



**Référence:** e13\*168/2013\*00837\*01

**Annexes:** - Rapport technique  
- Fiche de renseignements du constructeur

Bertrange, le 23 septembre 2021

## FICHE DE RÉCEPTION UE PAR TYPE D'UN VÉHICULE ENTIER

### EU WHOLE-VEHICLE TYPE-APPROVAL CERTIFICATE

#### Communication concernant:

Communication concerning:

- ~~la réception UE par type d'un véhicule entier~~  
EU whole-vehicle type-approval
- l'extension de la réception UE par type d'un véhicule entier  
extension of EU whole-vehicle type-approval
- ~~le refus de la réception UE par type d'un véhicule entier~~  
refusal of EU whole-vehicle type-approval
- ~~le retrait de la réception UE par type d'un véhicule entier~~  
withdrawal of EU whole-vehicle type-approval

**pour un type de véhicule complet**  
of a complete vehicle type

**en vertu du règlement (UE) N° 168/2013,  
modifié en dernier lieu par le règlement (délégué de la Commission) (UE) N° 2020/1694  
complété par les règlements (UE) N° 3/2014, N° 44/2014 et N° 134/2014 modifiés en dernier lieu  
par le règlement (UE) N° 2018/295**

with regard to Regulation (EU) N° 168/2013, as last amended by (Commission Delegated) Regulation (EU) N° 2020/1694  
supplemented by regulations (EU) N° 3/2014, N° 44/2014 and N° 134/2014 as last amended by regulation (EU) N° 2018/295

#### Numéro de réception UE par type:

EU type-approval number:

e13\*168/2013\*00837\*01

#### Raison de l'extension:

Reason for extension:

refer to Index of technical report

**SECTION I**  
SECTION I

- 0.1. Marque (dénomination commerciale du constructeur):**  
Make (trade name of manufacturer): refer to item 0.1. of technical report
- 0.2. Type:**  
Type: LX02
- 0.2.1. Variante(s):**  
Variant(s): 01, 02, 04
- 0.2.2. Version(s):**  
Version(s): 01
- 0.2.3. Appellation(s) commerciale(s) (le cas échéant):**  
Commercial name(s) (if available): LX02, COMO, eXcellent, MOSCU, E-GO S3
- 0.3. Catégorie, sous-catégorie et sous-sous-catégorie du véhicule:**  
Category, subcategory and sub-subcategory of vehicle: L1e-B
- 0.4. Raison sociale et adresse du constructeur du véhicule complet:**  
Company name and address of manufacturer of the complete vehicle: Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.  
No 158 shengjia village, Wuyi village,  
Heng shan qiao town, Wujin district,  
Changzhou, P.R. China
- 0.4.1. Nom(s) et adresse(s) de(s) usines d'assemblage:**  
Name(s) and adresse(s) of assembly plant(s): Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.  
No 158 shengjia village, Wuyi village,  
Heng shan qiao town, Wujin district,  
Changzhou, P.R. China
- 0.4.2. Nom et adresse du mandataire du constructeur (le cas échéant):**  
Name and address of manufacturer's authorised representative, if any: IVA Mobility B.V.  
Sportlaan 391, 3364DK Sliedrecht, The Netherlands

**SECTION II**  
SECTION II

- 1. Service technique responsable de la réalisation des essais:**  
Technical service responsible for carrying out the tests:

Luxcontrol SA  
B.P. 349  
L-4004 Esch-sur-Alzette
- 2. Date du rapport d'essais:**  
Date of test report:

17.09.2021
- 3. Numéro du rapport d'essais:**  
Number of test report:

LC 1282 003 21



**SECTION III**  
SECTION III

**Le soussigné certifie l'exactitude de la description, faite par le constructeur dans la fiche de renseignements jointe, du type de véhicule décrit ci-dessus, dont un ou plusieurs échantillons représentatifs, sélectionnés par l'autorité compétente en matière de réception UE par type, ont été présentés en tant que prototypes du type de véhicule, et que les résultats d'essais joints s'appliquent au type de véhicule.**

The undersigned hereby certifies the accuracy of the manufacturer's description in the attached information document of the vehicle type described above, for which one or more representative samples, selected by the EU type-approval authority, have been submitted as prototypes of the vehicle type and that the attached test results apply to the vehicle type.

- |        |  |   |
|--------|--|---|
| 1.     | <p><b>Le type de véhicule complet satisfait/<br/><del>ne satisfait pas</del> à l'ensemble des prescriptions pertinentes énumérées dans l'annexe II du règlement (UE) N° 168/2013.</b></p> <p>The complete vehicle type meets/<del>does not meet</del> all relevant requirements as listed in Annex II to Regulation (EU) N° 168/2013</p> | <p>The complete vehicle type meets all relevant requirements as listed in Annex II to Regulation (EU) N° 168/2013</p> |
| 1.1.   | <p><b>Restrictions de validité:</b></p> <p>Restrictions of validity:</p>   | <p>not applicable</p>   |
| 1.2.   | <p><b>Dérogations accordées:</b></p> <p>Waivers applied:</p>   | <p>not applicable</p>   |
| 1.2.1. | <p><b>Raisons des dérogations:</b></p> <p>Reasons for the waivers:</p>   | <p>not applicable</p>   |
| 1.2.2. | <p><b>Autres exigences applicables:</b></p> <p>Alternative requirements:</p>   | <p>not applicable</p>   |
| 2.     | <p><b>La réception est <del>accordée/étendue/refusée/</del><br/><del>retirée:</del></b></p> <p>The approval is <del>granted/extended/refused/withdrawn</del></p>   | <p>the approval is extended</p>   |
| 2.1.   | <p><b>La réception est accordée conformément à l'article 40 du règlement (UE) no 168/2013 et sa validité expire, par conséquent, le jj/mm/aaaa.</b></p> <p>The approval is granted in accordance with Article 40 of Regulation (EU) No 168/2013 and the validity of the approval is thus limited to dd/mm/yyyy.</p>                      | <p>not applicable</p>   |

**Lieu:**

Place:

Bertrange

**Date:**

Date:

23 septembre 2021

**Signature:**

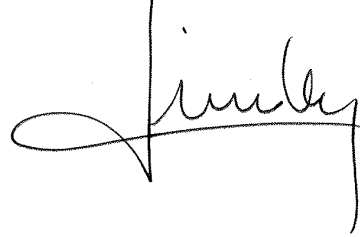
Signature:

**Pour le Ministre de la Mobilité  
et des Travaux publics**



**Alain DISIVISCOUR**  
Conseiller

**Pour la SNCH**



**Laurent LINDEN**  
Directeur opérationnel



**Pièces jointes:**

Attachments:

- **Dossier de réception**  
Information package
- **Résultats d'essai**  
Test results
- **Nom(s) et spécimen(s) de signature de la ou des personnes autorisées à signer les certificats de conformité et indication de leurs fonctions dans la société**  
Name(s) and specimen(s) of the signature(s) of the person(s) authorised to sign certificates of conformity and a statement of their position in the company
- **Spécimen complété du certificat de conformité**  
A completed specimen of the certificate of conformity

**NB:**

NB:

not applicable

**Addendum à la fiche de réception UE par type**  
Addendum to the EU type-approval certificate

**Liste des actes réglementaires aux prescriptions desquels le type de véhicule satisfait**  
List of regulatory acts with which the type of vehicle complies

refer to Annex A - Page 2 to 4 of technical report N° LC 1282 003 21





**Référence:** e13\*168/2013\*00837\*01

**Annexes:** - Rapport technique  
- Fiche de renseignements du constructeur

Bertrange, le 23 septembre 2021

## Index du dossier de réception

Index to type-approval report

	<b>Numéro de réception UE par type:</b> EU type-approval number:	e13*168/2013*00837*01
	<b>Révision:</b> Revision:	00
	<b>Marque de fabrique ou de commerce:</b> Trade name or mark:	<u>refer to item 0.1. of this certificate</u>
	<b>Type:</b> Type:	LX02
<b>1.</b>	<b>Procès-verbal d'essai:</b> Test report:	N° LC 1282 003 21
	- Technical report:	Page 1 to 3;
	- Index:	Page 1 & 2;
	- Technical information:	Annex A - Page 1 to 4;
	- Test results:	Annex B - Page 1 to 31.
<b>2.</b>	<b>Dossier du constructeur:</b> Report of the manufacturer:	Annex C (N° 168/2013-LX02-01)
	- List of content:	Page <u>1 &amp; 2</u> ;
	- Manufacturer's information document:	Page <u>3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20 &amp; 21</u> ;
	- Documentation:	<u>Refer to list of content</u> ;
	- Test report EMC:	Annex D - Page <u>1 to 24</u> .
<b>3.</b>	<b>Autres documents annexés:</b> Other documents annexed:	not applicable
<b>4.</b>	<b>Date de délivrance de la réception initiale:</b> Date of issue of initial type approval:	28.02.2020
<b>5.</b>	<b>Date de la dernière délivrance de pages révisées:</b> Date of last issue of revised pages:	Not applicable
<b>6.</b>	<b>Date de la dernière délivrance d'une réception révisée:</b> Date of last extension:	23.09.2021



**Référence:** e13\*168/2013\*00837\*01

**Annexes:** - Rapport Technique  
- Fiche de Renseignements du constructeur

Bertrange, le 23 septembre 2021

## **Annexe VIII**

Annex VIII

### **Fiche des résultats d'essais**

Test results sheet

refer to Annex B - Page 1 to 9 of technical report N° LC 1282 003 21



## **TECHNICAL REPORT**

**No.: LC 1282 003 21**

**Inspection concerning**

**Approval and market surveillance of two- or three-wheel vehicles and  
quadricycles**

performed according to

**Regulation: (EU) 168/2013  
amendment: 2020/1694**

**Extension 01 to EU Type Approval no: e13\*168/2013\*00837\*00**

### **Contents:**

1. General
  2. Test details
  3. Statement of compliance
- Index

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1. **General**

Manufacturer: **Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.  
No 158 shengjia village, Wuyi village,  
Heng shan qiao town, Wujin district,  
Changzhou, P.R. China**

Vehicle Type: **LX02**

Variant(s): **01, 02, 04**

Version(s): **01**

Commercial name(s) **LX02, COMO, eXcellent, MOSCU,  
E-GO S3**

2. **Test details**

	Inspector	Location of test:	Date of receipt of test item:	Date of test:
Main report	S. Zhang I. Chen	SMVIC No. 68, Yutian South Road, Anting, Jiading District, Shanghai, China	27.12.2019	27.12.2019~ 14.01.2020
Ext.01	S. Zhang M. Cao	SMVIC No. 68, Yutian South Road, Anting, Jiading District, Shanghai, China	2021.8.13	2021.8.13~ 2021.8.27

2.1. **Remarks**

2.1.1. **Main report:**

Not applicable

2.1.2. **Extension 01:**

For details, refer to Index.

Related tests have been done and comply with requirement.



3. **Statement of compliance**

The inspections items and measurements carried out have shown the compliance of the type described in this technical report and the attached Annexes with the requirements of the standard as stated on page 1.

Shanghai, September 17, 2021

Luxcontrol s.a.  
Service Homologation-automobile

Jason Shih  
Ingénieur-Inspecteur

Mason Cao  
Ingénieur-Inspecteur

Annexes



Details to the information package, including a summary in chronological order, concerning extensions and/or amendments

Type-approval previously granted: **e13\*168/2013\*00837\*00**

### Main Report

Technical Report No.:	LC 1282 004 20	3	pages
	Index	1	page

List of Annexes:

A: Communication as numbered in the standard	4	pages
B: Test results	30	pages
C: Information folder	67	pages
D: EMC test report	24	pages

### Extension 01

Technical Report No.:	LC 1282 003 21	3	pages
	Index	2	pages

List of Annexes:

A: Communication as numbered in the standard	4	pages
B: Test results	31	pages
C: Information folder		
to be deleted:	all	pages
to be added:	71	pages
D: EMC test report		
to be deleted:	all	pages
to be added:	24	pages

to be added:

- Variant 04 with new battery, refer to Annex C, item 0.2.1
- Four new trademarks, refer to Annex C, item 0.1
- Two commercial name, refer to Annex C, item 0.2.3
- Two speedometers, refer to Annex C, item 6.10.1.1
- Optional front suspension arrangements, refer to AnnexC, drawing No. LX02-09-02
- Optional external charger socket, refer to Annex C, drawing No. LX02-28-01

to be changed:

- Complete vehicle dimension, refer to AnnexC, drawing No. LX02-03-01 and LX02-03-02
- Rear suspension arrangements, refer to AnnexC, drawing No. LX02-10-01
- Optional controls, refer to Annex C, drawing No. LX02-15-02
- Lighting installation, refer to Annex C, drawing No. LX02-17-01
- Location of rear view mirror, refer to Annex C, drawing No. LX02-18-01
- Ignition switch pattern, refer to Annex C, drawing No. LX02-15-01, LX02-15-02 and LX02-20-01
- Space for rear registration plate, refer to Annex C, drawing No. LX02-23-01



to be corrected:

- Optional drawing of brake hand lever, refer to AnnexC, drawing No. LX02-13-04 and drawing No. LX02-13-05
- Central stand, refer to AnnexC, drawing No. LX02-24-01
- Side stand, refer to AnnexC, drawing No. LX02-24-02

to be deleted:

- Speedometer S3-W

to be updated:

- Manufacturer's information document, content with underline
- Regulation (EU) 168/2013 updated to latest amendment 2020/1694/EU
- Regulation (EU) 901/2014 updated to latest amendment 2020/239/EU

**Content of the information folder:**

- manufacturer's information document (page 1 to 21)
  - drawings, photographs, details of the vehicle (page 22 to 71)
-



## **COMMUNICATION AS NUMBERED () IN THE STANDARD**

WVTA certificate: (EU) 901/2014, amendment (EU) 2020/239  
Annex VI, Appendix 1, Section I

(0.1.) Make (trade name of manufacturer):

LVNENG, LVNENG's logo\*2(  绿能, , Skand,  
Smartway, VEMO, Senzo, Hype-Bike, IVA, VA's logo(  ),  
WHATTZ's logo(  ), genergia's logo (  ),  
WAYEL, rutec, CETUR's logo(  ), bensom, Greenwolke

(0.2.) Type:

**LX02**

(0.2.1.) Variant(s):

**01, 02, 04**

(0.2.2.) Version(s):

**01**

(0.2.3.) Commercial name(s):

**LX02, COMO, eXcellent, MOSCU, E-GO S3**

(0.3.) Category, subcategory and sub-subcategory of vehicle:

**L1e-B**

(0.4.) Company name and address of manufacturer of the complete vehicle:

**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**  
No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district,  
Changzhou, P.R. China

(0.4.1.) Name(s) and addresse(s) of assembly plant(s):

**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**  
No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district,  
Changzhou, P.R. China

(0.4.2.) Name and address of manufacturer's authorised representative:

**IVA Mobility B.V.**  
**Sportlaan 391, 3364DK Sliedrecht, The Netherlands**



WVTA certificate: (EU) 901/2014, amendment (EU) 2020/239  
Annex VI, Appendix 1, Section III

**The undersigned hereby certifies the accuracy of the manufacturer's description in the attached information document of the vehicle type described above, for which one or more representative samples, selected by the EU type-approval authority, have been submitted as prototypes of the vehicle type and that the attached test results apply to the vehicle type.**

- (1.) The complete vehicle type meets ~~does not meet~~ all relevant requirements as listed in Annex II to Regulation (EU) No. 168/2013:
- (1.1.) Restrictions of validity : **not applicable**
- (1.2.) Waivers applied : **not applicable**
- (1.2.1.) Reasons for the waivers : **not applicable**
- (1.2.2.) Alternative requirements : **not applicable**

List of regulatory acts with which the type of vehicle complies

Item	Subject	Regulatory act reference	As amended by	Applicable to version
<b>Environmental and propulsion unit performance requirements (EPPR)</b>				
1	Tailpipe emissions after cold start	(EU) 134/2014, Annex II	(EU) 2018/295	n.a
2	Tailpipe emissions at (increased) idle / free acceleration test	(EU) 134/2014, Annex III	(EU) 2018/295	n.a.
3	Emissions crank-case gases	(EU) 134/2014, Annex IV	(EU) 2018/295	n.a.
4	Evaporative emissions	(EU) 134/2014, Annex V	(EU) 2018/295	n.a.
5	Durability of pollution-control devices	(EU) 134/2014, Annex VI	(EU) 2018/295	n.a.
6	Measurement of CO <sub>2</sub> emissions, fuel consumption, electric energy consumption and electric range determination	(EU) 134/2014, Annex VII	(EU) 2018/295	All
7	Environmental on-board diagnosis (OBD) tests	(EU) 134/2014, Annex VIII	(EU) 2018/295	n.a.
8	Permissible sound level	(EU) 134/2014, Annex IX	(EU) 2018/295	n.a.
9	Procedures and technical requirements on maximum vehicle design speed, maximum torque, maximum continuous total power and maximum peak power	(EU) 134/2014, Annex X	(EU) 2018/295	All
10	Vehicle propulsion family definition	(EU) 134/2014, Annex XI	(EU) 2018/295	n/a



