerning the assessment and verification of

constancy of performance described in Annex ZA of the harmonised standard

EN 1090-1:2009+A1:2011

under system 2+ are applied, and that the factory production control fulfills all the prescribed requirements stated therein.

Date of first issue : 21.04.2023

Next

Surveillance audit : 20.04.2026

Period of validity This certificate will remain valid as long as the test methods and/or the factory production control requirements included in the harmonised standard used to assess the performance of the declared characteristics do not change, and the product and the manufacturing conditions in the plants are not modified significantly.

Remarks

: The Notified Body - 0035 TÜV Rheinland Industrie Service GmbH has performed the initial inspection of the/of manufacturing plant(s) and of the factory production control and performs

the continuous surveillance, assessment and approval of the factory production control.

General Provisions

The conditions of the standard EN 1090-1:2009+A1:2011, from section B. 4.1 until including

section B. 4.4, must be fulfilled.

The requirements of EN 1090-1:2009 + A1: 2011, section B. 4.3 are observed. These refer to the

annual statements to be submitted in writing of the manufacturer to the Notified Body.

The General Terms and Conditions of the TÜV Rheinland Industrie Service GmbH apply in the currently valid version.

Year when CE was affixed 2024

Place of Issue - Plovdiv, Bulgaria

Date of Issue - 18/11/2024

Name: Rumen Folev Position: Manager

Signature:





