



# Kraftfahrt-Bundesamt

DE-24932 Flensburg

## Allgemeine Betriebserlaubnis (ABE) National Type Approval

ausgestellt von:

**Kraftfahrt-Bundesamt (KBA)**

nach § 20 der Straßenverkehrs-Zulassungsordnung (StVZO) in der Fassung vom 26.04.2012 (BGBl I S. 679) für einen Typ des folgenden Genehmigungsobjektes

**Elektrokleinstfahrzeug**

issued by:

**Kraftfahrt-Bundesamt (KBA)**

according to § 20 Straßenverkehrs-Zulassungs-Ordnung (StVZO) in the version of April 26, 2012 (BGBl I S. 679) for a type of the following approval object

**Small electric vehicle**

Genehmigungsnummer: **P373\*00**

Approval number:

1. Genehmigungsinhaber:  
Holder of the approval:  
**Axdia International GmbH**  
**DE-47877 Willich**
2. Name und Anschrift des Bevollmächtigten (gegebenenfalls):  
Name and address of representative (if any):  
**Entfällt**  
**Not applicable**
3. Name und Anschrift des Herstellers:  
Manufacturer's name and address:  
**Brightway Innovation Intelligent Technology (Suzhou) Co., Ltd.**  
**CN-215000 Suzhou, Jiangsu**
4. Typbezeichnung:  
Type:  
**NKT2211-B20**
5. Zuständiger Technischer Dienst:  
Responsible Technical Service:  
**Technischer Dienst der TÜV Rheinland Kraftfahrt GmbH**  
**DE-51105 Köln**



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Genehmigungsnummer: **P373\*00**

Approval number:

6. Datum des Gutachtens des Technischen Dienstes:  
Date of test report issued by the Technical Service:  
**12.04.2023**
7. Nummer des Gutachtens des Technischen Dienstes:  
Number of test report issued by that Technical Service:  
**87-ekfv-0224/23-00**
8. Ausnahmegenehmigungen nach §70 StVZO:  
Exceptions according to §70 StVZO:  
**Entfällt**  
**Not applicable**
9. Auflagen:  
Conditions:  
**Siehe Typbeschreibung zum Gutachten, Punkt 13.2.**  
**See type description of the test report, point 13.2.**

**Für jedes Fahrzeug, das dem genehmigten Typ entspricht, ist eine Datenbestätigung gemäß Muster 2d der StVZO auszustellen und dem Fahrzeug mitzugeben.**

**A data confirmation in accordance with model 2d of the StVZO has to be issued for each vehicle that corresponds to the approved type and has to be given with the vehicle.**

10. Die Genehmigung wird **erteilt**  
Approval is **granted**
11. Grund (Gründe) für die Erweiterung der Genehmigung (gegebenenfalls):  
Reason(s) for the extension (if any):  
**Entfällt**  
**Not applicable**
12. Bemerkungen:  
Remarks:  
**Das Fahrzeug ist ein Elektrokleinstfahrzeug gemäß §1 der Elektrokleinstfahrzeuge-Verordnung (eKFV).**  
**The vehicle is a small electric vehicle according to §1 of Elektrokleinstfahrzeuge-Verordnung (eKFV).**



# Kraftfahrt-Bundesamt

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Genehmigungsnummer: **P373\*00**

Approval number:

13. Ort: **DE-24932 Flensburg**  
Place:

14. Datum: **09.05.2023**  
Date:

15. Unterschrift: **Im Auftrag**  
Signature:

*Kleist*



Kleist

Anlagen:

Enclosures:

**Gemäß Inhaltsverzeichnis**

**According to index**



# Kraftfahrt-Bundesamt

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## Inhaltsverzeichnis zu den Beschreibungsunterlagen Index to the information package

Nummer der Genehmigung: **P373\*00**  
Approval No.

Ausgabedatum: **09.05.2023**  
Date of issue:

letztes Änderungsdatum: --  
last date of amendment:

Nebenbestimmungen und Rechtsbehelfsbelehrung  
Collateral clauses and instruction on right to appeal

Prüfbericht(e) Nr.:  
Test report(s) No.:  
**87-ekfv-0224/23-00**

Datum:  
Date  
**12.04.2023**

Beschreibungsbogen Nr.:  
Information document No.:  
**Entfällt**  
**Not applicable**

Datum:  
Date

Liste der Änderungen:  
List of modifications:  
**Entfällt**  
**Not applicable**

Datum:  
Date





# Kraftfahrt-Bundesamt

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Nummer der Genehmigung: **P373\*00**

- Anlage -

## Nebenbestimmungen und Rechtsbehelfsbelehrung

### Nebenbestimmungen

Jede Einrichtung, die dem genehmigten Typ entspricht, ist gemäß der angewendeten Vorschrift zu kennzeichnen.

Die Einzelerzeugnisse der reihenweisen Fertigung müssen mit den Genehmigungsunterlagen genau übereinstimmen. Änderungen an den Einzelerzeugnissen sind nur mit ausdrücklicher Zustimmung des Kraftfahrt-Bundesamtes gestattet.

Änderungen der Firmenbezeichnung, der Anschrift und der Fertigungsstätten sowie eines bei der Erteilung der Genehmigung benannten Zustellungsbevollmächtigten oder bevollmächtigten Vertreters sind dem Kraftfahrt-Bundesamt unverzüglich mitzuteilen.

Verstöße gegen diese Bestimmungen können zum Widerruf der Genehmigung führen und können überdies strafrechtlich verfolgt werden.

Die Genehmigung erlischt, wenn sie zurückgegeben oder entzogen wird, oder der genehmigte Typ den Rechtsvorschriften nicht mehr entspricht. Der Widerruf kann ausgesprochen werden, wenn die für die Erteilung und den Bestand der Genehmigung geforderten Voraussetzungen nicht mehr bestehen, wenn der Genehmigungsinhaber gegen die mit der Genehmigung verbundenen Pflichten - auch soweit sie sich aus den zu dieser Genehmigung zugeordneten besonderen Auflagen ergeben - verstößt oder wenn sich herausstellt, dass der genehmigte Typ den Erfordernissen der Verkehrssicherheit oder des Umweltschutzes nicht entspricht.

Das Kraftfahrt-Bundesamt kann jederzeit die ordnungsgemäße Ausübung der durch diese Genehmigung verliehenen Befugnisse, insbesondere die genehmigungsgerechte Fertigung sowie die Maßnahmen zur Übereinstimmung der Produktion, nachprüfen. Es kann zu diesem Zweck Proben entnehmen oder entnehmen lassen. Dem Kraftfahrt-Bundesamt und/oder seinen Beauftragten ist ungehinderter Zutritt zu Produktions- und Lagerstätten zu gewähren.

Die mit der Erteilung der Genehmigung verliehenen Befugnisse sind nicht übertragbar. Schutzrechte Dritter werden durch diese Genehmigung nicht berührt.

### Rechtsbehelfsbelehrung

Gegen diese Genehmigung kann innerhalb eines Monats nach Bekanntgabe Widerspruch erhoben werden. Der Widerspruch ist beim **Kraftfahrt-Bundesamt, Fördestraße 16, DE-24944 Flensburg**, schriftlich oder zur Niederschrift einzulegen.



# Kraftfahrt-Bundesamt

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Approval No.: **P373\*00**

- Attachment -

## Collateral clauses and instruction on right to appeal

### Collateral clauses

All equipment which corresponds to the approved type is to be identified according to the applied regulation.

The individual production of serial fabrication must be in exact accordance with the approval documents. Changes in the individual production are only allowed with express consent of the Kraftfahrt-Bundesamt.

Changes in the name of the company, the address and the manufacturing plant as well as one of the parties given the authority to delivery or authorised representative named when the approval was granted is to be immediately disclosed to the Kraftfahrt-Bundesamt.

Breach of this regulation can lead to recall of the approval and moreover can be legally prosecuted.

The approval expires if it is returned or withdrawn or if the type approved no longer complies with the legal requirements. The revocation can be made if the demanded requirements for issuance and the continuance of the approval no longer exist, if the holder of the approval violates the duties involved in the approval, also to the extent that they result from the assigned conditions to this approval, or if it is determined that the approved type does not comply with the requirements of traffic safety or environmental protection.

The Kraftfahrt-Bundesamt may check the proper exercise of the conferred authority taken from this approval at any time. In particular this means the compliant production as well as the measures for conformity of production. For this purpose samples can be taken or have taken. The employees or the representatives of the Kraftfahrt-Bundesamt may get unhindered access to the production and storage facilities.

The conferred authority contained with issuance of this approval is not transferable. Trade mark rights of third parties are not affected with this approval.

### Instruction on right to appeal

This approval can be appealed within one month after notification. The appeal is to be filed in writing or as a transcript at the **Kraftfahrt-Bundesamt, Fördestraße 16, DE-24944 Flensburg.**

zur Erteilung  einer Allgemeinen Betriebserlaubnis (ABE)  
 eines Nachtrags zur ABE Nr.  
 nach § 20 Straßenverkehrs-Zulassungs-Ordnung (StVZO)

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**Fahrzeugart / category** : **Elektrokleinstfahrzeug bis max. 500 Watt**  
**Typ / type** : **NKT2211-B20**  
**Antragsteller / applicant** : **AXDIA International GmbH**  
**Hanns-Martin-Schleyer-Str. 36-38 47877 Willich, Deutschland**

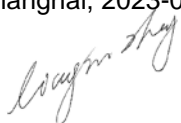
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1. Der genannte Fahrzeugtyp wird von der Fa. *Huzhou Luxshare Precision Industry Co., Ltd* mit Sitz in *No. 399, Shengxun Road, Zhili Town, Wuxing District, Huzhou City, Zhejiang Province, China* und *LUXSHARE ELECTRONIC TECHNOLOGY (KUNSHAN) LTD.* mit Sitz in *No.158, Jinchang Road, Jinxi Town Kunshan City, Jiangsu Province, China* gefertigt.
2.  Der Antragsteller ermöglicht aufgrund
  - von technischen Fachkräften, Fertigungsanlagen und Kontrolleinrichtungen eine gleichmäßige, reihenweise Fertigung von
  - eigener Fachkunde, von technischen Fachkräften und Kontrolleinrichtungen eine erlaubnisgerechte Auslieferung von gleichmäßig und reihenweise gefertigten Fahrzeugen des in der Typbeschreibung festgelegten Fahrzeugtyps.
  - Die Eignung des Antragstellers konnte noch nicht beurteilt werden.

Tatsachen, die die Zuverlässigkeit des Antragstellers im Sinne des § 20 StVZO in Frage stellen, sind  hier nicht bekannt.

  - dem beigefügten Schreiben vom zu entnehmen.
3. Die beigefügte Typbeschreibung besteht aus Blatt 1 bis 18 und ist
  - mit den darin unter Nr. 13.3. angegebenen Anlagen Bestandteil des Gutachtens.
4. Der Fahrzeugtyp entspricht der vollständigen Typbeschreibung und genügt den heute gültigen Bestimmungen
  - der StVZO in Verbindung mit eKFV.
  - der Verordnung über den Betrieb von Kraftfahrunternehmen im Personenverkehr (BOKraft).
  - den hierzu vom Bundesminister für Verkehr erlassenen heute gültigen Anweisungen und Richtlinien.
  - den in den herangezogenen ABG und ABE für Fahrzeugteile ggf. enthaltenen Auflagen.
  - bis auf die unter Nr. 13.1. der Typbeschreibung beschriebene(n) Abweichung(en).
5. Der Erteilung  einer ABE  
 eines Nachtrags zur o.a. ABE
  - und der Genehmigung der aufgrund der unter Nr. 13.1. der beigefügten Typbeschreibung beschriebenen Abweichung(en) ggf. erforderlichen Ausnahme(n)
  - bei Einhaltung der unter Nr. 13.2. der beigefügten Typbeschreibung vorgeschlagenen Auflage(n) stehen technische Bedenken nicht entgegen.

Der technische Dienst ist für die angewendeten Prüfverfahren vom Kraftfahrt-Bundesamt für das nationale Typgenehmigungsverfahren anerkannt.  
 Shanghai, 2023-04-12



B.Eng. Liangjun Zhang  
 Sachverständiger Technischer Dienst  
 Expert Technical Service

Fahrzeugtyp / *vehicle type* : NKT2211-B20

Hersteller / *manufacturer* : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.

**0. Allgemeines / general**

0.1. Fahrzeughersteller / *vehicle manufacturer* : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.  
Building A2, Shangjinwan Headquarters Economic Park, No.2288, Wuzhong Avenue, Wuzhong Economic Development Zone, Suzhou Jiangsu P.R. China

0.2. Fahrzeug- und Aufbauart / *kind of vehicle and structure* : Elektrokleinstfahrzeug bis max. 500 Watt / *Small electric vehicle up to max. 500 Watt*  
  
Fahrzeugklasse / *vehicle category*: 27  
Art des Aufbaus / *kind of structure*: 0003

0.3. Typ / *type* : NKT2211-B20

0.4. Handelsbezeichnung / *commercial description* : *NAVEE Electric Scooter V50;*  
*NAVEE Electric Scooter V50 Pro*

0.5. Ort und Art der Anbringung des Fabrik Schildes und der Fahrzeug-Identifizierungsnummer / *location and method of affixing the identification plate and vehicle identification no.*

0.5.0. Genehmigung oder Prüfung / *approval or test* : Prüfung gem. / *test acc. to* § 2 (1) Nr. 3 eKFV i.V.m. § 59 StVZO  
  
*Anforderungen erfüllt / requirements fulfilled*

0.5.1. Fabrik Schild / *identification plate* : *vordere rechte Seite des Rahmens, genietet / front right on the frame, riveted*

0.5.2. Fahrzeug-Identifizierungsnummer / *vehicle identification number* : *vordere rechte Seite des Rahmens, gelasert / front right on frame, lasered*

0.6. Fahrzeug-Identifizierungsnummer und deren Aufbau / *vehicle identification number and its structure* : V50            350            3            G            000001

Stelle / <i>digit</i>	Beschreibung / <i>description</i>	Wert / <i>value</i>
1 - 3	Produkt-Code / <i>Product code</i>	V50 = NKT2211-B20
4 - 6	Motor power	350 = 350W
7	Jahr / <i>year</i>	3 = 2023, 4 = 2024, ...
8	SKU code	G = Germany
9 - 14	Rahmennr. / <i>frame number</i>	000001

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Fahrzeugtyp / *vehicle type* : NKT2211-B20Hersteller / *manufacturer* : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.

- 0.7. Ort der Anbringung der Kennzeichnung der Antriebsmaschine / *location of affixing of the engine code* : auf Motorgehäuse, rechts / *on right side of motor housing*
- 0.8. Ort der Anbringung der ECE-Genehmigungszeichen / *location of affixing the ECE approval mark* : entfällt / *not applicable*
- 1. Änderungen, Ausführungen, wahlweise Ausrüstungen, Rüstzustände / *changes, versions, options, equipments***
- 1.1. Änderungen / *changes***
- Es wird berichtigt / *correction of* : entfällt / *not applicable*
- Es wird geändert / *modification of* : entfällt / *not applicable*
- Es wird hinzugefügt / *addition of* : entfällt / *not applicable*
- Es entfällt / *deletion of* : entfällt / *not applicable*
- 1.2. Ausführungen (Varianten) / *models (variants)*** : entfällt / *not applicable*
- 1.3. wahlweise Ausrüstungen (Versionen) / *optional equipment (versions)*** : 01: the non-foldable handlebar, without direction indicator  
02: the non-foldable handlebar, with direction indicator  
03: the foldable handlebar, without direction indicator  
04: the foldable handlebar, with direction indicator
- 2. Hauptabmessungen und Gewichte / *main dimensions and weights***
- 2.1. Hauptabmessung in mm / *main dimensions in mm***
- 2.1.0. Genehmigung oder Prüfung / *approval or test* : Prüfung gem. / *test acc. to* § 1 (1) Nr. 4 eKFV  
Anforderungen erfüllt / *requirements fulfilled*
- 2.1.1. Länge / *length* : 1144 mm
- 2.1.2. Breite / *width* : 01 and 03 : 480 mm  
02 and 04 : 570 mm
- 2.1.3. Höhe / *height* : 01 and 02: 1185 mm  
03 and 04: 1169 mm
- 2.1.4. Radstand / *wheelbase* : 865 mm
- 2.1.5. Höhe der Lenkstange / *height of steering rod* : 01 and 02: 975 mm  
03 and 04: 966 mm
- 2.1.9. Weitere Angaben / *further informations* : keine / *none*

Fahrzeugtyp / *vehicle type* : NKT2211-B20Hersteller / *manufacturer* : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.**2.2. Gewichte in kg / weights in kg**

- 2.2.0. Genehmigung oder Prüfung / *approval or test* : Prüfung gem. / *test acc. to* § 1 (1) Nr. 5 eKFV  
Anforderungen erfüllt / *requirements fulfilled*
- 2.2.3. Leergewicht / *unladen weight* : 16,5 kg
- 2.2.4. Achslasten bzw. Radlasten bei  
Leergewicht / *axle load or wheel  
load at unladen weight*  
Achse / *axle 1* : 10,5 kg  
Achse / *axle 2* : 6,0 kg
- 2.2.5. Nutzlast / *load capacity* : 120 kg
- 2.2.7. Zul. Gesamtgewicht / *technically  
permissible maximum weight as  
stated by manufacturer* : 136,5 kg
- 2.2.8. Zul. Achslast bzw. zul. Radlast /  
*permissible axle load or permissible  
wheel load*  
Achse / *axle 1* : 80 kg  
Achse / *axle 2* : 80 kg
- 2.2.9. Zul. Anhängelast / *permissible tow-  
ing mass* : entfällt / *not applicable*
- 2.2.11. Zul. Stützlast / *permissible bear  
load* : entfällt / *not applicable*
- 2.2.12. Weitere Angaben / *further  
informations* : keine / *none*

**3. Antriebsmaschine / propulsion engine**

- 3.1. Identifizierungsmerkmal / *identification code* : TD013 \*\*\*\*\*
- 3.2. Hersteller / *manufacturer* : Changzhou Wujin Jinshun Mechanical and Electrical Co., Ltd.
- 3.6. Elektromotor / *electric motor*
- 3.6.0. Genehmigung oder Prüfung / *approval or test* : Prüfung der Nenndauerleistung gem. / *test of continuous  
rated power acc. to*  
UN-Regelung Nr. 85 / UN-Regulation no. 85  
Prüfbericht Nr. / *test report no.:*  
87-R85-0226/23-00  
  
Anforderungen erfüllt / *requirements fulfilled*

Fahrzeugtyp / *vehicle type* : NKT2211-B20Hersteller / *manufacturer* : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.

3.6.1.	Bauart / <i>type of construction</i>	:	Radnabenmotor / <i>wheel hub motor</i>
3.6.2.	Nennspannung / <i>nominal voltage</i>	:	36 V
3.6.3.	Leistung / <i>power</i>	:	0,35 kW
3.6.4.	Energiequelle bzw. Batterie / <i>energy source or battery</i>		
3.6.4.1.	Nennspannung / <i>nominal voltage</i>	:	36 V
3.6.4.2.	Nennkapazität / <i>nominal capacity</i>	:	10,2 Ah
3.6.4.3.	Anzahl / <i>quantity</i>	:	1
3.6.4.4.	Maximaler Strom / <i>maximum electric current</i>	:	15 A
3.6.4.5.	Hersteller / <i>manufacturer</i>	:	Huizhou Blueway Electronics Co., Ltd.
3.6.4.6.	Identifizierungsmerkmal / <i>identification code</i>	:	T2211-BA4A
3.6.4.7.	Softwarestand des Batteriemanagementsystems nach Herstellerangabe / <i>firmware version of the Battery Management System according to manufacturer</i>	:	0020
3.6.5.	Steuerung / <i>control</i>		
3.6.5.1.	Identifizierungsmerkmal / <i>identification code</i>	:	T2208
3.6.5.2.	Hersteller / <i>manufacturer</i>	:	Tianjin Songzheng Electric Technology Co., Ltd.
3.6.5.3.	Softwarestand nach Herstellerangabe / <i>firmware version according to manufacturer</i>	:	HV2000
3.6.6.	Weitere Angaben / <i>further informations</i>	:	Prüfung der EMV gem. / <i>test of EMC acc. to UN-Regelung Nr. 10 / UN-Regulation no. 10</i> Prüfbericht Nr. / <i>test report no.:</i> 87-R10-0225/23-00  Prüfung der Batteriesicherheit gem. / <i>test of battery safety acc. to</i> DIN EN 15194:2018-11 Kap. 4.2.3 i.V.m EN 62133 Prüfbericht Nr. / <i>test report no.:</i> S-23020002A0  Anforderungen erfüllt / <i>requirements fulfilled</i>

Fahrzeugtyp / *vehicle type* : NKT2211-B20Hersteller / *manufacturer* : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.**4. Kraftübertragung / *power transmission***

- 4.1. Art / *kind*** : mechanisch / ~~hydraulisch~~ / ~~elektrisch~~  
*mechanical / ~~hydraulic~~ / ~~electrical~~*
- 4.3. Getriebe / *gearbox***
- 4.3.1. Bauart / *construction* : entfällt / *not applicable*  
 (Radnabenmotor / *wheel hub motor*)
- 4.3.4. Übersetzungen / *ratio* : 1 : 1
- 4.5. Höchstgeschwindigkeit / *maximum design speed*** : 20 km/h
- 4.5.0. Genehmigung oder Prüfung / *approval or test* : Prüfung gem. / *test acc. to*  
 § 1 (1) eKFV i.V.m. Anlage (zu § 7 Nummer 1)  
 Nr. 2.1 eKFV  
  
 Anforderungen erfüllt / *requirements fulfilled*
- 4.5.1. Geschwindigkeitsbegrenzer / *speed limiter* : siehe Abschnitt / *see section 3.6.5.*
- 4.5.1.0. Genehmigung oder Prüfung / *approval or test* : Herstellerbescheinigung zur Manipulationssicherheit gem.  
 / *manufacturers declaration for manipulation security acc. to*  
 DIN EN 15194:2018-11 Kap. 4.2.17  
 liegt vor / *is available.*  
  
 Anforderungen erfüllt / *requirements fulfilled*
- 4.6. Geschwindigkeitsmesser bzw. *Tachometer / speedometer*** : ja / *yes*
- 4.6.0. Genehmigung oder Prüfung / *approval or test* : Prüfung gem. / *test acc. to*  
 Anlage (zu § 7 Nummer 1) Nr. 2.1.4 eKFV  
  
 Anforderungen erfüllt / *requirements fulfilled*
- 4.6.1. Weitere Angaben / *further informations* : Die Abweichung der angezeigten Geschwindigkeit zur  
 tatsächlichen beträgt max. + 10 %. / *The deviation of the displayed speed from the actual speed is max. + 10 %.*
- 4.9. Antrieb auf / *traction on*** : Achse / *axle 1*



Fahrzeugtyp / *vehicle type* : NKT2211-B20Hersteller / *manufacturer* : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.**5. Achsen, Radführungen / axles, wheel control**

**5.1. Bauart / construction** : Achse / *axle* 1: Kraftradgabel, ungefedert / *motorcycle fork, non-suspended*  
 Achse / *axle* 2: starre Radführung, ungefedert / *fixed wheel guidance, non-suspended*

**5.2. Anzahl / number** : 2

**5.3. Anzahl angetriebener Achsen / number of driven axles** : 1

**6. Federn, Dämpfer, Räder, Bereifung / suspension, shock absorber, wheels, tyres**

**6.1. Federung / suspension** : entfällt / *not applicable*

**6.2. Dämpfung / shock absorber** : entfällt / *not applicable*

**6.3. Räder und Bereifung / wheels and tyres**

**6.3.1. Bauart / construction** : Achse / *axle* 1: Radnabenmotor/ *wheel hub motor*  
 Achse / *axle* 2: einteiliges Scheibenrad / *one-piece disc wheel*

**6.3.2. Hersteller / manufacturer** : Achse / *axle* 1: siehe / *see* 3.2.  
 Achse / *axle* 2: Jiangsu Xinmeida Metal Casting Co., Ltd.

**6.3.4. Kennzeichnung / marking** : Achse / *axle* 1: siehe / *see* 3.1.  
 Achse / *axle* 2: ohne / *without*

**6.3.5. Ort der Kennzeichnung / location of marking** : Achse / *axle* 1: siehe / *see* 0.7.  
 Achse / *axle* 2: entfällt / *not applicable*

**6.3.6. Werkstoff / material** : Leichtmetall / *light metal*

**6.3.7. Anzahl / quantity** : 2

**6.3.8. Einpresstiefe / offset** : entfällt / *not applicable*

**6.3.9. Felgenreöße / rim size** : Achse / *axle* 1: 180 x 50,5  
 Achse / *axle* 2: 180 x 50,5

**6.3.10. Größenbezeichnung der Bereifung / tyre size** : Achse / *axle* 1: 10 x 2,125  
 Achse / *axle* 2: 10 x 2,125

**6.3.11. Art der Bereifung / kind of tyres** : einfach, Luftreifen, schlauchlos/  
*single, air tyre, tubeless*

Fahrzeugtyp / *vehicle type* : NKT2211-B20Hersteller / *manufacturer* : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.

## 7. Lenkanlage / *steering system*

7.1. **Bauart / *construction*** : Kraftrad-/Steuerkopflenkung, mechanisch / *motorcycle or head tube steering, mechanic*

### 7.4. Lenkrad bzw. Lenker / *steering wheel or handlebar*

7.4.0. Genehmigung oder Prüfung / *approval or test* : entfällt / *not applicable*

7.4.2. Identifizierungsmerkmal und Ort / *identifier and location* : entfällt / *not applicable*

7.4.4. ~~Durchmesser des Lenkrades bzw. Lenkerbreite in mm / *diameter of the steering wheel or width of handlebar*~~ : 01 and 03 : 480 mm  
02 and 04 : 570 mm

### 7.7. möglicher Lenkeinschlag / *maximum steering angle*

links / *left* : 60 °  
rechts / *right* : 60 °

7.9. **Weitere Angaben / *further informations*** : Lenkstange, klappbar / *steering rod, foldable*

## 8. Bremsanlagen / *brake system*

8.0. **Genehmigung oder Prüfung / *approval or test*** : Prüfung gem. / *test acc. to*  
§ 4 (1) eKFV i.V.m. Anlage (zu § 7 Nummer 1)  
Nr. 2.2 eKFV

Anforderungen erfüllt / *requirements fulfilled*

### 8.1. Betriebsbremsanlage / *service brake*

8.1.1. Art / *kind*  
Achse / *axle 1* : Elektrische Bremsanlage, handbetätigt, mit elektrischer Übertragungseinrichtung / *electrical brake system, operated by hand, with electric transmission device*  
Achse / *axle 2* : Muskelkraftbremsanlage, handbetätigt, mit mechanischer Übertragungseinrichtung / *muscle power brake system, operated by hand, with mechanic transmission device*

#### 8.1.4. Bremse / *brake*

8.1.4.1. Art / *kind*  
Achse / *axle 1* : Elektrische Bremse / *electrical brake*  
Achse / *axle 2* : Scheibenbremse/ *disc brake*

Fahrzeugtyp / *vehicle type* : NKT2211-B20

Hersteller / *manufacturer* : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.

- 8.1.4.2. Typ / *type*  
 Achse / *axle 1* : siehe / *see 3.1.*  
 Achse / *axle 2* : T2208
- 8.1.4.3. Hersteller / *manufacturer*  
 Achse / *axle 1* : siehe / *see 3.2*  
 Achse / *axle 2* : KARASAWA TRAFFIC EQUIPMENT (TAIZHOU) CO., LTD.
- 8.1.4.5. Trommel- bzw. Scheibendurchmesser / *drum or disc diameter*  
 Effektiver Brems Scheiben- / Trommeldurchmesser / *effective diameter of brake disc or drum*  
 Achse / *axle 1* : entfällt / *not applicable*  
 Achse / *axle 2* : 103,1 mm
- Außendurchmesser / *outer diameter*  
 Achse / *axle 1* : entfällt / *not applicable*  
 Achse / *axle 2* : 120 mm
- Anzahl der Scheiben je Bremse / *number of discs for each brake*  
 Achse / *axle 1* : entfällt / *not applicable*  
 Achse / *axle 2* : 1
- 8.1.5. Bremsbelag / *brake lining*
- 8.1.5.3. Hersteller / *manufacturer*  
 Achse / *axle 1* : entfällt / *not applicable*  
 Achse / *axle 2* : KARASAWA TRAFFIC EQUIPMENT (TAIZHOU) CO., LTD.
- Kennzeichnung / *marking*  
 Achse / *axle 1* : entfällt / *not applicable*  
 Achse / *axle 2* : entfällt / *not applicable*
- 8.1.5.5. wirksame Bremsbelagfläche / *total friction area*  
 Achse / *axle 1* : entfällt / *not applicable*  
 Achse / *axle 2* : 5,76 cm<sup>2</sup>
- 8.1.6. Übersetzung bis Zuspaltung / *transformation ratio until disc or drum*  
 Achse / *axle 1* : entfällt / *not applicable*  
 Achse / *axle 2* : Handhebel / *hand lever*: 30 / 117 mm
- 8.1.20. Bremshebellänge an der Bremse / *brake lever length at brake*  
 Achse / *axle 1* : entfällt / *not applicable*  
 Achse / *axle 2* : 27 mm

Fahrzeugtyp / *vehicle type* : NKT2211-B20

Hersteller / *manufacturer* : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.

- 8.1.21. Hauptzylinder-Durchmesser / *brake master cylinder diameter*  
 Achse / *axle* 1 : entfällt / *not applicable*  
 Achse / *axle* 2 : entfällt / *not applicable*
- 8.1.22. Radzylinder- bzw. Bremszylinder-Durchmesser / *diameter of wheel-brake cylinder or brake cylinder*  
 Achse / *axle* 1 : entfällt / *not applicable*  
 Achse / *axle* 2 : entfällt / *not applicable*
- 8.1.23. Weitere Angaben / *further informations* : Elektrische Bremse / *electrical brake*:  
 Die elektrische Bremse an Achse 1 wird über einen kombinierten Handhebel gemeinsam mit der mechanischen Bremse an Achse 2 betätigt und erfüllt die Anforderungen von § 4 Absatz 1 eKFV. / *The electrical brake on axle 1 is operated by a combined handlever together with the mechanical brake on axle 2 and meets the requirements of § 4 para. 1 eKFV.*
- 8.2. **Hilfsbremsanlage / *secondary brake system*** : Bei Ausfall einer von zwei unabhängigen Betriebsbremsen gem. Nr. 8.1 werden nach Vorgabe § 4 Absatz 1, Nr. 4 noch mindestens 44 % der Bremswirkung erreicht. / *In the event of failure of one of two independent service brakes in accordance with No. 8.1, at least 44 % of the braking effect is still achieved in accordance with § 4 para. 1, No. 4.*
- 8.10. **Weitere Angaben / *further information*** : Bei Betätigung der mechanischen Bremse an Achse 2 wird diese zusätzlich durch die elektrische Motorbremse an Achse 1 unterstützt. / *When the mechanical brake on axle 2 is applied, the electric motor brake on axle 1 additionally supports this brake.*
9. **Aufbau / *body***
- 9.0. **Genehmigung oder Prüfung für vorstehende Außenkanten / *approval or test for preceding outer edges*** : Prüfung gem. / *test acc. to* § 7 Nr. 6 eKFV  
 Anforderungen erfüllt / *requirements fulfilled*
- 9.1. **Art / *kind*** : siehe / *see* 0.2.
- 9.2. **Werkstoff / *material*** : Leichtmetall, Stahl / *light metal, steel*
- 9.3. **Hersteller / *manufacturer*** : siehe / *see* 0.1.
- 9.4. **Sitze / *seats***
- 9.4.1. Art und Anordnung / *kind and placement* : entfällt / *not applicable*

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Fahrzeugtyp / *vehicle type* : NKT2211-B20Hersteller / *manufacturer* : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.9.4.2. Anzahl der Plätze / *number of places*9.4.2.1. Sitzplätze / *seats available* : entfällt / *not applicable*9.4.2.2. Stehplätze / *standing place available* : 1**9.9. Rückspiegel / rearview mirror**9.9.2.1. Art / *kind* : entfällt / *not applicable*9.9.2.2. Anzahl / *quantity* : entfällt / *not applicable*9.9.2.3. Ort und Art der Anbringung / *location and method of mounting* : entfällt / *not applicable*9.9.2.4. Weitere Angaben / *further informations* : keine / *none***9.11. Kennzeichen, Abmessungen / licence plate, dimensions**9.11.0. Genehmigung oder Prüfung / *approval or test* : Prüfung gem. / *test acc. to*  
§ 2 (1) Nr. 2 eKFV i.V.m. § 29a (3) FZV  
Anforderungen erfüllt / *requirements fulfilled*9.11.3. Abmessungen hinten / *rear plate dimensions* : 53 x 67 mm9.11.4. Höhe des oberen bzw. unteren  
Randes hinten / *height of the upper  
or lower edge in the rear* : 147 mm9.11.5. Anbringungswinkel / *mounting angle* : 30°  
vertikal in Fahrtrichtung / *vertical in direction of travel*9.14. Zentralständer, Seitenständer / *central stand, side stand* : Zentralständer / *central stand*: nein / *no*  
Seitenständer / *side stand*: ja / *yes*

Fahrzeugtyp / *vehicle type* : NKT2211-B20Hersteller / *manufacturer* : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.**10. Lichttechnische Einrichtungen, Abmessungen / lighting devices, dimensions**

10.0. Genehmigung oder Prüfung : Prüfung gem. / *test acc. to*  
 hinsichtl. Anbau / *approval or test* § 5 eKFV i.V.m. § 67 StVZO u. UNECE-R 74  
 regarding mounting Anforderungen erfüllt / *requirements fulfilled*

**10.1. Scheinwerfer für Ablendlicht und Fernlicht / headlamps for dipped beam and main beam**

10.1.1. Anzahl / *quantity* : 1

10.1.2. Scheinwerfer für Ablend- und Fernlicht / *headlamps for dipped and main beam*

10.1.2.0 Prüfzeichen / *approval mark* : C-AS PL E9 001084

10.1.2.4. Leistungsaufnahme der Glühlampe : 2,4 W  
 / *power consumption of light bulb*

**10.2. Begrenzungsleuchten / clearance lamps**

10.2.0. Prüfzeichen / *approval mark* : entfällt / *not applicable*

10.2.1. Anzahl / *quantity* : entfällt / *not applicable*

**10.3. Schlussleuchten / rear lamps**

10.3.0. Prüfzeichen / *approval mark* : K 2247/ MR 148R 00 E9 6761

10.3.1. Anzahl / *quantity* : 1

**10.4. Bremsleuchten / stop lights**

10.4.0. Prüfzeichen / *approval mark* : K 2247/ MS 148R 00 E9 6761

10.4.1. Anzahl / *quantity* : 1

**10.5. Rote Rückstrahler / red retro reflectors**

10.5.0. Prüfzeichen / *approval mark* : K 2247/ IA 150R 00 E9 6761

10.5.1. Anzahl / *quantity* : 1

Fahrzeugtyp / *vehicle type* : NKT2211-B20

Hersteller / *manufacturer* : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.

**10.6. Fahrtrichtungsanzeiger /  
direction indicators**

10.6.0. Prüfzeichen / approval mark

10.6.0.1. Vorn / front : 11 12 E32 148R00 0380

10.6.0.2. Seitlich / lateral : entfällt / *not applicable*

10.6.0.3. Hinten / rear : 11 12 E32 148R00 0380

**10.7. Kennzeichenbeleuchtung /  
licence plate illumination**

10.7.0. Prüfzeichen / *approval mark* : entfällt / *not applicable*

**10.11. Lichttechnische Einrichtungen  
zur seitlichen Kenntlichmachung  
/ light-technicals devices for side  
marking**

10.11.1. Seitliche rückstrahlende Mittel / *side  
reflector devices*

10.11.1.0. Prüfzeichen / *approval mark* : IA E24 150R 00 0024

10.11.1.1. Anzahl / *quantity* : 2 (einer je Seite) / *(one on each side)*

**10.22. Weiße Rückstrahler / white retro  
reflectors**

10.22.1. Prüfzeichen / *approval mark* : IA E9 150R 00 1011

10.22.2. Anzahl / *quantity* : 1

**12. Verschiedenes / miscellaneous**

**12.1. Schallzeichen / audible warning  
device**

12.1.0. Genehmigung oder Prüfung und  
Prüfzeichen / *approval or test and  
approval mark* : Prüfung gem. / *test acc. to § 6 eKFV*  
Anforderungen erfüllt / *requirements fulfilled*

12.1.1. Bauart / *construction* : helltönende Glocke gem. / *bright sounding bell acc. to §  
64a StVZO*

12.4. **Sicherungseinrichtung gegen  
unbefugte Benutzung /  
protection against unauthorized  
use** : entfällt / *not applicable*

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Hersteller / *manufacturer* : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.

- 12.8. Akustische Kontrolle der Fahrtrichtungsanzeiger / acoustic check of direction indicators** : entfällt / *not applicable*
- 12.9 Weitere Angaben / further information**
- 12.9.1. Prüfung der Fahrdynamik / *testing of driving dynamics* : Prüfung gem. / *test acc. to* § 7 Nr. 1 eKfV i.V.m. Anlage (zu § 7 Nummer 1) Nr. 2.3 eKfV  
Anforderungen erfüllt / *requirements fulfilled*
- 12.9.2. Schutz gegen Berühren spannungsführender Teile / *protection against contact to electrical parts* : Prüfung gem. / *test acc. to* § 7 Nr. 4 eKfV  
Anforderungen erfüllt / *requirements fulfilled*
- 12.9.3. Funktionsschnittstellen / *interface features* : Bluetooth
- 12.9.3.1. Verschlüsselung / *encryption* : AES 128 Bit
- 12.9.3.2. Funktionen / *features*
- 12.9.3.2.1. Übersicht / *overview*
- Eingabe / *input* : - Anti-theft  
- Energy recovery  
- Unit settings  
- Restore scooter settings  
- Manage device name  
- Firmware update  
- Security settings  
- Taillight always on  
- Automatic sensor-controlled headlamp
- Ausgabe / *output* : - Current battery level (%)  
- Remaining mileage  
- Riding mode  
- Current mileage  
- Average speed  
- Battery information  
- Scooter information  
- Scooter QR code  
- Legal information

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- 12.9.3.2.2. Eingabe Beschreibung/ *input description* : Pictures see 13.3./12.9.1., description of Bluetooth interface
- Anti-theft : Slide to lock the scooter for anti-theft.  
 Note: this function only can be activated when vehicle is in static status.  
 If the smartphone is lost, user can log on the account by other smartphone to unlock the vehicle.  
 If user forget the account, the contact the aftersales of Xiaomi will be the only method.
- Energy recovery : There are 3 levels in this function: Low, Medium and High.  
 Low as default setup means the vehicle has a weak deceleration when release the throttle, meanwhile a small amount of energy produced by motor charge into battery.  
 Medium means the vehicle has a medium deceleration when release the throttle, meanwhile a medium amount of energy produced by motor charge into battery.  
 High means the vehicle has a strong deceleration when release the throttle, meanwhile a large amount of energy produced by motor charge into battery.  
 The deceleration caused by recuperation is in a range between 0.34 m/s<sup>2</sup> - 0.49 m/s<sup>2</sup>.  
 The requirements acc. to § 4 and § 7 no. 6 eKFV will not be affected.
- Unit settings : Select the speed unit on display, km/h and mph.  
 Note: This function does not touch any approval relevant requirements.
- Restore factory settings : Restore the scooter to factory settings.  
 Unit restore to metric system, Energy recovery intensity restore to weak, Drive mode restore to D mode.
- Manage device name : Change the vehicle name by users  
 Note: This function does not touch any approval relevant requirements
- Firmware update : Firmware update is a software program that can be used to update the firmware for this vehicle, which could repair functional defects.  
 1. Fixing the compatibility of APP for different smartphone.  
 2. According to the complaint data, fixing the problem on vehicle, but it will not affect the key functions which specified in eKFV regulation, such as speed/ motor power/ brake performance etc.
- Tailight always on : After click it, the rear position lamp will be always light on when vehicle is power on.

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- Automatic sensor-controlled headlamp : After click it, the headlamp will become the auto headlamp, turn off it, the headlamp will be a normal headlamp, turn on and off headlamp by click the master key on instrument.  
Remark: the taillight is always illuminated with headlamp simultaneously unless the "Taillight always on" function is on, the taillight will be lighted on before the headlamp.
  
- Security settings : Security settings has two sub-functions as below.  
The first one can be used to manage the password function on and off, for example, if user turn it on, user need to enter the password every time when they connect the scooter by APP.  
The second function is change the passcode by user.  
Note: After active the function, there is no braking torque when moving vehicle, it is just a password to enter the APP.  
If user forget the password, it will not affect the vehicle function, the only influence is that the user can not connect the vehicle by APP, vehicle also can be drove as usual.  
If the user forgot the password, the contact the aftersales of Xiaomi will be the only method.  
Note: This function does not touch any approval relevant requirements.
  
- 12.9.3.2.3. Ausgabe Beschreibung / *output description* : Pictures see 13.3./12.9.1., description of Bluetooth interface
  
- Current battery level (%) : Indicate the current battery level.
  
- Remaining mileage : Indicate the estimated remaining mileage
  
- Riding mode : It displays the riding mode, there are three modes, and with a maximum speed as below:  
walking mode: 6 km/h  
standard mode: 15 km/h  
sport mode: 20 km/h  
Users can switch the mode by press the power button on the control panel twice.
  
- Current mileage : The scooter travel range
  
- Average speed : Average speed during riding.
  
- Battery information : Show the information as below:  
Percentage remaining  
Remaining battery  
Battery status  
Voltage  
Current  
Power  
Battery temperature  
Production date  
Battery serial number  
BMS firmware version

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- |  |   |   |
|--|---|---|
| Scooter information  | : | Show the information as below:<br>Scooter serial number<br>Firmware version<br>Scooter temperature.   |
| Scooter QR code  | : | Displays the scooter QR code, the user has to scan it by APP when first connect to the vehicle with the smartphone.   |
| Legal information  | : | It displays the user agreement and privacy policy user agreement shows the software license and service agreement, the privacy policy provides privacy details on how the user manage his personal information for this scooter software and services provided by xiaomi.   |
| 12.9.3.3. Manipulationssicherheit / Rückwirkungsfreiheit / <i>anti-tampering / feedback protection</i>                               | : | <p>Der Hersteller bescheinigt die Manipulationssicherheit, sowie Rückwirkungsfreiheit der beschriebenen Schnittstellen. / <i>The manufacturer confirms that the mentioned interface is tamper-proof and feedback protected.</i></p> <p>Das Rückwirkungsverhalten und die Manipulationssicherheit wurde durch den technischen Dienst im Rahmen der technischen Möglichkeiten empirisch überprüft, bspw. durch Betätigen verschiedener Tasten-/Schaltflächenkombinationen am Fahrzeug, sowie der mitgelieferten Smartphone-App (z.B. EIN-AUS-Taster am Fahrzeug für 3-5 Sekunden halten und/oder Betätigen vorhandener Schaltflächen der Smartphone-App für eine Dauer von &gt;1-5 Sekunden) um eine Erhöhung der Höchstgeschwindigkeit und/oder das Aktivieren einer ggf. vorhandenen Geschwindigkeitsregelanlage zu provozieren./</p> <p><i>The feedback behaviour and the manipulation safety as well was tested by the technical service empirically within the scope of the technical possibilities, for example by operating different key or button combinations at the vehicle and the provided smartphone-app (e.g. operate the ON-OFF-switch at the vehicle for a period of 3-5 seconds and/or operate available buttons in the smartphone-app for a period of &gt;1-5 seconds) to provoke an increase of maximum speed and/or the activation of a cruise control if applicable.</i></p> <p>Es konnte keine negative Beeinflussung festgestellt werden./ <i>No negative influence could be detected</i></p> |
| 12.9.3.4. Softwarestand der Schnittstelle nach Herstellerangabe / <i>firmware version of the interface according to manufacturer</i> | : | 1010  |
| 12.9.3.5. Bemerkung / <i>remark</i>  | : | Der Hersteller bestätigt, dass ein Zugriff durch Drittanbieter-Apps nicht vorgesehen ist. / <i>The manufacturer confirms that access by third-party apps is not intended</i>  |

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**13. Abweichungen, Auflagen, Anlagen / *deviations, additional requirements, enclosures***

**13.1. Abweichungen / *deviations*** : entfällt / *not applicable*

**13.2. Auflagen / *additional requirements*** : \*Das Bedienen des Smartphones während der Fahrt ist nicht gestattet.  
\*Der Fahrzeugführer hat sich vor Fahrtantritt mithilfe der Betriebsanleitung mit dem Fahrzeug vertraut zu machen. Dies gilt insbesondere für erschwerte Fahrsituationen (beispielsweise Bordsteine, steile Rampen, Quer- und Längsrillen etc.). /  
\* *Operating the mobile phone while driving is not permitted.*  
\**Before driving, the driver must familiarise himself with the vehicle using the operating instructions. This applies in particular to difficult driving situations (e.g. curbs, steep ramps, transverse and longitudinal grooves, etc.).*

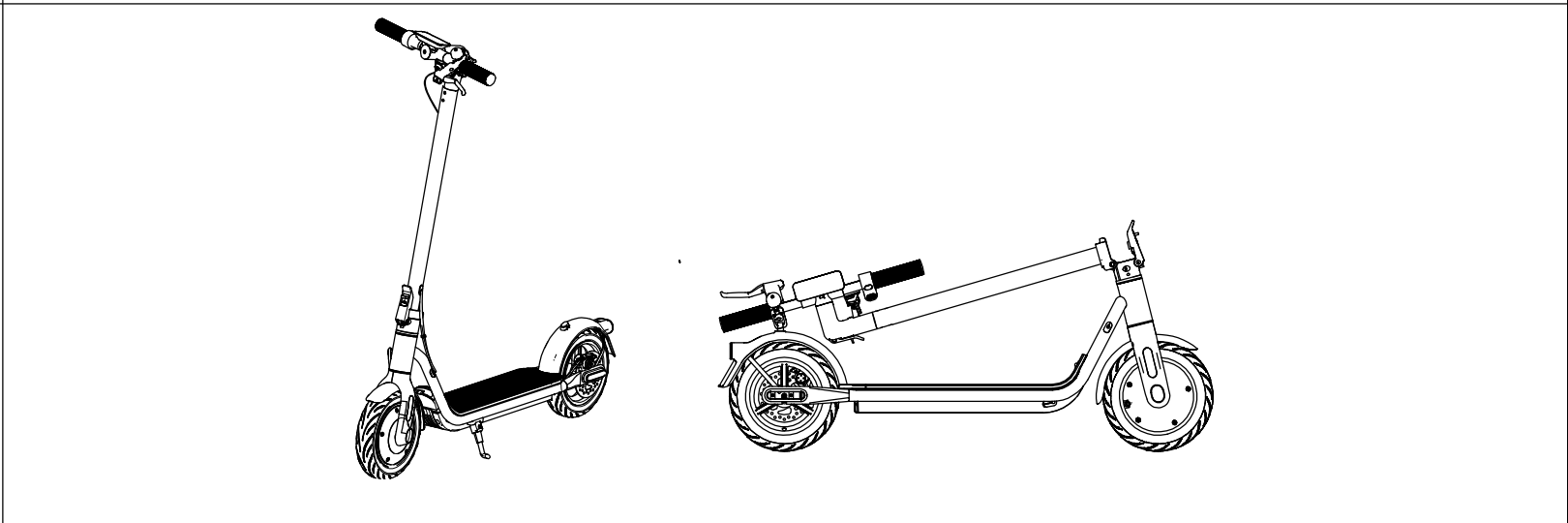
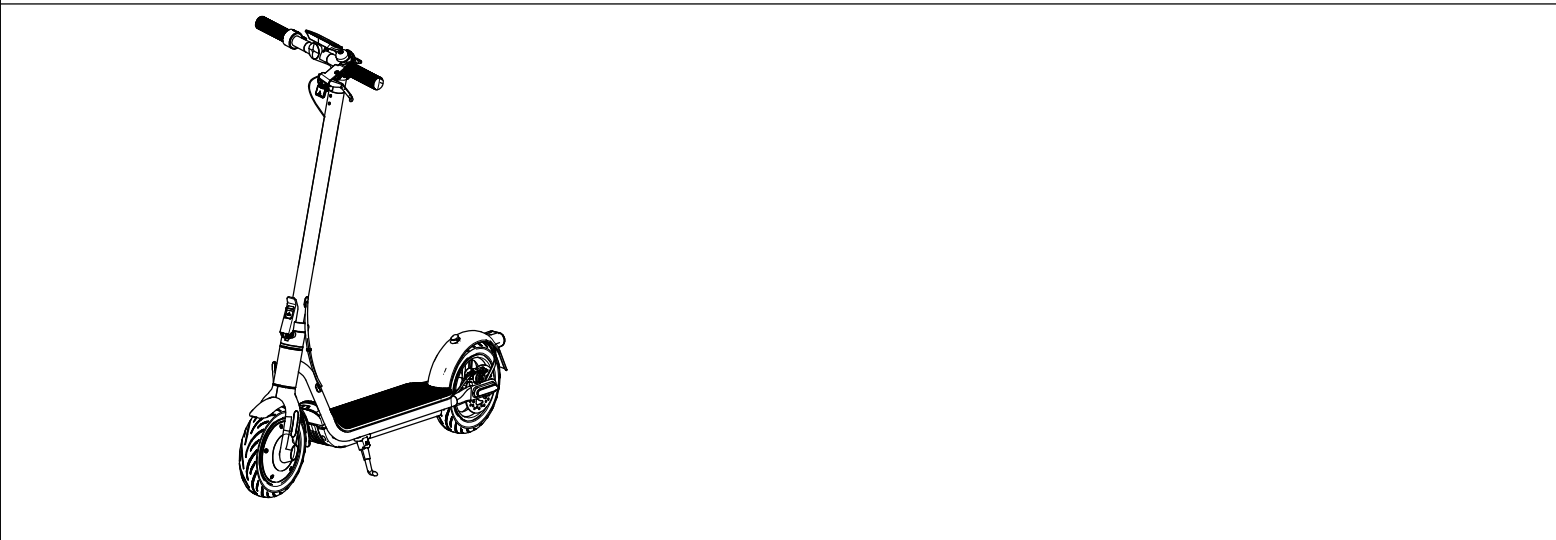
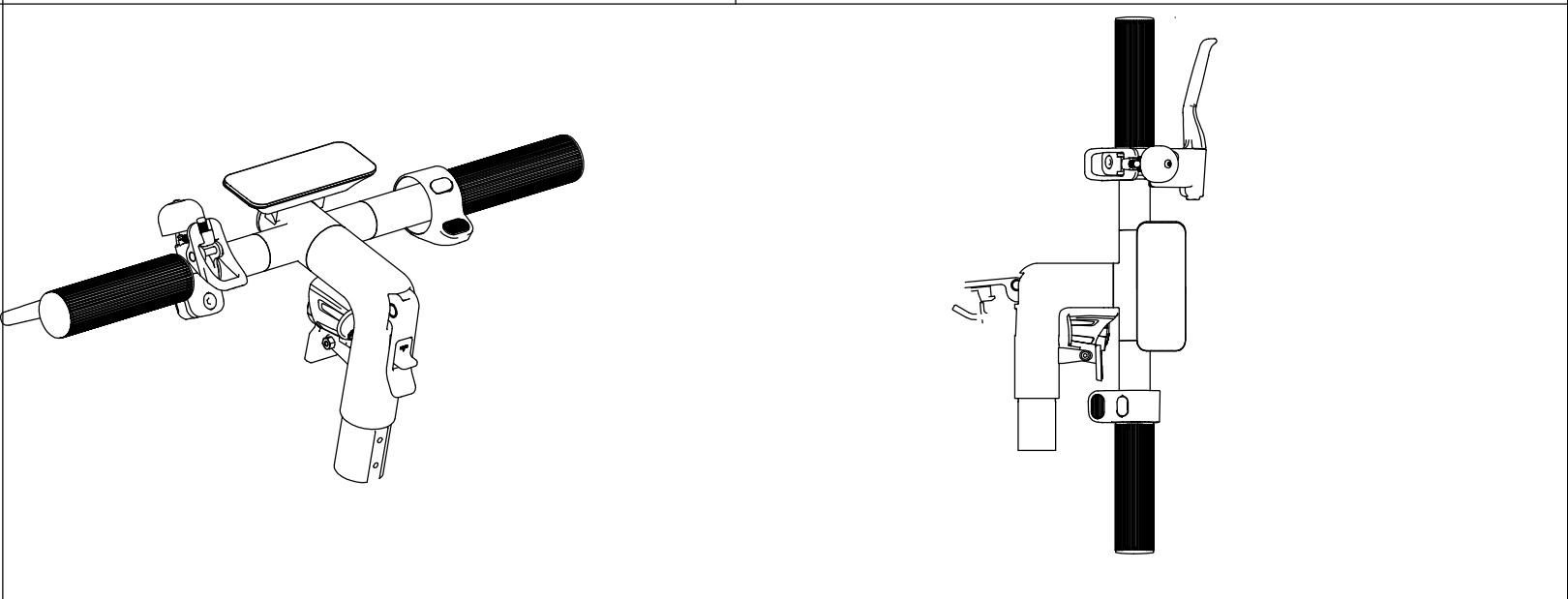
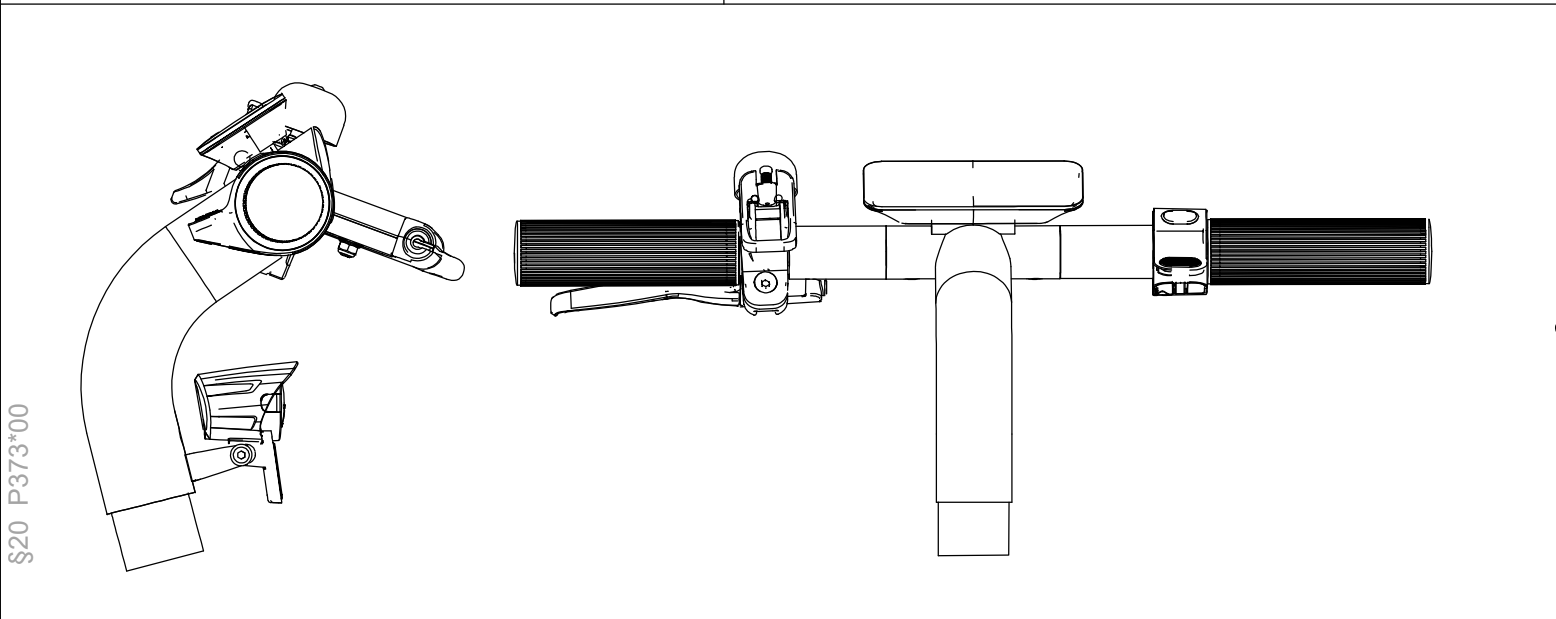
<b>Anlage Nr. / Encls. no.</b>	<b>Zeichnungs-/ Berichtsnr. / Drawing or report no.</b>	<b>Bezeichnung / Description</b>	<b>Seiten / pages</b>
13.3./2.1.	13.3./2.1.	Zeichnung des gesamten Fahrzeugs / <i>drawing of the whole vehicle</i>	3
13.3./3.	13.3./3.	Zeichnung der Antriebsmaschine / <i>drawing of propulsion engine</i>	1
13.3./8.	13.3./8.	Schematische Darstellung der Bremsanlage / <i>schematic diagram of the brake system</i>	1
13.3./9.1.	13.3./9.1.	Fotos einer repräsentativen Fahrzeugausführung / <i>photos of a representative vehicle</i>	4
13.3./10.	13.3./10.	Schematische Darstellung des gesamten Fahrzeugs mit Angaben zur Beleuchtung / <i>drawing of the whole vehicle with details of lighting devices</i>	1

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13.3./12.1.	S-23020002A0	Nachweis der Batteriesicherheit / <i>confirmation of battery safety</i>	37
13.3./12.2.	87-R85-0226/23-00	Nachweis der Nenndauerleistung / <i>confirmation of continuous rated power</i>	9
13.3./12.3.	87-R10-0225/23-00	Nachweis der elektromagnetischen Verträglichkeit / <i>confirmation of electromagnetic compatibility</i>	13
13.3./12.4.	-	Erklärung des Genehmigungsinhabers über Maßnahmen zur Verhinderung unbefugter Eingriffe in den Antriebsstrang und andere genehmigungsrel- evante Bauteile oder Systeme / <i>Approval holder's</i> <i>declaration on measures to prevent tampering on</i> <i>powertrain and other approval relevant components</i> <i>or systems</i>	2
13.3./12.9.	-	Erklärung des Genehmigungsinhabers hinsichtlich Manipulationssicherheit und Rückwirkungsverhalten der integrierten Bluetooth-Schnittstelle / <i>approval holder's declaration regarding tampering</i> <i>protection and feedback behavior of the integrated</i> <i>Bluetooth interface</i>	1
13.3./12.9.1.	-	Beschreibung der Bluetooth-Schnittstelle / <i>description of Bluetooth interface</i>	19
13.3./12.5.	-	Datenbestätigung gem. Muster 2d § 20 StVZO / <i>data conformity sheet acc. to sample 2d § 20</i> <i>StVZO</i>	1

<p>Version 01</p>	<p>Version 02</p> <p>All other structures are the same as version 01</p>	<p>Version 03</p>	<p>Version 04</p> <p>All other structures are the same as version 03</p>

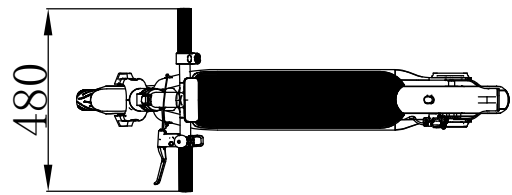


Version 01: the non-foldable handlebar, without direction indicator  
Version 02: the non-foldable handlebar, with direction indicator  
Version 03: the foldable handlebar, without direction indicator  
Version 04: the foldable handlebar, with direction indicator