Item	Subject	Regulatory act reference	As amended by	Applicable to version
<b>Vehicle functional safety requirements RVFSR</b>				
1	Audible warning devices	(EU) 3/2014, Annex II	(EU) 2016/1824	All
2	Braking including anti-lock and combined brake systems	(EU) 3/2014, Annex III	(EU) 2016/1824	All
3	Electrical safety	(EU) 3/2014, Annex IV	(EU) 2016/1824	All
4	Manufacturer declaration requirements regarding endurance testing of functional safety-critical systems, parts and equipment	(EU) 3/2014, Annex V	(EU) 2016/1824	All
5	Front and rear protective structures	(EU) 3/2014, Annex VI	(EU) 2016/1824	n/a
6	Glazing, windscreen wipers and washers and defrosting and demisting systems	(EU) 3/2014, Annex VII	(EU) 2016/1824	n/a
7	Driver-operated controls including identification of controls, tell-tales and indicators	(EU) 3/2014, Annex VIII	(EU) 2016/1824	All
8	Installation of lighting and light-signalling devices, including automatic switching of lighting	(EU) 3/2014, Annex IX	(EU) 2016/1824	All
9	Rearward visibility	(EU) 3/2014, Annex X	(EU) 2016/1824	All
10	Rollover protective structure (ROPS)	(EU) 3/2014, Annex XI	(EU) 2016/1824	n/a
11	Safety-belt anchorages and safety-belts	(EU) 3/2014, Annex XII	(EU) 2016/1824	n/a
12	Seating positions (saddles and seats)	(EU) 3/2014, Annex XIII	(EU) 2016/1824	All
13	Steerability, cornering properties and turnability	(EU) 3/2014, Annex XIV	(EU) 2016/1824	All
14	Installation of tyres	(EU) 3/2014, Annex XV	(EU) 2016/1824	All
15	Vehicle maximum speed limitation plate and its location of the vehicle	(EU) 3/2014, Annex XVI	(EU) 2016/1824	n/a
16	Vehicle occupant protection, including interior fittings and vehicle doors	(EU) 3/2014, Annex XVII	(EU) 2016/1824	n/a
17	Maximum continuous total power and/or maximum vehicle speed limitation by design	(EU) 3/2014, Annex XVIII	(EU) 2016/1824	All
18	Requirements on vehicle structure integrity	(EU) 3/2014, Annex XIX	(EU) 2016/1824	All





Item	Subject	Regulatory act reference	As amended by	Applicable to version
<b>Vehicle construction and general type-approval requirements RVCB</b>				
1	Powertrain tampering prevention measures (anti-tampering)	(EU) 44/2014, Annex II	(EU) 2018/295	All
2	Arrangements for type-approval procedures	(EU) 44/2014, Annex III	(EU) 2018/295	All
3	Conformity of production	(EU) 44/2014, Annex IV	(EU) 2018/295	All
4	Coupling devices and attachments	(EU) 44/2014, Annex V	(EU) 2018/295	n/a
5	Devices to prevent unauthorised use	(EU) 44/2014, Annex VI	(EU) 2018/295	All
6	Electromagnetic compatibility (EMC)	(EU) 44/2014, Annex VII	(EU) 2018/295	All
7	External projections	(EU) 44/2014, Annex VIII	(EU) 2018/295	All
8	Fuel storage	(EU) 44/2014, Annex IX	(EU) 2018/295	n.a.
9	Load platforms	(EU) 44/2014, Annex X	(EU) 2018/295	n.a.
10	Masses and dimensions	(EU) 44/2014, Annex XI	(EU) 2018/295	All
11	On-board diagnostics (OBD) functional requirements	(EU) 44/2014, Annex XII	(EU) 2018/295	n.a.
12	Passenger handholds and footrests	(EU) 44/2014, Annex XIII	(EU) 2018/295	All
13	Registration plate space	(EU) 44/2014, Annex XIV	(EU) 2018/295	All
14	Access to repair and maintenance information	(EU) 44/2014, Annex XV	(EU) 2018/295	All
15	Stands	(EU) 44/2014, Annex XVI	(EU) 2018/295	All



**1. Test results:**

**1.1. Version of the tested vehicle/item**

If applicable, a sufficient large number of versions have been tested.

Initial approval:


Representative prototype	<b>LX02</b>	<b>LX02</b>
Category	<b>L1e-B</b>	<b>L1e-B</b>
VIN	<b>LV2NYG105J1000008*</b>	<b>LV2NYF104K1000003*</b>
Electrical motor type	<b>CH610r120° eM</b>	<b>CH610r120° eM</b>
Electrical motor code	<b>180800027</b>	<b>180100005</b>
Front tire	<b>3.00-10 42J E4-75R-0005902</b>	<b>3.00-10 42J E4-75R-0005902</b>
Rear tire	<b>3.00-10 42J E4-75R-0005902</b>	<b>3.00-10 42J E4-75R-0005902</b>
	<b>Brake system Speedometer S3-W EMC</b>	<b>Optional brake system Speedometer S3-W-1</b>

**\*test vehicle which are technically identical in relation to EU168/2013**

Representative prototype	<b>LX02</b>	<b>LX02</b>
Variant/version	<b>01/01</b>	<b>02/01</b>
Category	<b>L1e-B</b>	<b>L1e-B</b>
VIN	<b>LV2NYF100K1000029*</b>	<b>LV2NYJ107K1000001*</b>
Electrical motor type	<b>CH610r120° eM</b>	<b>CJ610r120° eM</b>
Electrical motor code	<b>197310001</b>	<b>195220002</b>
Controller	<b>6 / ZWK060035A-1</b>	<b>6 / ZWK060240A</b>
Front tire	<b>3.00-10 42J E4-75R-0005902</b>	<b>3.00-10 42J E4-75R-0005902</b>
Rear tire	<b>3.00-10 42J E4-75R-0005902</b>	<b>3.00-10 42J E4-75R-0005902</b>
	<b>Vmax</b>	<b>Vmax EMC</b>

**\*test vehicle which are technically identical in relation to EU168/2013**



Type	<b>LX02</b>
Variant/version	<b>02/01 01/01</b>
Category	<b>L1e-B</b>
VIN	<b>LV2NYJ108K1000069*</b>
Electrical motor type	<b>Variant 01: CH610r120° eM Variant 02: CJ610r120° eM</b>
Electrical motor code	<b>Variant 01: 18C060001 Variant 02: 19B070175</b>
Controller*	 <b>Variant 01: ZWK060035A-1 Variant 02: ZWK060240A</b>
Batteries	<b>DM1501709 60V23.4Ah</b>
Front tire	<b>3.00-10 42J, E4-75R-0005902</b>
Rear tire	<b>3.00-10 42J, E4-75R-0005902</b>

\* Same test vehicle has been used for test with different controller, electrical motor for different vehicle variant for test of electric energy consumption and electric range.

Test electrical motor component:

**Variant 01:**

Type: **CH610r120° eM**


Code: **18C060001**

**Variant 02:**

Type: **CJ610r120° eM**

Code: **186110048**

**Extension 01:**

Type	<b>LX02</b>
Variant/version	<b>04/01</b>
Category	<b>L1e-B</b>
VIN	<b>LV2NYJ109M1000570</b>
Electrical motor type	<b>CJ610r120° eM</b>
Electrical motor code	<b>20B090111</b>
Controller	 <b>ZWK060240A</b>
Batteries	<b>DM2851709 60V 23.4Ah*2</b>
Front tire	<b>3.00-10 42J, E4-75R-0005902</b>
Rear tire	<b>3.00-10 42J, E4-75R-0005902</b>



**1.2. Executive Summary of the test reports according to item 2.2. of Annex VIII of (EU) 901/2014 as amended by (EU) 2020/239**

1.2.1. Following Numbering is according to the EU whole-vehicle type-approval certificate for a complete vehicle type following (EU) 901/2014 as amended by (EU) 2016/1825, Annex VIII

**(2.2.1.) (A) Environmental and propulsion unit performance**

(2.2.1.1.) Generic information on environmental performance

(2.2.1.1.1.) Description of propulsion, propulsion family and drive-train of test vehicle(s):  
**Not applicable, electrical vehicle.**

(2.2.1.1.2.) Environmental step of test vehicle: ~~Euro 3, Euro 4,~~ **Euro 5**

(2.2.1.1.3.) Description of emission test bench(es), specifications and settings:  
**Not applicable, electrical vehicle.**

(2.2.1.1.4.) Chassis/engine dynamometer(s) specifications:  
**Mingdianshe 30kw/CHDY**

(2.2.1.1.5.) Inertia (reference) mass and running resistance settings for single/dual roll chassis dynamometer:  
**Not applicable, electrical vehicle.**

(2.2.1.1.6.) Comprehensive report of road test results for the determination of test bench settings, including coast down times for single/dual roll chassis dynamometer:  
**Not applicable, electrical vehicle.**

(2.2.1.1.7.) Applicable test type I driving schedule (~~ECE R40 (with/without EUDC), ECE R47, WMTC stage 1, WMTC stage 2-1,~~ **revised WMTC**):  
**Not applicable, electrical vehicle.**

(2.2.1.1.8.) Description gearshift prescriptions for environmental testing:  
**Not applicable, electrical vehicle.**

(2.2.1.2.) Test type I: requirements: tailpipe emissions after cold start  
**Not applicable, electrical vehicle.**

(2.2.1.3.) Test type II requirements: tailpipe emissions at increased idle/free acceleration  
**Not applicable, electrical vehicle.**

(2.2.1.4.) Test type III requirements: emissions of crank-case gases  
**Not applicable, electrical vehicle.**

(2.2.1.5.) Type IV test requirements: evaporative emissions  
**Not applicable, electrical vehicle.**

(2.2.1.6.) Test type V requirements: durability of pollution-control devices  
**Not applicable, electrical vehicle.**



(2.2.1.7.) Test type VI has not been assigned; consequently there are no results to be submitted

**Not applicable, electrical vehicle.**

(2.2.1.8.) Test type VII requirements: measurement of CO<sub>2</sub> emissions, fuel consumption, electric energy consumption and electric range determination

(2.2.1.8.1.) Details of test vehicle(s), its powertrain and pollution-control devices explicitly documented and listed, emission test laboratory equipment and settings if different from data reported under items 2.1.2.1.1. to 2.1.2.1.10:

**Not applicable, electrical vehicle.**

(2.2.1.8.2.) Documentation added according to UNECE Regulation No 101: ~~yes~~/**no**

(2.2.1.8.3.) The vehicle manufacturer has ensured that the CO<sub>2</sub> emissions, fuel consumption, electric energy consumption and electric range data are provided to the buyer of the vehicle at the time of purchase of a new vehicle:

**Yes/~~no~~**

(2.2.1.8.4.) A completed specimen of the test type VII result format used to inform the buyer of the new vehicle is added to the information document:

**Not applicable, electrical vehicle.**

(2.2.1.8.5.) Type VII test results, where applicable and for each reference fuel tested:

**Not applicable, electrical vehicle.**

(2.2.1.8.6.) CO<sub>2</sub> emissions and fuel consumption

Test Type VII result table for propulsions equipped with a combustion engine only or equipped with not-externally-chargeable (NOVC) hybrid electric propulsion

**Not applicable**

(2.2.1.8.7.) CO<sub>2</sub> emissions/fuel consumption (manufacturer's declared values)

Electric energy consumption and electric range:

Test Type VII result table for pure electric propulsion or not-externally-chargeable (NOVC) propulsions equipped with an electric motor for propulsion

Variant 01:

	Measured electric energy consumption (Wh/km)	Declared electric engine consumption (Wh/km)	Measured electric range (km)	Declared electric range (km)
Pure electrical powertrain	38	38	138	138
NOVC hybrid electric powertrain	--	--	--	--

Variant 02:

	Measured electric energy consumption (Wh/km)	Declared electric engine consumption (Wh/km)	Measured electric range (km)	Declared electric range (km)
Pure electrical powertrain	39	39	113	113
NOVC hybrid electric powertrain	--	--	--	--



**Variant 04:**

	Measured electric energy consumption (Wh/km)	Declared electric engine consumption (Wh/km)	Measured electric range (km)	Declared electric range (km)
Pure electrical powertrain	33	33	114	114
NOVC hybrid electric powertrain	--	--	--	--

- (2.2.1.9.) Test type VIII requirements: environmental on-board diagnostic (OBD)  
**Not applicable, electrical vehicle.**
- (2.2.1.10.) Test type IX requirements: sound level  
**Not applicable, electrical vehicle.**
- (2.2.1.11.) Propulsion unit performance test results
- (2.2.1.11.1.) Propulsion unit performance data to be provided to measure/determine the maximum vehicle design speed
- (2.2.1.11.1.1.) Details of hardware and software of test vehicle(s), fitted components and accessories referred to in Annex X to Commission Delegated Regulation (EU) No 134/2014, Any deviations by test vehicle(s) from data provided in information document, Annex I: **yes/no**. If yes, please provide list with deviations relevant for measuring the maximum vehicle design speed and gear in which it was reached:  
**Not applicable**
- (2.2.1.11.1.2.) Test mass in running order: **62kg**  
mass plus rider/driver: **156kg (with battery)**
- (2.2.1.11.1.3.) Test fuel specifications: **not applicable**
- (2.2.1.11.1.4.) Powertrain lubricant specifications: **not applicable**
- (2.2.1.11.1.5.) Atmospheric pressure: **103.4 kPa**
- (2.2.1.11.1.6.) Relative humidity: **48 %**
- (2.2.1.11.1.7.) Ambient temperature: **279 K**
- (2.2.1.11.1.8.) Wind speed and direction on test track: **1.8 m/s**
- (2.2.1.11.1.9.) Test track condition (temperature, level of moisture etc.): **sunny, dry**
- (2.2.1.11.1.10.) Maximum vehicle design speed measured and gear in which it is reached:  
**Variant 01: 24.6 km/h (electrical vehicle, no gear)**  
**Variant 02, 04: 44.7 km/h (electrical vehicle, no gear)**
- (2.2.1.11.1.11.) Maximum vehicle design speed:  
**Variant 01: 25 km/h**  
**Variant 02, 04: 45 km/h**
- (2.2.1.11.1.12.) Exemption L3e-A3 and L4e-A3 vehicles; maximum vehicle design speed declared by manufacturer:  
**Not applicable**
- (2.2.1.11.2.) Propulsion unit performance data to be provided to measure/determine the torque and power of the propulsion on the engine dynamometer



- (2.2.1.11.2.1.) Details of propulsion(s) hardware and software tested, test equipment and settings relevant for propulsion unit performance measurements on engine dynamometer tests:  
**See 1.1. above**
- (2.2.1.11.2.1.1.) List of components and part numbers/markings relevant for propulsion unit performance measurement on engine dynamometer, referred to in Annex X to Commission Delegated Regulation (EU) No 134/2014:  
**See 1.1. above**
- (2.2.1.11.2.1.2.) Test fuel: **not applicable**
- (2.2.1.11.2.1.3.) Powertrain lubricant specifications: **not applicable**
- (2.2.1.11.2.1.4.) Atmospheric pressure: **not applicable**
- (2.2.1.11.2.1.5.) Relative humidity: **not applicable**
- (2.2.1.11.2.1.6.) Ambient temperature: **not applicable**
- (2.2.1.11.2.1.7.) Correction factor for reference atmospheric conditions  $\alpha_1$ : **not applicable**
- (2.2.1.11.2.1.8.) Correction factor for the efficiency of the transmission  $\alpha_2$ : **not applicable**
- (2.2.1.11.2.1.9.) Engine cooling temperature: **not applicable**
- (2.2.1.11.2.1.10.) Oil temperature at measuring point: **not applicable**
- (2.2.1.11.2.1.11.) Exhaust temperature: **not applicable**
- (2.2.1.11.2.1.12.) The manufacturer shall indicate the propulsion unit performance test results below:
- (2.2.1.11.2.1.13.) Maximum permitted ~~combustion engine/~~**electric motor/**propulsion rotation speed:  
**See item 1.3.3.9. of this report**
- (2.2.1.11.2.1.14.) Maximum net power combustion engine: **not applicable**
- (2.2.1.11.2.1.15.) Maximum net torque combustion engine: **not applicable**
- (2.2.1.11.2.1.16.) Maximum continuous-rated power electric motor: **See item 1.3.3.9. of this report**
- (2.2.1.11.2.1.17.) Maximum continuous-rated torque electric motor: **See item 1.3.3.9. of this report**
- (2.2.1.11.2.1.18.) Maximum current e-motor at maximum continuous-rated power:  
**See item 1.3.3.9. of this report**
- (2.2.1.11.2.1.19.) Maximum continuous total power for propulsion(s): **not applicable**... kW at ... min<sup>-1</sup> at A/F ratio: ...
- (2.2.1.11.2.1.20.) Maximum continuous total torque for propulsion(s): **not applicable** ... Nm at ... min<sup>-1</sup> at A/F ratio: ...
- (2.2.1.11.2.1.21.) Maximum peak power for propulsion(s): **not applicable**... kW at ... min<sup>-1</sup> at A/F ratio: ...
- (2.2.1.11.2.1.22.) Power/mass in running order ratio:  
**Not applicable, electrical vehicle.**



- (2.2.1.11.2.1.23.) Specific fuel consumption, g/kWh at maximum net power and power:  
**Not applicable, electrical vehicle.**
- (2.2.1.11.2.1.24.) Propulsion unit performance sweep graphs of total power and torque vs. engine speed (1200 rpm to propulsion speed governor rpm, step 400 rpm). Secondary variables: spark angle, A/F ratio and mass air-flow (measured or calculated):  
**Not applicable, electrical vehicle.**
- (2.2.1.11.2.1.25.) Maximum speed of vehicle and gear in which it is reached (only for subcategories: L1e, L2e, L6e, L7e-B1, L7e-C) (3)  
**Variant 01: 24.6 km/h (electrical vehicle, no gear)**  
**Variant 02, 04: 44.7 km/h (electrical vehicle, no gear)**
- (2.2.1.11.2.1.26.) Maximum declared vehicle speed:  
(only for subcategories without maximum vehicle speed limitation: L3e, L4e, L5e, L7e-A and L7e-B2)  
**Not applicable**
- (2.2.2.) (B) Functional safety test reports**
- (2.2.2.1.) Front and rear protective structures
- (2.2.2.1.1.) Description and justification of the relevant provisions against which the vehicles has been assessed:  
**Not applicable**
- (2.2.2.2.) Driver-operated controls including identification of controls, tell-tales and indicators
- (2.2.2.2.1.) Detailed list of controls, tell-tales, tell-tales colours and indicators of the vehicle:  
**See manufacturer's information document Annex C, item6.9.**
- (2.2.2.2.2.) Assessment of the visibility:  
**All the required symbols and tell-tales are visible from the driver's seat. The speedometer and odometer are built such, that they are visible by day and by night and lie in the driver's field of vision.**
- (2.2.2.3.) Installation of lighting and light-signalling devices, including automatic light switching
- (2.2.2.3.1.) Specific test conditions (e.g. indicator-bulb malfunction):  
**See item 1.3.1.8. of this report**
- (2.2.2.4.) Safety belt anchorages and safety belts
- (2.2.2.4.1.) Description and justification of the relevant provisions against which the vehicle has been assessed:  
**Not applicable**





- (2.2.2.5.) Installation of tyres
- (2.2.2.5.1.) Maximum tyre envelope sizes applied for the clearance assessment:  
**Front tyre rolling circumference: 1300 mm**  
**Rear tyre rolling circumference: 1300 mm**
- (2.2.2.6.) Vehicle occupant protection, including interior fittings and vehicle doors
- (2.2.2.6.1.) Values of radii measurement of interior projections in sufficient detail:  
**Not applicable**
- (2.2.2.7.) Maximum continuous total power and/or maximum vehicle speed limitation by design:  
**Not applicable**
- (2.2.2.7.1.) Maximum vehicle speed and/or maximum continuous total power for vehicles equipped with PI/CI combustion engine limited by:  
**Not applicable**
- (a) the properties, timing or presence of the spark igniting the fuel/air mixture in the cylinder(s): **yes/no**
- (b) the amount of air intake of the engine: **yes/no**
- (c) the amount of fuel intake of the engine: **yes/no**
- (d) the mechanically-controlled output rotation speed of the drive-train, such as clutch, transmission or final drive: **yes/no**
- (2.2.2.7.2.) Maximum vehicle speed and/or maximum power shall be limited by means of two or more of the following, for vehicles which are propelled by means of one or more electric motors, including pure and hybrid electric vehicles:
- (a) reduction of the maximum power output of one or more electric motors based on the vehicle or rotation speed as sensed internally to the electric motor: **yes/~~no~~**
- (b) reduction of the maximum power output of one or more electric motors based on the actual vehicle speed as sensed fully externally to the electric motor: **yes/no**
- (c) physical vehicle speed limitation by means of internal or external components such as a maximum achievable revolution speed of an electric motor: **yes/~~no~~**
- (2.2.2.7.3.) Maximum vehicle speed and/or maximum power shall be limited by means of two or more of the following, for vehicles which are propelled by other means than those referred to in 2.2.7.1. and 2.2.7.2. (3):  
**Not applicable**



**(2.2.3.) (C) Vehicle construction test reports**

**(2.2.3.1.) Arrangements for type-approval procedures**

Delegated act reference	Annex No	Virtual and/or self-testing	Subject	Restrictions / Comments	Applied
Commission Delegated Regulation (EU) No 134/2014	X	Self-testing	Testing procedures on maximum vehicle design speed	Only for subcategories L3e-A3, L4e-A3 and L5e and does not include any other propulsion unit performance testing.	yes/no
Commission Delegated Regulation (EU) No 3/2014	II	Self-testing	Audible warning devices	Installation only	yes/no
Commission Delegated Regulation (EU) No 3/2014	VIII	Self-testing	Driver-operated controls including identification of controls, tell-tales and indicators	Speedometer only	yes/no
Commission Delegated Regulation (EU) No 3/2014	IX	Virtual testing	Installation of lighting and light-signalling devices	Dimensions only	yes/no
Commission Delegated Regulation (EU) No 3/2014	X	Virtual testing	Rearward visibility	Installation only; only according to UNECE Regulation No 81	yes/no
Commission Delegated Regulation (EU) No 3/2014	XV	Virtual testing	Installation of tyres	Only where clearance exceeds 10 mm.	yes/no
Commission Delegated Regulation (EU) No 44/2014	XIV	Self & virtual testing	Registration plate space		yes/no
Commission Delegated Regulation (EU) No 44/2014	XVI	Self-testing	Stands	Only point 2.5. stand retention systems.	yes/no
Commission Implementing Regulation (EU) No 901/2014	V	Self-testing	Statutory plate and EU type-approval mark		yes/no

**(2.2.3.2.) Requirements applying to coupling devices and attachments**

**(2.2.3.2.1.) Dynamic strength test (endurance test) coupling ball and/or head: passed/failed :  
Not applicable**

**(2.2.3.2.2.) Test results dynamic strength test (endurance test):  
Not applicable**

**(2.2.3.3.) Requirements applying to external projections**

**(2.2.3.3.1.) Values of radii measurement of exterior projections in sufficient detail:  
Not applicable**

**(2.2.3.3.2.) Description and justification of the relevant provisions against which the vehicle has been assessed:  
The vehicle category is L1e. It has been assessed using a testing device according to item 1.2.1. of Annex VIII as well as according to all general requirements for that vehicle category.**

**(2.2.3.4.) On-board diagnostics (OBD) functional requirements**

Component	Diagnostic trouble code	Monitoring strategy	Fault detection criteria	MI activation criteria	Secondary parameters	Preconditioning	Demonstration test	Default mode
<b>see table 7.6. in the information document</b>								



(2.2.3.5.) Stands

(2.2.3.5.1.) Detailed description and assessment of the system used to prevent propulsion of the vehicle when the stand is in use:

**If the prop stand is extended, the engine is cut-off when gear is engaged and clutch is released. It cannot be restarted until the prop stand is moved into its retracted position.**

**The centre stand is able to swing back automatically into the not-in-use position when the vehicle is moved forward purposely so as to raise the centre stand from the ground surface.**

**1.3. Detailed tests and their results according to the delegated regulations supplementing regulation (EU) No. 168/2013**

1.3.1. Delegated regulation (EU) No. 3/2014

1.3.1.1. Annex II: Audible Warning Devices

Acoustic tests

The sound pressure level of the warning device fitted to the vehicle was measured on an asphalt test ground in accordance with the requirements of item 2.1 of Annex II part 2 of this regulation.

Type of audible warning device(s) fitted and maximum sound pressure level measured between 0.5 m and 1.5 m above ground level:

manufacturer: **LVEE**  
type: **DL70-II**  
type approval number: **II E32 00 0002**  
number of devices fitted: **One**

Sound pressure level:

for motorcycles and tricycles developing a	limit	measured
- power of less than or equal to 7kW(dB(A))	$\geq 75$ $\leq 112$	<b>90 dB(A)</b>

1.3.1.2. Annex III: Braking, including Anti-lock and Combined Braking Systems

1.3.1.2.1. General requirements

Service brake

Wheels (front/rear)	Brake control
Front wheels	Right Hand
Rear wheels	Left Hand
Front and rear wheels	--

Secondary (Emergency) brake

Wheels (front/rear)	Brake control
Front wheels	--
Rear wheels	--
Front and rear wheels	--



Parking brake

Wheels (front/rear)	Brake control
Front wheels	--
Rear wheels	--
Front and rear wheels	--

The vehicle fulfils the construction and fitting requirements. The described braking performance was obtained without locking of the wheels, without deviation of the vehicle from its course and without abnormal vibration.

1.3.1.2.2. Tests with wet brakes  
Wet brakes have been tested on front wheel disk brake and rear wheel disk brake.

1.3.1.2.3. Results of tests

Mass of vehicle when tested (kg)

	Laden (kg)
Front axle	72
Rear axle	150
Total	222

Vehicle equipped with Anti-Lock system: NO  
Vehicle equipped with split braking system: NO  
Max speed of vehicle > 125 km/h: NO

Braking performance

		Test speed	Deceleration	corrected Stop distance	Braking Force	Limit distance	Limit deceleration
		[km/h]	[m/s <sup>2</sup> ]	[m]	[N]	[m]	[m/s <sup>2</sup> ]
Test §3, dry stop, single (laden)	-Front	40.0/40.3	3.62	18.09	78	22.06	3.4
	-Rear	40.0/39.5	3.57	15.74	80	26.26	2.7
Test §3, dry stop, single (Lightly loaded)	No CBS or SSBS, not applicable						
Test §4, dry stop, all service	L1e vehicle, not applicable						
Test §5, high speed	Vmax < 125 km/h, not applicable						

Optional brake system

		Test speed	Deceleration	corrected Stop distance	Braking Force	Limit distance	Limit deceleration
		[km/h]	[m/s <sup>2</sup> ]	[m]	[N]	[m]	[m/s <sup>2</sup> ]
Test §3, dry stop, single (laden)	-Front	40.0/39.6	3.60	21.37	122	21.76	3.4
	-Rear	40.0/40.1	3.58	19.70	58	26.88	2.7
Test §3, dry stop, single (Lightly loaded)	No CBS or SSBS, not applicable						
Test §4, dry stop, all service	L1e vehicle, not applicable						
Test §5, high speed	Vmax < 125 km/h, not applicable						



### Test §6, wet brake

#### Baseline test

Service brake-Front	Test speed	Measured performance			Measured force applied to control (Average)
	km/h	m/s <sup>2</sup>			
<b>Laden, dry brakes</b>	--	<b>Average</b>	<b>0.5-1.0 s</b>	<b>Max.</b>	--
<b>No.1</b>	40.0/39.9	2.61	2.17	3.75	41
<b>No.2</b>	40.0/40.8	2.70	2.19	3.88	44
<b>No.3</b>	40.0/39.7	2.57	2.03	3.62	42
<b>Average</b>	--	--	2.13	3.75	42

Service brake-Rear	Test speed	Measured performance			Measured force applied to control (Average)
	km/h	m/s <sup>2</sup>			
<b>Laden, dry brakes</b>	--	<b>Average</b>	<b>0.5-1.0 s</b>	<b>Max.</b>	--
<b>No.1</b>	40.0/40.3	2.60	2.15	3.75	40
<b>No.2</b>	40.0/40.4	2.59	2.09	3.67	40
<b>No.3</b>	40.0/39.8	2.76	2.23	3.72	40
<b>Average</b>	--	--	2.16	3.71	40

#### Optional brake system

Service brake-Front	Test speed	Measured performance			Measured force applied to control (Average)
	km/h	m/s <sup>2</sup>			
<b>Laden, dry brakes</b>	--	<b>Average</b>	<b>0.5-1.0 s</b>	<b>Max.</b>	--
<b>No.1</b>	40.0/40.0	2.82	2.35	4.08	100
<b>No.2</b>	40.0/40.1	2.75	2.29	4.02	95
<b>No.3</b>	40.0/40.1	2.63	2.32	3.92	92
<b>Average</b>	--	--	2.32	4.01	96

Service brake-Rear	Test speed	Measured performance			Measured force applied to control (Average)
	km/h	m/s <sup>2</sup>			
<b>Laden, dry brakes</b>	--	<b>Average</b>	<b>0.5-1.0 s</b>	<b>Max.</b>	--
<b>No.1</b>	40.0/39.6	2.54	2.23	3.88	39
<b>No.2</b>	40.0/39.6	2.58	2.25	3.82	40
<b>No.3</b>	40.0/39.9	2.60	2.18	3.90	43
<b>Average</b>	--	--	2.22	3.87	41

#### Wet brake stop

Service brake	Test speed	Measured performance			Measured force applied to control (Average)
	km/h	m/s <sup>2</sup>			
		<b>Average</b>	<b>0.5-1.0 s</b>	<b>Max.</b>	--
<b>Front, laden</b>	40.0/39.8	2.54	2.05	3.60	42
<b>Rear, laden</b>	40.0/39.8	2.60	2.10	3.50	44



Optional brake system

Service brake	Test speed	Measured performance			Measured force applied to control (Average)
	km/h	m/s <sup>2</sup>			N
		Average	0.5-1.0 s	Max.	--
Front, laden	40.0/39.5	2.50	2.10	3.78	94
Rear, laden	40.0/40.2	2.35	2.01	3.62	41

**Test §7~ Test §12 are not applicable.**

1.3.1.2.4. Anti-locking system

**Not applicable**

1.3.1.3. Annex IV: Electrical Safety

1.3.1.3.1. Protection against electrical shock and electrical safety applying to high voltage buses under conditions where they are not connected to external high voltage power supplies

1.3.1.3.1.1 Protection against direct contact

The protections provided shall not be able of being opened, disassembled or removed without the use of tools.

**Requirement fulfilled. Refer to Annex C, drawing No.LX02-27-01.**

1.3.1.3.1.1.1 Protection of live parts inside the enclosed compartment

**Not applicable, vehicle has no enclosed compartment.**

1.3.1.3.1.1.2 Protection of live parts in areas other than the enclosed compartment

**Not applicable, vehicle has no enclosed compartment.**

1.3.1.3.1.1.3 Protection of live parts of vehicles where no enclosed compartment is present

**Requirement fulfilled. Protection of live parts with the protection degree IPPXXD.**

1.3.1.3.1.1.4 Connectors (including vehicle inlet)

**Requirement fulfilled. Vehicle connectors comply with the protection degree IPPXXB.**

1.3.1.3.1.1.5 Service disconnect

**Not applicable, service disconnect can not be opened, disassembled or removed without the use of tools.**

1.3.1.3.1.1.6 Specific marking requirements

**Requirement fulfilled no cables for high voltage buses which are not located fully within enclosures. More details refer to Annex C, drawing No. LX02-28-01.**



- 1.3.1.3.1.2 Protection against indirect contact
- 1.3.1.3.1.2.1 Protection against electrical shock arising from indirect contact  
**Requirements fulfilled through galvanically connections using bolts.**
- 1.3.1.3.1.2.2 Resistance between all exposed conductive parts and the electrical chassis  
**The resistance between all exposed conductive parts and the electrical chassis is lower than 0.1  $\Omega$  when there is current flow of 0.2 A.**
- 1.3.1.3.1.2.3 Vehicle intended to be connected to a grounded external electric power supply  
**Requirement fulfilled, vehicle can only use a dedicated charger that is protected when any single isolation fault arises.**
- 1.3.1.3.1.3 Isolation resistance
- 1.3.1.3.1.3.1 Electric power trains consisting of separate DC- or AC-buses  
**Requirement fulfilled, DC buses, working voltage is more than 100  $\Omega$ /V.**
- 1.3.1.3.1.3.2 Electric power trains consisting of combined DC- and AC-buses  
**Not applicable**
- 1.3.1.3.1.3.3 Fuel cell vehicles  
**Not applicable**
- 1.3.1.3.1.3.4 Isolation resistance of coupling system for charging the REESS  
**Not applicable, connected to external DC power supply.**
- 1.3.1.3.2. Requirements concerning the REESS
- 1.3.1.3.2.1 Protection in case of excessive current  
**Protection is provided against overheating due to excessive current by means of breaking of fuse(s) under critical conditions**
- 1.3.1.3.2.2 Protection of accumulation of gas  
**Lithium battery (no aqueous electrolyte, sealed type, no gas evolution)**
- 1.3.1.3.2.3 Protection against electrolyte spills  
**Lithium battery (no aqueous electrolyte, sealed type)**
- 1.3.1.3.2.4 Accidental or unintentional detachment  
**The REESS and its components are installed in the vehicle in a way so as to preclude the possibility of inadvertent or unintentional detachment or ejection of the REESS.**  
**The REESS and its components are not ejected when the vehicle is tilted in any direction, leaned left or right against the ground or even when the REESS is put upside-down.**
- 1.3.1.3.3. In-use safety requirements
- 1.3.1.3.3.1 Propulsion system power-on and power-off procedure