<p>Hersteller/manufacturere:</p>	<p>Verantwortlicher/responsible:</p> <p>Albert</p>	<p>Zeichnungsnr./drawing no.:</p> <p>13.3./2.1.</p>	
<p>Brightway Innovation Intelligent Technology (Suzhou) Co., Ltd.</p>	<p>Titel/title:</p> <p>13.3./2.1. Zeichnung des gesamten Fahrzeugs / drawing of the whole vehicle</p>	<p>Material / material:</p>	
		<p>Maßstab / scale:</p> <p>1:20</p>	<p>Blatt / page:</p> <p>1/3</p>

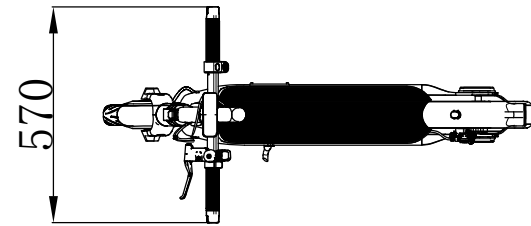


Version 01

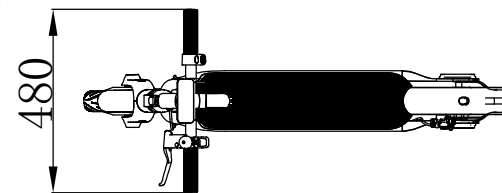


Version 02

All other structures are the same as version 01

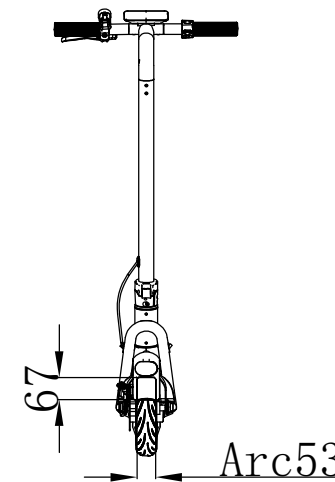
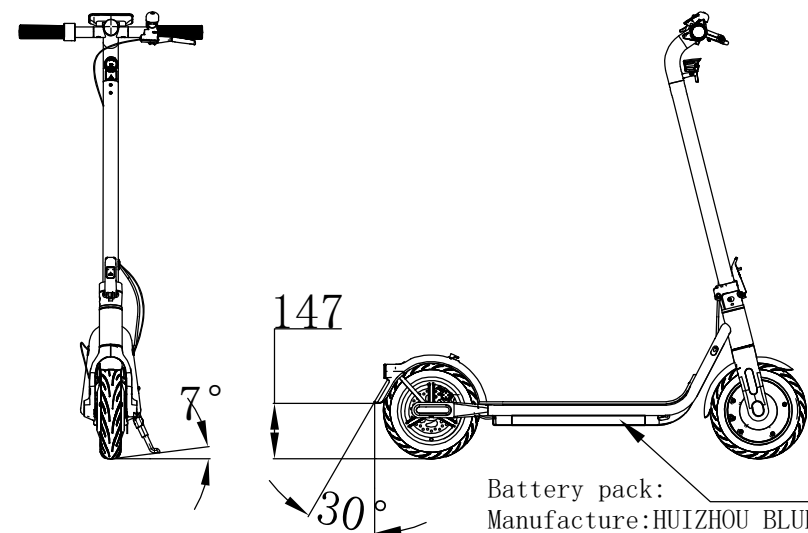
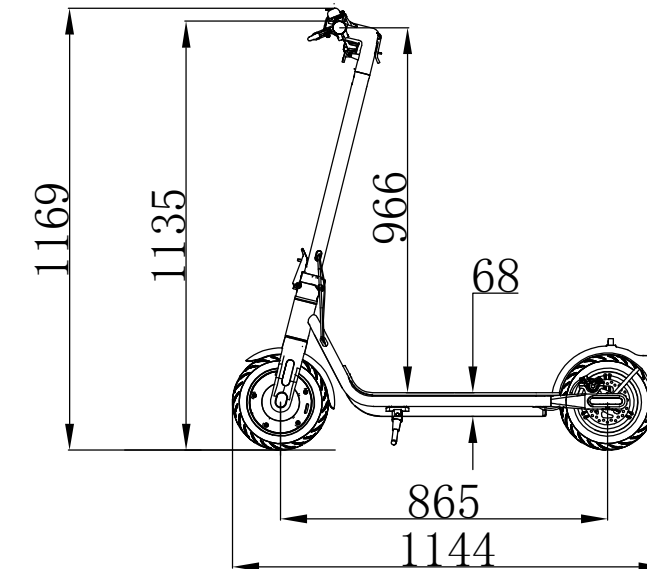
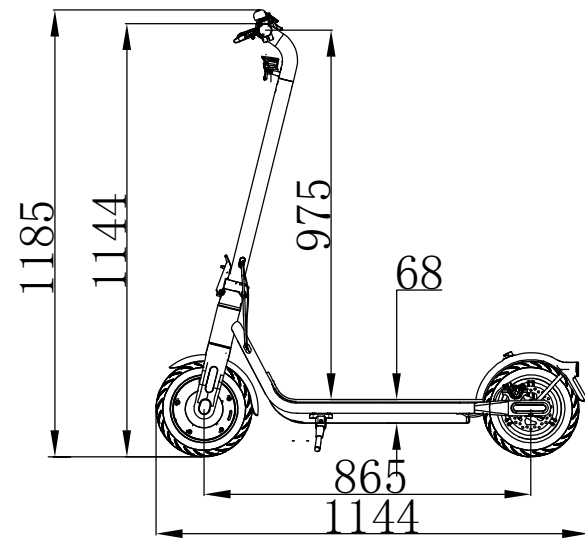
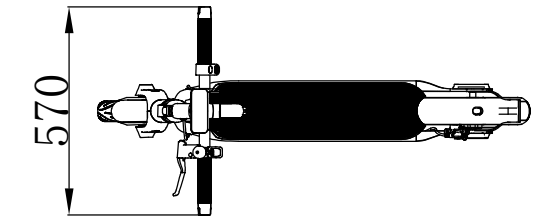


Version 03



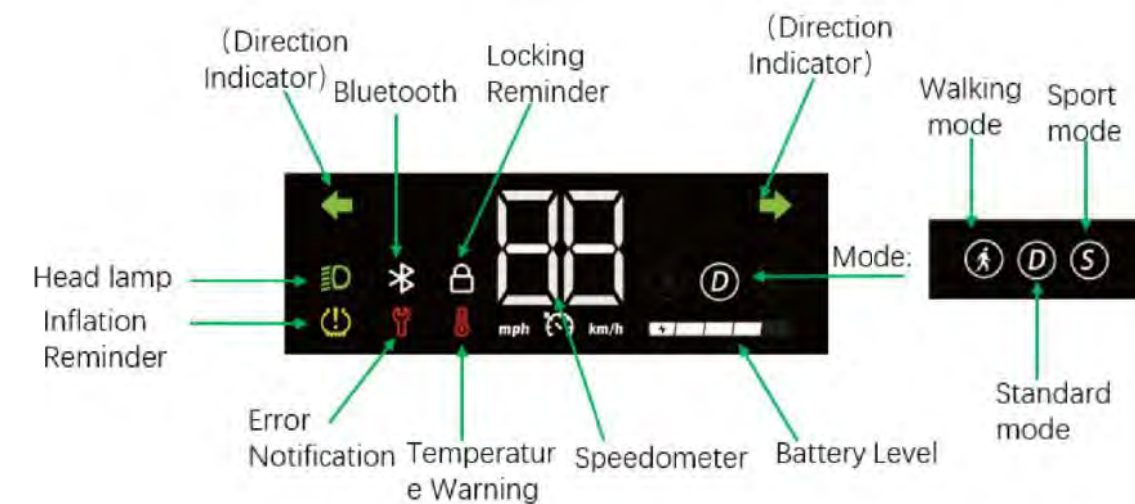
Version 04

All other structures are the same as version 03

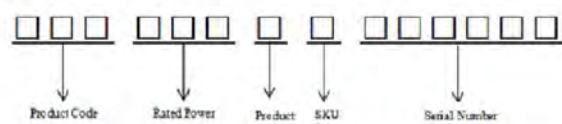


Battery pack:  
 Manufacture: HUIZHOU BLUEWAY ELECTRONICS Co., Ltd.  
 Type: T2211-BA4A  
 Capacity: 10200mAh

Type: T2207\_Display\_AA  
 Manufacture: Suzhou City Hulisheng Electron Technique Co., Ltd.



Coding Rules:

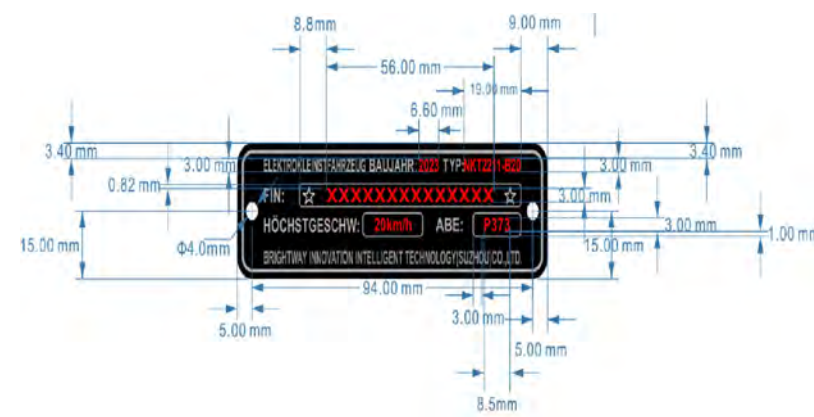


e.g.: V50 3503G000001

- Coding length : 14
- Product Code : V50
- Rated Power (W) : 350
- Product Year:

Product Year	Corresponding Code	Product Year	Corresponding Code	Product Year	Corresponding Code
2021	1	2031	B	2041	M
2022	2	2032	C	2042	N
2023	3	2033	D	2043	P
2024	4	2034	E	2044	R
2025	5	2035	F	2045	S
2026	6	2036	G	2046	T
2027	7	2037	H	2047	V
2028	8	2038	J	2048	W
2029	9	2039	K	2049	X
2030	A	2040	L	2050	Y

SKU Code	SKU	Code
	Germany	G
	Nordic	N
	Poland	P



Hersteller/manufacture:

Brightway Innovation  
 Intelligent Technology  
 (Suzhou) Co., Ltd.

Verantwortlicher/responsible:  
 Albert

Titel/title:  
 13.3./2.1. Zeichnung des  
 gesamten Fahrzeugs / drawing  
 of the whole vehicle

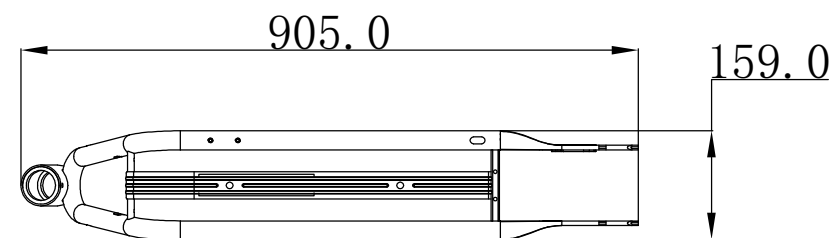
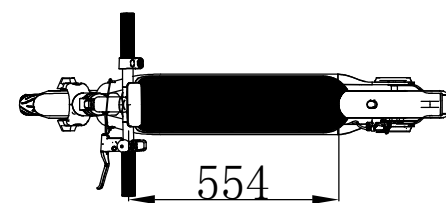
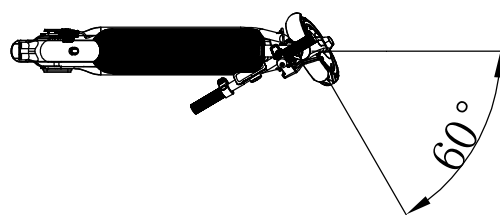
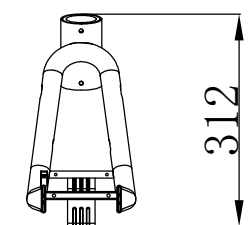
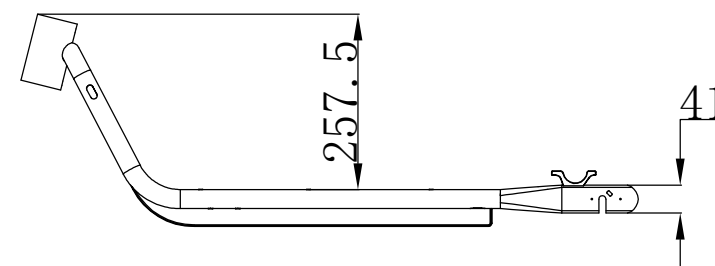
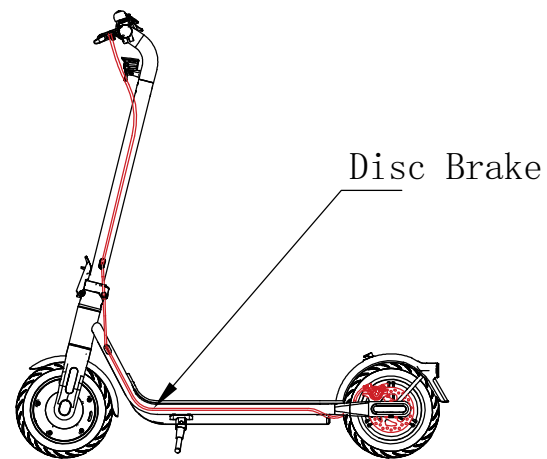
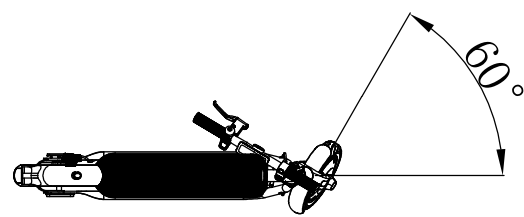
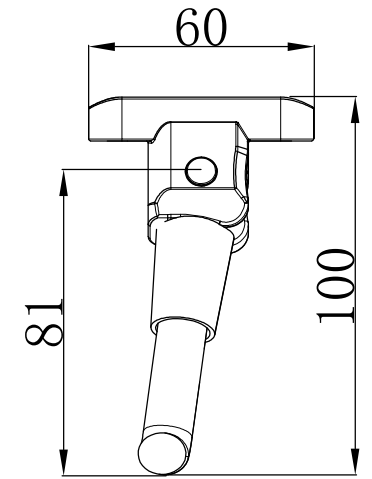
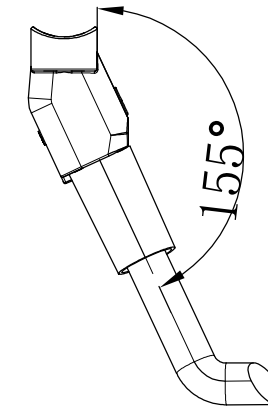
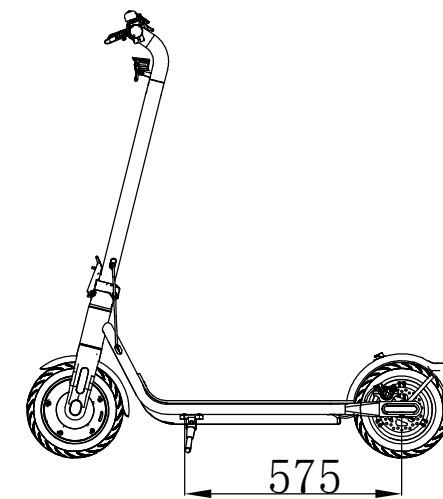
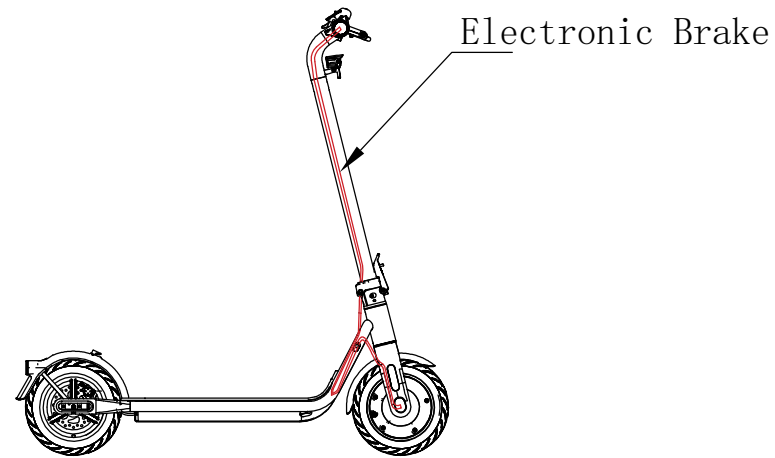
Zeichnungsnr./drawing no.:  
 13.3./2.1.

Material / material:

Mafstab / scale:  
 1:20

Blatt / page:  
 2/3

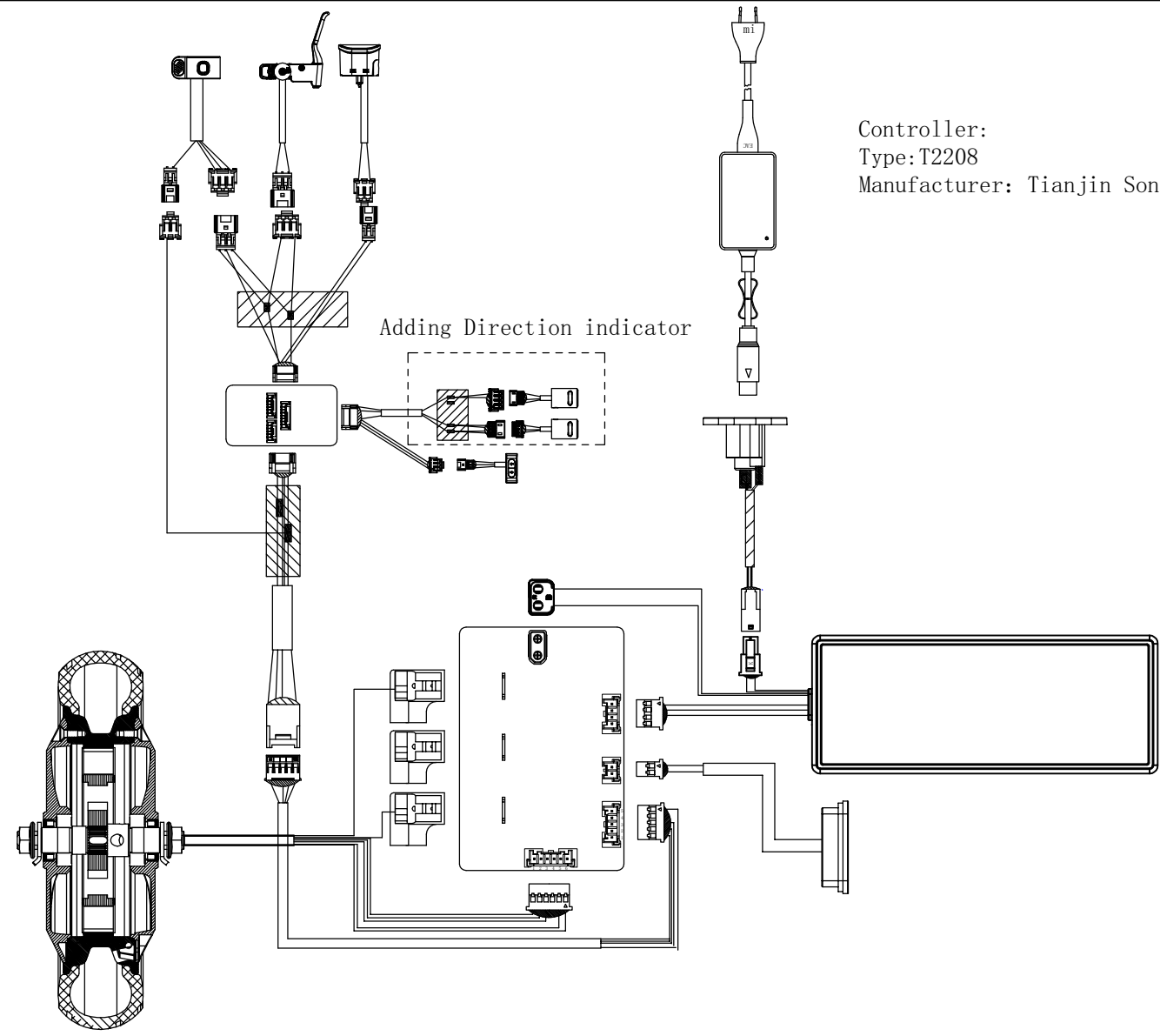
S20 P373\*00



<p><i>Hersteller/manufacture:</i></p>	<p><i>Verantwortlicher/responsible:</i> <b>Albert</b></p>	<p><i>Zeichnungsnr./drawing no.:</i> 13.3./2.1.</p>	
<p><b>Brightway Innovation Intelligent Technology (Suzhou) Co., Ltd.</b></p>	<p><i>Titel/title:</i> 13.3./2.1. Zeichnung des gesamten Fahrzeugs / drawing of the whole vehicle</p>	<p><i>Material / material:</i></p>	
		<p><i>Maßstab / scale:</i> 1:20</p>	<p><i>Blatt / page:</i> 3/3</p>

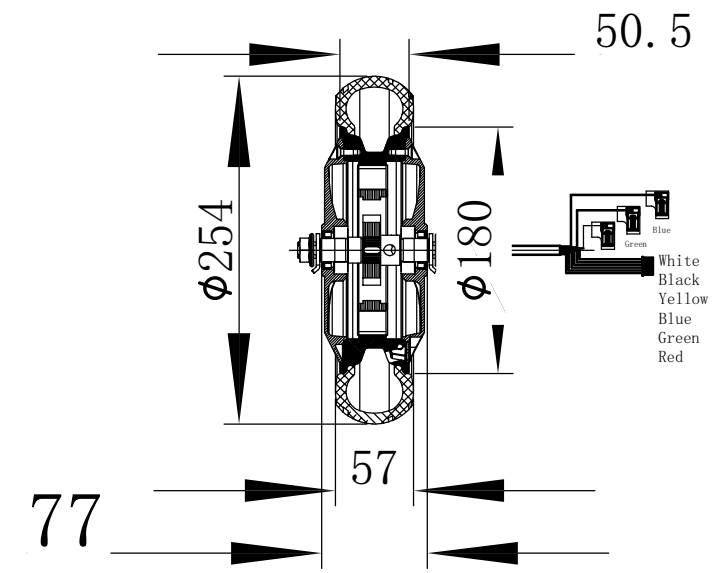
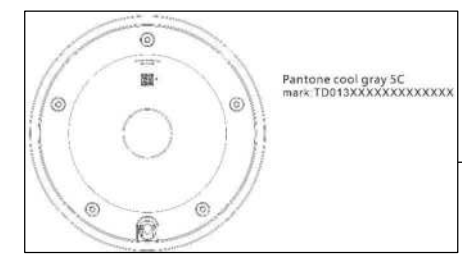


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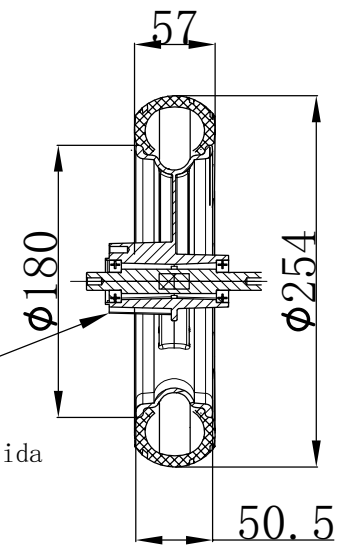


Controller:  
Type: T2208  
Manufacturer: Tianjin Songzheng Electric Technology Co., LTD

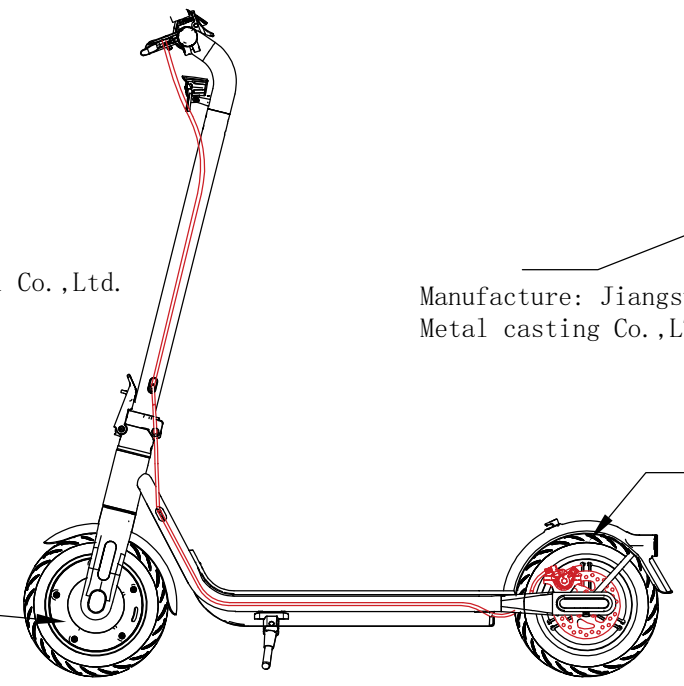
Motor:  
Type: TD013  
Manufacture: Changzhou Wujin Jinshun Mechanical and Electrical Co., Ltd.  
  
Tire:  
Type: 10X2.125  
Manufacture: Cheng Shin Rubber (Zhangzhou) Ind., LTD.



Manufacture: Jiangsu Xinmeida  
Metal casting Co., LTD.

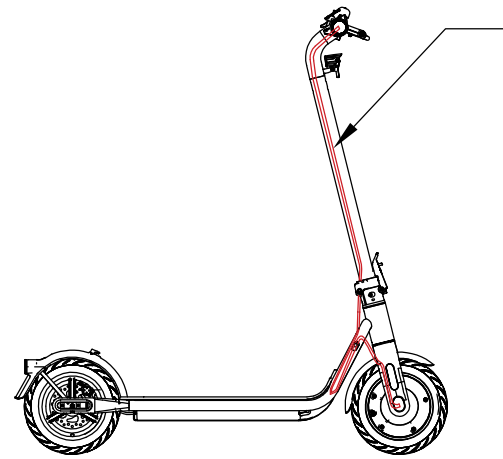


Tire:  
Type: 10X2.125  
Manufacture: Cheng Shin Rubber (Zhangzhou) Ind., LTD.