- 1.3.1.3.3.1.1 Start-up  
**At the start-up, including system power-on, in order to select the active driving possible mode, at least two deliberate and distinctive actions shall be performed by the driver.**
- 1.3.1.3.3.1.2 Momentary indication  
**A momentary indication is given to the rider when the vehicle is switched in active driving possible mode. Refer to Annex C drawing No. LX02-15-01 & LX02-15-02.**
- 1.3.1.3.3.1.3 Signal information the rider  
**When leaving the vehicle, the rider was informed by an optical signal if the vehicle still in the active driving possible mode. Refer to Annex C drawing No. LX02 -15-01 & LX02-15-02.**
- 1.3.1.3.3.1.4 On-board REESS externally charged by driver  
**When on-board REESS was externally charged by driver, the charge cable obviously prevents the use of vehicle.**
- 1.3.1.3.3.1.5 Vehicle is equipped with a device direction control unit  
**Not applicable**
- 1.3.1.3.3.1.6 Deactivating the active driving possible mode  
**Only one action is required to deactivate the active driving possible mode or to complete the power-off procedure.**
- 1.3.1.3.3.2 Driving with reduced power
- 1.3.1.3.3.2.1 Indication of reduced power  
**Not applicable.**
- 1.3.1.3.3.2.2 Indication of low energy content of REESS  
**A low energy content is indicated to the rider by an obvious device. Refer to drawing LX02 -15-01 & LX02-15-02.**
- 1.3.1.3.3.3 Driver backwards  
**Not applicable.**
- 1.3.1.3.3.4 Determination of hydrogen emission  
**Not applicable, not equipped with open type traction batteries.**
- 1.3.1.4. Annex V: Declaration regarding Endurance Testing of Functional safety Critical Systems, Parts and Equipment  
**See manufacturer's information document**
- 1.3.1.5. Annex VI: Front and Rear Protective Structures  
**Not applicable**





1.3.1.6. Annex VII: Glazing, Windscreen Wipers and Washers and Defrosting and Demisting Systems

1.3.1.6.1. Glazing:

**Not applicable: The vehicle is not fitted with any glazing.**

1.3.1.6.2. Windscreen Wipers and Washers:

**Not applicable: The vehicle is not fitted with a windscreen.**

1.3.1.6.3. Defrosting and Demisting Systems:

**Not applicable: The vehicle is not fitted with a windscreen.**

1.3.1.7. Annex VIII: Driver operated Controls including Identification of Controls, Tell-Tales and Indicators

1.3.1.7.1. Identification

The controls, tell tales and indicators shown in Annex C, to this report referred to in UN ECE R60 are identified by the required symbols.

The symbols stand out clearly against the background, and are placed on the control or control tell-tales or in the immediate proximity thereof.

The colors used for the tell-tales are those required in Annex VIII of Regulation (EU) 3/2014.

1.3.1.7.1.1. Symbols not standardised in the Directive

Symbols other than those shown in UN ECE R60 are used for other purposes. These symbols are either in accordance with Annex VIII of Regulation (EU) 3/2014 or ISO 2575:2010. There is no danger of confusion with those symbols shown UN ECE R60.

1.3.1.7.2. Speedometer and Odometer:

The speedometer meets all the relevant requirement of UN ECE R39.

1.3.1.7.2.1. Speedometer fitting:

There is a digital speedometer fitted to the vehicle. It is located in the direct field of view of the driver and is clearly legible by day and by night. The range of speed displayed includes the maximum speed of the vehicle. The read-out shows values in subdivisions of 1 km/h or 1 mph.



1.3.1.7.2.2. Speedometer accuracy:

Tires fitted:

Front axle	3.00-10 42J E4-75R-0005902
Rear axle	3.00-10 42J E4-75R-0005902

The tests were carried out on a flat and dry test track.

Test results:

Speedometer S3-W-1\*, speedometer S3-W-Y1\*

Actual speed V2 [km/h]	Read speed V1 [km/h]	Deviation V1-V2 [km/h]	Limit : 0.1 x V2 + 4 [km/h]
<b>32.7</b>	<b>36</b>	<b>3.3</b>	<b>7.3</b>
<b>17.9</b>	<b>20</b>	<b>2.1</b>	<b>5.8</b>

Remark: Speedometer S3-W-1 and speedometer S3-W-Y1 are identical except for the make and type.

Speedometer S3-W-Y2

Actual speed V2 [km/h]	Read speed V1 [km/h]	Deviation V1-V2 [km/h]	Limit : 0.1 x V2 + 4 [km/h]
<b>34.3</b>	<b>36</b>	<b>1.7</b>	<b>7.4</b>

The speed displayed was never lower than the actual speed.

1.3.1.7.2.3. Common Space for displaying Multiple Information:

The vehicle is not fitted with a device showing multiple information in a common space.

1.3.1.8. Annex IX: Installation of Lighting and Light Signalling Devices, including Automatic Switching of Lighting

1.3.1.8.1. Lighting and light-signalling devices

- Component type-approval marks, manufacturer's marks: see manufacturer's information document Annex C.
- Position (location) and arrangement: see manufacturer's information document Annex C.
- Geometric visibility complies with the requirements of item 6 of UN ECE R74 for all the lighting and light-signalling devices
- The vehicle is equipped with automatic headlamp switch-on, daytime running lamp has not been equipped.
- The vehicle ~~is~~/ is not fitted with additional rear / side reflective devices and materials. ~~These devices / materials do not impair the effectiveness of the mandatory lighting devices and have the same colors as the lighting devices which are present at that location~~
- Electrical connections are according to the requirements of item 6 of UN ECE R74 for all the lighting and light-signalling devices
- The installation and functional requirements set out in items 5 and 6 of UN ECE R74 are all met by the mandatory and optional lighting equipment installed



#### Devices fitted

Device	Approval #	Number	Alignment	telltale
Main-beam	See information document	1	frontward	See 6.11.1. of information folder
Dipped-beam	See information document	1	frontward	
Front position	See information document	1	frontward	
Front direction indicator	See information document	2	frontward	
Rear direction indicator	See information document	2	rearward	
Stop	See information document	1	rearward	
Rear position	See information document	1	rearward	
Rear registration plate	See information document	1	rearward	
Rear retro-reflector	See information document	1	rearward	
Pedal retro-reflector	See information document	--	Front/rear ward	
Side retro-reflector	See information document	2	sidewards	

#### 1.3.1.8.2. Grouping and electrical connections

The main-beam and dipped-beam headlamps do not remain lit at the same time. The direction indicators function at a frequency according to the standard and this frequency changes considerably in the case of a malfunction of one or more direction indicators.

#### 1.3.1.9. Annex X: Rearward visibility

##### 1.3.1.9.1. Inspections and their results:

Rear view mirrors:



**Make:**

**Type: WY-032**

**Approval number: L E13 006472**

Outside (left and right side) mirror(s):

**See information document, Annex C, drawing No. LX02-18-01.**

##### 1.3.1.9.2. Position

All rear-view mirror(s) is (are) attached in such a way that they remain in stable position under normal vehicle driving conditions.

The rear-view mirror(s) is (are) so placed that the driver, when sitting on the driving seat in a normal driving position, has(ve) a clear view of the road to the rear and sides of the vehicle.



- 1.3.1.9.3.           Number  
Main outside mirror(s): **2**
- 1.3.1.9.4.           Adjustment  
The driver is able to adjust the rear-view mirror(s) from his driving position.
- 1.3.1.10.           Annex XI: Roll-over protective structure (ROPS)  
Inspections and their results:  
Not applicable
- 1.3.1.11.           Annex XII: Safety belt anchorages and safety belts  
Inspections and their results:  
Not applicable
- 1.3.1.12.           Annex XIII: Seating positions (saddles and seats)  
Inspections and their results:  
Number of seating positions:           **2**  
All seating positions forward:       **yes**  
Kind of seating positions:           **saddle**  
R-point:                               **see manufacturer's documentation**  
Height of R-point:                   **> 540mm**  
Seating positions fitted with seat belt: **no**  
Child restraint systems:           **no**
- 1.3.1.13.           Annex XIV: Steerability, cornering properties and turnability  
Inspections and their results:  
Vehicle test mass:                   **222kg**  
Tire front size:                      **3.00-10 42J**  
Tire front pressure:                 **200 kPa**  
Tire rear size:                       **3.00-10 42J**  
Tire rear pressure:                  **220 kPa**  
Vehicle max. speed:                 **45 km/h**  
  
*Spiral test*  
Vehicle speed:                       **8 km/h**  
Final circle radius:                 **12 m**  
Requirement left:                   **fulfilled**  
Requirement right:                 **fulfilled**  
  
*Leave circle test*  
Vehicle speed:                       **23 km/h**  
Circle radius:                        **10 m**  
Requirement left:                   **fulfilled**  
Requirement right:                 **fulfilled**



*Travel along straight test*

Test speed:

0.8 x v<sub>max</sub>                      **36 km/h**

Requirement                      **fulfilled**

1.3.1.14.                      Annex XV: Installation of tyres

1.3.1.14.1.                      Inspections and their results:

EC-homologated tires of the manufacturer's specifications for size, load index and speed index must be fitted. The tires presented for the test had the following approval numbers:

**See information document of manufacturer, Annex C, page 21.**

1.3.1.14.1.1.                      Tyre fitting

There is always one type of tyres per axle only. The tyres can revolve freely within the space provided and do not any part of the vehicle structure under the conditions set out in this Annex.

1.3.1.14.1.2.                      Load capacity

Combined tyre No	Axle	Dimension	Minimum Load index technically required	Tolerated load per wheel / axle (kg)	Maximum permissible axle mass stated by the manufacturer (see (EU) 44/2014, Annex XI) (kg)
1	Front	3.00-10 42J	17	150	72
	Rear	3.00-10 42J	42	150	150

1.3.1.14.1.3.                      Speed capability

Combined tyre No	Axle	Dimension	Minimum Speed index technically required	Maximum permissible speed of tyre (km/h)	Maximum vehicle speed (km/h)
1	Front	3.00-10 42J	B	100	45
	Rear	3.00-10 42J	B	100	45

1.3.1.14.1.4.                      Tyre pressures

The recommended tyre pressure under all conditions of use is given on a label glued on the front frame and also in the operators manual.

1.3.1.15.                      Annex XVI: Maximum speed limitation plate and its location on the vehicle

Inspections and their results:

**Not applicable**

1.3.1.16.                      Annex XVII: Vehicle occupant protection, including interior fittings and vehicle doors

Inspections and their results: **Not applicable**



1.3.1.17. Annex XVIII: Maximum continuous rated or net power and/or maximum speed limitation by design

Inspections and their results:

Maximum vehicle speed and/or power is limited by the following (minimum two required):

- ~~properties of the spark igniting the air/fuel mixture in the cylinders~~
- ~~timing of the spark igniting the air/fuel mixture in the cylinders~~
- ~~presence of the spark igniting the air/fuel mixture in the cylinders~~
- ~~amount of air intake of the engine~~
- ~~amount of fuel intake of the engine~~
- ~~electronically controlled output rotation speed of the drive train~~
- ~~mechanically controlled output rotation speed of the drive train~~

For vehicles which are propelled by means of one or more electric motors, including pure and hybrid electric vehicles:

- reduction of the maximum power output of one or more electric motors based on the vehicle or rotation speed as sensed internally to the electric motor
- ~~reduction of the maximum power output of one or more electric motors based on the actual vehicle speed as sensed fully externally to the electric motor~~
- physical vehicle speed limitation by means of internal or external components such as a maximum achievable revolution speed of an electric motor.

~~The maximum speed of the vehicle is only limited by drag and the maximum net power is only limited by the construction of the engine. No additional limitations are used.~~

Above listed means used to limit the maximum vehicle speed and/or the maximum engine power operate independently. Failure of one method to work as intended does not impair the limitation function of the other method(s).

Above means have been tested by failing each method independently.

1.3.1.18. Annex XIX: Vehicle structure integrity

Inspections and their results:

The required signed statement is to be found in manufacturer's information document. The requirements for QA system covering the manufacturing of the chassis/frame has been assessed during the Initial Assessment of the manufacturer/producer. Specific analysis of vehicle structures, components and parts by means of engineering calculations, virtual testing methods and structural testing can be made available upon request.



1.3.2. Delegated regulation (EU) No. 44/2014

1.3.2.1. Annex II: Powertrain tampering prevention (anti-tampering) measures

1.3.2.1.1. General requirements

The manufacturer declares its commitment not to market interchangeable components which could enable an increase in propulsion unit performance applicable to the relevant (sub)category.

The maximum design vehicle speed and/or the maximum continuous rated and/or net engine power of the relevant (sub)category, set out in Annex I to Regulation (EU) No 168/2013 remains within the conformity of production boundaries set out in point 4.1.4 of Annex IV.

~~The number of teeth is displayed on the pinions.~~

~~The ignition timing is not adjustable.~~

All electronic equipment and/or programmable computer are tamper protected.

~~Stored on-board diagnostic trouble codes (DTCs) in the powertrain or engine control unit(s) are not erased by disconnection of the on board computer from the vehicle power supply or by disconnection or failure of the vehicle battery or ground.~~

1.3.2.1.2. Additional specific requirements for categories L1e, L2e and L6e

	Requirement
Intake system Fixing with Shear bolts / special bolts Interference with pipes lead to malfunctioning Marking with vehicle category	Not applicable
Engine Reed valves fixed in order to prevent reuse Thickness of cylinder head gasket Two stroke engines	Not applicable
Exhaust system Artificial restriction Resonator tube Part inside silencer	Not applicable
CVT transmission Covers fixed by min 2 shear bolts Mechanism, distance between discs	Not applicable

1.3.2.1.3. Additional specific requirements for categories L3e-A1 and L4e-A1

Not applicable

1.3.2.1.4. Additional specific requirements for other categories (L3e-A2/A3 and L4e-A2/A3)

Not applicable



1.3.2.2. Annex V: Coupling devices and attachments

Inspections and their results

Not applicable, vehicle is not equipped with a coupling device

1.3.2.3. Annex VI: Devices to prevent unauthorised use

1.3.2.3.1. General requirements

The vehicle type is fitted with a type-2 protective device intended to prevent unauthorised use.

The protective device is designed such that:

- it is necessary to disable it in order to point, drive or move the vehicle straight ahead;
- the key can only be removed when the catch is fully engaged or withdrawn. It is impossible to obtain any intermediate position of the key, which may subsequently engage the bolt, even if the key for the protective device is introduced.

The above requirements are met by manipulating the key just once.

The protective device and the parts that it controls within the vehicle are designed in such a way that it is impossible to open it quickly and without attracting attention, render it inoperative or destroy it, other than by using special tools.

The protective device forms part of the vehicle's original equipment and the lock is attached firmly to it.

The key locking system incorporates more than 1000 different combinations.

The key and lock are not visibly coded.

It is not possible to turn the lock cylinder when it is in the locked position by applying a torque of less than 0,245 daN with anything other than the appropriate key.

The cylinder is of the disc type, and there are no more than two identical adjacent grooves operating in the same direction and no more than 50 % of identical slots.

The protective device is such that, when the vehicle is set in motion and the engine is turning there is no likelihood of accidental jamming which could, in particular, constitute a safety hazard.

Once it has been armed the protective device is, without any deterioration of the steering device that is likely to impair safety, able to withstand the application in both directions and under static conditions a torque of 200 Nm along the axis of the steering spindle.

The protective device is designed in such a way that the steering can be locked at an angle of more than 20° to the left in relation to the straight-ahead position.





1.3.2.3.2. Specific requirements

It is not possible to actuate the lock of this protective device other than by the motion of the key, the steering device being in the appropriate position for engagement of the catch in the corresponding slot.

It is not possible to engage the catch if the protective device is in a position enabling the engine of the vehicle to be started.

1.3.2.4. Annex VII: Electromagnetic compatibility (EMC)

1.3.2.4.1. Inspections and their results:

All tests have been carried out according to the requirements of ECE R10.

1.3.2.4.1.1. Other than “REESS charging mode coupled to the power grid”

1.3.2.4.1.1.1. Broadband radiation from vehicle

The vehicle has undergone inspections according to Annex 4 of the regulation. It showed lower emission values than the limits laid out in that Annex.

**Variant 01: Refer to Annex D, page 1 to 4.**

**Variant 02, 04: Refer to Annex D, page 13 to 16.**

1.3.2.4.1.1.2. Narrowband radiation from vehicle

The vehicle has undergone inspections according to Annex 5 of the regulation. It showed lower emission values than the limits laid out in that Annex.

**Variant 01: Refer to Annex D, page 5 to 8.**

**Variant 02, 04: Refer to Annex D, page 17 to 20.**

1.3.2.4.1.1.3. Immunity of vehicles to electromagnetic radiation

The vehicle has undergone inspections according to Annex 6 of the regulation. There is no abnormal change in the speed of the driven wheels of the vehicle, no degradation of the performance, which could cause confusion to other road users, and no degradation in the driver’s direct control of the vehicle which could be observed by the driver or the other road user.

1.3.2.4.1.2. “REESS charging mode coupled to the power grid”

1.3.2.4.1.2.1. Broadband radiation from vehicle

The vehicle has undergone inspections according to Annex 4 of the regulation. It showed lower emission values than the limits laid out in that Annex.

**Variant 01: Refer to Annex D, page 9 to 12.**

**Variant 02, 04: Refer to Annex D, page 21 to 24.**

1.3.2.4.1.2.2. Emission of harmonics on AC power lines from vehicle

**Not applicable, vehicle with external charger, no AC power lines in vehicle.**



- 1.3.2.4.1.2.3. Emission of voltage changes, voltage fluctuation and flicker on AC power lines from vehicles  
**Not applicable, vehicle with external charger, no AC power lines in vehicle.**
- 1.3.2.4.1.2.4. Emission of radiofrequency conducted disturbances on AC or DC power lines from vehicle  
**Not applicable.**  
**As per exception set out in item 7.20.5. of ECE R10-05series, vehicle is intended to be used in “REESS charging mode coupled to the power grid” in the configuration connected to a local/private DC- charging station without addition participants.**
- 1.3.2.4.1.2.5. Emission of radiofrequency conducted disturbances on network and telecommunication access from vehicle  
**Not applicable.**  
**As per exception set out in item 7.20.1. of ECE R10-05series, there is no direct connection to a telecommunication network which includes telecommunication service additional to the charging communication service.**
- 1.3.2.4.1.2.6. Immunity of vehicle to electromagnetic radiation  
**The vehicle has undergone inspections according to Annex 6 of the regulation. There is no abnormal change in the speed of the driven wheels of the vehicle, no degradation of the performance, which could cause confusion to other road users, and no degradation in the driver’s direct control of the vehicle which could be observed by the driver or the other road user.**
- 1.3.2.4.1.2.7. Immunity of vehicles to electrical fast transient/burst disturbances conducted along AC and DC power lines  
**Not applicable.**  
**As per exception set out in item 7.20.5. of ECE R10-05series, vehicle is intended to be used in “REESS charging mode coupled to the power grid” in the configuration connected to a local/private DC- charging station without addition participants.**
- 1.3.2.4.1.2.8. Immunity of vehicles to surge conducted along AC or DC power lines  
**Not applicable.**  
**As per exception set out in item 7.20.5. of ECE R10-05series, vehicle is intended to be used in “REESS charging mode coupled to the power grid” in the configuration connected to a local/private DC- charging station without addition participants.**
- 1.3.2.4.1.2.9. Optional equipment  
Not applicable



1.3.2.5. Annex VIII: External projections

1.3.2.5.1. Inspections and their results:

The assessment of the external projections has been performed according to the general requirements set in paragraph 2.1. of the Annex VIII.

The external surface of the vehicles do not exhibit any parts or any projection to be likely either to increase the risk of seriousness of bodily injury to a person hit by the external surface or brushing against it in event of a collision, or to catch on pedestrians, cyclists or motor cyclists.

All parts of the external surface of the vehicle, which are above the floor line or so located that they can neither in static condition nor in operation be contacted by a sphere with 100 mm in diameter, have a radius of curvature of not less than 2,5 mm respectively 5 mm in case of front and rear bumper.

1.3.2.5.2. Ornaments

Not applicable

1.3.2.5.3. Grilles and gaps

All parts forming gaps between fixed or movable elements, including those being part of air intake or outlet or radiator grilles, correspond to the following limits:

- gaps of more than 40 mm have minimum radii of 2,5 mm
- gaps between 40 and 25 mm have minimum radii of 1 mm
- gaps of less than 25 mm have minimum radii of 0,5 mm.

All gaps of 40 mm or less have a functional purpose.

1.3.2.5.4. Bumpers:

Not applicable

1.3.2.5.6. Wheels, wheel nuts, hubcaps and wheel discs

Wheels, wheel nuts, hubcaps and wheel discs do not exhibit any pointed or sharp projections that extend beyond the external plane of the wheel rim.

At straight ahead position of the wheels, no part of the wheels, other than the tyres, located above the horizontal plane, passing through their axis of rotation is projecting beyond the vertical projection, in a horizontal plane, of the external surface of the vehicle.

1.3.2.5.7. Sheet metal edges

Not applicable

1.3.2.5.8. Particular specifications

1.3.2.5.8.1. Windscreen or fairing

Not applicable

1.3.2.5.8.2. Clutch and break levers

Not applicable



1.3.2.6. Annex IX: Fuel storage

Not applicable, electrical vehicle.

1.3.2.7. Annex X: Load platforms

1.3.2.7.1. Inspections and their results:

Not applicable for category L1e vehicles.

1.3.2.8. Annex XI: Masses and dimensions

Masses and dimensions of the vehicle type:

The masses and dimensions measured are complying with the requirements and the manufacturer's data within the measuring tolerances.

The maximum dimensions of the vehicle category are not exceeded. The maximum masses of the vehicle category are not exceeded. The distribution of the masses on the axles of the fully laden vehicle is according to the requirements of this annex. For detailed values: see manufacturer's information document

1.3.2.9. Annex XII: Functional on-board diagnostics (OBD)

Not applicable, electrical vehicle.

1.3.2.10. Annex XIII: Passenger handholds and footrests

1.3.2.10.1. Inspections and their results:

Provisions are made to carry a passenger.

The vehicle is equipped with a hand-hold system in the form of one hand-grip, which is behind the passenger seating position.

The hand-grip and its attachment can withstand without snapping the required load of 2000N.

The vehicle is equipped with footrests for driver seating positions.

All of the footrests are capable of withstanding a static vertical compression force of 1700N. The space provided for these footrests fulfils the requirements of the present annex.

1.3.2.11. Annex XIV: Registration plate space

1.3.2.11.1. Dimensions of the space for mounting the rear registration plate

A plate 145mm\*125mm or 100mm\*175mm can be fixed to the mounting space.

1.3.2.11.2. General location:

The plate can be positioned at the rear of the vehicle within the longitudinal planes passing through the outer extremities of the vehicle.



- 1.3.2.11.3.           Inclination
- The plate can be fixed at a right angle with the median longitudinal plane of the vehicle at an inclination of less than 30° from the vertical (the backing plate for the registration number facing upwards).
- 1.3.2.11.3.           Maximum/Minimum height/geometric visibility
- Fulfilled, refer to Annex C, drawing No.LX02-23-01
- 1.3.2.12.            Annex XV: Access to repair and maintenance information
- General requirements
- The manufacturer grants non-discriminatory access to repair and maintenance information to independent operators according to all requirements of the present annex. See also the manufacturer's certificate in the information folder.
- 1.3.2.13.            Annex XVI: Stands
- Inspections and their results:
- 1.3.2.13.1.1        General requirements
- The motorcycle is equipped with prop stand which swing to the rear of the ~~motorcycle~~ / moped in order to attain the closed or travelling position.
- 1.3.2.13.1.2        Prop stands
- See point 1.2.1.3.5.1.
- 1.3.2.13.1.3        Centre stands
- See point 1.2.1.3.5.1.
- 1.3.2.13.1.4        Stability on a horizontal supporting surface
- After the vehicle was brought to rest upon the extended centre / prop stand on the test pad, the vehicle was moved in order to increase the angle formed by the median longitudinal plane and the supporting surface by three degrees. This movement did not cause the centre / prop stand to return automatically to its retracted or travelling position.
- 1.3.2.13.1.5        Stability on an inclined surface
- After the vehicle was brought to rest upon the extended centre / prop stand on the parking platform, this platform was shifted subsequently to its minimum transverse tilt and its minimum longitudinal tilt in accordance with the table 14-1 and the figures 14-1, 14-2 and 14-3 of the Annex.
- The vehicle remained stable when the parking platform was tilted by each of the required amounts.



- 1.3.2.13.1.6 Other requirements
- 1.3.2.13.1.6.1 Extended stand tell-tale
- Not applicable.
- 1.3.2.13.1.6.2 Retention system
- Both stands are provided with a retention system which holds them in the retracted or travelling position. The system consists of two independent springs for each one.
- 1.3.3. Delegated regulation (EU) No. 134/2014
- 1.3.3.1. Annex II: Test type I requirements: tail pipe emissions after cold start
- Not applicable, electrical vehicle.**
- 1.3.3.2. Annex III: Test type II requirements: tail pipe emissions at (increased) idle and free acceleration
- Not applicable, electrical vehicle.**
- 1.3.3.3. Annex IV: Test type III requirements: emissions of crankcase gases
- Not applicable, electrical vehicle.**
- 1.3.3.4. Annex V: Test type IV requirements: evaporative emissions
- Not applicable, electrical vehicle.**
- 1.3.3.5. Annex VI: Test type V requirements: durability of pollution-control devices
- Not applicable, electrical vehicle.**
- 1.3.3.6. Annex VII: Test type VII requirements: CO2 emissions, fuel consumption, electric energy consumption and electric range
- Inspections and their results:  
**Refer to item 1.2.1.1.8.7. of this report.**
- 1.3.3.7. Annex VIII: Test type VIII requirements: OBD environmental tests
- Inspections and their results:  
**Not applicable**
- 1.3.3.8. Annex IX: Test type IX requirements: sound level
- Not applicable**



### 1.3.3.9. Annex X: Propulsion unit performance

#### 1.3.3.9.1. Inspections and their results:

##### 1.3.3.9.1.1. Measured net engine power

The maximum net engine power and net torque have been measured according to Annex 6 of ECE Regulation No. 85.

#### **Variant 01**

	1	2	3	4	5	6	7	8	9	10
rpm	316	298	274	257	230	210	190	170	130	102
V [V]	60	60	60	60	60	60	60	60	60	60
P [W]	463.2	1154.6	1377.2	<b>1518.2</b>	1470.8	1454.1	1432.3	1307.0	1107.1	928.5
M [Nm]	14.0	37.0	48.0	56.4	61.1	66.1	72.0	73.4	81.3	86.9
I [A]	8.9	23.2	29.7	34.8	34.1	35.1	35.6	34.9	34.8	35.3

#### **Variant 02, 04:**

	1	2	3	4	5	6	7	8	9	10
rpm	593	572	551	534	505	476	450	407	352	209
V [V]	60	60	60	60	60	60	60	60	60	60
P [W]	1039.7	1568.8	1986.4	2024.2	<b>2083.2</b>	2050.4	2025.1	1966.7	1901.5	1596.6
M [Nm]	16.7	26.2	34.4	36.2	39.4	41.1	43.0	46.1	51.6	73.0
I [A]	20.8	30.2	38.1	38.9	40.0	40.0	40.3	39.7	40.1	39.5

#### 1.3.3.9.1.2. Maximum 30 minutes power

The maximum continuous-rated power and maximum continuous-rated torque have been measured according to Annex 6 of ECE Regulation No. 85.

#### **Variant 01**

	Start	End	Max.	Min.	Avg.
rpm	251	251	--	--	251.4
V [V]	60	60	--	--	60
I [A]	33.1	33.4	--	--	32.9
P [W]	1443.3	1422.8	1443.3	1402.3	1417.9
M [Nm]	54.9	54.1	--	--	53.9

#### **Maximum continuous-rated power**

stated by the manufacturer : **1.42 kW** at **251 min<sup>-1</sup>**  
measured : **1.42 kW** at **251 min<sup>-1</sup>**

#### **Maximum continuous-rated torque**

stated by the manufacturer : **53.9 Nm** at **251 min<sup>-1</sup>**  
measured : **53.9 Nm** at **251 min<sup>-1</sup>**



### **Variant 02, 04**

	Start	End	Max.	Min.	Avg.
rpm	506	506	--	--	504.8
V [V]	60	60	--	--	60
I [A]	39.8	39.3	--	--	39.6
P [W]	2062.5	2032.2	2062.5	2032.2	2051.7
M [Nm]	38.9	38.4	--	--	38.8

#### **Maximum continuous-rated power**

stated by the manufacturer : **2.05 kW** at **505 min<sup>-1</sup>**  
measured : **2.05 kW** at **505 min<sup>-1</sup>**

#### **Maximum continuous-rated torque**

stated by the manufacturer : **38.8 Nm** at **505 min<sup>-1</sup>**  
measured : **38.8 Nm** at **505 min<sup>-1</sup>**

1.3.4. Delegated regulation (EU) No. 901/2014

1.3.4.1. Annex V: Statutory plate and EU type-approval mark

1.3.4.1.1. Manufacturer data plate

The manufacturer's data plate is firmly riveted on the chassis in the position as shown in the manufacturer's information document.

The plate contains all required information in an indelible form inside a clearly marked rectangle.

1.3.4.1.2. Vehicle identification number (VIN)

The VIN is given on the manufacturer's data plate and is stamped on the right side of main pipe.

It is easily accessible and cannot be obliterated or changed easily. It is structured in three parts as indicated in the Annex.

The beginning and end of this line is marked by a symbol which is neither an Arabic numeral nor a capital Latin letter, nor it is possible to confuse this with any such a character. Details see manufacturer's information document.

1.3.4.1.3. Characters

All characters used on the manufacturer data plate and in the vehicle identification number are in accordance with the requirements of the standard.

**1.4. Test facilities**

Calibration of measuring and test equipment used to carry out the inspections is in accordance with the ECE-Regulation stated in 1.1. of this report and with ISO 17025.

**1.5. Remarks**

The inspection results are only applicable to items which have been tested.

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*Document information about two-wheel mopeds**Reference number of information document: 168/2013-LX02-01**Application date: August 18, 2021*

## LIST OF CONTENT

## I. 168/2013 Information Document-GENERAL INFORMATION

## II. Variants and Versions Matrix

Type	Variant(s)	Version(s)	Battery	Engine type	Mass speed	Controller Marking
LX02	01	01	Lithium battery: 60V 23.4Ah (2 in parallel)	CH610r120°eM	25km/h	ZWK060035A-1
	02			CJ610r120°eM	45km/h	ZWK060240A
	<a href="#">04</a>		<a href="#">Lithium battery: 60V 23.4Ah*2 Simultaneous use</a>	CJ610r120°eM	45km/h	ZWK060240A

## III. Content of drawings

Drawing No.	Drawing Name
<a href="#">LX02-01-01</a>	<a href="#">Location of the manufacturer's data plate and chassis number</a>
<a href="#">LX02-02-01</a>	<a href="#">Manufacturer's data plate and chassis number</a>
<a href="#">LX02-03-01</a>	<a href="#">Complete vehicle dimension</a>
<a href="#">LX02-03-02</a>	<a href="#">Complete vehicle dimension(Optional)</a>
LX02-04-01	Chassis
<a href="#">LX02-05-01</a>	<a href="#">General view of motor</a>
LX02-06-01	Control system of pure propulsion
<a href="#">LX02-08-01</a>	<a href="#">Controller</a>
LX02-09-01	Front suspension arrangements
<a href="#">LX02-09-02</a>	<a href="#">Front suspension arrangements(Optional)</a>
<a href="#">LX02-10-01</a>	<a href="#">Rear suspension arrangements</a>
LX02-11-01	Location of audible warning device
LX02-12-01	Electrical schematic
LX02-13-01	Brake system
LX02-13-02	Front brake system
LX02-13-03	Rear brake system
<a href="#">LX02-13-04</a>	<a href="#">Front brake system(Optional)</a>
<a href="#">LX02-13-05</a>	<a href="#">Rear brake system(Optional)</a>
<a href="#">LX02-14-01</a>	<a href="#">Functional range of circuit breaker</a>
<a href="#">LX02-15-01</a>	<a href="#">Controls, tell-tales and indicators</a>
<a href="#">LX02-15-02</a>	<a href="#">Controls, tell-tales and indicators(Optional)</a>
<a href="#">LX02-16-01</a>	<a href="#">Speedometer system(type 1)</a>
<a href="#">LX02-16-02</a>	<a href="#">Speedometer system(type 2)</a>
<a href="#">LX02-17-01</a>	<a href="#">Lighting installation</a>
<a href="#">LX02-18-01</a>	<a href="#">Location of rear view mirror</a>
<a href="#">LX02-19-01</a>	<a href="#">Steering geometry</a>
<a href="#">LX02-20-01</a>	<a href="#">Anti-theft device</a>
LX02-21-01	Hand-hold
LX02-22-01	Footrest
<a href="#">LX02-23-01</a>	<a href="#">Space for rear registration plate</a>

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<a href="#">LX02-24-01</a>	<a href="#">Central stand</a>
<a href="#">LX02-24-02</a>	<a href="#">Side stand</a>
LX02-25-01	Location of the Power Circuit Components
<a href="#">LX02-26-01</a>	<a href="#">Lithium battery</a>
<a href="#">LX02-26-02</a>	<a href="#">Lithium battery</a>
LX02-27-01	Installation of the battery
<a href="#">LX02-28-01</a>	<a href="#">External charger socket</a>
IV. Additional information requested by the type approval	
	information folder sheet
	Endurance statement
	Structure statement
	Anti-Tampering Statement
	Sample of COC
	Statement concerning authority of Signature on COC