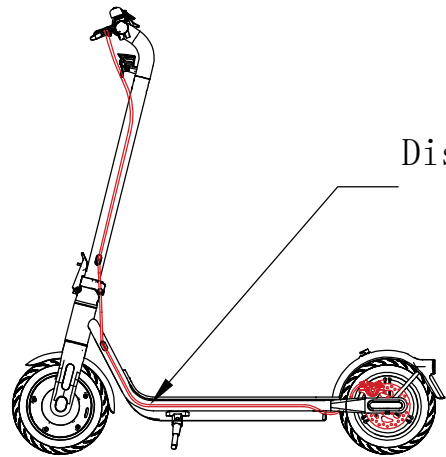


<i>Hersteller/manufacture:</i>	<i>Verantwortlicher/responsible:</i>	<i>Zeichnungsnr./drawing no.:</i>	
<i>Brightway Innovation Intelligent Technology (Suzhou) Co., Ltd.</i>	<i>Albert</i>	13.3/3.	
	<i>Titel/title:</i>	<i>Material / material:</i>	
	13.3/8. schematic diagram of the brake system	<i>Mafstab / scale:</i>	<i>Blatt / page:</i>
		1:10	1/1

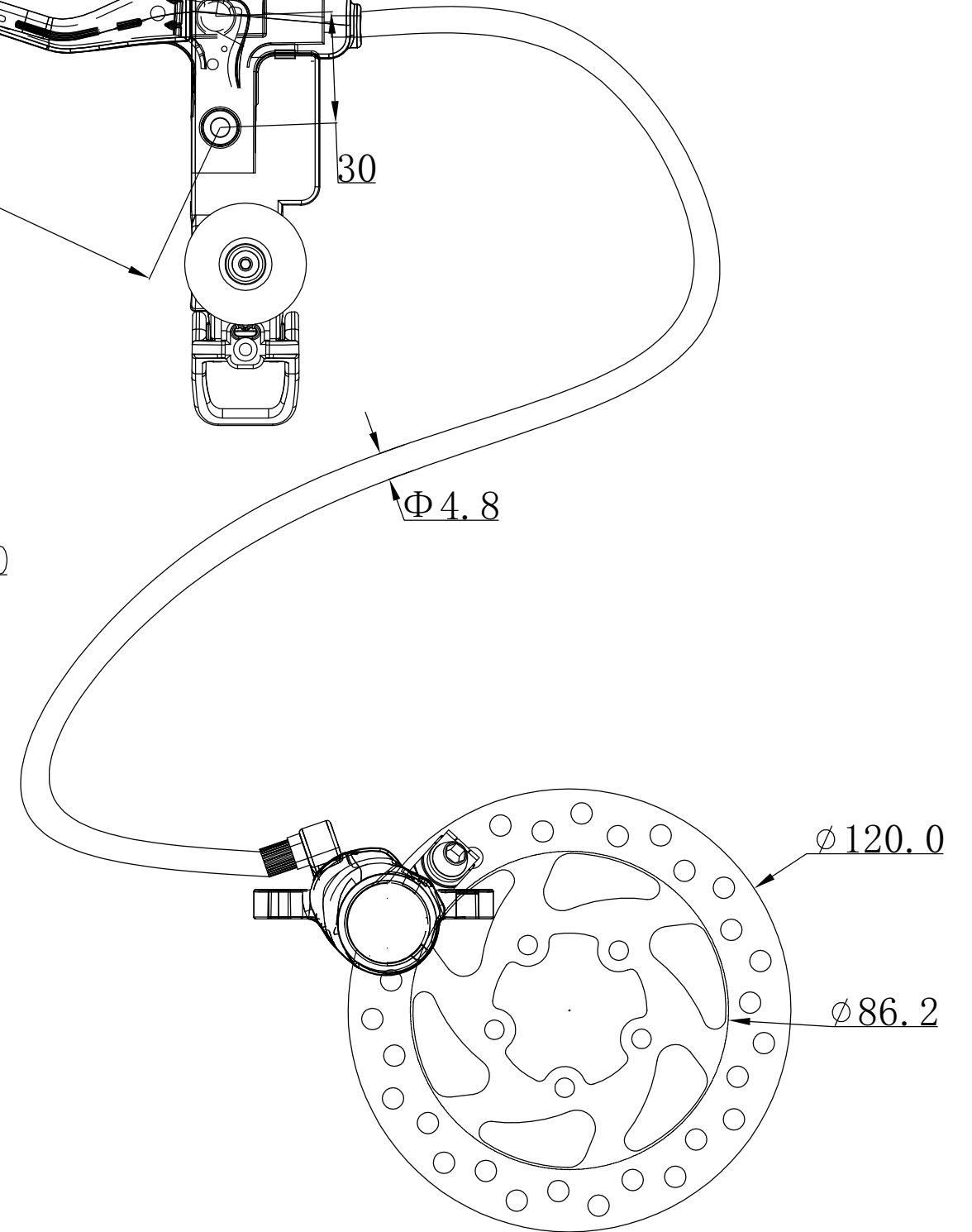
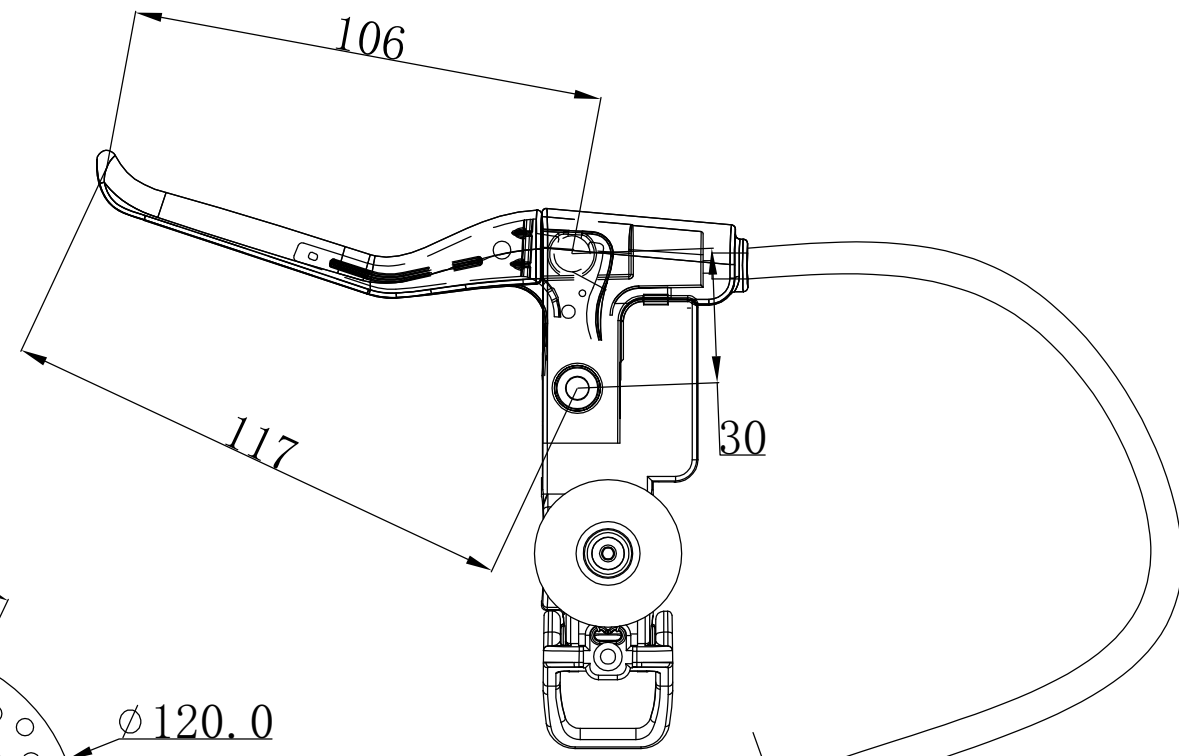
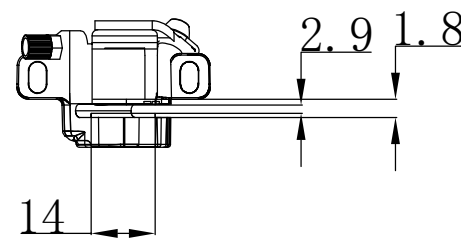
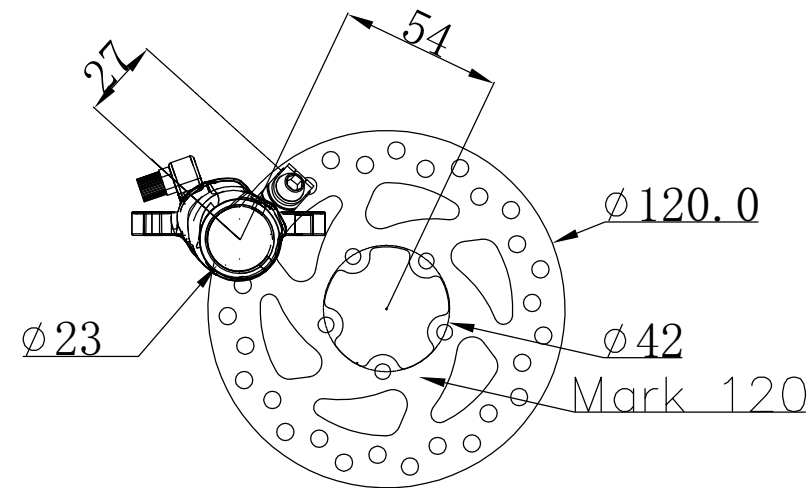
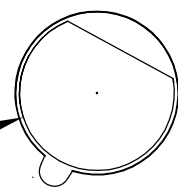
Electronic Brake



Disc Brake



Lining  
R10.25



Manufacturer: KARASAWA TRAFFIC EQUIPMENT (TAIZHOU) CO., LTD  
 Calipers type: T2208  
 Disc material: 1Cr13  
 Disc type: 120  
 Calipers material: A356.2  
 Lining Area:  $2 \times 288\text{mm}^2$

<i>Hersteller/manufacture:</i>	<i>Verantwortlicher/responsible:</i> Albert	<i>Zeichnungsnr./drawing no.:</i> 13.3/8.	
Brightway Innovation Intelligent Technology (Suzhou) Co., Ltd.	<i>Titel/title:</i> 13.3/3.5 characteristic diagram of propulsion engine	<i>Material / material:</i>	
		<i>Maßstab / scale:</i>	<i>Blatt / page:</i>

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Version 01: the non-foldable handlebar, without direction indicator

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<i>Hersteller/manufacture:</i>	<i>Verantwortlicher/responsible:</i> <i>Albert</i>	<i>Zeichnungsnr./drawing no.:</i> 13.3./9.1.	
<i>Brightway Innovation Intelligent Technology (Suzhou) Co., Ltd.</i>	<i>Titel/title:</i> 13.3./9.1. photos of a representative vehicle	<i>Material / material:</i>	
		<i>Maßstab / scale:</i> 1:15	<i>Blatt / page:</i> 1/4





Version 02: the non-foldable handlebar, with direction indicator

<i>Hersteller/manufacture:</i>	<i>Verantwortlicher/responsible:</i> <b>Albert</b>	<i>Zeichnungsnr./drawing no.:</i> 13.3./9.1.	
<i>Brightway Innovation Intelligent Technology (Suzhou) Co., Ltd.</i>	<i>Titel/title:</i> 13.3./9.1. photos of a representative vehicle	<i>Material / material:</i>	
		<i>Maßstab / scale:</i> 1:15	<i>Blatt / page:</i> 2/4

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Version 03: the foldable handlebar, without direction indicator

<i>Hersteller/manufacture:</i>	<i>Verantwortlicher/responsible:</i> <i>Albert</i>	<i>Zeichnungsnr./drawing no.:</i> 13.3./9.1.	
<i>Brightway Innovation Intelligent Technology (Suzhou) Co., Ltd.</i>	<i>Titel/title:</i> 13.3./9.1. photos of a representative vehicle	<i>Material / material:</i>	
		<i>Maßstab / scale:</i> 1:15	<i>Blatt / page:</i> 3/4



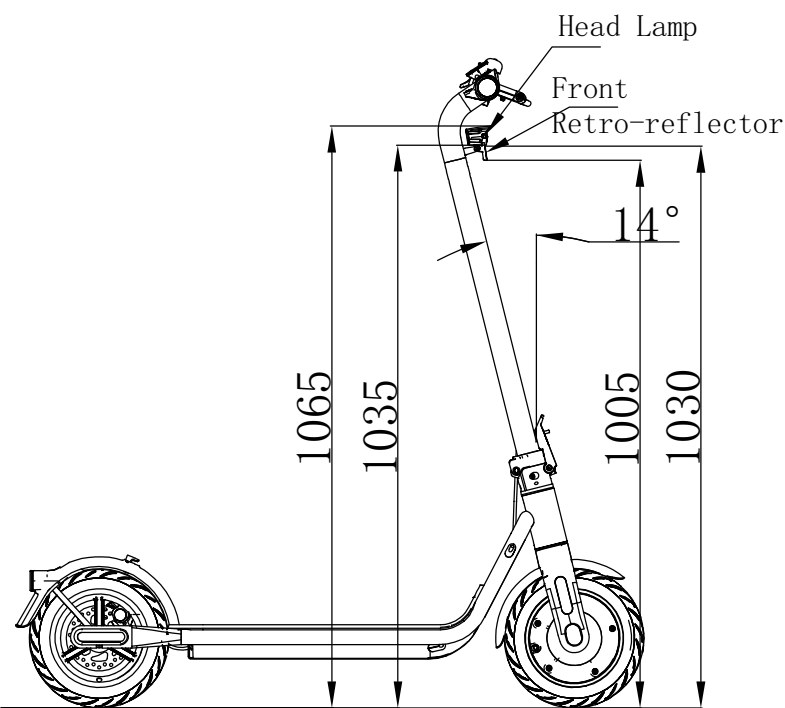


Version 04: the foldable handlebar, with direction indicator

\$20 P373\*00

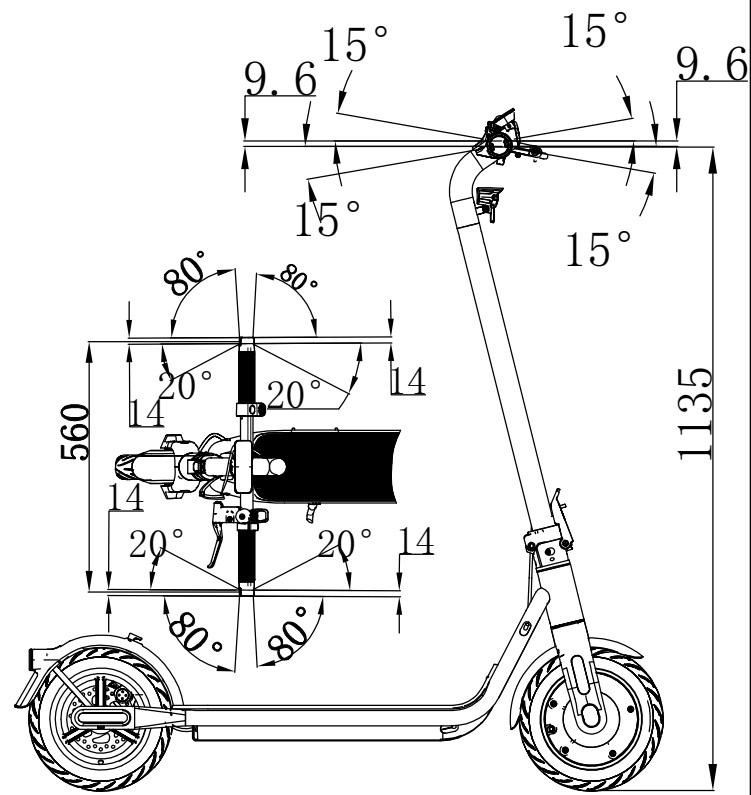
<i>Hersteller/manufacture:</i>	<i>Verantwortlicher/responsible:</i> <b>Albert</b>	<i>Zeichnungsnr./drawing no.:</i> 13.3./9.1.	
<i>Brightway Innovation Intelligent Technology (Suzhou) Co., Ltd.</i>	<i>Titel/title:</i> 13.3./9.1. photos of a representative vehicle	<i>Material / material:</i>	
		<i>Maßstab / scale:</i> 1:15	<i>Blatt / page:</i> 4/4

Version 01

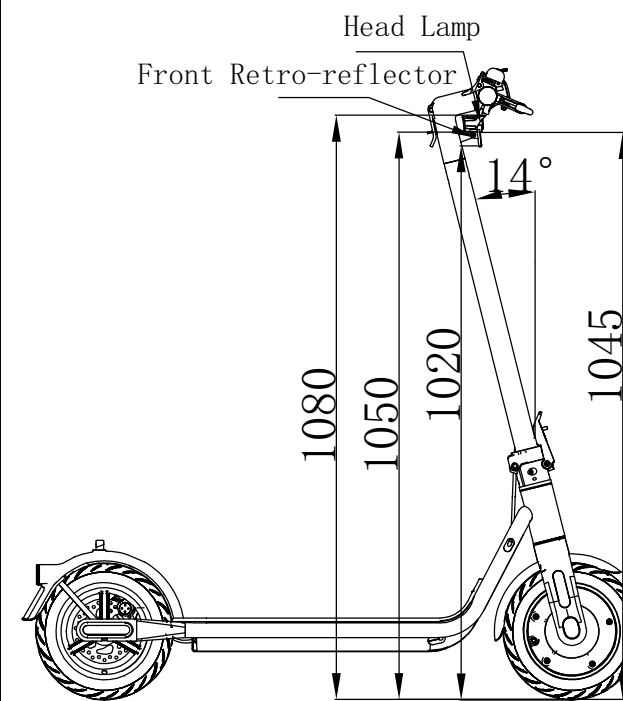


Version 02

All other structures are the same as version 01

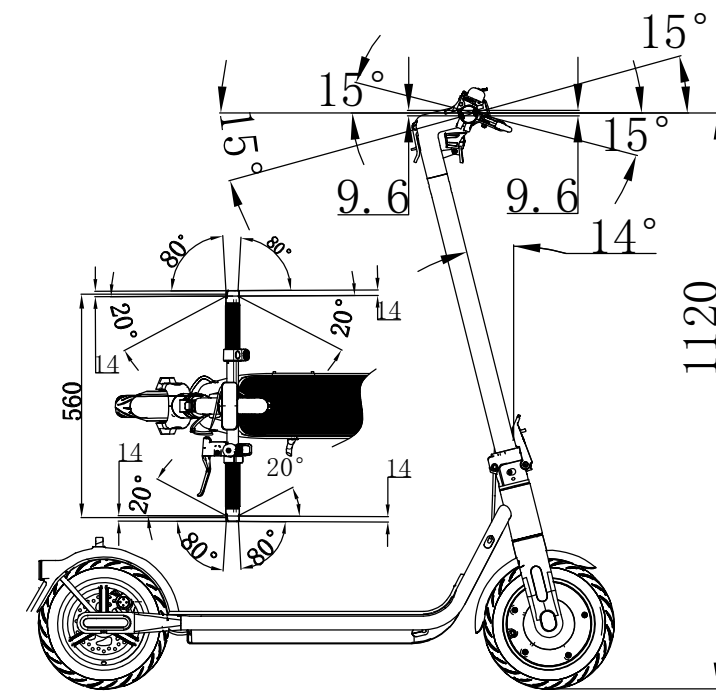


Version 03



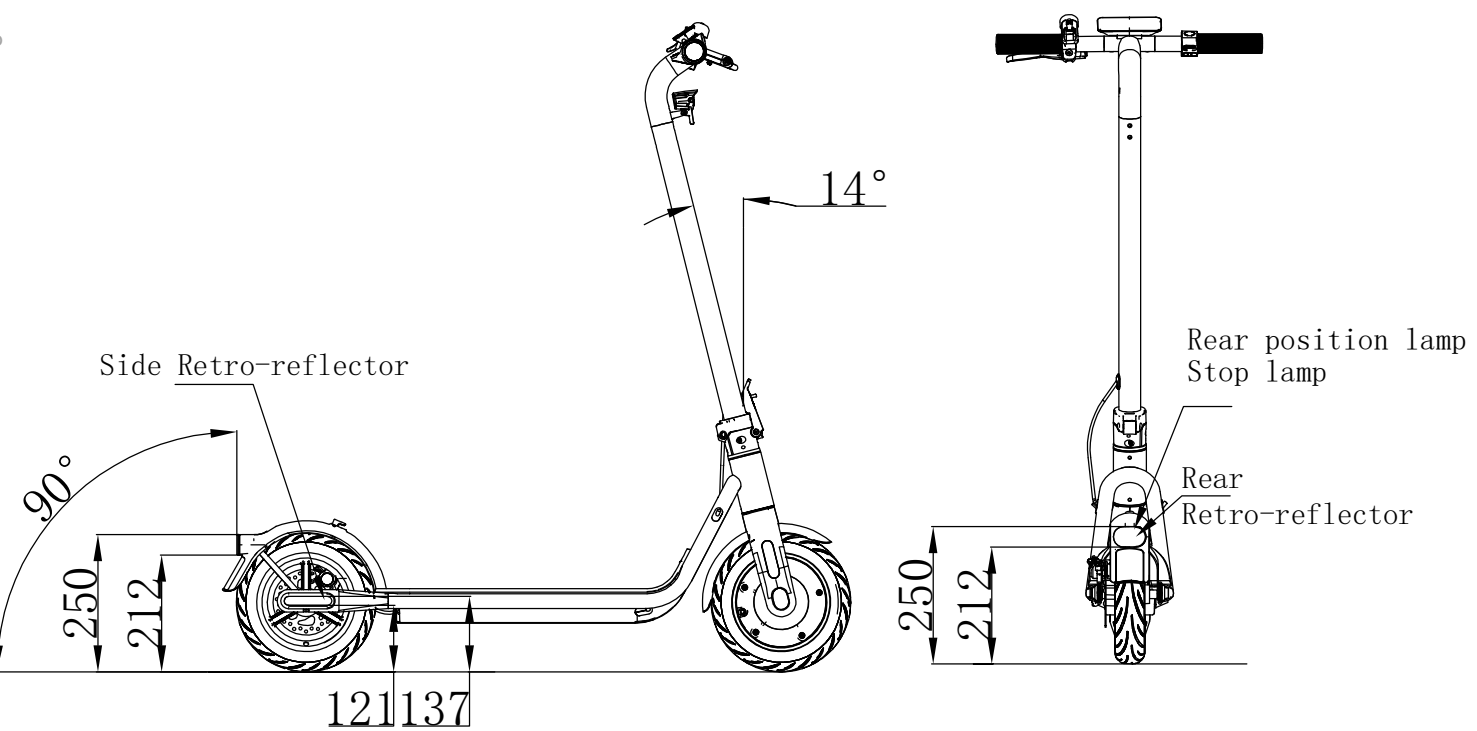
Version 04

All other structures are the same as version 03



Anlage zu / Attachment to 87-eKFV-0224/23-00

\$20 PB73\*00



Head Lamp  
 Make:Foshan City Shunde District Chengdi Electronic Technology Co.,Ltd  
 Type:DH008 Approval No:E9\*149R00/02\*1084\*00

Rear position lamp/ Stop lamp  
 Make:Foshan City Shunde District Chengdi Electronic Technology Co.,Ltd  
 Type:DRT10 Approval No:E9\*148R00/04\*6761\*01  
 Approval No:K 2247

Front Retro-reflector  
 Make:Foshan City Shunde District Chengdi Electronic Technology Co.,Ltd  
 Type:DF003 Approval No:E9\*150R00/02\*1011\*00

Side Retro-relector  
 Make:Sate-lite(Foshan)Plastics Co.,Ltd  
 Type:SL-CF;Approval No. :E24\*150R00/02\*0024\*00

Rear Retro-reflector  
 Make:Foshan City Shunde District Chengdi Electronic Technology Co.,Ltd  
 Type:DRT10 Approval No:E9\*150R00/04\*6761\*01  
 Approval No:K 2247

Direction Indicator  
 Make:Foshan City Shunde District Chengdi Electronic Technology Co.,Ltd  
 Type:DI001 Approval No:E32\*148R00/04\*0380\*00

<i>Hersteller/manufacturer:</i>  <b>Brightway Innovation Intelligent Technology (Suzhou) Co., Ltd.</b>	<i>Verantwortlicher/responsible:</i> <b>Albert</b>	<i>Zeichnungsnr./drawing no.:</i> <b>13.3./10.</b>	
	<i>Titel/title:</i> drawing of the whole vehicle with dimension of the vehicle and the lighting devices	<i>Material / material:</i>	
		<i>Maßstab / scale:</i> <b>1:10</b>	<i>Blatt / page:</i> <b>1:1</b>



Test Report issued under the responsibility of:



<b>TEST REPORT</b> <b>IEC 62133-2</b> <b>Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications – Part 2: Lithium systems</b>	
Report Number.....	S-23020002A0
Date of issue.....	2023-02-13
Total number of pages .....	24 pages
Name of Testing Laboratory preparing the Report .....	<b>Shenzhen Precise Testing Technology Co., Ltd</b>
Applicant's name .....	HUIZHOU BLUEWAY ELECTRONICS CO.,LTD.
Address.....	NO.101,HECHANG FIVE ROAD WEST,ZHONGKAI HI-TECH DEVELOPMENT ZONE,HUIZHOU,GUANGDONG,CHINA
<b>Test specification:</b>	
Standard .....	IEC 62133-2:2017, IEC 62133-2:2017/AMD1:2021
Test procedure .....	CB Scheme
Non-standard test method .....	N/A
TRF template used.....	IECEE OD-2020-F1:2021, Ed.1.4
Test Report Form No. ....	IEC62133_2C
Test Report Form(s) Originator ....	DEKRA Certification B.V.
Master TRF .....	Dated 2022-07-01
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<b>General disclaimer:</b>	
The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing NCB. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.	

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<b>Test item description</b> ..... :	Rechargeable Li-ion Battery Pack	
<b>Trade Mark(s)</b> .....	N/A	
<b>Manufacturer</b> .....	Same as applicant	
<b>Model/Type reference</b> .....	T2211-BA4A	
<b>Ratings</b> .....	36 VDC, Rated Capacity: 10.2Ah/367.2Wh	
<b>Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):</b>		
<input checked="" type="checkbox"/>	<b>CB Testing Laboratory:</b>	Shenzhen Precise Testing Technology Co., Ltd
<b>Testing location/ address</b> ..... :	No. 9 Shuiku Road, Guangming New District, Shenzhen 518108, China	
<b>Tested by (name, function, signature)</b> ..... :	Rico Lin (Project Handler)	<i>Rico Lin</i>
<b>Approved by (name, function, signature)</b> ... :	Gino Wong (Reviewer)	<i>Gino Wong</i>
<input type="checkbox"/>	<b>Testing procedure: CTF Stage 1:</b>	
<b>Testing location/ address</b> ..... :		
<b>Tested by (name, function, signature)</b> ..... :		
<b>Approved by (name, function, signature)</b> ... :		
<input type="checkbox"/>	<b>Testing procedure: CTF Stage 2:</b>	
<b>Testing location/ address</b> ..... :		
<b>Tested by (name + signature)</b> .....		
<b>Witnessed by (name, function, signature) .:</b>		
<b>Approved by (name, function, signature)</b> ... :		
<input type="checkbox"/>	<b>Testing procedure: CTF Stage 3:</b>	
<input type="checkbox"/>	<b>Testing procedure: CTF Stage 4:</b>	
<b>Testing location/ address</b> ..... :		
<b>Tested by (name, function, signature)</b> ..... :		
<b>Witnessed by (name, function, signature) .:</b>		
<b>Approved by (name, function, signature)</b> ... :		
<b>Supervised by (name, function, signature) :</b>		

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<p><b>List of Attachments (including a total number of pages in each attachment):</b> National difference (3 pages) Enclosures (10 pages)</p>	
<p><b>Summary of testing:</b></p>	
<p><b>Tests performed (name of test and test clause):</b> cl.7.2.2 Case stress at high ambient temperature (battery) cl.7.3.2 External short circuit (batteries); cl.7.3.3 Free fall (cells and batteries); cl.7.3.6 Over-charging of battery; cl.7.3.8 Mechanical tests (batteries).</p> <p>Tests are made with the number of batteries specified in IEC 62133-2:2017 /AMD1:2021 Table 1.</p>	<p><b>Testing location:</b> <b>Shenzhen Precise Testing Technology Co., Ltd</b> Floor 1-5, Building 4-7, Tongfuyu Industrial Park, Aiqun Road, Shangwu Community, Shiyan Street, Bao'an District, Shenzhen 518108, Guangdong, China</p>
<p><b>Summary of compliance with National Differences (List of countries addressed):</b> EU group*</p> <p>* = No National or Group Differences declared</p> <p><input checked="" type="checkbox"/> <b>The product fulfils the requirements of <u>EN 62133-2:2017/A1:2021</u>.</b></p>	
<p><b>Use of uncertainty of measurement for decisions on conformity (decision rule) :</b></p> <p><input checked="" type="checkbox"/> No decision rule is specified by the IEC standard, when comparing the measurement result with the applicable limit according to the specification in that standard. The decisions on conformity are made without applying the measurement uncertainty ("simple acceptance" decision rule, previously known as "accuracy method").</p> <p><input type="checkbox"/> Other:... (to be specified, for example when required by the standard or client, or if national accreditation requirements apply)</p> <p><b>Information on uncertainty of measurement:</b> The uncertainties of measurement are calculated by the laboratory based on application of criteria given by OD-5014 for test equipment and application of test methods, decision sheets and operational procedures of IECEE. IEC Guide 115 provides guidance on the application of measurement uncertainty principles and applying the decision rule when reporting test results within IECEE scheme, noting that the reporting of the measurement uncertainty for measurements is not necessary unless required by the test standard or customer. Calculations leading to the reported values are on file with the NCB and testing laboratory that conducted the testing.</p>	

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**Copy of marking plate:**

**The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.**



Date code rule::

Date code will show at series No: TB05432G0000082 S79:

“3”: Indicates the year, and the last digit of the year is taken (2023 is represented by "3");

“2”: Indicates the month, 1~9 means from Jan. to Sep., A~C means from Oct. to Dec.;;

“G”: Indicates the date, (1-9 represented by “1” to “9”, 10-31 represented by “A” to “X”, skip letter “I”, “O”).

<b>Test item particulars.....:</b>	
<b>Classification of installation and use.....:</b>	To be defined in final system
<b>Supply Connection .....</b>	DC connector
<b>Recommend charging method declared by the manufacturer .....</b>	Charging the battery with 1700mA constant current and 42V constant voltage until the current reduces to 280mA at ambient 20°C±5°C
<b>Discharge current (0,2 It A) .....</b>	2040mA
<b>Specified final voltage.....:</b>	30.2V
<b>Upper limit charging voltage per cell.....:</b>	42V
<b>Maximum charging current .....</b>	1700mA
<b>Charging temperature upper limit .....</b>	45°C
<b>Charging temperature lower limit.....:</b>	0°C
<b>Polymer cell electrolyte type.....:</b>	<input type="checkbox"/> gel polymer <input type="checkbox"/> solid polymer <input checked="" type="checkbox"/> N/A
<b>Possible test case verdicts:</b>	
- test case does not apply to the test object.....:	N/A
- test object does meet the requirement.....:	P (Pass)
- test object does not meet the requirement.....:	F (Fail)
<b>Testing.....:</b>	
<b>Date of receipt of test item .....</b>	2023-02-07
<b>Date (s) of performance of tests .....</b>	2023-02-10 to 2023-02-14
<b>General remarks:</b>	
"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report.	
Throughout this report a <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator.	
<b>Manufacturer's Declaration per sub-clause 4.2.5 of IEC62133:</b>	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided .....	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable
<b>When differences exist; they shall be identified in the General product information section.</b>	
<b>Name and address of factory (ies) .....</b> : Same as applicant	

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**General product information and other remarks:**

This battery is constructed with forty Li-ion cells (10S4P), and has overcharge, over-discharge, over current and short-circuits proof circuit.

The cell (ICR18650/26V) inside the battery is CB approved according to IEC 62133-2:2017 (CB Certificate No.: DK-112258-UL, Report No.: PN20210324692701, issued by UL, which is considered as complied with IEC 62133-2:2017, IEC 62133-2:2017/AMD1:2021 after reviewed the cell CB report.

10INP19/66-4 is IEC 61960-3: 2017 model designation and identical to model T2211-BA4A except for model designation.

**Supplementary Information on National/Group Differences not to be listed on CBTC**

-National Differences TRF for Korea is for information only since the ND/GD TRF latest revision does not match the latest revision of IEC Standard TRF used for evaluation.