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**INFORMATION DOCUMENT FOR THE PURPOSE OF EC TYPE-APPROVAL OF VEHICLES**

According to Regulation (EU) number 168/2013\*2020/1694  
and Commission implementing Regulation (EU) number 901/2014 amended by 2020/239

Item No	(Sub) categories	Detailed information
0.		GENERAL INFORMATION
A.		General information concerning vehicles
0.1.	L1e-L7e	Make (trade name of manufacturer) :  LVNENG,  Skand, Smartway, VEMO, Senzo, Hype-Bike, IVA,  genergia,  WHATT,  VA, WAYEL, <a href="#">rutec</a> , <a href="#">CETUR</a> , bensom, <a href="#">Greenwolke</a>
0.2.	L1e-L7e	Type <sup>(17)</sup> : LX02
0.2.1.	L1e-L7e	Variant(s) <sup>(17)</sup> : 01, 02, <a href="#">04</a>
0.2.2.	L1e-L7e	Version(s) <sup>(17)</sup> : 01
0.2.3.	L1e-L7e	Commercial name(s) (if available) : LX02, COMO, eXcellent, <a href="#">MOSCU</a> , <a href="#">E-GO S3</a>
0.3.	L1e-L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> : L1e-B
0.4.	L1e-L7e	Company name and address of manufacturer : Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd. No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou, P.R. China
0.4.1.	L1e-L7e	Name(s) and address(es) of assembly plants : Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd. No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou, P.R. China
0.4.2.	L1e-L7e	Name and address of manufacturer's authorized representative, if any : IVA Mobility B.V. Sportlaan 391, 3364DK Sliedrecht, The Netherlands
0.5.	L1e-L7e	Manufacturer's statutory plate(s)
0.5.1.	L1e-L7e	Location of the manufacturer's statutory plate <sup>(15)(18)</sup> : R, x910, y115, z220 <a href="#">Refer to drawing No. LX02-01-01</a>
0.5.2.	L1e-L7e	Method of attachment : Riveted on the chassis
0.5.3.	L1e-L7e	Photographs and/or drawings of the statutory plate (completed example with dimensions) : Refer to drawing No. LX02-02-01
0.6.	L1e-L7e	Location of the vehicle identification number <sup>(2)</sup> : R, x320, y5, z430(r/o)
0.6.1.	L1e-L7e	Photographs and/or drawings of the locations of the vehicle identification number (completed example with dimensions) : <a href="#">Refer to drawing No. LX02-01-01</a>
0.6.1.1.	L1e-L7e	The serial number of the type begins with : Variant(s)/Version(s): 01/01: ☆LV2NYF10??1?????☆ 02(04)/01: ☆LV2NYJ10??1?????☆ <a href="#">Refer to drawing No. LX02-02-01</a>
B.		General information concerning systems, components or separate technical units
	L1e-L7e	From 0.7. to 0.11.2. : Not applicable

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Item No	(Sub) categories	Detailed information
C.		General information regarding conformity of production and access to repair and maintenance information
0.12.		Conformity of production
0.12.1.	L1e-L7e	Description of overall quality-assurance management systems : Conforms to ISO9001: 2015 quality management system
0.13.		Access to repair and maintenance information
0.13.1.	L1e-L7e	Address of principal website for access to vehicle repair and maintenance information : <a href="http://www.lvnengebike.com/">http://www.lvnengebike.com/</a> Information is available six months after vehicle type approval. See regulation EU 44/2014, annex XV, item 8.7
0.13.2.	L1e-L7e	In the case of multi-stage type-approval, address of principal website for access to vehicle repair and maintenance information from manufacturer(s) at previous stage(s) : Not applicable
1.		GENERAL CONSTRUCTION CHARACTERISTICS
1.1.	L1e-L7e	Photographs and/or drawings of a representative vehicle : <a href="#">Refer to drawing No. LX02-03-01</a> <a href="#">Refer to drawing No. LX02-03-02</a>
1.2.	L1e-L7e	Scale drawing of the whole vehicle : <a href="#">Refer to drawing No. LX02-03-01</a> <a href="#">Refer to drawing No. LX02-03-02</a>
1.3.	L1e-L7e	Number of axles and wheels : 2 axles and 2 wheels
1.3.1.	L1e-L7e	Axles with twinned wheels <sup>(23)</sup> : Not applicable
1.3.2.	L1e-L7e	Powered axles <sup>(23)</sup> : R (Rear powered axle)
1.4.	L1e-L7e	Chassis (if any) (overall drawing) : Refer to drawing No. LX02-04-01
1.5.		Material used for the bodywork : Not applicable (only for L2e,L5e-B,L6e-B,L7e-A2,L7e-B2,L7e-C)
1.6.	L1e-L7e	Position and arrangement of the propulsion(s) : In the center of rear wheel
1.7.		Hand of drive : <del>left/right/centre</del> <sup>(4)</sup> (Only for L4e,L5e-B,L6e-B,L7e-A2,L7e-B2,L7e-C)
1.7.1.	L1e-L7e	Vehicle is equipped to be driven in right/left-hand traffic and in countries that use metric/metric and imperial units <sup>(4)</sup> : <a href="#">Right and left-hand, metric and imperial</a>
1.8.		Propulsion unit performance
1.8.1.		Declared maximum vehicle speed : Not applicable (Only for L3e, L4e, L5e, L7e-A, L7e-B2)
1.8.2.		Maximum design vehicle speed <sup>(22)</sup> : Variant(s)-01: 25km/h Variant(s)-02, <u>04</u> : 45km/h and gear in which it is reached: Not applicable (Only for L1e, L2e, L6e, L7e-B1, L7e-C)
1.8.3.	L1e-L7e	Maximum net power combustion engine : Not applicable
1.8.4.	L1e-L7e	Maximum net torque combustion engine : Not applicable
1.8.5.	L1e-L7e	Maximum continuous-rated power electric motor ( <del>15</del> /30 <sup>(4)</sup> minutes power <sup>(27)</sup> ) : Variant(s)-01: 1.42 kW at 251 min <sup>-1</sup> Variant(s)-02, <u>04</u> : 2.05 kW at 505 min <sup>-1</sup>
1.8.6.	L1e-L7e	Maximum continuous-rated torque electric motor : Variant(s)-01: 53.9 N.m at 251 min <sup>-1</sup> Variant(s)-02, <u>04</u> : 38.8 N.m at 505 min <sup>-1</sup>

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Item No	(Sub) categories	Detailed information
1.8.7.	L1e-L7e	Maximum continuous total power for propulsion(s) : Not applicable
1.8.8.	L1e-L7e	Maximum continuous total torque for propulsion(s) : Not applicable
1.8.9.	L1e-L7e	Maximum peak power for propulsion(s) : Not applicable
2.		MASSES AND DIMENSIONS (In kg and mm.) refer to drawings where applicable
2.1.		Range of vehicle mass (overall)
2.1.1.	L1e-L7e	Mass in running order : 62kg
2.1.1.1.	L1e-L7e	Distribution of mass in running order between the axles : Front: 24kg Rear: 38kg
2.1.2.	L1e-L7e	Actual mass : 156kg
2.1.2.1.	L1e-L7e	Distribution of actual mass between the axles : Front: 56kg Rear: 100kg
2.1.3.	L1e-L7e	Technically permissible maximum laden mass : 222kg
2.1.3.1.	L1e-L7e	Technically permissible maximum mass on front axle : 72kg
2.1.3.2.	L1e-L7e	Technically permissible maximum mass on rear axle : 150kg
2.1.3.3.	L4e	Technically permissible maximum mass on sidecar axle : Not applicable
2.1.4.	L1e-L7e	Maximum hill-starting ability at the maximum technically permissible mass declared by the manufacturer : 15° slope
2.1.5.	L1e-L7e	Maximum pay mass declared by manufacturer : 66kg
2.1.6.	L1e-L7e	Safe load carrying capacity of load platform declared by manufacturer : Not applicable
2.1.7.	L1e-L7e	Technically permissible maximum towable mass in case of <sup>(4)</sup> : Not applicable
2.1.7.1.	L1e-L7e	Technically permissible maximum laden mass of the combination : Not applicable
2.1.7.2.	L1e-L7e	Technically permissible maximum mass at the coupling point : Not applicable
2.1.8.	L1e-L7e	Mass of the optional equipment : Not applicable
2.1.9.	L1e-L7e	Mass of the superstructure : Not applicable
2.1.10.	L1e-L7e	Mass of the propulsion battery : 2*10.2kg=20.4kg
2.1.11.		Mass of the doors : Not applicable (Only for L2e, L4e, L5e, L6e, L7e)
2.1.12.		Mass of the machines or equipment installed on the load platform area : Not applicable (Only for L2e-U, L5e-B, L6e-BU, L7e-CU)
2.1.13.	L1e-L7e	Mass of the gaseous fuel system as well as storage tanks for gaseous fuel : Not applicable

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Item No	(Sub) categories	Detailed information	
2.1.14.	L1e-L7e	Mass of the storage tanks to store compressed air	: Not applicable
2.2.		Range of vehicle dimensions (overall)	
2.2.1.	L1e-L7e	Length	: 1740 mm
2.2.2.	L1e-L7e	Width	: <a href="#">770 mm</a>
2.2.3.	L1e-L7e	Height	: 1090 mm
2.2.4.	L1e-L7e	Wheelbase	: <a href="#">1270 mm</a>
2.2.4.1.	L4e	Wheelbase sidecar <sup>(28)</sup>	: Not applicable
2.2.5.		Track width	: Not applicable
2.2.6.	L7e-B	Front overhang	: Not applicable
2.2.7.	L7e-B	Rear overhang	: Not applicable
2.2.8.		Load platform dimensions	: Not applicable (Only for L2e-U, L5e-B,L6e-BU,L7e-B2,L7e-CU)
2.2.9.		Centre of gravity	: Not applicable (Only for L2e-U, L5e-B,L6e-BU,L7e-B2,L7e-CU)
2.2.10.		Miscellaneous dimensions	
		From 2.2.10.9. to 2.2.10.10.	: Not applicable (Only for L7e-B2)
		From 2.2.10.1. to 2.2.10.8.	: Not applicable (Only for L3e-AxE, L3e-AxT)
3.		GENERAL POWERTRAIN CHARACTERISTICS	
3.1.		Manufacturer of the propulsion unit	
3.1.1.		<i>Combustion engine</i>	
	L1e-L7e	From 3.1.1.1. to 3.1.1.3.	: Not applicable
3.1.2.		<i>Electric motor</i>	
3.1.2.1.	L1e-L7e	Manufacturer	: BOSCH (Ningbo) light electric vehicle motor Co., Ltd.
3.1.2.2.	L1e-L7e	Electric motor code (as marked on the engine or other means of identification)	: Variant(s)-01: CH610r120°eM*????????* Variant(s)-02, <a href="#">04</a> : CJ610r120°eM*????????* <a href="#">Refer to drawing No. LX02-05-01</a>
3.1.3.		<i>Hybrid application</i>	
	L1e-L7e	From 3.1.3.1. to 3.1.3.4.	: Not applicable
3.2.		Combustion engine	
	L1e-L7e	From 3.2.1. to 3.2.13.4.	: Not applicable
3.3.		Pure electric and hybrid electric propulsion and control	
3.3.1.	L1e-L7e	Electric vehicle configuration	: Pure electric/ <del>hybrid electric/manpower electric</del> <sup>(4)</sup>
3.3.2.	L1e-L7e	Brief description and schematic drawing of pure and hybrid electric propulsions and its control system(s)	: Refer to drawing No. LX02-06-01
3.3.3.		<i>Electric propulsion motor</i>	
3.3.3.1.	L1e-L7e	Number of electric motors for propulsion	: 1
3.3.3.2.	L1e-L7e	Type (winding, excitation)	: Winding

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Item No	(Sub) categories	Detailed information
3.3.3.3.	L1e-L7e	Operating voltage : 60V
3.3.3.4.	L1e-L7e	<del>45/30</del> <sup>(4)</sup> minutes power <sup>(27)</sup> Variant(s)-01: 1.42 kW at 251 min <sup>-1</sup> Variant(s)-02, <u>04</u> : 2.05 kW at 505 min <sup>-1</sup>
3.3.4.		<i>Propulsion batteries</i>
3.3.4.1.	L1e-L7e	Primary propulsion battery
3.3.4.1.1.	L1e-L7e	Number of cells : <a href="#">Variant(s)-01, 02</a> : 17*9=153 <a href="#">Variant(s)-04</a> : 2*17*9=2*153
3.3.4.1.2.	L1e-L7e	Mass : <a href="#">Variant(s)-01, 02</a> : 1*10.2kg=10.2kg <a href="#">Variant(s)-04</a> : 2*10.2kg=20.4kg
3.3.4.1.3.	L1e-L7e	Capacity : <a href="#">Variant(s)-01, 02</a> : 23.4Ah <a href="#">Variant(s)-04</a> : 2*23.4Ah
3.3.4.1.4.	L1e-L7e	Voltage : 60V
3.3.4.1.5.	L1e-L7e	Position in the vehicle : Under rear saddle Refer to drawing No. LX02-27-01
3.3.4.2.	L1e-L7e	Secondary propulsion battery
3.3.4.2.1.	L1e-L7e	Number of cells : <a href="#">Variant(s)-01, 02</a> : 17*9=153
3.3.4.2.2.	L1e-L7e	Mass : <a href="#">Variant(s)-01, 02</a> : 1*10.2kg=10.2kg
3.3.4.2.3.	L1e-L7e	Capacity : <a href="#">Variant(s)-01, 02</a> : 23.4Ah
3.3.4.2.4.	L1e-L7e	Voltage : 60V
3.3.4.2.5.	L1e-L7e	Position in the vehicle : Under rear saddle Refer to drawing No. LX02-27-01
3.3.5.		<i>Hybrid electric vehicle</i>
	L1e-L7e	From 3.3.5.1. to 3.3.5.7. : Not applicable
3.3.6.		<i>Energy storage device</i>
3.3.6.1.	L1e-L7e	Description : <a href="#">(battery, capacitor, flywheel/generator)</a>
3.3.6.2.	L1e-L7e	Identification number : <a href="#">Variant(s)-01, 02</a> : Type: DM1501709 60V23.4Ah <a href="#">Variant(s)-04</a> : Type: DM2851709
* 3.3.6.3.	L1e-L7e	Kind of electrochemical couple : <a href="#">Lithium battery</a>
3.3.6.4.	L1e-L7e	Energy (for battery: voltage and capacity : <a href="#">60V, 23.4Ah</a> Ah in 2h, for capacitor: J,..., for flywheel/ generator: J,...)
3.3.6.5.	L1e-L7e	Charger : <del>on-board</del> /external/ <del>without</del> <sup>(4)</sup>
3.3.7.		<i>Electric motor (describe each type of electric motor separately)</i>
3.3.7.1.	L1e-L7e	Primary use : Propulsion motor/ <del>generator</del> <sup>(4)</sup>
3.3.7.2.	L1e-L7e	When used as propulsion motor: single-/multi-motors (number) <sup>(4)</sup> : single-motor
3.3.7.3.	L1e-L7e	Working principle : Permanent magnet, Direct Current Brushless
3.3.7.4.	L1e-L7e	Direct current/ <del>alternating current</del> /number of phases : Direct current/three phases
3.3.7.5.	L1e-L7e	<del>Separate excitation</del> /series/ <del>compound</del> <sup>(4)</sup> : Series
3.3.7.6.	L1e-L7e	Synchronous/ <del>asynchronous</del> <sup>(4)</sup> : Synchronous

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3.3.8.		<i>Electric motor control unit</i>				
3.3.8.1.	L1e-L7e	Identification number	: Variant(s)-01: Make:  Marking: ZWK060035A-1 Variant(s)-02, <u>04</u> : Make:  Marking: ZWK060240A <a href="#">Refer to drawing No. LX02-08-01</a>			
3.3.9.		<i>Power controller</i>				
3.3.9.1.	L1e-L7e	Identification number	: Not applicable			
3.4.		Other engines, electric motors or combinations (specific information concerning the parts of these motors)				
	L1e-L7e	From 3.4.1. to 3.4.2.5.1.	: Not applicable			
3.5.		Drive-train and control <sup>(13)</sup>				
3.5.1.	L1e-L7e	Brief description and schematic drawing of the vehicle drive-train and its control system (gear shift control, clutch control or any other element of drive-train)	: Electric vehicle, it has no clutch control and gear shift control.			
3.5.2.		<i>Clutch</i>				
3.5.2.1.	L1e-L7e	Brief description and schematic drawing of the clutch and its control system	: Not applicable			
3.5.3.		<i>Transmission</i>				
3.5.3.1.	L1e-L7e	Brief description and schematic drawing of gear shift system(s) and its control	: Not applicable			
3.5.3.2.	L1e-L7e	Drawing of the transmission	: Not applicable			
3.5.3.3.	L1e-L7e	Type( <del>mechanical, hydraulic, electric, manual/manual-automated/automatic/CVT/other</del> ) <sup>(4)</sup>	: Other: Wheel-hub motor			
3.5.3.4.	L1e-L7e	A brief description of the electrical/electronic components (if any)	: Not applicable			
3.5.3.5.	L1e-L7e	Location relative to the engine	: Not applicable			
3.5.3.6.	L1e-L7e	Method of control	: Not applicable			
3.5.4.	L1e-L7e	<i>Gear ratios</i>				
		Overview gear ratios				
		Gear <sup>(24)</sup>	Internal transmission ratio (ratio of engine to transmission output shaft revolutions)	Final drive ratio(ratio of transmission output shaft to driven wheel revolutions)	Total gear ratio	Ratio(engine speed, vehicle speed) for manual transmission only
		1/2/3	Not applicable	Not applicable	Not applicable	Not applicable
		Reverse	Not applicable	Not applicable	Not applicable	Not applicable
3.5.4.1.	L3e-AxE, L3e-AxT	Final drive ratio	: Not applicable			



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3.5.4.2.	L3e-AxE, L3e-AxT	Overall gear ratio in highest gear	: Not applicable
3.6.		Safe-cornering device	
3.6.1.		Safe-cornering device (Annex VIII to Regulation (EU) No 168/2013	: <del>yes/no</del> <sup>(4)</sup> ; <del>differential/other</del> <sup>(4)</sup> (Equipped with twinned wheels, L2e, L5e, L6e, L7e)
3.6.2.		Differential lock	: <del>yes/no/optional</del> <sup>(4)</sup> (Equipped with twinned wheels, L2e, L5e, L6e, L7e)
3.6.3.	L1e-L7e	Brief description and schematic drawing of the safe-cornering device, the differential lock and their control systems	: Not applicable
3.7.		Suspension and control	
3.7.1.	L1e-L7e	Brief description and schematic drawing of suspension and its control system	: Refer to drawing No. LX02-09-01 <a href="#">Refer to drawing No. LX02-09-02</a> <a href="#">Refer to drawing No. LX02-10-01</a>
3.7.2.	L1e-L7e	Drawing of the suspension arrangements	: Refer to drawing No. LX02-09-01 <a href="#">Refer to drawing No. LX02-09-02</a> <a href="#">Refer to drawing No. LX02-10-01</a>
3.7.3.	L1e-L7e	Level adjustment	: <del>yes/no/optional</del> <sup>(4)</sup>
3.7.4.	L1e-L7e	Brief description of the electrical/electronic components	: Not applicable
3.7.5.	L1e-L7e	Stabilisers	: <del>yes/no/optional</del>
3.7.6.	L1e-L7e	Shock absorbers	: <del>yes/no/optional</del>
3.8.		Passenger-compartment heating system and air-conditioning	
		From 3.8.1. to 3.8.2.3.4.	: Not applicable (Only for L2e, L5e-B, L6e- B, L7e)
3.9.		Cycles designed to pedal	
	L1e	From 3.9.1. to 3.9.4.	: Not applicable
4.		GENERAL INFORMATION ON ENVIRONMENTAL AND PROPULSION PERFORMANCE	
4.0.		General information on environmental and propulsion performance	
4.0.1.	L1e-L7e	Environmental step <sup>(16)</sup>	: Euro 5
4.0.2.	L1e-L7e	Fuel consumption (provide details for each reference fuel tested)	: Not applicable
4.0.3.	L1e-L7e	CO <sub>2</sub> emission	: Not applicable
4.0.4.	L1e-L7e	Energy consumption	: Variant(s)-01: 38Wh/km Variant(s)-02: 39Wh/km <a href="#">Variant(s)-04: 33Wh/km</a>
4.0.5.	L1e-L7e	Electric range	: Variant(s)-01: 138 km Variant(s)-02: 113 km <a href="#">Variant(s)-04: 114 km</a>
4.1.		Tailpipe emission-control system	
	L1e-L7e	From 4.1.1. to 4.1.8.1.	: Not applicable

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4.2.		Crankcase emission control system
4.2.1.	L1e-L7e	Configuration of crank-case gas recycling system (breather system, positive crank-case ventilation system, other) <sup>(4)</sup> (description and drawings) : Not applicable
4.3.		Evaporative emission control system
	L1e-L7e	From 4.3.1. to 4.3.8. : Not applicable
4.4.		Additional information on environmental and propulsion unit performance
	L1e-L7e	From 4.4.1. to 4.4.4. : Not applicable
5.		VEHICLE PROPULSION FAMILY
5.1.	L1e-L7e	To define the vehicle propulsion family, the manufacturer shall submit the information required for classification criteria set out in point 3 of Annex XI to Commission Delegated Regulation : Not applicable
6.		INFORMATION ON FUNCTIONAL SAFETY
6.1.		Audible warning devices
6.1.1.	L1e-L7e	Summary description of device(s) used and their purpose : One Electro-magnetic horn with resonator disc, single-tone warning
6.1.2.	L1e-L7e	Drawing(s) showing the location of the audible warning device(s) in relation to the structure of the vehicle : Refer to drawing No. LX02-11-01
6.1.3.	L1e-L7e	Details of the method of attachment, including the part of the vehicle structure to which the audible warning device(s) is (are) attached : Attached to the chassis by bolt Refer to drawing No. LX02-11-01
6.1.4.	L1e-L7e	Electrical/pneumatic circuit diagram : Electromagnetic horn Refer to drawing No. LX02-12-01
6.1.4.1.	L1e-L7e	Voltage : <del>AC</del> /DC <sup>(4)</sup>
6.1.4.2.	L1e-L7e	Rated voltage or pressure : 12V
6.1.5.	L1e-L7e	Drawing of the mounting device : Refer to drawing No. LX02-11-01
6.2.		Braking, including anti-lock and combined braking systems
6.2.1.	L1e-L7e	Characteristics of the brakes, including details and drawings of the drums, discs, hoses, make and type of shoe/pad assemblies and/or linings, effective braking areas, radius of drums, shoes or discs, mass of drums, adjustment devices, relevant parts of the axle(s) and suspension, levers, pedals <sup>(4)</sup> : Refer to drawing No. LX02-13-01 Refer to drawing No. LX02-13-02 Refer to drawing No. LX02-13-03 <a href="#">Refer to drawing No. LX02-13-04</a> <a href="#">Refer to drawing No. LX02-13-05</a>

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6.2.2.	L1e-L7e	Operating diagram, description and/or drawing of the braking system, including details and drawings of the transmission and controls as well as a brief description of the electrical and/or electronic components used in the braking system <sup>(4)</sup>	: Refer to drawing No. LX02-13-02 Refer to drawing No. LX02-13-03 <a href="#">Refer to drawing No. LX02-13-04</a> <a href="#">Refer to drawing No. LX02-13-05</a>
6.2.2.1.	L1e-L7e	Front, rear and sidecar brakes, disc and/or drum <sup>(4)</sup>	: Front: disc Rear: disc
6.2.2.2.	L1e-L7e	Parking braking system	: Not applicable
6.2.2.3.	L1e-L7e	Any additional braking system	: Not applicable
6.2.3.	L1e-L7e	Vehicle is equipped to tow a trailer with no brake/overrun brake/electric/pneumatic/hydraulic service brakes	: <del>yes</del> /no <sup>(4)</sup>
6.2.4.	L1e-L7e	Anti-lock/Combined braking system	
6.2.4.1.	L1e-L7e	Anti-lock braking system	: <del>yes</del> /no/ <del>optional</del> <sup>(4)</sup>
6.2.4.2.	L1e-L7e	Combined braking system	: <del>yes</del> /no/ <del>optional</del> <sup>(4)</sup>
6.2.4.3.	L1e-L7e	Anti-lock and combined braking system	: <del>yes</del> /no/ <del>optional</del> <sup>(4)</sup>
6.2.4.4.	L1e-L7e	Schematic drawing(s)	: Not applicable
6.2.5.	L1e-L7e	Hydraulic reservoir(s) (volume and location)	: Refer to drawing No. LX02-13-02 Refer to drawing No. LX02-13-03 <a href="#">Refer to drawing No. LX02-13-04</a> <a href="#">Refer to drawing No. LX02-13-05</a>
6.2.6.	L1e-L7e	Particular characteristics of the braking system(s)	
6.2.6.1.	L1e-L7e	Brake shoes and/or pads <sup>(4)</sup>	: Refer to drawing No. LX02-13-02 Refer to drawing No. LX02-13-03 <a href="#">Refer to drawing No. LX02-13-04</a> <a href="#">Refer to drawing No. LX02-13-05</a>
6.2.6.2.	L1e-L7e	Linings and/or pads (indicate make, type, grade of material or identification mark)	: Refer to drawing No. LX02-13-02 Refer to drawing No. LX02-13-03 <a href="#">Refer to drawing No. LX02-13-04</a> <a href="#">Refer to drawing No. LX02-13-05</a>
6.2.6.3.	L1e-L7e	Brake levers and/or pedals <sup>(4)</sup>	: Refer to drawing No. LX02-13-02 Refer to drawing No. LX02-13-03 <a href="#">Refer to drawing No. LX02-13-04</a> <a href="#">Refer to drawing No. LX02-13-05</a>
6.2.6.4.	L1e-L7e	Other devices (where applicable) drawing and description	: Not applicable
6.3.		Electrical safety	
6.3.1.	L1e-L7e	Brief description of the power circuit components installation and drawings/ photographs showing the location of the power circuit components installation	: Refer to drawing No. LX02-12-01 Refer to drawing No. LX02-25-01
6.3.2.	L1e-L7e	Schematic diagram of all electrical functions included in power circuit	: Refer to drawing No. LX02-12-01
6.3.3.	L1e-L7e	Working voltage(s) (V)	: Power working voltage: 60V DC Other electrical components voltage: 12V DC

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6.3.4.	L1e-L7e	Description of protection against electric-shocks	: Using terminal box that made by high and low pressure polyethylene material, and nylon plug to protect against electric-shocks. the high voltage marking is provided; charger and controller have good grounding.
6.3.5.	L1e-L7e	Fuse and/or circuit breaker	: yes/ <del>no</del> /optional <sup>(4)</sup> circuit breaker
6.3.5.1.	L1e-L7e	Diagram showing the functional range	: <a href="#">Refer to drawing No. LX02-14-01</a>
6.3.6.	L1e-L7e	Configuration of power wiring harness	: According with national standard Refer to drawing No. LX02-12-01
6.4.		Front and rear protective structures	
6.4.1.		<i>Front protective structure</i>	
6.4.1.1.	L1e-L7e	Detailed technical description (including photographs or drawings)	: Not applicable
6.4.1.2.	L1e-L7e	Materials used	: Not applicable
6.4.2.		<i>Rear protective structure</i>	
6.4.2.1.	L1e-L7e	Detailed technical description (including photographs or drawings)	: Not applicable
6.4.2.2.	L1e-L7e	Materials used	: Not applicable
6.5.		Glazing, windscreen wipers and washers, and defrosting and demisting systems	
		From 6.5.1. to 6.5.4.1.	: Not applicable (Only for L2e, L5e, L6e, L7e)
6.6.		Windscreen wiper(s)	
6.6.1.		Detailed technical description (including photographs or drawings)	: Not applicable (Only for L2e, L5e, L6e, L7e)
6.7.		Windscreen washer	
6.7.1.		Detailed technical description (including photographs or drawings)	: Not applicable (Only for L2e, L5e, L6e, L7e)
6.7.2.		Capacity of the reservoir	: Not applicable (Only for L2e, L5e, L6e, L7e)
6.8.		Defrosting and demisting	
6.8.1.		Detailed technical description (including photographs or drawings)	: Not applicable (Only for L2e, L5e, L6e, L7e)
6.9.		Driver-operated controls including identification of controls, tell- tales and indicators	
6.9.1.	L1e-L7e	Arrangement and identification of controls, tell-tales and indicators	: <a href="#">Refer to drawing No. LX02-15-01</a> <a href="#">Refer to drawing No. LX02-15-02</a>
6.9.2.	L1e-L7e	Photographs and/or drawings of the arrangement of symbols and controls, tell-tales and indicators	: <a href="#">Refer to drawing No. LX02-15-01</a> <a href="#">Refer to drawing No. LX02-15-02</a>
6.9.3.	L1e-L7e	Controls, tell-tales and indicators for which, when fitted, identification is mandatory, including the identification symbols to be used for that purpose	: See table 6.9.4.
6.9.4.	L1e-L7e	Summary table: the vehicle is equipped with the following driver-operated controls, including indicators and tell-tales <sup>(4)</sup>	: See table 6.9.4.

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6.9.5.	L1e-L7e	Controls, tell-tales and indicators for which, when fitted, identification is optional, and Symbols which shall be used if they are to be identified : See table 6.9.5.
6.10.		Speedometer and odometer
6.10.1.		<i>Speedometer</i>
6.10.1.1.	L1e-L7e	Photographs and/or drawings of the complete system : Make(s) of Speedometer: Type 1: LIANGSHULAITE Type 2 and 3:  Type(s): 1: S3-W-1* 2: <a href="#">S3-W-Y1*</a> 3: <a href="#">S3-W-Y2</a>  <u>Remark: Speedometer S3-W-1 and speedometer S3-W-Y1 are identical except for the make and type.</u>  <u>Refer to drawing No. LX02-16-01</u> <u>Refer to drawing No. LX02-16-02</u>
6.10.1.2.	L1e-L7e	Vehicle speed range displayed : <a href="#">0~80 km/h, 0~50mph</a>
6.10.1.3.	L1e-L7e	Tolerance of the measuring mechanism of the speedometer : $0 \leq (V1-V2) \leq 0.1*V2+4$ V1: the speed of the speedometer V2: the actual testing speed
6.10.1.4.	L1e-L7e	Technical constant of the speedometer : 147Hz@30km/h
6.10.1.5.	L1e-L7e	Method of operation and description of the drive mechanism Magnet sensor makes pulse signal from the rolling of rear wheel, speedometer receives pulse signal from magnet sensor by transmission cable.
6.10.1.6.	L1e-L7e	Overall transmission ratio of the drive mechanism : 24 pulses / 1 rear wheel cycle
6.10.2.		<i>Odometer</i>
6.10.2.1.	L1e-L7e	Tolerance of the measuring mechanism of the odometer : 0~5%
6.10.2.2.	L1e-L7e	Method of operation and description of the drive mechanism : See 6.10.1.5.
6.11.		Installation of lighting, light-signalling devices, including automatic switching of lighting
6.11.1.	L1e-L7e	List of all devices (mentioning the number, make(s), type, component type-approval mark(s), the maximum intensity of the main-beam headlamps, color, the corresponding tell-tale) : See table 6.11.1.
6.11.2.	L1e-L7e	Diagram showing the location of the lighting and light-signaling devices : <a href="#">Refer to drawing No. LX02-17-01</a>
6.11.3.	L1e-L7e	Hazard warning lamps : Not applicable
6.11.4.	L1e-L7e	Brief description of the electrical and/or electronic components used in the lighting system and in the light-signaling system : Not applicable
6.11.5.	L1e-L7e	For every lamp and reflector, supply the following information (in writing and/or by diagram) : See components certificate

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6.11.5.1.	L1e-L7e	Drawing showing the extent of the illuminating surface : See components certificate
6.11.5.2.	L1e-L7e	Method used to define the apparent surface in accordance with point 2.10 of UNECE Regulation No 48 (OJ L 323, 6.12.2011, p. 46) : See components certificate
6.11.5.3.	L1e-L7e	Axis of reference and centre of reference : See components certificate
6.11.5.4.	L1e-L7e	Method of operation of concealable lamps : Not applicable
6.11.6.	L1e-L7e	Description/drawing and type of headlamp leveling device (e.g. automatic, stepwise manually adjustable, continuously manually adjustable) <sup>(4)</sup> : Not applicable
6.11.6.1.	L1e-L7e	Control device : Not applicable
6.11.6.2.	L1e-L7e	Reference marks : Not applicable
6.11.6.3.	L1e-L7e	Marks assigned for loading conditions : Not applicable
6.12.		Rearward visibility
6.12.1.		<i>Rear-view mirrors (stating for each mirror)</i>
6.12.1.1.	L1e-L7e	Drawing(s) for the identification of the mirror showing the position of the mirror relative to the vehicle structure : <a href="#">Refer to drawing No. LX02-18-01</a>
6.12.1.2.	L1e-L7e	Details of the method of attachment including that part of the vehicle structure to which it is attached : <a href="#">Refer to drawing No. LX02-18-01</a>
6.12.1.3.	L1e-L7e	A brief description of the electronic components of the adjustment system : Not applicable
6.12.2.	L1e-L7e	<i>Devices for indirect vision other than mirrors</i>
6.12.2.1.	L1e-L7e	Description of the device : Not applicable
6.12.2.2.	L1e-L7e	In the case of a camera-monitor device, the detection distance (mm), contrast, luminance range, glare correction, display performance (black and white/color <sup>(4)</sup> ), image repetition frequency, luminance reach of the monitor <sup>(4)</sup> : Not applicable
6.12.2.3.	L1e-L7e	Sufficiently detailed drawings to identify the complete device, including installation instructions; the position for the EU type-approval mark has to be indicated on the drawings : Not applicable
6.13.		Rollover protective structure (ROPS)
	L7e-B2	From 6.13.1. to 6.13.4.2. : Not applicable
6.14.		Safety belts and/or other restraints : Not applicable (Only for L2e, L4e, L5e-B, L6e-B, L7e)
6.15.		Safety belt anchorages : Not applicable (Only for L2e, L4e, L5e-B, L6e-B, L7e)
6.16.		Seating positions (saddles and seats)
6.16.1.	L1e-L7e	Number of seating positions : 2
6.16.1.1.		Location and arrangement <sup>(8)</sup> : Not applicable (Only for L2e, L5e, L6e, L7e)