The main features of the battery are shown as below

Model	Rated capacity	Nominal voltage	Nominal Charge Current	Nominal Discharge Current	Maximum Charge Current	Maximum Discharge Current	Maximum Charge Voltage	Cut-off Voltage
T2211-BA4A	10200mAh	36V	1700mA	4000mA	1700mA	21000mA	42V	30.2V

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Clause	Requirement + Test	Result - Remark	Verdict

<b>4</b>	<b>PARAMETER MEASUREMENT TOLERANCES</b>		P
	Parameter measurement tolerances		P

<b>5</b>	<b>GENERAL SAFETY CONSIDERATIONS</b>		P
<b>5.1</b>	<b>General</b>		P
	Cells and batteries so designed and constructed that they are safe under conditions of both intended use and reasonably foreseeable misuse		P
<b>5.2</b>	<b>Insulation and wiring</b>		P
	The insulation resistance between the positive terminal and externally exposed metal surfaces of the battery (excluding electrical contact surfaces) is not less than 5 MΩ	No metal case exists.	N/A
	Insulation resistance (MΩ) ..... :	N/A	—
	Internal wiring and insulation are sufficient to withstand maximum anticipated current, voltage and temperature requirements		P
	Orientation of wiring maintains adequate clearances and creepage distances between conductors		P
	Mechanical integrity of internal connections accommodates reasonably foreseeable misuse		P
<b>5.3</b>	<b>Venting</b>		P
	Battery cases and cells incorporate a pressure relief mechanism or are constructed so that they relieve excessive internal pressure at a value and rate that will preclude rupture, explosion and self-ignition	Venting mechanism exists on the cell.	P
	Encapsulation used to support cells within an outer casing does not cause the battery to overheat during normal operation nor inhibit pressure relief		N/A
<b>5.4</b>	<b>Temperature, voltage and current management</b>		P
	Batteries are designed such that abnormal temperature rise conditions are prevented	Overcharge, over discharge, over current and short-circuit proof circuit used in this battery. See tests of clause 7.	P
	Batteries are designed to be within temperature, voltage and current limits specified by the cell manufacturer	See above.	P
	Batteries are provided with specifications and charging instructions for equipment manufacturers so that specified chargers are designed to maintain charging within the temperature, voltage and current limits specified	The charging limits specified in the manufacturer's specification.	P

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Clause	Requirement + Test	Result - Remark	Verdict
<b>5.5</b>	<b>Terminal contacts</b>	Complied.	P
	The size and shape of the terminal contacts ensure that they can carry the maximum anticipated current		P
	External terminal contact surfaces are formed from conductive materials with good mechanical strength and corrosion resistance		P
	Terminal contacts are arranged to minimize the risk of short circuits		P
<b>5.6</b>	<b>Assembly of cells into batteries</b>		P
5.6.1	General		P
	Each battery has an independent control and protection for current, voltage, temperature and any other parameter required for safety and to maintain the cells within their operating region	Protective circuit equipped on Battery.	P
	This protection may be provided external to the battery such as within the charger or the end devices		N/A
	If protection is external to the battery, the manufacturer of the battery provide this safety relevant information to the external device manufacturer for implementation		N/A
	If there is more than one battery housed in a single battery case, each battery has protective circuitry that can maintain the cells within their operating regions		N/A
	Manufacturers of cells specify current, voltage and temperature limits so that the battery manufacturer/designer may ensure proper design and assembly	Current, voltage and temperature limits specified by cell manufacturer.	P
	Batteries that are designed for the selective discharge of a portion of their series connected cells incorporate circuitry to prevent operation of cells outside the limits specified by the cell manufacturer		N/A
	Protective circuit components are added as appropriate and consideration given to the end-device application		P
	The manufacturer of the battery provide a safety analysis of the battery safety circuitry with a test report including a fault analysis of the protection circuit under both charging and discharging conditions confirming the compliance		N/A
5.6.2	Design recommendation		P

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Clause	Requirement + Test	Result - Remark	Verdict
	For the battery consisting of a single cell or a single cellblock, it is recommended that the charging voltage of the cell does not exceed the upper limit of the charging voltage specified in Table 2		N/A
	For the battery consisting of series-connected plural single cells or series-connected plural cellblocks, it is recommended that the voltages of any one of the single cells or single cellblocks does not exceed the upper limit of the charging voltage, specified in Table 2, by monitoring the voltage of every single cell or the single cellblocks	Battery charge voltage: 4.2V/cell, not exceed the upper 4.25V/cell as specified in cell CB report.	P
	For the battery consisting of series-connected plural single cells or series-connected plural cellblocks, it is recommended that charging is stopped when the upper limit of the charging voltage is exceeded for any one of the single cells or single cellblocks by measuring the voltage of every single cell or the single cellblocks		P
	For batteries consisting of series-connected cells or cell blocks, nominal charge voltage are not counted as an overcharge protection		P
	For batteries consisting of series-connected cells or cell blocks, cells have closely matched capacities, be of the same design, be of the same chemistry and be from the same manufacturer		P
	It is recommended that the cells and cell blocks are not discharged beyond the cell manufacturer's specified final voltage	Final voltage of battery: 3.02V/cell, not exceed the final voltage specified by cell manufacturer.	P
	For batteries consisting of series-connected cells or cell blocks, cell balancing circuitry are incorporated into the battery management system		N/A
5.6.3	Mechanical protection for cells and components of batteries		P
	Mechanical protection for cells, cell connections and control circuits within the battery are provided to prevent damage as a result of intended use and reasonably foreseeable misuse	Mechanical protection for cell connections and control circuits provided.	P
	The mechanical protection can be provided by the battery case or it can be provided by the end product enclosure for those batteries intended for building into an end product	To be evaluated in final system	N/A
	The battery case and compartments housing cells are designed to accommodate cell dimensional tolerances during charging and discharging as recommended by the cell manufacturer	To be evaluated in final system	N/A

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Clause	Requirement + Test	Result - Remark	Verdict

	For batteries intended for building into a portable end product, testing with the battery installed within the end product is considered when conducting mechanical tests		N/A
<b>5.7</b>	<b>Quality plan</b>		P
	The manufacturer prepares and implements a quality plan that defines procedures for the inspection of materials, components, cells and batteries and which covers the whole process of producing each type of cell or battery	Complied. ISO9001: 2015 certificate provided.	P
<b>5.8</b>	<b>Battery safety components</b>	See TABLE: Critical components information.	P

<b>6</b>	<b>TYPE TEST AND SAMPLE SIZE</b>		P
	Tests are made with the number of cells or batteries specified in Table 1 using cells or batteries that are not more than six months old		P
	The internal resistance of coin cells are measured in accordance with Annex D. Coin cells with internal resistance less than or equal to 3 Ω are tested in accordance with Table 1	Not coin cells.	N/A
	Unless otherwise specified, tests are carried out in an ambient temperature of 20 °C ± 5 °C		P
	The safety analysis of 5.6.1 identify those components of the protection circuit that are critical for short-circuit, overcharge and over discharge protection		N/A
	When conducting the short-circuit test, consideration is given to the simulation of any single fault condition that is likely to occur in the protecting circuit that would affect the short-circuit test	See clause 7.3.2.	P

<b>7</b>	<b>SPECIFIC REQUIREMENTS AND TESTS</b>		P
<b>7.1</b>	<b>Charging procedure for test purposes</b>	Complied.	P
7.1.1	First procedure		P
	This charging procedure applies to subclauses other than those specified in 7.1.2		P
	Unless otherwise stated in this document, the charging procedure for test purposes is carried out in an ambient temperature of 20 °C ± 5 °C, using the method declared by the manufacturer	See page 5.	P
	Prior to charging, the battery has been discharged at 20 °C ± 5 °C at a constant current of 0,2 It A down to a specified final voltage	See page 5.	P

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Clause	Requirement + Test	Result - Remark	Verdict
7.1.2	Second procedure	CB approved cell used.	N/A
	This charging procedure applies only to 7.3.1, 7.3.4, 7.3.5, and 7.3.9		N/A
	After stabilization for 1 h to 4 h, at an ambient temperature of the highest test temperature and the lowest test temperature, respectively, as specified in Table 2, cells are charged by using the upper limit charging voltage and maximum charging current, until the charging current is reduced to 0,05 It A, using a constant current to constant voltage charging method		N/A
<b>7.2</b>	<b>Intended use</b>		P
7.2.1	Continuous charging at constant voltage (cells)	CB approved cell used.	N/A
	Fully charged cells are subjected for 7 days to a charge using the charging method for current and standard voltage specified by the cell manufacturer		N/A
	Results: no fire, no explosion, no leakage.....: (See appended table 7.2.1)		N/A
7.2.2	Case stress at high ambient temperature (battery)	Tested complied.	P
	Oven temperature (°C).....: 70		—
	Results: no physical distortion of the battery case resulting in exposure of internal protective components and cells	No physical distortion of the battery case.	P
<b>7.3</b>	<b>Reasonably foreseeable misuse</b>		P
7.3.1	External short-circuit (cell)	CB approved cell used.	N/A
	The cells were tested until one of the following occurred:		N/A
	- 24 hours elapsed; or		N/A
	- The case temperature declined by 20 % of the maximum temperature rise		N/A
	Results: no fire, no explosion.....: (See appended table 7.3.1)		N/A
7.3.2	External short-circuit (battery)	Tested complied.	P
	The batteries were tested until one of the following occurred:		P
	- 24 hours elapsed; or		N/A
	- The case temperature declined by 20 % of the maximum temperature rise		N/A
	In case of rapid decline in short circuit current, the battery pack remained on test for an additional one hour after the current reached a low end steady state condition		P

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Clause	Requirement + Test	Result - Remark	Verdict
	A single fault in the discharge protection circuit is conducted on one to four (depending upon the protection circuit) of the five samples before conducting the short-circuit test	Single fault conducted on two samples.	P
	A single fault applies to protective component parts such as MOSFET (metal oxide semiconductor field-effect transistor), fuse, thermostat or positive temperature coefficient (PTC) thermistor	Single fault applies on MOSFET (Q1), FUSE (F1).	P
	Results: no fire, no explosion..... :	(See appended table 7.3.2)	P
7.3.3	Free fall	Tested complied.	P
	Results: no fire, no explosion	No fire. No explosion.	P
7.3.4	Thermal abuse (cells)	CB approved cell used.	N/A
	Oven temperature (°C)..... :	N/A	—
	Results: no fire, no explosion		N/A
7.3.5	Crush (cells)	CB approved cell used.	N/A
	The crushing force was released upon:		N/A
	- The maximum force of 13 kN ± 0,78 kN has been applied; or		N/A
	- An abrupt voltage drop of one-third of the original voltage has been obtained		N/A
	Results: no fire, no explosion..... :	(See appended table 7.3.5)	N/A
7.3.6	Over-charging of battery	Tested complied.	P
	The supply voltage which is:		P
	- 1,4 times the upper limit charging voltage presented in Table A.1 (but not to exceed 6,0 V) for single cell/cell block batteries or		N/A
	- 1,2 times the upper limit charging voltage resented in Table A.1 per cell for series connected multi-cell batteries, and	51V	P
	- Sufficient to maintain a current of 2,0 It A throughout the duration of the test or until the supply voltage is reached		P
	Test was continued until the temperature of the outer casing:		P
	- Reached steady state conditions (less than 10 °C change in 30-minute period); or		P
	- Returned to ambient		N/A
	Results: no fire, no explosion..... :	(See appended table 7.3.6)	P
7.3.7	Forced discharge (cells)	CB approved cell used.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Discharge a single cell to the lower limit discharge voltage specified by the cell manufacturer		N/A
	The discharged cell is then subjected to a forced discharge at 1 It A to the negative value of the upper limit charging voltage		N/A
	- The discharge voltage reaches the negative value of upper limit charging voltage within the testing duration. The voltage is maintained at the negative value of the upper limit charging voltage by reducing the current for the remainder of the testing duration		N/A
	- The discharge voltage does not reach the negative value of upper limit charging voltage within the testing duration. The test is terminated at the end of the testing duration		N/A
	Results: no fire, no explosion..... :	(See appended table 7.3.7)	N/A
7.3.8	Mechanical tests (batteries)		P
7.3.8.1	Vibration	Tested complied.	P
	Results: no fire, no explosion, no rupture, no leakage or venting. .... :	(See appended table 7.3.8.1)	P
7.3.8.2	Mechanical shock	Tested complied.	P
	Results: no leakage, no venting, no rupture, no explosion and no fire ..... :	(See appended table 7.3.8.2)	P
7.3.9	Design evaluation – Forced internal short-circuit (cells)	CB approved cell used.	N/A
	The cells complied with national requirement for ..... :	France, Japan, Korea, Switzerland	—
	The pressing was stopped upon:		N/A
	- A voltage drop of 50 mV has been detected; or		N/A
	- The pressing force of 800 N (cylindrical cells) or 400 N (prismatic cells) has been reached		N/A
	Results: no fire..... :	(See appended table 7.3.9)	N/A
<b>8</b>	<b>INFORMATION FOR SAFETY</b>		<b>P</b>
<b>8.1</b>	<b>General</b>		<b>P</b>
	Manufacturers of secondary cells provides information about current, voltage and temperature limits of their products		N/A
	Manufacturers of batteries provides information regarding how to minimize and mitigate hazards to equipment manufacturers or end-users	Information for safety mentioned in manufacturer's specifications.	P

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Clause	Requirement + Test	Result - Remark	Verdict
	Systems analyses are performed by device manufacturers to ensure that a particular battery design prevents hazards from occurring during use of a product		N/A
	As appropriate, any information relating to hazard avoidance resulting from a system analysis is provided to the end user		N/A
	Do not allow children to replace batteries without adult supervision		P
<b>8.2</b>	<b>Small cell and battery safety information</b>	No small cell and battery.	N/A
	The following warning language is to be provided with the information packaged with the small cells and batteries or equipment using them:		N/A
	- Keep small cells and batteries which are considered swallowable out of the reach of children		N/A
	- Swallowing may lead to burns, perforation of soft tissue, and death. Severe burns can occur within 2 h of ingestion		N/A
	- In case of ingestion of a cell or battery, seek medical assistance promptly		N/A
<b>9</b>	<b>MARKING</b>		P
<b>9.1</b>	<b>Cell marking</b>	The final product is battery.	N/A
	Cells are marked as specified in IEC 61960, except coin cells		N/A
	Coin cells whose external surface area is too small to accommodate the markings on the cells show the designation and polarity		N/A
	By agreement between the cell manufacturer and the battery and/or end product manufacturer, component cells used in the manufacture of a battery need not be marked		N/A
<b>9.2</b>	<b>Battery marking</b>	See marking plate on page 4.	P
	Batteries are marked as specified in IEC 61960, except for coin batteries		P
	Coin batteries whose external surface area is too small to accommodate the markings on the batteries show the designation and polarity	Not coin batteries.	N/A
	Batteries are marked with an appropriate caution statement		P
	- Terminals have clear polarity marking on the external surface of the battery, or		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- Not be marked with polarity markings if the design of the external connector prevents reverse polarity connections	The design of the external connector prevents reverse polarity connections.	P
<b>9.3</b>	<b>Caution for ingestion of small cells and batteries</b>		N/A
	Coin cells and batteries identified as small batteries include a caution statement regarding the hazards of ingestion in accordance with 8.2	Not coin cells and batteries.	N/A
	Small cells and batteries are intended for direct sale in consumer-replaceable applications, caution for ingestion is given on the immediate package	Not intended for direct sale.	N/A
<b>9.4</b>	<b>Other information</b>		P
	The following information are marked on or supplied with the battery:	Information for storage and disposal instructions mentioned in manufacturer's specifications.	P
	- Storage and disposal instructions		P
	- Recommended charging instructions		P
<b>10</b>	<b>PACKAGING AND TRANSPORT</b>		P
	Packaging for coin cells are not be small enough to fit within the limits of the ingestion gauge of Figure 3	Not coin cells.	N/A
<b>ANNEX A</b>	<b>CHARGING AND DISCHARGING RANGE OF SECONDARY LITHIUM ION CELLS FOR SAFE USE</b>		N/A
<b>A.1</b>	<b>General</b>	CB approved cell used.	N/A
<b>A.2</b>	<b>Safety of lithium ion secondary battery</b>		N/A
<b>A.3</b>	<b>Consideration on charging voltage</b>		N/A
A.3.1	General		N/A
A.3.2	Upper limit charging voltage		N/A
A.3.2.1	General		N/A
A.3.2.2	Explanation of safety viewpoint		N/A
A.3.2.3	Safety requirements, when different upper limit charging voltage is applied		N/A
<b>A.4</b>	<b>Consideration of temperature and charging current</b>		N/A
A.4.1	General		N/A
A.4.2	Recommended temperature range		N/A
A.4.2.1	General		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
A.4.2.2	Safety consideration when a different recommended temperature range is applied		N/A
A.4.3	High temperature range		N/A
A.4.3.1	General		N/A
A.4.3.2	Explanation of safety viewpoint		N/A
A.4.3.3	Safety considerations when specifying charging conditions in the high temperature range		N/A
A.4.3.4	Safety considerations when specifying a new upper limit in the high temperature range		N/A
A.4.4	Low temperature range		N/A
A.4.4.1	General		N/A
A.4.4.2	Explanation of safety viewpoint		N/A
A.4.4.3	Safety considerations, when specifying charging conditions in the low temperature range		N/A
A.4.4.4	Safety considerations when specifying a new lower limit in the low temperature range		N/A
A.4.5	Scope of the application of charging current		N/A
A.4.6	Consideration of discharge		N/A
A.4.6.1	General		N/A
A.4.6.2	Final discharge voltage and explanation of safety viewpoint		N/A
A.4.6.3	Discharge current and temperature range		N/A
A.4.6.4	Scope of application of the discharging current		N/A
<b>A.5</b>	<b>Sample preparation</b>		N/A
A.5.1	General		N/A
A.5.2	Insertion procedure for nickel particle to generate internal short		N/A
A.5.3	Disassembly of charged cell		N/A
A.5.4	Shape of nickel particle		N/A
A.5.5	Insertion of nickel particle in cylindrical cell		N/A
A.5.5.1	Insertion of nickel particle in winding core		N/A
A.5.5.2	Marking the position of the nickel particle on both ends of the winding core of the separator		N/A
A.5.6	Insertion of nickel particle in prismatic cell		N/A
<b>A.6</b>	<b>Experimental procedure of the forced internal short-circuit test</b>		N/A
A.6.1	Material and tools for preparation of nickel particle		N/A
A.6.2	Example of a nickel particle preparation procedure		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
A.6.3	Positioning (or placement) of a nickel particle		N/A
A.6.4	Damaged separator precaution		N/A
A.6.5	Caution for rewinding separator and electrode		N/A
A.6.6	Insulation film for preventing short-circuit		N/A
A.6.7	Caution when disassembling a cell		N/A
A.6.8	Protective equipment for safety		N/A
A.6.9	Caution in the case of fire during disassembling		N/A
A.6.10	Caution for the disassembling process and pressing the electrode core		N/A
A.6.11	Recommended specifications for the pressing device		N/A
<b>ANNEX B</b>	<b>RECOMMENDATIONS TO EQUIPMENT MANUFACTURERS AND BATTERY ASSEMBLERS</b>		<b>P</b>
<b>ANNEX C</b>	<b>RECOMMENDATIONS TO THE END-USERS</b>		<b>P</b>
<b>ANNEX D</b>	<b>MEASUREMENT OF THE INTERNAL AC RESISTANCE FOR COIN CELLS</b>		<b>N/A</b>
<b>D.1</b>	<b>General</b>		<b>N/A</b>
<b>D.2</b>	<b>Method</b>		<b>N/A</b>
	A sample size of three coin cells is required for this measurement		<b>N/A</b>
	Coin cells with an internal resistance greater than 3 $\Omega$ require no further testing .....	(See appended table D.2)	<b>N/A</b>
	Coin cells with an internal resistance less than or equal to 3 $\Omega$ are subjected to the testing according to Clause 6 and Table 1		<b>N/A</b>
<b>ANNEX E</b>	<b>PACKAGING AND TRANSPORT</b>		<b>P</b>
<b>ANNEX F</b>	<b>COMPONENT STANDARDS REFERENCES</b>		<b>N/A</b>

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Clause	Requirement + Test	Result - Remark	Verdict

7.2.1	TABLE: Continuous charging at constant voltage (cells)				N/A
Sample No.	Recommended charging voltage V <sub>c</sub> (Vdc)	Recommended charging current I <sub>rec</sub> (A)	OCV before test (Vdc)	Results	
Supplementary information:					

7.3.1	TABLE: External short circuit (cell)					N/A
Sample No.	Ambient (°C)	OCV at start of test (Vdc)	Resistance of circuit (mΩ)	Maximum case temperature rise ΔT (K)	Results	
<b>Samples charged at charging temperature upper limit (°C)</b>						
<b>Samples charged at charging temperature lower limit (°C)</b>						
Supplementary information:						

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Clause	Requirement + Test	Result - Remark	Verdict

7.3.2	TABLE: External short circuit (battery)					P
Sample No.	Ambient T (°C)	OCV before test (Vdc)	Resistance of circuit (mΩ)	Maximum case temperature rise ΔT (K)	Component single fault condition	Results
2301084-5	24.1	41.913	78.3	1.8	MOSFET (Q1) Pin 1-8 S-C	A
2301084-6	24.4	41.918	80.5	2.2	FUSE (F1) S-C	A
2301084-7	23.8	41.920	80.1	1.5	--	A
2301084-8	24.6	41.913	75.6	2.3	--	A
2301084-9	24.5	41.921	73.3	2.2	--	A

**Supplementary information:**  
A=no fire, no explosion  
B=fire  
C=explosion  
Remark:  
S-C: Short circuit

7.3.5	TABLE: Crush (cells)				N/A
Sample No.	OCV before test (Vdc)	OCV at removal of crushing force (Vdc)	Maximum force applied to the cell during crush (kN)	Results	
<b>Samples charged at charging temperature upper limit (°C)</b>					
<b>Samples charged at charging temperature lower limit (°C)</b>					

**Supplementary information:**

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Clause	Requirement + Test	Result - Remark	Verdict

7.3.6	TABLE: Over-charging of battery			P
Constant charging current (A) .....	20.4			—
Supply voltage (Vdc) .....	51			—
Sample No.	OCV before charging (Vdc)	Total charging time (minute)	Maximum outer case temperature (°C)	Results
2301084-13	34.259	90	23.0	A
2301084-14	34.248	90	23.4	A
2301084-15	34.246	90	23.1	A
2301084-16	34.255	90	23.5	A
2301084-17	34.252	90	23.2	A
<b>Supplementary information:</b> A=no fire, no explosion B=fire C=explosion				

7.3.7	TABLE: Forced discharge (cells)			N/A
Sample No.	OCV before application of reverse charge (Vdc)	Measured reverse charge I <sub>r</sub> (A)	Lower limit discharge voltage (Vdc)	Results
<b>Supplementary information:</b>				

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IEC 62133-2			
Clause	Requirement + Test	Result - Remark	Verdict

7.3.8.1	TABLE: Vibration					P
Sample No.	OCV before test (Vdc)	OCV after test (Vdc)	Mass before test (g)	Mass after test (g)	Results	
2301084-18	41.917	41.913	2130.85	2130.35	A	
2301084-19	41.908	41.906	2133.92	2133.48	A	
2301084-20	41.910	41.908	2129.60	2129.27	A	

**Supplementary information:**  
A=No fire, no explosion, no rupture, no leakage or venting.  
B=fire  
C=explosion  
D=rupture  
E=leakage  
G=venting

7.3.8.2	TABLE: Mechanical shock					P
Sample No.	OCV before test (Vdc)	OCV after test (Vdc)	Mass before test (g)	Mass after test (g)	Results	
2301084-21	41.916	41.913	2134.77	2134.62	A	
2301084-22	41.913	41.911	2136.82	2136.78	A	
2301084-23	41.919	41.916	2135.78	2135.71	A	

**Supplementary information:**  
A=No fire, no explosion, no rupture, no leakage or venting.  
B=fire  
C=explosion  
D=rupture  
E=leakage  
G=venting

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IEC 62133-2			
Clause	Requirement + Test	Result - Remark	Verdict

<b>7.3.9</b>	<b>TABLE: Forced internal short circuit (cells)</b>				<b>N/A</b>
Sample No.	Chamber ambient T (°C)	OCV before test (Vdc)	Particle location <sup>1)</sup>	Maximum applied pressure (N)	Results
<b>Samples charged at charging temperature upper limit (°C)</b>					
<b>Samples charged at charging temperature lower limit (°C)</b>					
<b>Supplementary information:</b>					

<b>D.2</b>	<b>TABLE: Internal AC resistance for coin cells</b>				<b>N/A</b>
Sample no.	Ambient T (°C)	Store time (h)	Resistance Rac (Ω)	Results <sup>1)</sup>	
<b>Supplementary information:</b>					
<sup>1)</sup> Coin cells with an internal resistance less than or equal to 3 Ω, see test result on corresponding tables according to Clause 6 and Table 1.					

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IEC 62133-2			
Clause	Requirement + Test	Result - Remark	Verdict

TABLE: Critical components information					P
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity <sup>1)</sup>
Cell	EVE Energy CO., Ltd.	ICR18650/26V	3.6Vdc, 2550mAh, 9.18Wh	IEC 62133-2:2017	CB Certificate NO.: DK-112258-UL
Bracket	Suzhou Yutong Printing Co., Ltd	FR3010	V-1, 60°C	UL94 UL 746B	UL E41613
Bracket (Alternative)	Interchangeable	Interchangeable	V-1, 60°C or better	UL94 UL 746B	UL Approved
FUSE (F1)	ADVANCED SURGETECH MATERIALS LTD	24 148.30	63Vdc, 30A	UL 248-1 UL 248-14	UL E355868
FUSE (F3)	ADVANCED SURGETECH MATERIALS LTD	PB05.6.3	6.3A, 125Vdc	UL 248-1 UL 248-14	UL E355868
MOSFET (Q1, Q3)	JSCJ	CJAC100SN08U	V <sub>DSS</sub> =85V, I <sub>D</sub> =96A, V <sub>GSS</sub> =±20V, T <sub>STG</sub> : -55°C ~150°C	--	Tested with appliance
MOSFET (Q2)	LEADTECK	LTS6802FJ-Y	V <sub>DSS</sub> =85V, I <sub>D</sub> =96A, V <sub>GSS</sub> =±20V, T <sub>STG</sub> : -55°C ~150°C	--	Tested with appliance
MOSFET (Q4, Q5)	MCC	MCAC28P06Y-TP	V <sub>DS</sub> =60V, V <sub>GSS</sub> =±20V, I <sub>D</sub> =-8A, Operating Junction Temperature Range: -55°C to +150°C	--	Tested with appliance
MOSFET (Q6)	LEADTECK	LTS6904FJ	V <sub>DSS</sub> =60V, I <sub>D</sub> =34A, V <sub>GSS</sub> =±20V, T <sub>STG</sub> : -55°C ~150°C	--	Tested with appliance
IC (U1)	Eastsoft	HR8P506FHNK	V <sub>DD</sub> : 2.2-5.5V, T <sub>OPR</sub> : -40~85°C	--	Tested with appliance
IC (U2)	TI	BQ76942PFB R	V <sub>SS</sub> : -0.3 to +85V, T <sub>OPR</sub> : -40~85°C	--	Tested with appliance
IC (U3)	Winbond	W25X40CLUXIG	V <sub>DD</sub> : 2.3V to 3.6V, T <sub>OPR</sub> : -40~85°C	--	Tested with appliance
IC (U4, U5)	Cellwise	CW1050ALCM	V <sub>SS</sub> : -0.3 to 36 V, T <sub>stg</sub> : -40 to 125°C	--	Tested with appliance
PCB	Huizhou Sanqiang Line Co., Ltd	SK-06	V-0, 130°C	UL 94 UL 796	UL E326765

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IEC 62133-2					
Clause	Requirement + Test			Result - Remark	Verdict
PCB (Alternative)	Interchangeable	Interchangeable	V-0, 130°C or better	UL 94 UL 796	UL Approved
Supplementary information: 1) Provided evidence ensures the agreed level of compliance. See OD-CB2039.					

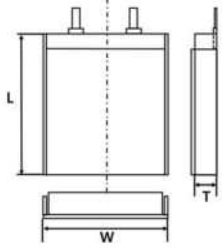
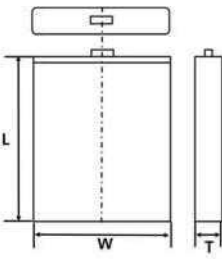
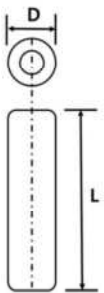
S20 P373\*00

IEC62133_2B ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
<b>ATTACHMENT TO TEST REPORT</b> <b>IEC 62133-2</b> <b>(Republic of Korea) NATIONAL DIFFERENCES</b> (Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary lithium cells, and for batteries made from them, for use in portable applications - Part 2: Lithium systems)			
<b>Differences according to</b> ..... : National standard KC62133-2(2020-07)			
<b>TRF template used:</b> ..... : IECEE OD-2020-F3, Ed. 1.1			
<b>Attachment Form No.</b> ..... : KR_ND_IEC62133_2B			
<b>Attachment Originator</b> ..... : KTR			
<b>Master Attachment</b> ..... : Dated 2022-05-27			
<b>Copyright © 2020 IEC System for Conformity Testing and Certification of Electrical Equipment (IECEE), Geneva, Switzerland. All rights reserved.</b>			
	<b>National Differences</b>		
<b>7.3.6</b>	<b>Over-charging of battery</b>		P
(Revision)	<p><b>[Add the bolded text]</b></p> <p>b) Test</p> <p>The test shall be carried out in an ambient temperature of 20 °C ± 5 °C. Each test battery shall be discharged at a constant current of 0,2 It A, to a final discharge voltage specified by the manufacturer. Sample batteries shall then be charged at a constant current of 2,0 It A, using a supply voltage which is:</p> <ul style="list-style-type: none"> <li>• 1,4 times the upper limit charging voltage presented in Table A.1 (but not to exceed 6,0 V) for single cell/cell block batteries or</li> <li>• 1,2 times the upper limit charging voltage presented in Table A.1 per cell for series connected multi-cell batteries, and</li> <li>• sufficient to maintain a current of 2,0 It A throughout the duration of the test or until the supply voltage is reached.</li> </ul> <p><b><u>• In case the charging voltage specified by the manufacturer is higher than the overcharge test voltage, the maximum charging voltage specified by manufacturer should be applied with 2.0 ItA,</u></b></p> <p><b><u>(e.g., quick charging power bank, etc.)</u></b></p>	(See appended table 7.3.6)	P

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IEC62133_2B ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	<p><b>[Replace to the following statement]</b></p> <p>c) Acceptance criteria</p> <p>Filling beyond the manufacturer's specified limits should not result in ignition or explosion</p>		P
<b>Annex G</b>	<b>Definition for shape and materials of outer case for cell</b>		—
(Addition)	<p>G.1 General</p> <p>Annex G provides definitions for shape and materials of outer case for cell</p> <p>G.2 Shape of outer case for cell</p> <p>G 2.1 Cylindrical cell</p> <p>Cell with a cylindrical shape in which the overall height is equal to or greater than diameter.</p> <p>G 2.2 Prismatic cell</p> <p>Cell having the shape of a parallelepiped whose faces are rectangular</p> <p>G.3 Materials of outer case for cell</p> <p>G.3.1 Soft case</p> <p>Non-metallic outer case or container for cell</p> <p>G.3.2 Hard case</p> <p>Metallic outer case or container for cell.</p>	<p>(Shape of outer cases)</p> <p><input checked="" type="checkbox"/> Cylindrical</p> <p><input type="checkbox"/> Prismatic</p> <p>(Materials of outer cases)</p> <p><input checked="" type="checkbox"/> Hard</p> <p><input type="checkbox"/> Soft</p>	—
<b>Annex H</b>	<b>Calculation method of the volumetric energy density for cell</b>		—
(Addition)	<p>Annex H provide a calculation method of the volumetric energy density for cell in use of smart phone, tablet, notebook.</p> <p>H.1 General</p> <p>Unless otherwise stated in the Annex E, the dimensions for calculation are based on these for cell before shipment and the volumetric energy density shall be calculated with a maximum values specified by manufacturer. If the specification for cell can't be provided a dimension for calculation, the manufacturer's other documentation shall be provided to demonstrate compliance for its calculation.</p>	527.0Wh / L	—

IEC62133_2B ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	<p><b>H.2 Calculation Method</b></p>  <p>L : Length (max.) of cell (including terrace) W : Width (max.) of cell T : Thickness (max.) when shipping charge (For reference, Please Exclude the dimension of any tape that is attached to cell)</p> $\text{Volumetric energy density (Wh/L)} = \frac{\text{Nominal voltage (V)} \times \text{Rated capacity (Ah)}}{\text{Length (L)} \times \text{Width (W)} \times \text{Thickness (T)}}$ <p><b>[H.1 – Prismatic cell using soft case]</b></p>  <p>L : Length (max.) of cell W : Width (max.) of cell T : Thickness when shipping charge (For reference, Please Exclude the dimension of any tape that is attached to cell)</p> $\text{Volumetric energy density (Wh/L)} = \frac{\text{Nominal voltage (V)} \times \text{Rated capacity (Ah)}}{\text{Length (L)} \times \text{Width (W)} \times \text{Thickness (T)}}$ <p><b>[H.2 – Prismatic cell using hard case]</b></p>  <p>D : Diameter (max.) of cell L : Length (max.) of cell (According to shape of cell at shipping. The dimension of tube for cell may be included in overall dimension of cell)</p> $\text{Volumetric energy density (Wh/L)} = \frac{\text{Nominal voltage (V)} \times \text{Rated capacity (Ah)}}{3.14159 \times \frac{\text{Diameter (D)}^2}{4} \times \text{Length(L)}}$ <p><b>[H.3 – Cylindrical cell using hard case]</b></p>		

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## **Enclosures**

Supplement ID	Description
01	Photos of the battery
02	Outline Dimension of the battery
03	Packaging Illustration of the battery
04	ISO9001: 2015 Certificate
05	Safety Information and Instruction
06	PCB Layout of battery

ID 01



Figure 1 Front view of battery (Final version of label see report page 4)



Figure 2 Back view of battery

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Figure 3 Side view of battery

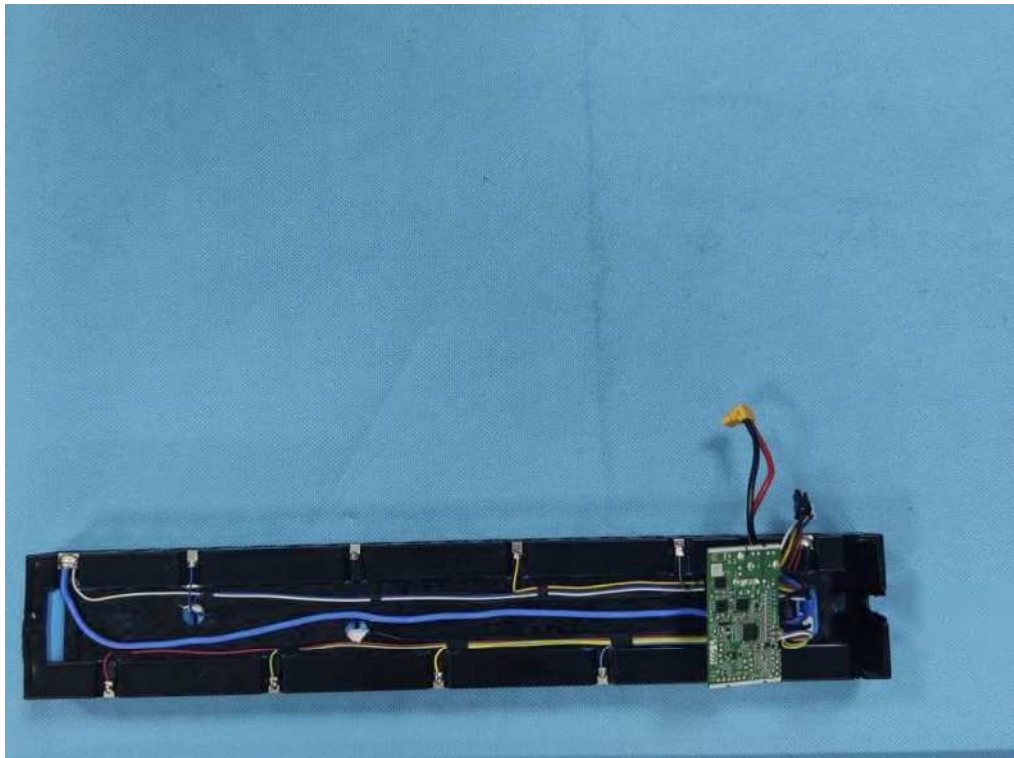


Figure 4 Inside view of battery



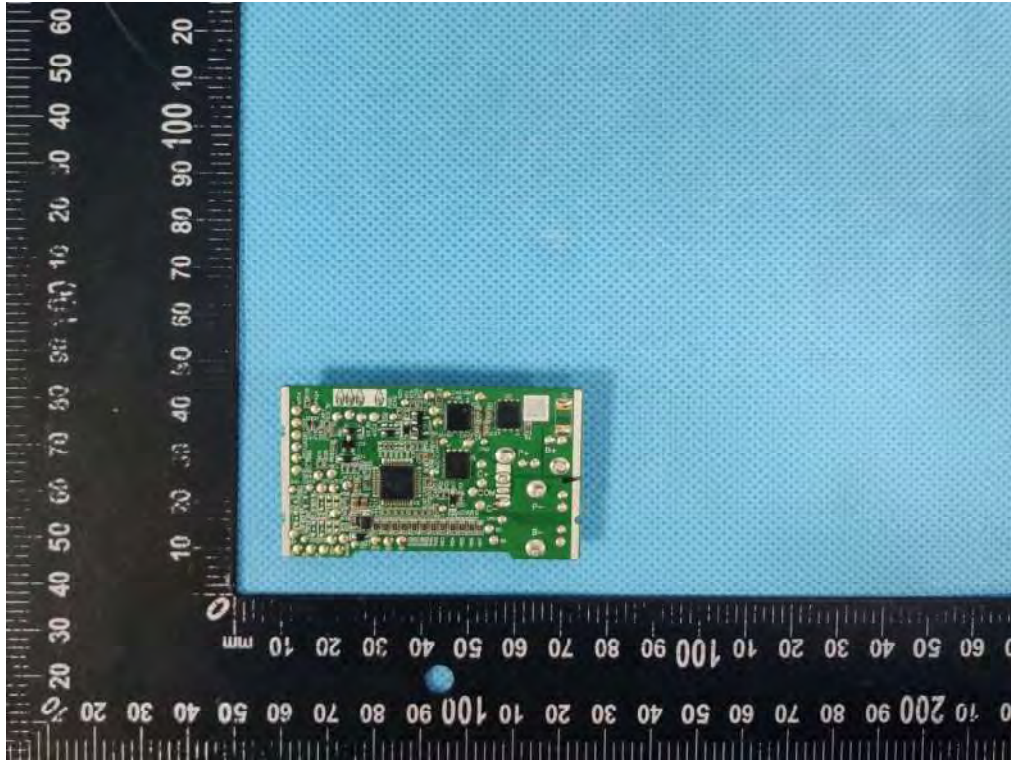


Figure 5 Front view of PCM

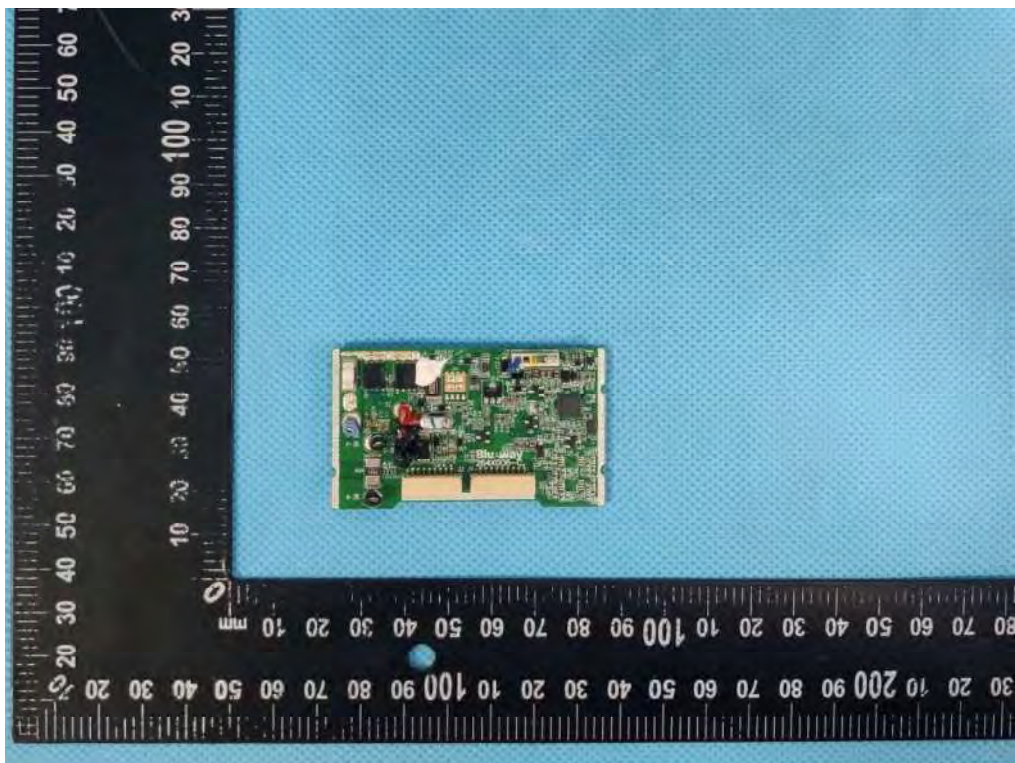


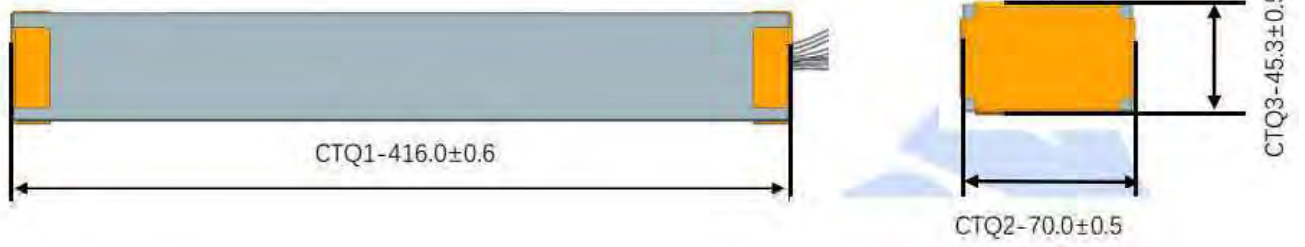
Figure 6 Back view of PCM

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Figure 7 Front view of component cell

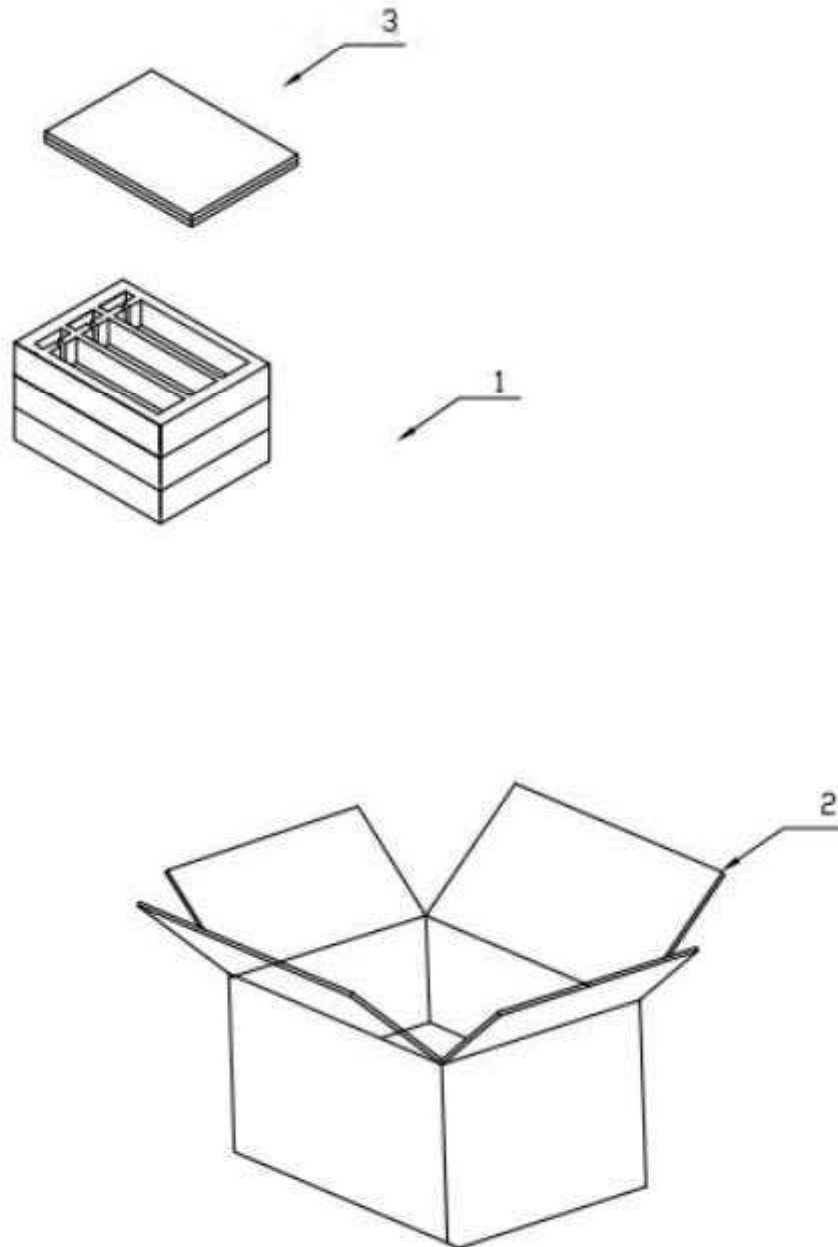
ID 02  
Unit: mm







将产品侧放入珍珠棉产品槽，每槽放入1PCS，然后用PE袋装入珍珠棉盘及珍珠棉片，封好，





# 管理体系认证证书

证书号码:  
0086-2003-AQ-RGC-RvA

首次签发日期:  
2002年12月31日

有效期限:  
2021年08月09日 - 2023年12月31日

兹证明

**惠州市蓝微电子有限公司**

中国广东省惠州市仲恺高新区和畅五路西101号  
统一社会信用代码: 914413007436809837

质量管理体系符合:

**GB/T 19001-2016/ISO 9001:2015标准**

此证书对下列产品或服务范围有效:

**电池包、电源管理系统、电动工具和小家电智能控制产品、蓝牙通讯产品及其相关配件的设计和制造**

证书签发地点及日期:  
上海, 2021年08月10日

证书认可签发机构:  
**DNV - Business Assurance**  
中国上海市长宁区虹桥路1591号9号楼A座  
邮编: 200336 电话: +86 21 32799000



朱海明  
管理代表

#### 15.1. 推荐使用事项/ Recommended usage

##### 15.1.1. 使用电池前, 请仔细阅读使用说明书和电池表面标识。

Please read the instruction manual and the label on the battery surface carefully before using.

##### 15.1.2. 请不要在汽车或类似温度可能超出 60 度的地方放置, 充电或使用电池包。

Don't leave, charge or use battery in car or similar place where inside of temperature may be over 60°C,

##### 15.1.3. 在使用过程中, 应远离热源、高压, 避免儿童玩弄电池。切勿摔打电池。

Keep away from heat source and high voltage and avoid children playing with the battery when use. Do not knock the battery.

##### 15.1.4. 切勿将电池正负极短路, 切勿自己拆装电池, 也勿让电池受潮, 以免发生危险。

Do not short-circuit the positive and negative poles of the battery, do not disassemble the battery by yourself, and do not let the battery be wet, so as to avoid danger.

##### 15.1.5. 废弃电池请安全妥当处理, 不要投入火中或水中。

Dispose of the discarded battery safely and properly, do not throw it into fire or water.

#### 15.2. 危险警告及注意/ Danger warning and caution

##### 15.2.1. 禁止拆装电池/ Do not remove or reinstall the battery

电池内部具有保护机构和保护电路可以避免发生危险。不合适的拆装将会损坏保护功能, 将会造成电池发热、冒烟、变形或燃烧。

There are protection mechanism and protection circuit in battery internal that can avoid danger. Improper removal and assembly will damage the protection function, resulting in heat, smoke, deformation or combustion of the battery.

##### 15.2.2. 禁止让电池短路/ Do not short-circuit the battery

不要将电池的正负极用金属连接, 也不要将电池与金属放在一起存储或移动。如果电池被短路, 将会有超大电流流过, 将会损坏电池, 造成电池发热、冒烟、变形或燃烧。

Do not connect the positive and negative terminals of the battery with metal, and do not store or move the battery with metal together. If the battery is short-circuited, a large current will flow through the battery, which will damage the battery, resulting in heat, smoke, distort or burn.

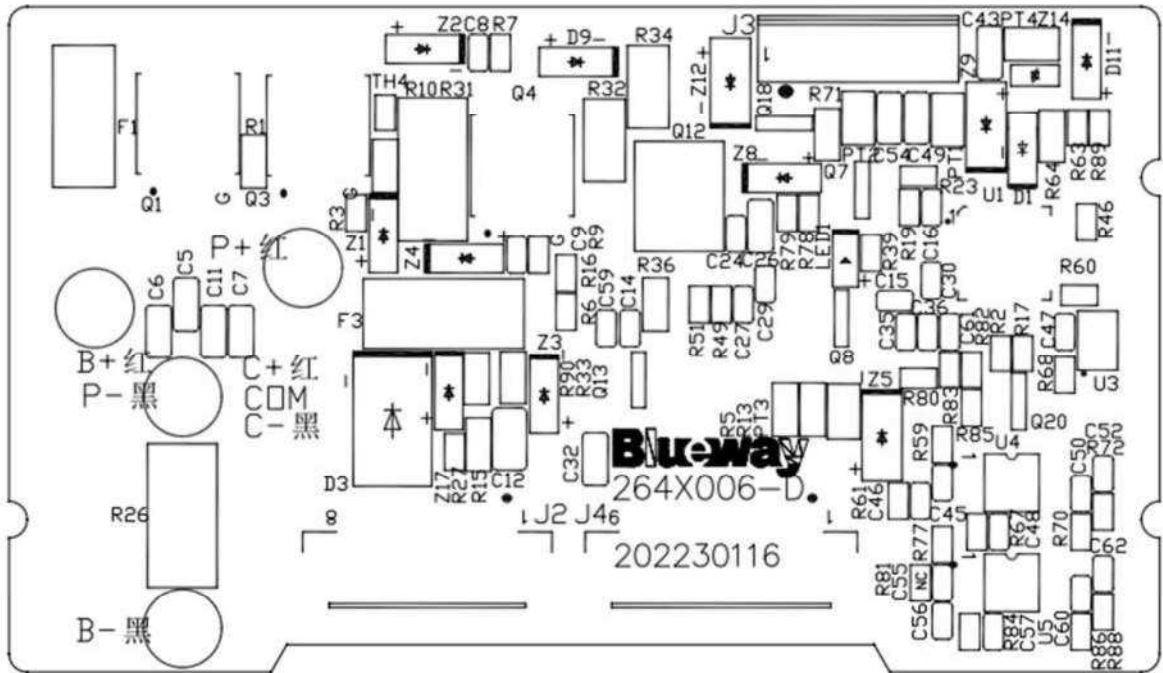
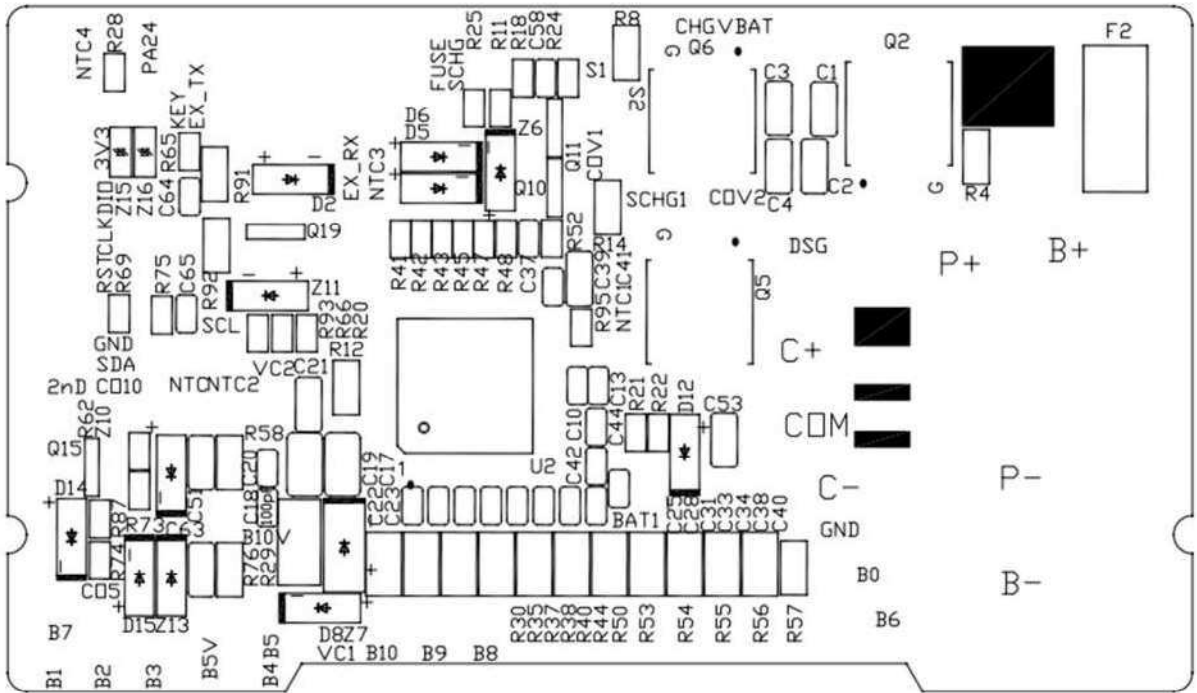
##### 15.2.3. 严禁加热和焚烧电池/ Do not heat or burn battery

加热和焚烧电池将会造成电池隔离物的熔化、安全功能丧失或电解质燃烧。过热就会使电池发热、冒烟、变形或燃烧。

Heating and burning the battery will result in the melting of the battery insulator, loss of safety function, or electrolyte combustion. Overheating causes the battery to heat, smoke, distort or burn.

##### 15.2.4. 避免在热源附近使用电池/ Avoid using batteries near heat sources

##### 15.2.5. 禁止弄湿电池/ Do not wet the battery



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**Blueway**  
264X006-D  
202230116

**Vehicle Type** : NKT2211-B20**Manufacturer** : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.

## TEST REPORT

according to UN-Regulation

**UNIFORM PROVISIONS CONCERNING THE APPROVAL OF INTERNAL  
COMBUSTION ENGINES OR ELECTRIC DRIVE TRAINS INTENDED FOR  
THE PROPULSION OF MOTOR VEHICLES OF CATEGORIES M AND N  
WITH REGARD TO THE MEASUREMENT OF THE NET POWER AND THE  
MAXIMUM 30 MINUTES POWER OF ELECTRIC DRIVE TRAINS**

### UN R85

including all amendments until

**Series of Amendments: 00****Supplement: 07**

Structure of the Test Report	Item No.
	0. General information
	1. Tested vehicle(s) / object(s)
	2. Test record
	3. List of appendices
	4. Statement

The Test Report shall be reproduced and published only in its entirety by the client. It may however be reproduced and published partially, but only with the written permission of the Testing Laboratory.





**Vehicle Type** : NKT2211-B20  
**Manufacturer** : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.

---

## 0. General information

- 0.1. Make (trade name of the manufacturer) : NAVEE
- 0.2. Type : NKT2211-B20
- 0.3. Category of vehicle : Elektrokleinstfahrzeug
- 0.4. Name and address of the manufacturer : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.  
 Building A2, Shangjinwan Headquarters Economic Park, No.2288, Wuzhong Avenue, Wuzhong Economic Development Zone, Suzhou Jiangsu P.R. China
- 0.5. No. of the information document : ---  
 -Date of issue : ---  
 -Date of last change : ---

## 1. Tested vehicle(s)

- 1.1. Description
- 1.1.1. ~~Vehicle~~/Object(s) : Motor
- Commercial description : ---
- Type / variant(s) / version(s) : TD013/---/ ---
- Identification number : TD0132CD0000012S60
- 1.1.2. Condition of vehicle(s) : ---
- 1.2. Worst case selection : No variant/ version, so no worst case to be selected.
- 1.3. Remark : n.a.

**Vehicle Type** : NKT2211-B20  
**Manufacturer** : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.

---

## 2. Test record

- 2.1. Equipment for measuring and testing : The test facilities / measurement equipment used were in compliance with the test requirements.
- 2.1.1. Specifications for the test site : Not applicable
- 2.1.2. Subcontracting : Not applicable
- 2.2. Test results : See Appendix 1
- 2.2.1. Test results referring to measurements : All measurement results are listed and referred to the respective limit(s) with judgment.
- 2.2.2. Attributive tests : Not applicable
- 2.2.3. Alternative test provisions : Not applicable
- 2.3. Additional information : The results of the test refer exclusively to the object(s) mentioned under point 1. Of this report.
- Test site : TÜV Rheinland (Shanghai) Co., Ltd. Kunshan Branch  
Kunshan, P.R.China
- Test date : January 11, 2023
- 2.4. Remarks : ---

**Vehicle Type** : NKT2211-B20  
**Manufacturer** : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.

---

### 3. List of Appendices

- 0 List of modifications : Page 5  
1 Test minutes : Pages 6 - 9

### 4. Statement of conformity

The Information Document listed in section 0.5., and the type described therein, comply with the requirements stated on page 1. The test results in this report refer to the vehicle(s)/object(s) described under section 1.1. With regards to the required level of performance to be achieved, the tested samples were representative for the type to be approved (see section 1.2).

Engineering Center, Shanghai, March 09, 2023  
LJZ/LS



Liangjun Zhang  
Expert Technical Service



**Vehicle Type** : NKT2211-B20  
**Manufacturer** : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.

---

**List of modifications**

**Appendix 0**

Correction of : - --  
  
Modification of : - --  
  
Addition of : - --  
  
Deletion of : - --

\$20 P373\*00



**Vehicle Type** : NKT2211-B20  
**Manufacturer** : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.

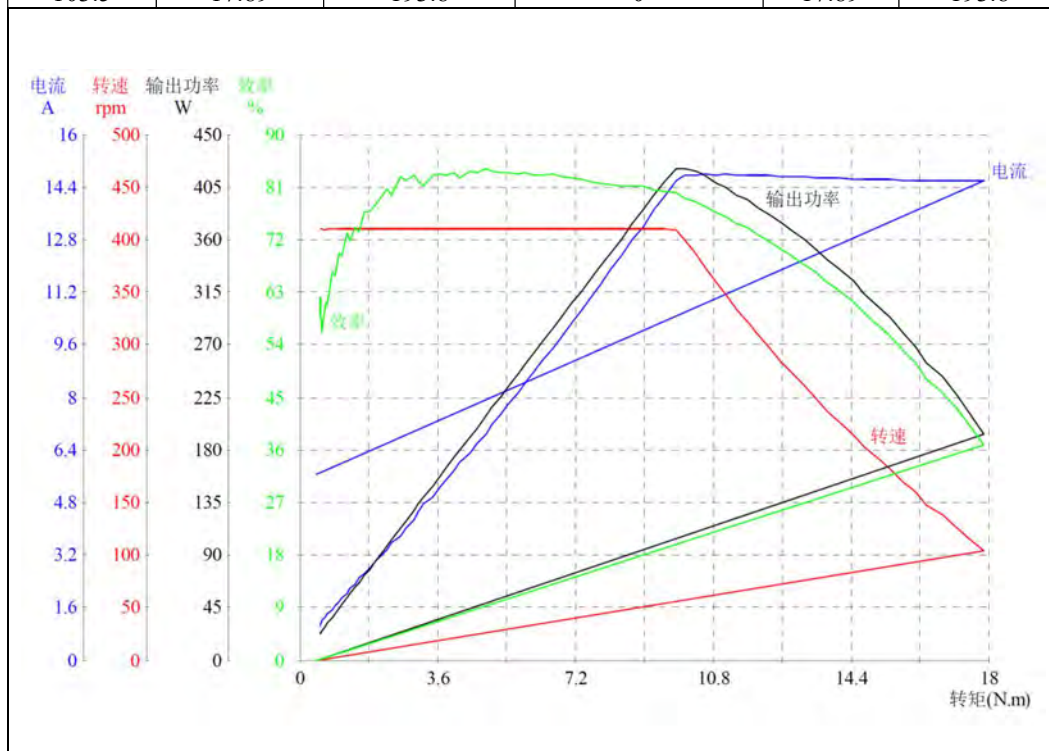
**Test minutes of Motor measuring**
**Appendix 1**

0. Test condition
- 0.1. Test date : January 11, 2023
- 0.2. Test site : Kunshan, P.R. China
1. Test facilities : The test equipment used was in compliance with the requirements of the regulation.
2. Test vehicle(s)
- 2.1. Type : TD013
- variant : ---
- version : ---
3. Motor
- 3.1. Motor make : Changzhou Wujin Jinshun Mechanical and Electrical Co., Ltd.
- 3.2. Motor type : TD013
- 3.3. Motor number : TD0132CD0000012S60
- 3.4. Test voltage : 36V
4. Power controller
- 4.1. Power controller make : Tianjin Songzheng Electric Technology Co., Ltd.
- 4.2. Power controller type : T2208
5. Characteristics of the dynamometer
- 5.1. Make : KONZON
- 5.2. Type : ZFZ100

**Vehicle Type : NKT2211-B20**  
**Manufacturer : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.**

- 6. Detailed results of measurement
- 6.1. Net torque and power :

Measured				Corrected	
Motor Speed	Torque	Power	Power to be added for auxiliary equipment	Net Torque	Net Power
r/min	Nm	W	W	Nm	W
410.2	0.54	23.4	0	0.54	23.4
409.8	3.47	149.0	0	3.47	149.0
410.5	5.90	253.4	0	5.90	253.4
410.1	8.12	348.8	0	8.12	348.8
410.5	8.69	373.6	0	8.69	373.6
410.3	9.52	409.0	0	9.52	409.0
400.1	10.05	420.9	0	10.05	420.9
348.1	11.12	405.1	0	11.12	405.1
297.9	12.25	382.0	0	12.25	382.0
249.8	13.46	352.0	0	13.46	352.0
203.7	14.74	314.4	0	14.74	314.4
147.8	16.39	253.7	0	16.39	253.7
103.5	17.89	193.8	0	17.89	193.8



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**Vehicle Type** : NKT2211-B20  
**Manufacturer** : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.

6.2. Maximum 30 minutes power :

Time [min]	P [W]	rpm	Difference [%]
0	352.4	410.1	0.00
5	351.3	410.2	-0.31
10	352.3	410.4	-0.03
15	352.9	410.0	0.14
20	351.7	410.5	-0.20
25	351.2	410.3	-0.34
30	352.0	410.6	-0.11
Average	352.0	410.3	

6.2.1. Motor speed : 410 rpm  
 (Declared by the manufacturer)

6.2.2. Maximum 30 minutes power : 350 W  
 (Declared by the manufacturer)

6.2.3. Maximum 30 minutes power : 352.0 W (100.57% of the declared power)  
 (Test result)

**Vehicle Type** : NKT2211-B20  
**Manufacturer** : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.

**Test photos:**



S20 P373\*00

Vehicle Type : NKT2211-B20

Manufacturer : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.

## TEST REPORT

according to UN-Regulation

### UNIFORM PROVISIONS CONCERNING THE APPROVAL OF VEHICLES WITH REGARD TO ELECTROMAGNETIC COMPATIBILITY

#### UN R10

including all amendments until

**Series of Amendments: 06**

**Supplement: 01**

applicable for vehicles according to

**Elektrokleinstfahrzeuge-Verordnung (eKFV)**

**(§ 7 No. 2)**

Structure of the Test Report

Item No.

0. General information
1. Tested vehicle(s) / ~~object(s)~~
2. Test record
3. List of appendices
4. Statement of conformity

The Test Report shall be reproduced and published only in its entirety by the client. It may however be reproduced and published partially, but only with the written permission of the Testing Laboratory.

**Vehicle Type : NKT2211-B20****Manufacturer : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.****0. General information**

- 0.1. Make (trade name of the manufacturer) : NAVEE
- 0.2. Type : NKT2211-B20
- 0.3. Category of vehicle : Elektrokleinstfahrzeug
- 0.4. Name and address of the manufacturer : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.  
Building A2, Shangjinwan Headquarters Economic Park, No.2288, Wuzhong Avenue, Wuzhong Economic Development Zone, Suzhou Jiangsu P.R. China
- 0.5. No. of the information document : ---  
-Date of issue : ---  
-Date of last change : ---

**1. Tested vehicle(s)**

- 1.1. Description
- 1.1.1. Vehicle : Elektrokleinstfahrzeug  
Commercial description : ---  
Type / variant(s) / version(s) : NKT2211-B20/ --- / ---  
Identification number : Without, Prototype
- 1.1.2. Condition of vehicle(s) : new
- 1.2. Worst case selection : No version/variant, so no worst case to be selected.
- 1.3. Remark : The Bluetooth interface was active and checked during the measurement.

**Vehicle Type : NKT2211-B20**

**Manufacturer : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.**

**2. Test record**

- 2.1. Equipment for measuring and testing : The test facilities / measurement equipment used were in compliance with the test requirements.
  - 2.1.1. Specifications for the test site : Not applicable
  - 2.1.2. Subcontracting : Not applicable
- 2.2. Test results : See Appendix 1
  - 2.2.1. Test results referring to measurements : All measurement results are listed and referred to the respective limit(s) with judgment.
  - 2.2.2. Attributive tests : Not applicable
  - 2.2.3. Alternative test provisions : Not applicable
- 2.3. Additional information : The results of the test refer exclusively to the object(s) mentioned under point 1. of this report.
  - Test site : Shanghai Inspection and Testing Institute of Instruments and Automatic Systems Co., Ltd.  
Shanghai, P.R. China
  - Test date : December 14, 2022
- 2.4. Remarks : ---

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Vehicle Type : NKT2211-B20

Manufacturer : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.

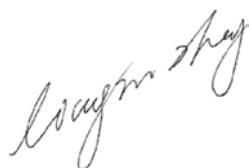
### 3. List of Appendices

- 0 List of modifications : Page 5
- 1 Test minutes : Pages 6 - 13

### 4. Statement of conformity

The Information Document listed in section 0.5., and the type described therein, comply with the requirements stated on page 1. The test results in this report refer to the vehicle(s)/object(s) described under section 1.1. With regards to the required level of performance to be achieved, the tested samples were representative for the type to be approved (see section 1.2).

Engineering Center, Shanghai, March 09, 2023  
LJZ/LS



Liangjun Zhang  
Expert Technical Service

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Vehicle Type : NKT2211-B20

Manufacturer : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.

List of modifications

Appendix 0

Correction of : - ---

Modification of : - ---

Addition of : - ---

Deletion of : - ---

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**Vehicle Type : NKT2211-B20****Manufacturer : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.****Test minutes of EMC measuring****Appendix 1**

0. Test condition
- 0.1. Test date : December 14, 2022
- 0.2. Test site : Shanghai, P.R. China
1. Test facilities : The test equipment used was in compliance with the requirements of the regulation.
2. Test vehicle(s)
- 2.1. Type : NKT2211-B20
- variant : ---
- version : ---
- 2.2. Identification number : Without, Prototype
- 2.3. Motor
- 2.3.1 Motor maker : Changzhou Wujin Jinshun Mechanical and Electrical Co., Ltd.
- 2.3.2. Motor type : TD013
- 2.3.3. Motor number : TD0132CP0000023S60
- 2.4. Controller
- 2.4.1. Controller maker : Tianjin Songzheng Electric Technology Co., Ltd.
- 2.4.2. Controller type : T2208
- 2.5. Battery
- 2.5.1. Battery maker : Huizhou Blueway Electronics Co., Ltd.
- 2.5.2. Battery type : T2211-BA4A  
36VDC, 10.2Ah

**Vehicle Type : NKT2211-B20****Manufacturer : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.**

## 2.6. Headlamp

2.6.1. Headlamp maker : Foshan City Shunde District ChengDi Electronic  
Technology Co., Ltd.

2.6.2. Headlamp type : DH008

2.6.3. Approval number : E9\*149R00/02\*1084\*00

## 2.7. Rear position/ Stop lamp

2.7.1. Rear position/ Stop lamp maker : Foshan City Shunde District ChengDi Electronic  
Technology Co., Ltd.

2.7.2. Rear position/ Stop lamp type : DRT10

2.7.3. Approval number : E9\*148R00/04\*6761\*01

## 2.8. Front/Rear direction indicator

2.8.1. Front/Rear direction indicator maker : Foshan City Shunde District Chengdi Electronic  
Technology Co., Ltd.

2.8.2. Direction indicator type : DI001

2.8.3. Approval number : E32\*148R00/04\*0380\*00

## 2.9. Charger

2.9.1. Charger maker : Shenzhen AMC Technology Co., Ltd.

2.9.2. Charger type : BCTA+71420-1701  
Input 100-240VAC, 50/60Hz, 2.0A MAX; Output:  
41 VDC 1.7A, 42VDC MAX

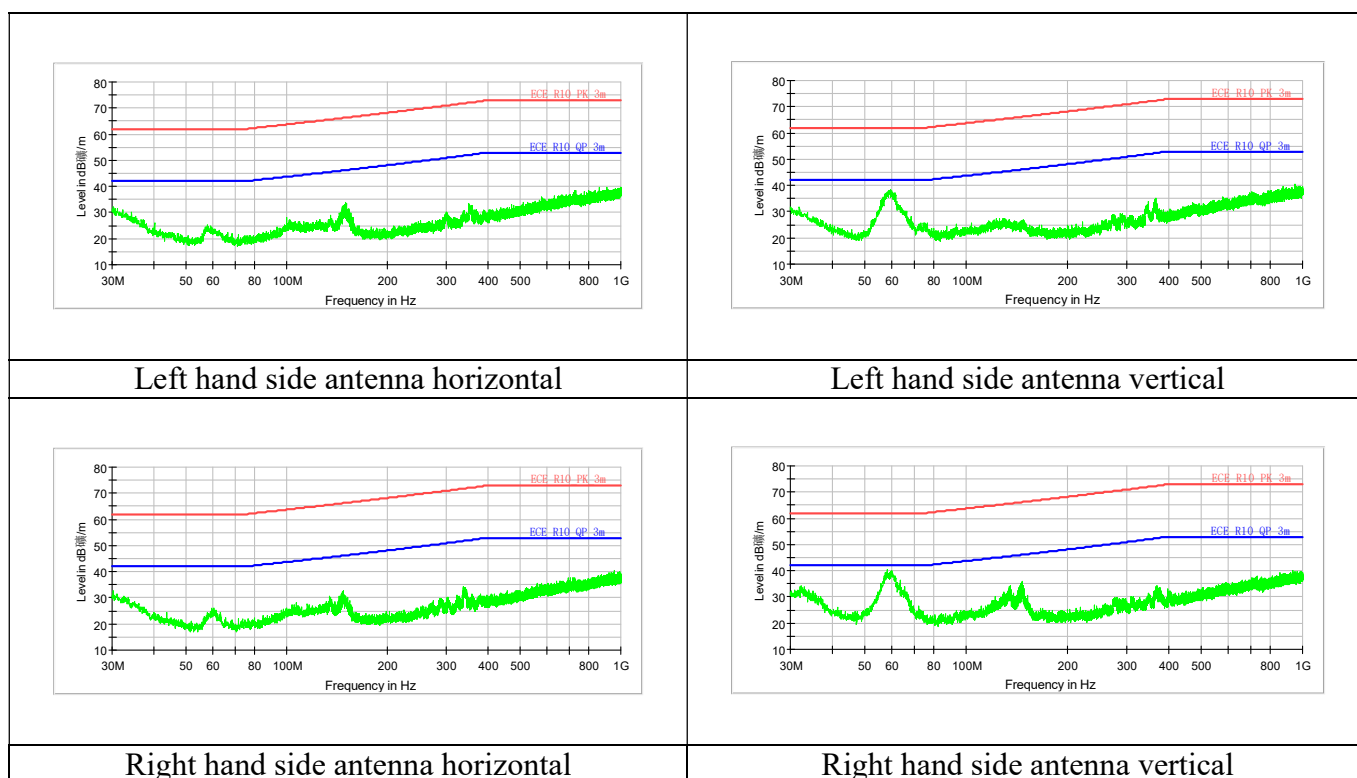
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Vehicle Type : NKT2211-B20

Manufacturer : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.

**3. Test results of broadband electromagnetic emissions from vehicle(Annex 4)**  
(Other than REESS in charging mode coupled to the power grid)

- 3.1. Test condition : Closed installation (Peak detector)
- 3.2. Distance of the antenna (m) : 3
- 3.3. Height of the antenna (m) : 1.8
- 3.4. Engine / Motor revolution for radiated broadband emissions : 20 km/h (Maximum speed)



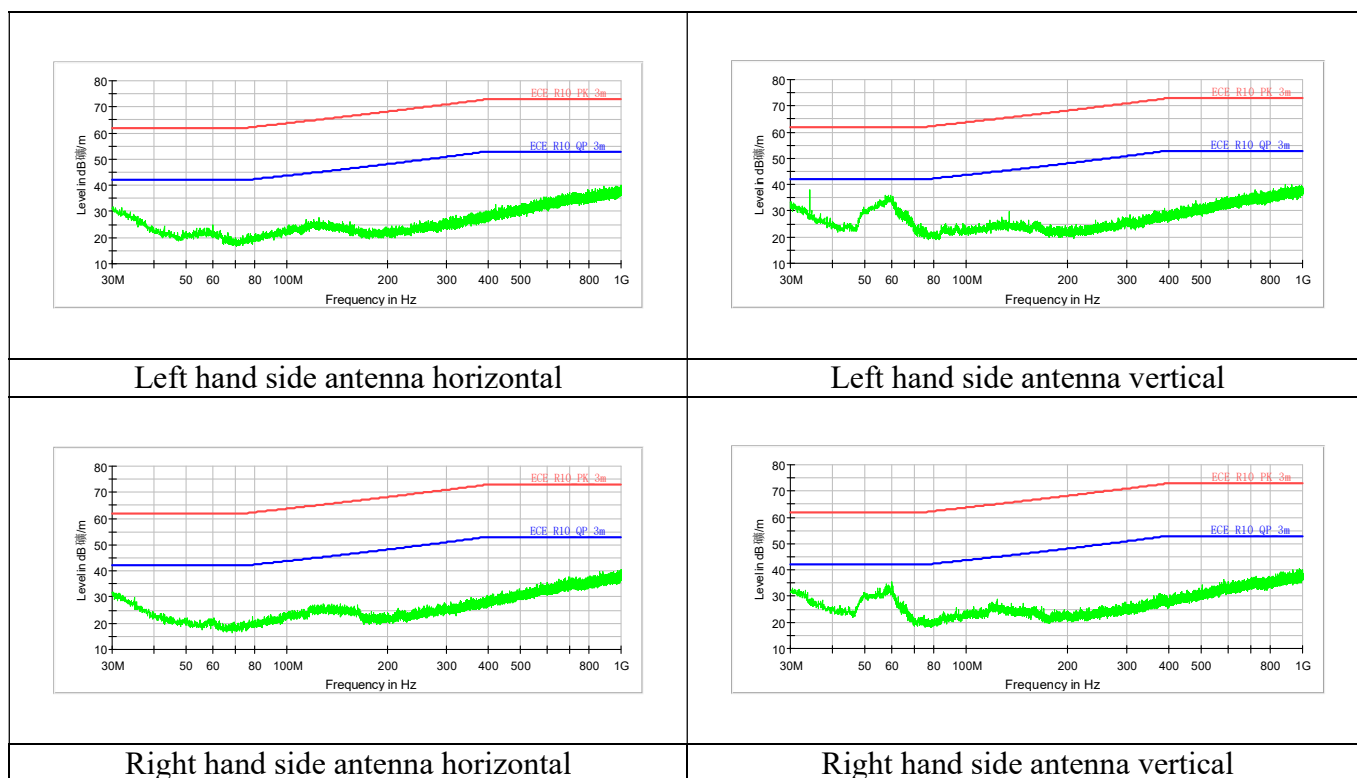
The measurement has been taken over the range of frequencies from 30 to 1000 MHz

Vehicle Type : NKT2211-B20

Manufacturer : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.

**4. Test results of broadband electromagnetic emissions from vehicle (Annex 4)**  
(REESS in charging mode coupled to the power grid)

- 4.1. Test condition : Closed installation (Peak detector)
- 4.2. Distance of the antenna (m) : 3
- 4.3. Height of the antenna (m) : 1.8



The measurement has been taken over the range of frequencies from 30 to 1000 MHz

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Vehicle Type : NKT2211-B20

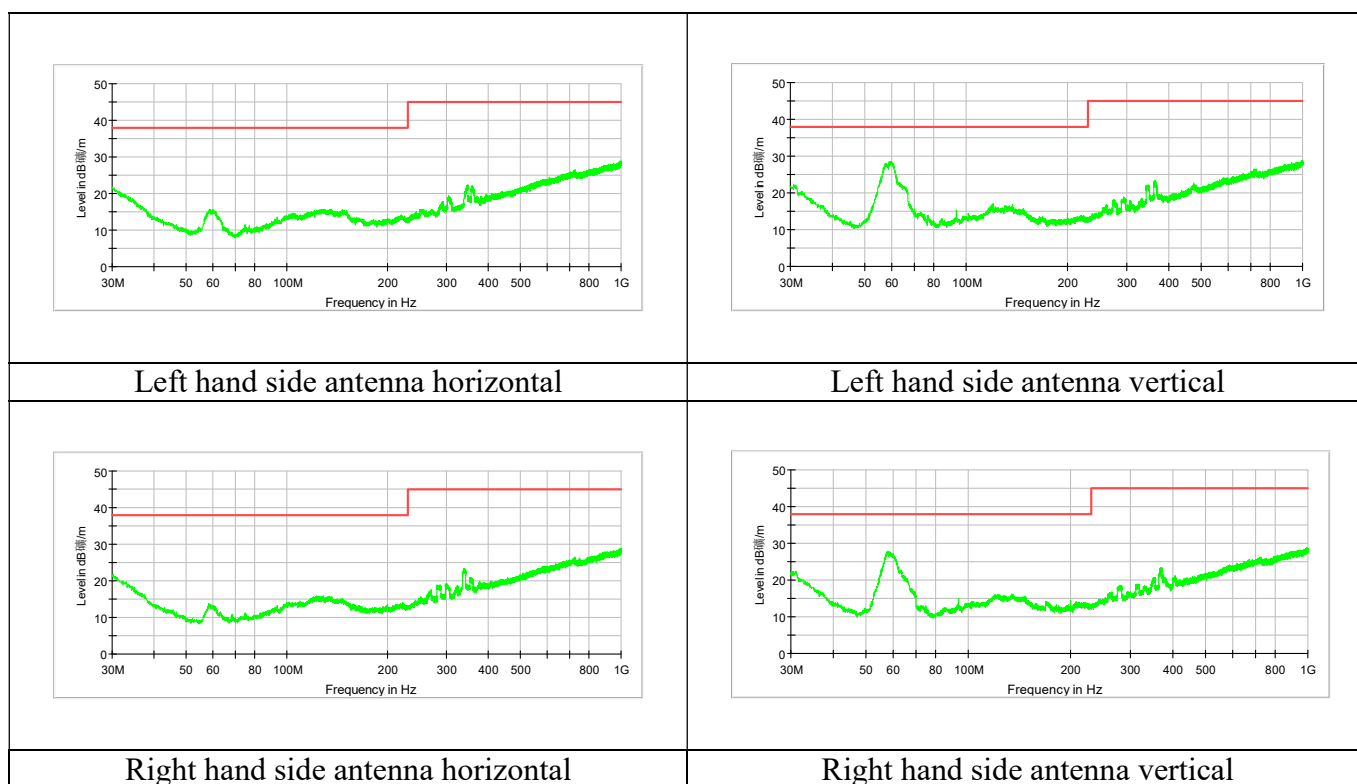
Manufacturer : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.

**5. Test results of narrowband electromagnetic emissions from vehicle (Annex 5)**

5.1. Test condition : Closed installation (Average detector)

5.2. Distance of the antenna (m) : 3

5.3. Height of the antenna (m) : 1.8



The measurement has been taken over the range of frequencies from 30 to 1000 MHz

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**Vehicle Type : NKT2211-B20****Manufacturer : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.****6. Test results of immunity to electromagnetic radiation (Annex 6)**

(Other than REESS in charging mode coupled to the power grid)

- 6.1. Test method : Free field
- 6.2. Specified frequency range : 20 ~ 2000 MHz in vertical polarization
- 6.3. ~~Alternatively spot frequencies~~ : ~~27, 45, 65, 90, 120, 150, 190, 230, 280, 380, 450, 600, 750, 900, 1300 and 1800 MHz~~
- 6.4. Field strength : 30 V/m rms (over 90% of 20~2000 MHz)
- 6.5. Vehicle speed : 20 km/h (Maximum speed)

During the tests performed in accordance with Annex 6, there was no any degradation of performance of “immunity related functions” listed below.

<i>"50 km/h cycle" vehicle test conditions</i>	<i>Failure criteria</i>
Vehicle speed 50 km/h (respectively 25 km/h for L <sub>1</sub> , L <sub>2</sub> vehicles) ±20 per cent (vehicle driving the rollers). If the vehicle is equipped with a cruise control system, it shall be operational.	Speed variation greater than ±10 per cent of the nominal speed. In case of automatic gearbox: change of gear ratio inducing a speed variation greater than ±10 per cent of the nominal speed.
Dipped beams ON (manual mode)	Lighting OFF
Direction indicator on driver's side ON	Frequency change (lower than 0.75 Hz or greater than 2.25 Hz). Duty cycle change (lower than 25 per cent or greater than 75 per cent).
<del>Horn OFF</del>	<del>Unexpected activation of horn</del>

<i>"Brake cycle" vehicle test conditions</i>	<i>Failure criteria</i>
To be defined in brake cycle test plan. This must include operation of the brake pedal (unless there are technical reasons not to do so) but not necessarily an anti-lock brake system action	Stop lights inactivated during cycle Brake warning light ON with loss of function. Unexpected activation



**Vehicle Type : NKT2211-B20**

**Manufacturer : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.**

**7. Test results of immunity to electromagnetic radiation (Annex 6)**  
(REESS in charging mode coupled to the power grid)

All other equipment which can be switched on permanently by the driver or passenger should be OFF. : Pass

Only non-perturbing equipment shall be used while monitoring the vehicle. The vehicle exterior and the passenger compartment shall be monitored to determine whether the requirements of this annex are met (e.g. by using (a) video camera(s), a microphone, etc.) : Pass

There was no any degradation of performance of “immunity related functions” listed below

“REESS in charging mode” vehicle test conditions	Failure criteria
The REESS shall be in charging mode (engine OFF). The REESS state of charge shall be agreed in between the manufacturer and the Technical Service.	Vehicle sets in motion

**8. Test result :** All pass

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Vehicle Type : NKT2211-B20

Manufacturer : Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.

Test photos:



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13.3./12.9.1. Beschreibung der Bluetooth-Schnittstelle /  
*description of Bluetooth interface*

**Übersicht / overview**

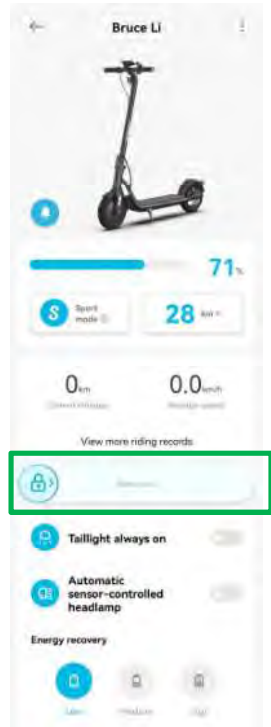
Eingabe / <i>input</i>	:	<ol style="list-style-type: none"><li>1. Anti-theft</li><li>2. Energy recovery</li><li>3. Unit settings</li><li>4. Restore scooter settings</li><li>5. Manage device name</li><li>6. Firmware update</li><li>7. Security settings</li><li>8. Taillight always on</li><li>9. Automatic sensor-controlled headlamp</li></ol>
Ausgabe / <i>output</i>	:	<ol style="list-style-type: none"><li>1. Current battery level (%)</li><li>2. Remaining mileage</li><li>3. Riding mode</li><li>4. Current mileage</li><li>5. Average speed</li><li>6. Battery information</li><li>7. Scooter information</li><li>8. Scooter QR code</li><li>9. Legal information</li></ol>

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13.3./12.9.1. Beschreibung der Bluetooth-Schnittstelle /  
*description of Bluetooth interface*

**Beschreibung / description**

**Eingabe / input**



**: Anti-theft**

Slide to lock the scooter for anti-theft.

When this function is on, the scooter will have rolling resistance to lock the vehicle.

Note: this function only can be activated when vehicle is in static status.

If the smartphone is lost, user can log on the account by other smartphone to unlock the vehicle.

If user forget the account, the contact the aftersales of Xiaomi will be the only method.

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13.3./12.9.1. Beschreibung der Bluetooth-Schnittstelle /  
*description of Bluetooth interface*

**Beschreibung / description**

**Eingabe / input**



**: Energy recovery**

There are 3 levels in this function: Low, Medium and High.

Low as default setup means the vehicle has a weak deceleration when release the throttle, meanwhile a small amount of energy produced by motor charge into battery.

Medium means the vehicle has a medium deceleration when release the throttle, meanwhile a medium amount of energy produced by motor charge into battery.

High means the vehicle has a strong deceleration when release the throttle, meanwhile a large amount of energy produced by motor charge into battery.

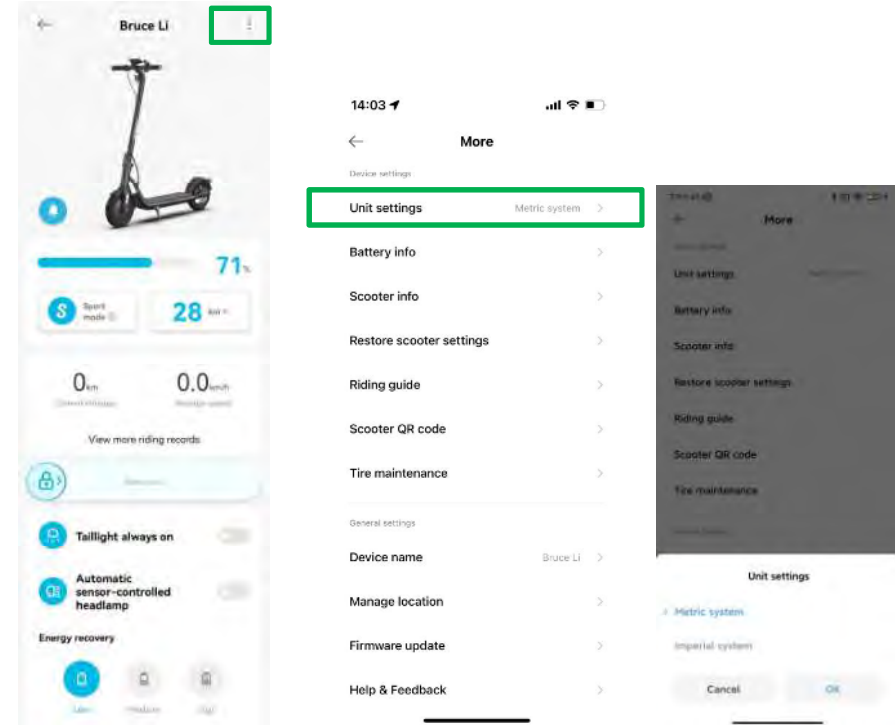
The requirements acc. to § 4 and § 7 no. 6 eKFV will not be affected.

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### 13.3./12.9.1. Beschreibung der Bluetooth-Schnittstelle / *description of Bluetooth interface*

## Beschreibung / *description*

## Eingabe / *input*



## : **Unit settings**

Select the speed unit on display, km/h and mph.

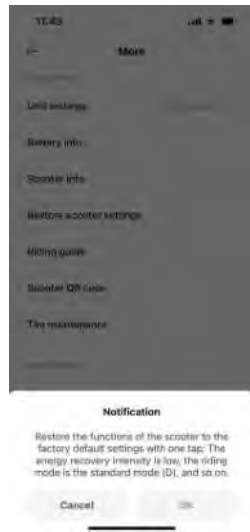
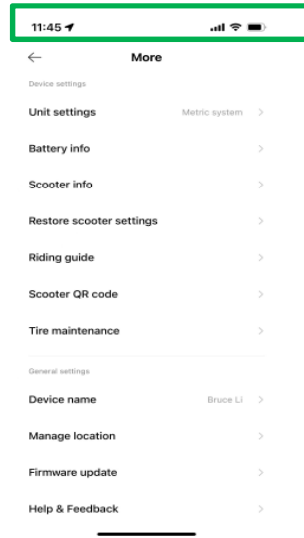
Note: This function does not touch any approval relevant requirements

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### 13.3./12.9.1. Beschreibung der Bluetooth-Schnittstelle / *description of Bluetooth interface*

## Beschreibung / *description*

## Eingabe / *input*



## : **Restore scooter settings**

Restore the scooter to factory settings.  
Unit restore to km/h, Energy recovery intensity restore to weak,  
Drive mode restore to D mode.

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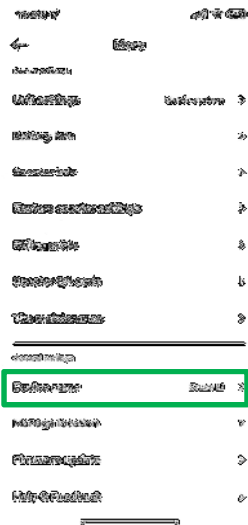
13.3./12.9.1. Beschreibung der Bluetooth-Schnittstelle /  
*description of Bluetooth interface*

**Beschreibung / description**

**Eingabe / input**

**: Manage device name**

This function can change the vehicle name by users.  
Note: This function does not touch any approval relevant requirements



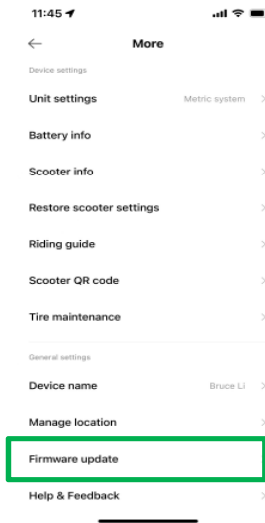
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### 13.3./12.9.1. Beschreibung der Bluetooth-Schnittstelle / *description of Bluetooth interface*

## Beschreibung / *description*

### Eingabe / *input*



### : **Firmware update**

Firmware update is a software program that can be used to update the firmware for this vehicle, which could repair functional defects.

1. Fixing the compatibility of APP for different smartphone.
2. According to the complaint data, fixing the problem on vehicle, but it will not affect the key functions which specified in eKFV regulation, such as speed/ motor power/ brake performance etc.

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13.3./12.9.1. Beschreibung der Bluetooth-Schnittstelle /  
*description of Bluetooth interface*

**Beschreibung / description**

**Eingabe / input**

**: Taillight always on**

After click it, the rear position lamp will be always light on when vehicle is power on.



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13.3./12.9.1. Beschreibung der Bluetooth-Schnittstelle /  
*description of Bluetooth interface*

**Beschreibung / description**

**Eingabe / input**



**: Automatic sensor-controlled headlamp**

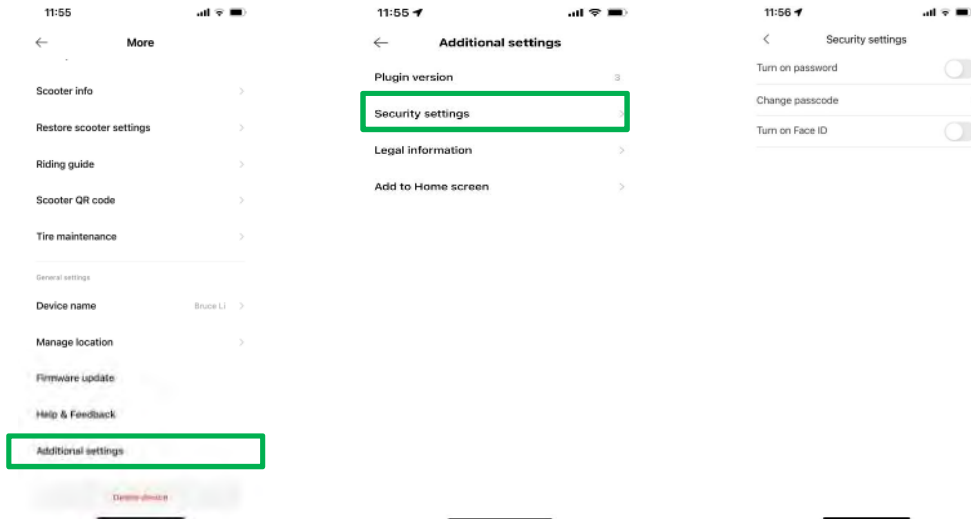
After click it, the headlamp will become the auto headlamp, turn off it, the headlamp will be a normal headlamp, turn on and off headlamp by click the master key on instrument.

Remark: the taillight is always illuminated with headlamp simultaneously unless the "Taillight always on" function is on, the taillight will be lighted on before the headlamp.

### 13.3./12.9.1. Beschreibung der Bluetooth-Schnittstelle / *description of Bluetooth interface*

## Beschreibung / *description*

### Eingabe / *input*



### : **Security settings**

**Security settings** Security settings has two sub-functions as below.

The first one can be used to manage the password function on and off, for example, if user turn it on, user need to enter the password every time when they connect the scooter by APP.

The second function is change the passcode by user.

Note: After active the function, there is no braking torque when moving vehicle, it is just a password to enter the APP.

If user forget the password, it will not affect the vehicle function, the only influence is that the user can not connect the vehicle by APP, vehicle also can be drove as usual.

If the user forgot the password, the contact the aftersales of Xiaomi will be the only method.

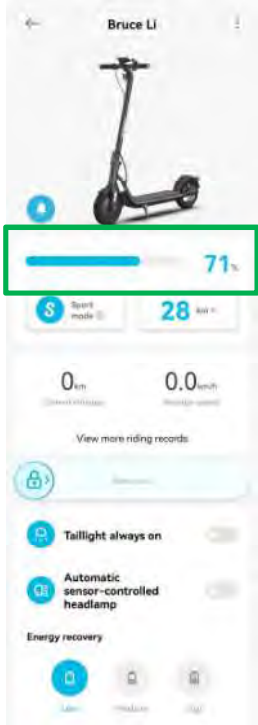
13.3./12.9.1. Beschreibung der Bluetooth-Schnittstelle /  
*description of Bluetooth interface*

**Beschreibung / description**

**Ausgabe / output**

: **Current battery level (%)**

It shows the current battery percentage.



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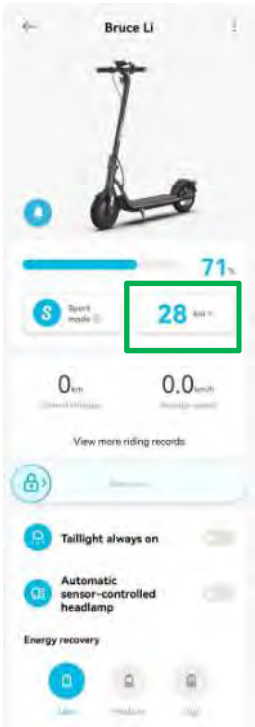
13.3./12.9.1. Beschreibung der Bluetooth-Schnittstelle /  
*description of Bluetooth interface*

**Beschreibung / description**

**Ausgabe / output**

**: Remaining mileage**

It shows the estimated remaining mileage.

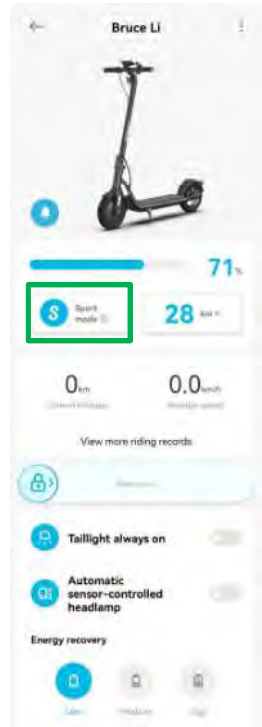


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13.3./12.9.1. Beschreibung der Bluetooth-Schnittstelle /  
*description of Bluetooth interface*

**Beschreibung / description**

**Ausgabe / output**



**: Riding mode**

It displays the riding mode, there are three modes

walking mode: 6 km/h

standard mode: 15 km/h

sport mode: 20 km/h

Users can switch the mode by press the power button on the control panel twice.

It only can be controlled by power key on speedometer, APP only can show the mode status.

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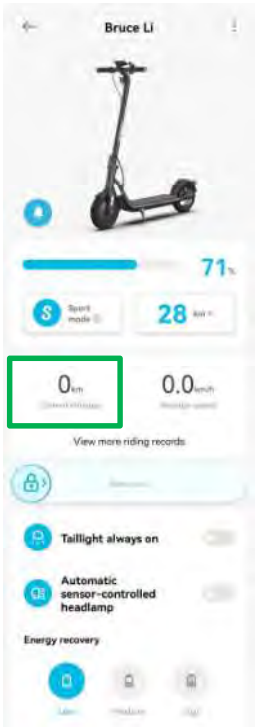
13.3./12.9.1. Beschreibung der Bluetooth-Schnittstelle /  
*description of Bluetooth interface*

**Beschreibung / description**

**Ausgabe / output**

: **Current mileage**

It displays the scooter travel range.



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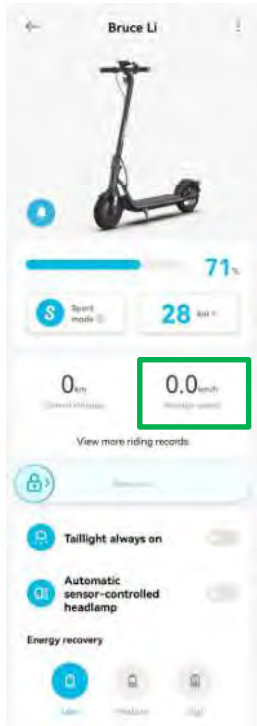
13.3./12.9.1. Beschreibung der Bluetooth-Schnittstelle /  
*description of Bluetooth interface*

**Beschreibung / description**

**Ausgabe / output**

**: Average speed**

It shows the average speed during riding.



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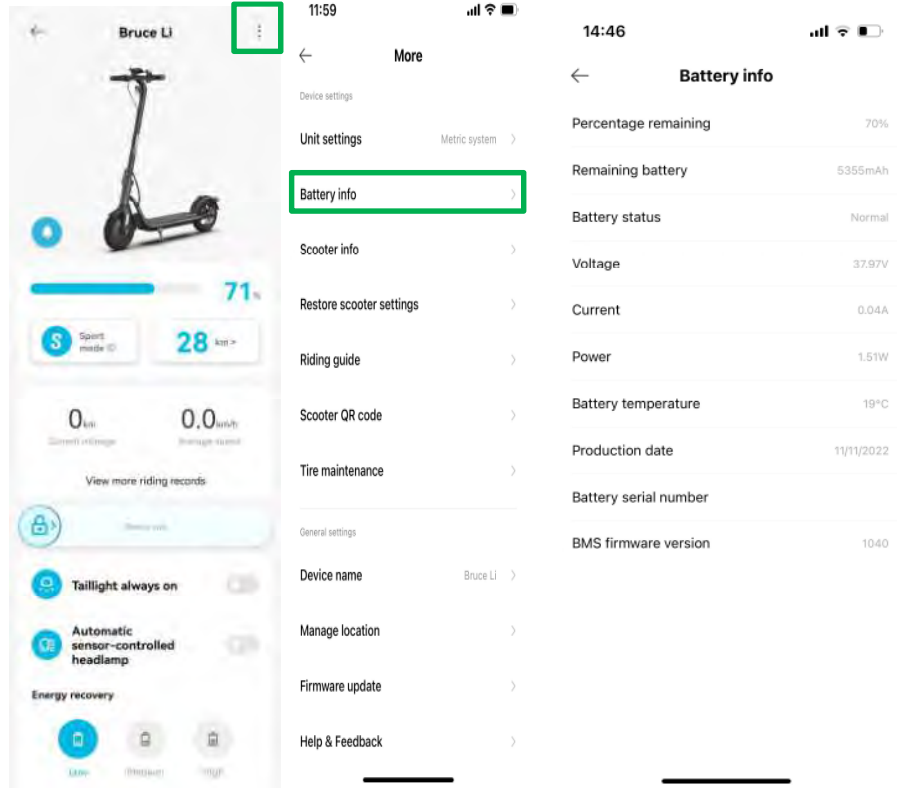
13.3./12.9.1. Beschreibung der Bluetooth-Schnittstelle /  
*description of Bluetooth interface*

**Beschreibung / description**

**Ausgabe / output**

:

**Battery information**



It displays the current battery information:  
percentage remaining  
Remaining battery  
Battery status  
Voltage  
Current  
Power  
Battery temperature  
Production date  
Battery serial number  
BMS firmware version.

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### 13.3./12.9.1. Beschreibung der Bluetooth-Schnittstelle / *description of Bluetooth interface*

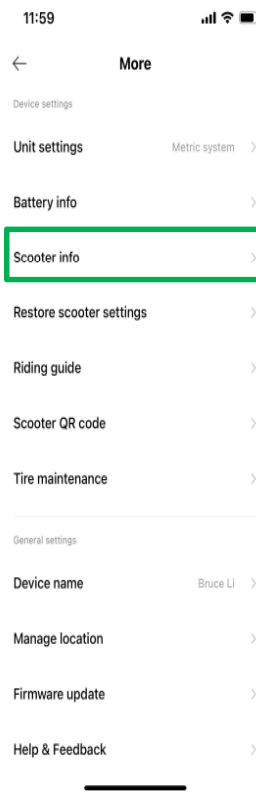
## Beschreibung / *description*

**Ausgabe / *output***

:

**Scooter information**

It displays the followed:  
Scooter serial number  
Firmware version  
Scooter temperature.



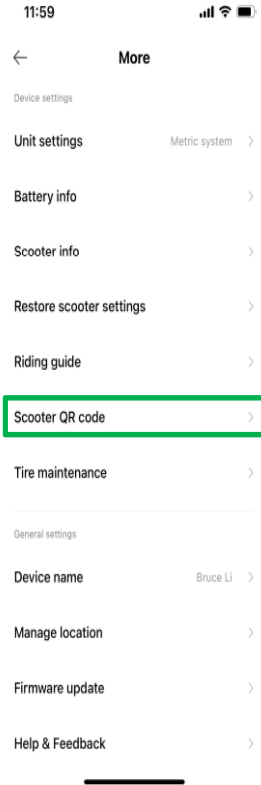
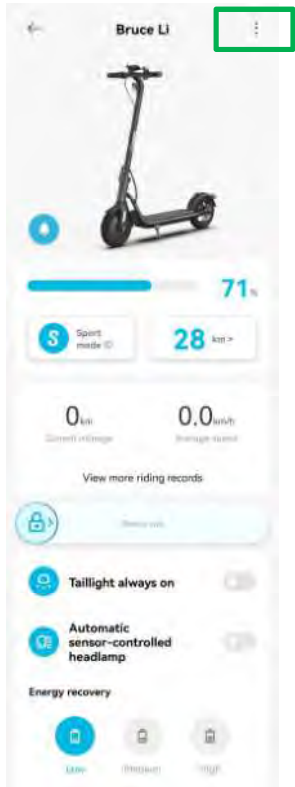
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13.3./12.9.1. Beschreibung der Bluetooth-Schnittstelle /  
*description of Bluetooth interface*

**Beschreibung / description**

**Ausgabe / output**

**: Scooter QR code**



It displays the scooter QR code, the user has to scan it when first connect the vehicle, after scan it by APP, when you need to connect to vehicle later, you will not need to scan it. The QR code functions as a passcode to connect with the vehicle. The QR code is on a sticker on the speedometer, when the vehicle is new. After connecting the vehicle, the QR code is shown in the App in case the sticker attached to the vehicle is lost. Note: this vehicle only can connect one account, if another account want to connect this vehicle, the user has to reset the vehicle by pressing the throttle and fast clicking 5 times power key.

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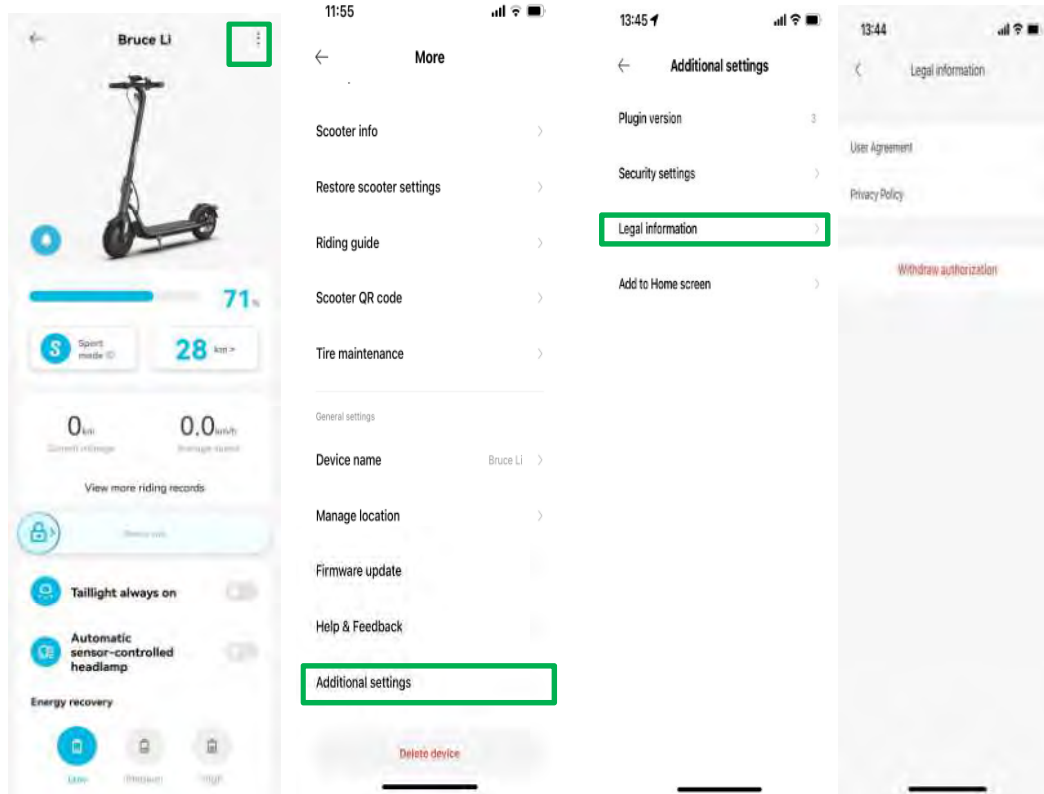
13.3./12.9.1. Beschreibung der Bluetooth-Schnittstelle /  
*description of Bluetooth interface*

**Beschreibung / description**

**Ausgabe / output**

**: Legal information**

It displays the user agreement and privacy policy user agreement shows the software license and service agreement, the privacy policy provides privacy details on how the user manage his personal information for this scooter software and services provided by xiaomi.



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**Erklärung des Genehmigungsinhabers über Maßnahmen zur Verhinderung unbefugter Eingriffe in den Antriebsstrang und andere genehmigungsrelevante Bauteile oder Systeme**  
*Approval holder's declaration on measures to prevent tampering on powertrain and other approval relevant components or systems*

**Der Unterzeichner** : Shi Wentao  
*The undersigned* *Certificate Director*

(vollständiger Name und Position)  
*(full name and position)*

Firmenname und Anschrift des Genehmigungsinhabers : AXDIA International GmbH  
*Company and address of the approval holder* Hanns-Martin-Schleyer-Str. 36-38  
47877 Willich, Deutschland

Name und Anschrift des Bevollmächtigten des Genehmigungsinhabers (sofern vorhanden) : --  
*Name and address of the approval holder's representative (if any)*

**erklärt hiermit, dass er**  
*hereby certifies that*

**für das nachfolgend bezeichnete Fahrzeug:**  
*for the below mentioned vehicle:*

- 0.1. **Fabrikmarke** : NAVEE  
*make*
- 0.2. **Typ** <sup>(17)</sup> : NKT2211-B20  
*Type* <sup>(17)</sup>
- 0.2.1. Variante(n) <sup>(17)</sup> : --  
*Variant(s)* <sup>(17)</sup>
- 0.2.2. Version(en) <sup>(17)</sup> : --  
*Version(s)* <sup>(17)</sup>
- 0.2.3. Handelsname(n) (sofern vorhanden) : NAVEE Electric Scooter V50;  
*Commercial name(s) (if available)* NAVEE Electric Scooter V50 Pro
- 0.3. **Klasse des Fahrzeugs** : Elektrokleinstfahrzeug  
*Class of the vehicle*

**keine austauschbaren Bauteile in Verkehr bringen wird, die eine Erhöhung der Antriebsleistung oder Höchstgeschwindigkeit, die für die jeweilige Klasse gilt, ermöglichen könnten,**  
*he will not market interchangeable components, which could enable propulsion unit performance or maximum design speed to exceed levels applicable to the relevant category*

**keine Schnittstellen (z.B. USB oder Bluetooth) implementieren wird, über welche genehmigungsrelevante Bauteilfunktionen oder Systeme (z.B. Bremse oder Motorbedieneinrichtung) unzulässig durch den Anwender beeinflusst werden können**  
*he will not implement any interfaces (e.g. USB or Bluetooth) which allow the consumer to*

***influence approval relevant component functions or systems (e.g. brake or engine control unit) in an impermissible way***

**und  
and**

**dass die vom Hersteller erleichterten Änderungen der folgenden Merkmale:  
that the manufacturer-facilitated modifications of the following characteristics:**

- (a) gegebenenfalls der Funkenerzeugung durch die Zündanlage;  
*(a) spark delivery of the ignition system if applicable;*
- (b) der Kraftstoffversorgungsanlage und Förderanlage;  
*(b) fuel feed and delivery system;*
- (c) des Luftansaugsystems einschließlich Luftfilter (Änderung oder Entfernung);  
*(c) air intake system including air filter(s) (modification or removal);*
- (d) gegebenenfalls der Ausführung der Antriebsbatterie oder der Stromversorgung des/der Elektromotors/en;  
*(d) propulsion battery configuration or electric power to the electric motor(s) if applicable;*
- (e) des Kraftübertragungsstrangs;  
*(e) drive-train;*
- (f) der Steuereinheit(en) für die Antriebsleistung des Antriebsstrangs  
*(f) the control unit(s) that controls the propulsion unit performance of the powertrain.*

**mit den Anforderungen aus Kapitel 4.2.17 der DIN EN 15194:2018-11 übereinstimmen.  
comply with the requirements set out in Chapter 4.2.17 of DIN EN 15194:2018-11.**

Ort:  
Place:

Suzhou

Datum:  
Date:

10. 03. 2023

Unterschrift:  
Signature:

*Wen-tao Shi*

Name und Stellung im Unternehmen:  
Name and position in the company:

*Shi Wentao/ Certificate Director*

**Erklärung des Genehmigungsinhabers hinsichtlich Manipulationssicherheit und Rückwirkungsverhalten der integrierten Bluetooth-Schnittstelle**  
*Approval holder's declaration regarding tampering protection and feedback behavior of the integrated Bluetooth interface*

**Der Unterzeichner** : Shi Wentao  
**The undersigned** : *Certificate Director*  
(vollständiger Name und Position)  
(full name and position)

Firmenname und Anschrift des Genehmigungsinhabers : AXDIA International GmbH  
*company and address of the approval holder* Hanns-Martin-Schleyer-Str. 36-38  
47877 Willich, Deutschland

Name und Anschrift des Bevollmächtigten des Genehmigungsinhabers : --  
*name and address of the approval holder's representative*

**erklärt hiermit, dass für das nachfolgend bezeichnete Fahrzeug**  
*hereby certifies, that for the below mentioned vehicle*


- 0.1. Fabrikmarke** : NAVEE  
*make*
- 0.2. Typ** : NKT2211-B20  
*type*
- 0.2.1. Variante / Version : --  
*variant / version*
- 0.2.2. Handelsname : NAVEE Electric Scooter V50;  
*commercial name* : NAVEE Electric Scooter V50 Pro
- 0.3. Klasse des Fahrzeugs** : Elektrokleinstfahrzeug  
*class of the vehicle*
- 0.4. Verschlüsselungsmethode der Schnittstelle** : AES 128 Bit  
*encryption method of interface*

**die integrierte Bluetooth-Schnittstelle keine Gefährdung ermöglicht, welche durch unbefugte Zugriffe Dritter, die Unterbrechung der Verbindung oder eine Fehlfunktion hervorgerufen werden könnte**  
*the integrated Bluetooth interface doesn't enable danger by unauthorized access of third, interruption of connection or failure*

**und**  
**and**

**mit den Anforderungen aus Kapitel 4.2.17 der DIN EN 15194:2018-11 übereinstimmt.**  
*comply with the requirements set out in Chapter 4.2.17 of DIN EN 15194:2018-11.*

Ort, Datum : Suzhou 10. 03. 2023  
*place, date:* \_\_\_\_\_

Unterschrift: Shi Wentao/ Certificate Director  
*signature:*  \_\_\_\_\_



**Datenbestätigung**  
**für das nachfolgend beschriebene Fahrzeug zum Zwecke der Vorlage**

bei der Zulassungsbehörde für die Zulassung des Fahrzeugs, soweit ein Gutachten/Zusatzgutachten für die Zulassung nicht erforderlich ist

Feld	Teil II	Bezeichnung	Daten	
D.1	X	Marke	NAVEE	
D.2	X	Typ	NKT2211-B20	
		Variante	-	
		Version	01	
D.3	X	Handelsbezeichnung(en)	NAVEE Electric Scooter V50	
E	X	Fahrzeug-Identifizierungsnummer	V503503G000001	
F.1		Technisch zulässige Gesamtmasse in kg	136,5	
F.2		Im Zulassungsmitgliedstaat zulässige Gesamtmasse in kg	136,5	
G		Masse des in Betrieb befindlichen Fahrzeugs in kg (Leermasse)	16,5	
J	X	Fahrzeugklasse	27	
K	X	Nummer der EG-Typgenehmigung oder ABE	P373	
L		Anzahl der Achsen	2	
O		Technisch zulässige Anhängelast in kg	O.1 gebremst in kg	-
			O.2 ungebremst in kg	-
P.1	X	Hubraum in cm <sup>3</sup>	-	
P.2	X	Nennleistung in kW	0,35 kW/ -	
P.4		Nenndrehzahl bei min <sup>-1</sup>	-	
P.3	X	Kraftstoffart oder Energiequelle	Elektro	
Q		Leistungsgewicht in kW/kg (nur bei Krädern)	-	
R	X	Farbe des Fahrzeugs	Schwarz	
S.1		Sitzplätze einschließlich Fahrersitz	-	
S.2		Stehplätze	1	
T		Höchstgeschwindigkeit in km/h	20	
U.1		Standgeräusch in dB (A)	-	
U.2		Drehzahl in min <sup>-1</sup> zu U.1	-	
U.3		Fahrgeräusch in dB (A)	-	
V.7		CO <sub>2</sub> (in g/km)	-	
V.9		Für die EG-Typgenehmigung maßgebliche Schadstoffklasse	-	
(2)	X	Hersteller-Kurzbezeichnung		
(2.1)	X	Code zu (2)		
(2.2)	X	Code zu (D.2) mit Prüfziffer	Typ/Variante/Variation	
			Prüfziffer	
(3)	X	Prüfziffer zur Fahrzeug-Identifizierungsnummer		
(4)	X	Art des Aufbaus	0003	
(5)	X	Bezeichnung der Fahrzeugklasse und des Aufbaus	Elektrokleinstfz. m. Lenk- o. Haltestange	
(6)	X	Datum zu K		
(7.1)		Technisch zulässige maximale Achslast/Masse je Achsgruppe in kg:	Achse 1	80
(7.2)			Achse 2	80
(7.3)			Achse 3	-
(8.1)		Zulässige maximale Achslast im Zulassungsmitgliedstaat in kg	Achse 1	80
(8.2)			Achse 2	80
(8.3)			Achse 3	-
(9)		Anzahl der Antriebsachsen	1	
(10)	X	Code zu P.3	0004	
(11)	X	Code zu R	9	
(12)		Rauminhalt des Tanks bei Tankfahrzeugen in m <sup>3</sup>	-	
(13)		Stützlast in kg	-	
(14)		Bezeichnung der nationalen Emissionsklasse	-	
(14.1)		Code zu V.9 oder (14)	-	
(15.1)		Bereifung – Achse 1	10 x 2,125	
(15.2)		Bereifung – Achse 2	10 x 2,125	
(15.3)		Bereifung – Achse 3	-	
(18)		Länge in mm	1144	
(19)		Breite in mm	480	
(20)		Höhe in mm	1185	
(22)		Bemerkungen und Ausnahmen * Der Fahrzeugführer hat sich vor Fahrtantritt mithilfe der Betriebsanleitung mit dem Fahrzeug vertraut zu machen. Dies gilt insbesondere für erschwerte Fahrsituationen (beispielsweise Bordsteine, steile Rampen, Quer- und Längsrillen etc.).		
(22a)		-		
(23)	X	Raum für interne Vermerke des Herstellers	-	

**Bescheinigung der Angaben durch den Ausstellungsberechtigten:**

- Die Richtigkeit der vorstehenden Angaben wird heute bescheinigt.
- Die Übereinstimmung mit der unter Feld K und (6) angegebenen ABE und dem gleichnamigen Typ ggf. nebst Variante/Version bzw. Ausführung wird bestätigt.
- Für die Zulassung ist ein Gutachten/Teilgutachten erforderlich.

Datum

09.03.2023

Firma

Brightway Innovation Intelligent Technology(Suzhou) Co., Ltd.

Unterschrift

i.V. (Shi Wentao/ Certificate Director)