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6.16.2.	L1e-L7e	Seating position configuration : <del>seat</del> /saddle <sup>(4)</sup>
6.16.3.	L1e-L7e	Description and drawings of
6.16.3.1.	L1e-L7e	The seats and their anchorages : Not applicable
6.16.3.2.	L1e-L7e	The adjustment system : Not applicable
6.16.3.3.	L1e-L7e	The displacement and locking systems : Not applicable
6.16.3.4.	L1e-L7e	The seat-belt anchorages incorporated in the seat structure : Not applicable
6.16.3.5.	L1e-L7e	The parts of the vehicle used as anchorages : Not applicable
6.16.4.		Coordinates or drawing of the R-point(s) of all seating positions : Not applicable (only for L2e, L4e, L5e-B, L6e-B, L7e)
6.16.4.1.		Driver's seat : Not applicable (Only for L2e, L4e, L5e-B, L6e-B, L7e)
6.16.4.2.		All other seating positions : Not applicable (Only for L2e, L4e, L5e-B, L6e-B, L7e)
6.16.5.	L1e-L7e	Design torso angle
6.16.5.1.	L1e-L7e	Driver's seat : Not applicable
6.16.5.2.	L1e-L7e	All other seating positions : Not applicable
6.16.6.	L1e-L7e	Range of seat adjustment : Not applicable
6.16.6.1.	L1e-L7e	Driver's seat : Not applicable
6.16.6.2.	L1e-L7e	All other seating positions : Not applicable
6.17.		Steer-ability, cornering properties and turn-ability
6.17.1.	L1e-L7e	Schematic diagram of steered axle(s) showing steering geometry : <a href="#">Refer to drawing No. LX02-19-01</a>
6.17.2.		<i>Transmission and control of steering</i>
6.17.2.1.	L1e-L7e	Configuration of steering transmission (specify for front and rear) : Handle bar, front only <a href="#">Refer to drawing No. LX02-19-01</a>
6.17.2.2.	L1e-L7e	Linkage to wheels (including other than mechanical means; specify for front and rear) : <a href="#">Refer to drawing No. LX02-19-01</a>
6.17.2.2.1.	L1e-L7e	A brief description of the electrical/electronic components : Not applicable
6.17.2.3.	L1e-L7e	Diagram of the steering transmission : <a href="#">Refer to drawing No. LX02-19-01</a>
6.17.2.4.		Schematic diagram(s) of the steering control(s) : Not applicable (Only for L2e, L5e, L6e, L7e)
6.17.2.5.		Range and method of adjustment of the steering control(s) : Not applicable (Only for L2e, L5e, L6e, L7e)
6.17.2.6.		Method of assistance : Not applicable (Only for L2e, L5e, L6e, L7e)
6.17.3.		<i>Maximum steering angle of the wheels</i>
6.17.3.1.	L1e-L7e	To the right : 42°; number of turns of the steering wheel (or equivalent data): Not applicable
6.17.3.2.	L1e-L7e	To the left : 42°; number of turns of the steering wheel (or equivalent data): Not applicable



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6.18.		Tyres/wheels combination	
6.18.1.		<i>Tyres</i>	
6.18.1.1.		Size designation	
6.18.1.1.1.	L1e-L7e	Axle 1	: Front:3.00-10 42J
6.18.1.1.2.	L1e-L7e	Axle 2	: Rear: 3.00-10 42J
6.18.1.1.3.	L4e	Sidecar wheel	: Not applicable
6.18.1.2.	L1e-L7e	Minimum load-capacity index with the maximum load on each tyre	: Front: 17, Rear: 42
6.18.1.3.	L1e-L7e	Minimum-speed category symbol compatible with the theoretical maximum design vehicle speed	: B
6.18.1.4.	L1e-L7e	Tyre pressure(s) as recommended by the vehicle manufacturer	: Front: 200kPa Rear: 220kPa
6.18.2.		<i>Wheels</i>	
6.18.2.1.	L1e-L7e	Rim size(s)	: Front: 2.15*10 Rear: 2.15*10
6.18.2.2.	L1e-L7e	Categories of use compatible with the vehicle	: Normal
6.18.2.3.	L1e-L7e	Nominal rolling circumference	: Front: 1300mm Rear: 1300mm
6.19.		Vehicle maximum speed limitation plate and its location on the vehicle	: Not applicable (only for L7e-B1 and L7e-B2)
6.20.		Vehicle occupant protection, including interior fittings and vehicle doors	: Not applicable (only for L7e-B1 and L7e-B2)
6.21.		Maximum continuous total power and/or maximum vehicle speed limitation by design	
6.21.1.		<i>Propulsion and/or drive-train output governors</i>	
6.21.1.1.	L1e-L7e	Number (minimum two, exemption L3e-A3 and L4e-A3)	: 2
6.21.1.2.	L1e-L7e	How is the redundancy of governors ensured?	: Limited the engine rotation by controller 1.Reduction of the maximum power output of motor based on the rotation speed as sensed internally to the electric motor 2. <i>Physical vehicle speed limitation: maximum achievable revolution speed of the motor</i>
6.21.1.3.	L1e-L7e	Nominal cut-off point no 1	
6.21.1.3.1.	L1e-L7e	Engine/motor/drive-train rotation speed at which cut-off starts under load	: Not applicable
6.21.1.3.2.	L1e-L7e	Maximum rotation speed at the minimum engine load	: Not applicable
6.21.1.4.	L1e-L7e	Nominal cut-off point no 2	
6.21.1.4.1.	L1e-L7e	Engine/motor/drive-train rotation speed at which cut-off starts under load <sup>(4)</sup>	: Not applicable
6.21.1.4.2.	L1e-L7e	Maximum rotation speed at the minimum engine load	: Not applicable
6.21.1.5.	L1e-L7e	The stated purpose of governor(s)	: maximum design vehicle speed limitation/ <del>maximum power limitation/engine over-speed protection</del> <sup>(4)</sup>



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Item No	(Sub) categories	Detailed information
7.		INFORMATION ON VEHICLE CONSTRUCTION
7.1.		Coupling devices and attachments
	L1e-L7e	From 7.1.1. to 7.1.6. : Not applicable
7.2.		Devices to prevent unauthorized use
7.2.1.		<i>Protective device</i>
7.2.1.1.	L1e-L7e	Summary description of protective device(s) used : Type of device(s): Type 2 Steering lock with handle bar operating on the steering and engine is operated by combination switch <a href="#">Refer to drawing No. LX02-20-01</a>
7.2.2.		<i>Vehicle immobiliser</i>
7.2.2.1.	L1e-L7e	Technical description of the vehicle immobiliser and of the measures taken against inadvertent activation : Not applicable
7.2.3.		<i>Alarm system</i>
7.2.3.1.	L1e-L7e	Description of the alarm system and of the vehicle parts involved in its installation : Not applicable
7.2.3.2.	L1e-L7e	List of the main components comprising the alarm system : Not applicable
7.3.		Electromagnetic compatibility (EMC)
7.3.1.	L1e-L7e	Requirements under UNECE Regulation No 10 (OJ L 254, 20.9.2012, p. 1) are met with relevant documentation included in the information document : yes/ <del>no</del> <sup>(4)</sup>
7.3.2.	L1e-L7e	Table or drawing of radio-interference control equipment : Refer to drawing No. LX02-25-01
7.3.3.	L1e-L7e	Particulars of the nominal value of the direct-current resistance, and, in the case of resistive ignition cables, of their nominal resistance per metre : 1. 1.50 mm <sup>2</sup> (max. resistance: 13.3 Ohm/km) 2. 1.00 mm <sup>2</sup> (max. resistance: 19.5 Ohm/km) 3. 0.75 mm <sup>2</sup> (max. resistance: 26.0 Ohm/km) 4. 0.50 mm <sup>2</sup> (max. resistance: 39.0 Ohm/km) 5. 0.30 mm <sup>2</sup> (max. resistance: 69.2 Ohm/km)
7.4.		External projections
7.4.1.	L1e-L7e vehicles with bodywork	General arrangement (drawing or photographs accompanied if necessary by dimensional details and/or text) indicating the position of the attached sections and views, of any parts of the exterior surface which can be regarded as critical for external projections, for example, and where relevant: bumpers, floor line, door and window pillars, air-intake grilles, radiator grille, windscreen wipers, rain gutter channels, handles, slide rails, flaps, door hinges and locks, hooks, eyes, winches, decorative trim, badges, emblems and recesses and any other parts of the exterior surface which can be regarded as critical (e.g. lighting equipment)  : Not applicable (only for vehicle with bodywork)
7.5.		Fuel storage
		From 7.5.1. to 7.5.3.1. : Not applicable
7.6.		On-board diagnostics (OBD) functional requirements
		From 7.6.1. to 7.6.5.1. : Not applicable

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Item No	(Sub) categories	Detailed information
7.7.		Passenger handholds and footrests
7.7.1.		<i>Handholds</i>
7.7.1.1.	L1e-L7e	Configuration : <del>Strap and/or</del> handle <sup>(4)</sup>
7.7.1.2.	L1e-L7e	Photographs and/or drawings showing the location and the construction : Refer to drawing No. LX02-21-01
7.7.2.		<i>Footrests</i>
7.7.2.1.	L1e-L7e	Photographs and/or drawings showing the location and the construction : <a href="#">Refer to drawing No. LX02-22-01</a>
7.8.		Registration plate space
7.8.1.	L1e-L7e	Location of rear registration plate (indicate variants where necessary; drawings may be used as appropriate) : <a href="#">Refer to drawing No. LX02-23-01</a>
7.8.1.1.	L1e-L7e	Height above road surface, upper edge : <a href="#">Refer to drawing No. LX02-23-01</a>
7.8.1.2.	L1e-L7e	Height above road surface, lower edge : <a href="#">Refer to drawing No. LX02-23-01</a>
7.8.1.3.	L1e-L7e	Distance of the centre line from the longitudinal median plane of the vehicle : 0 mm
7.8.1.4.	L1e-L7e	Dimensions (length x width) : <a href="#">145mm × 125mm</a>
7.8.1.5.	L1e-L7e	Inclination of the plane to the vertical : <a href="#">Refer to drawing No. LX02-23-01</a>
7.8.1.6.	L1e-L7e	Angle of visibility in the horizontal plane : <a href="#">Refer to drawing No. LX02-23-01</a>
7.9.		Stands
7.9.1.	L1e, L3e	Configuration : central and/or side <sup>(4)</sup>
7.9.2.	L1e, L3e	Construction material used : Metal
7.9.3.	L1e, L3e	Photographs and drawings showing the location of the stand(s) in relation to the structure of the vehicle : <a href="#">Refer to drawing No. LX02-24-01</a> <a href="#">Refer to drawing No. LX02-24-02</a>
7.9.4.	L1e, L3e	Description of the method to prevent contact of the stand with the ground when the vehicle is being propelled : <a href="#">Refer to drawing No. LX02-24-01</a> <a href="#">Refer to drawing No. LX02-24-02</a> Vehicle cannot be propelled when the prop side stand is in the in-use position. Centre stand is able to swing back automatically into the not-in-use position

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Table 6.9.4.

Controls, tell-tales and indicators for which, when fitted, identification is mandatory, and symbols to be used for that purpose

symbol No	Device	Control/indicator available (+)	Identified by symbol (+)	Where (++)	Tell-tale available (+)	Identified by Symbol (+)	Where (++)
1	Master light	x	x	c	-	-	-
2	Dipped-beam/head lamps	x	x	c	-	-	-
3	Main-beam/head lamps	x	x	c	x	x	d
4	Position(side) lamps	x	x	c	-	-	-
	Position(side) lamps(optional)	-	-	-	-	-	-
5	Front fog Lamp	-	-	-	-	-	-
6	Rear fog Lamps	-	-	-	-	-	-
7	Headlamp/Levelling device	-	-	-	-	-	-
8	Parking Lamps	-	-	-	-	-	-
9	Direction Indicators	x	x	c	x	x	d
10	Hazard Warning	-	-	-	-	-	-
11	Windscreen Wiper	-	-	-	-	-	-
12	Windscreen Washer	-	-	-	-	-	-
13	Windscreen wiper and washer	-	-	-	-	-	-
14	Headlamp cleaning device	-	-	-	-	-	-
15	Windscreen demisting and defrosting	-	-	-	-	-	-
16	Rear window demisting and defrosting	-	-	-	-	-	-
17	Ventilating fan	-	-	-	-	-	-
18	Diesel pre-heat	-	-	-	-	-	-
19	Choke	-	-	-	-	-	-
20	Brake failure	-	-	-	-	-	-
21	Fuel level	-	-	-	-	-	-
22	Battery charging condition	-	-	-	-	-	-
23	Engine coolant temperature	-	-	-	-	-	-
24	Malfunction Indicator light (MI)	-	-	-	-	-	-

<sup>(+)</sup> x = Yes.

- = No or not separately available.

o = Optional.

<sup>(++)</sup>d = Directly on control, indicator or tell-tale.

c = In close vicinity.

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Table 6.9.5.

Controls, tell-tales and indicators for which, when fitted, identification is optional,  
and Symbols which shall be used if they are to be identified

Symbol No	Device	Control/ indicator available (+)	Identified By Symbol (+)	Where (++)	Tell-tale available (+)	Identified By Symbol (+)	Where (++)
1	Parking brake	-	-	-	-	-	-
2	Rear window wiper	-	-	-	-	-	-
3	Rear window washer	-	-	-	-	-	-
4	Rear window wiper and washer	-	-	-	-	-	-
5	Intermittent Windscreen wiper	-	-	-	-	-	-
6	Audible warning device (horn)	x	x	d	-	-	-
7	Front hood (bonnet)	-	-	-	-	-	-
8	Rear hood (boot)	-	-	-	-	-	-
9	Seat belt	-	-	-	-	-	-
10	Engine oil Pressure	-	-	-	-	-	-
11	Unleaded petrol	-	-	-	-	-	-

<sup>(+)</sup> x = Yes.

- = No or not separately available.

o = Optional.

<sup>(++)</sup> d = Directly on control, indicator or tell-tale.

c = In close vicinity.

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Table 6.11.1.

List of all devices (mentioning the number, make(s), type, component type-approval mark(s), the maximum intensity of the main-beam headlamps, color, the corresponding tell-tale)

Lamp Function		QTY	Make(s)/Model	Component type-approval mark	Color	Corresponding Tell tale	Max. Intensity
Head lamp	Driving beam	1	LVNENG/LN-S3QZD01	E13*113R02/00*35156	White	Blue	22500cd
	Passing beam	1				--	--
Front position lamp		1	LVNENG/LN-S3QZD01	E13*50R00/20*35156	White	Via panel lamp	--
Front direction Indicator		2	LVNENG/LN-S3QZX01	E13*50R00/20*35160	Amber	Green	--
Rear direction Indicator		2	LIMA/LM10-HWDZH	E13*50R00/20*35135	Amber	Green	--
Rear position lamp		1	LIMA/LM10-HWDZH	E13*50R00/20*35135	Red	Via panel lamp	--
Stop lamp						--	
Rear registration plate lamp		1	LVNENG/LN-X1PZD01	E13*50R00/20*35159	White	Via panel lamp	--
Non-triangular	Side reflector	2	K-LITE/KM101	IA E4 023298	Amber	---	---
	Rear reflector	1	K-LITE/KM202	IA E4 023712	Red	---	---
Optional direction Indicator							
Front direction Indicator		2	HR/BM-331	E4*50R00/20*2953	Amber	Green	--
Optional							
Rear registration plate lamp		1	LIMA/21-05	E13*50R00/20*35136	White	Via panel lamp	--

## Type Approval Components Overview Excluding Lighting Device

Item subject	Make	Type or Tyre Size	Component Approval No.	Remarks
Audible warning devices	LVEE	DL70-II	II E32 00 0002	--
Rear view mirror		WY-032	L E13 006472	--

## Tyres Approval Components

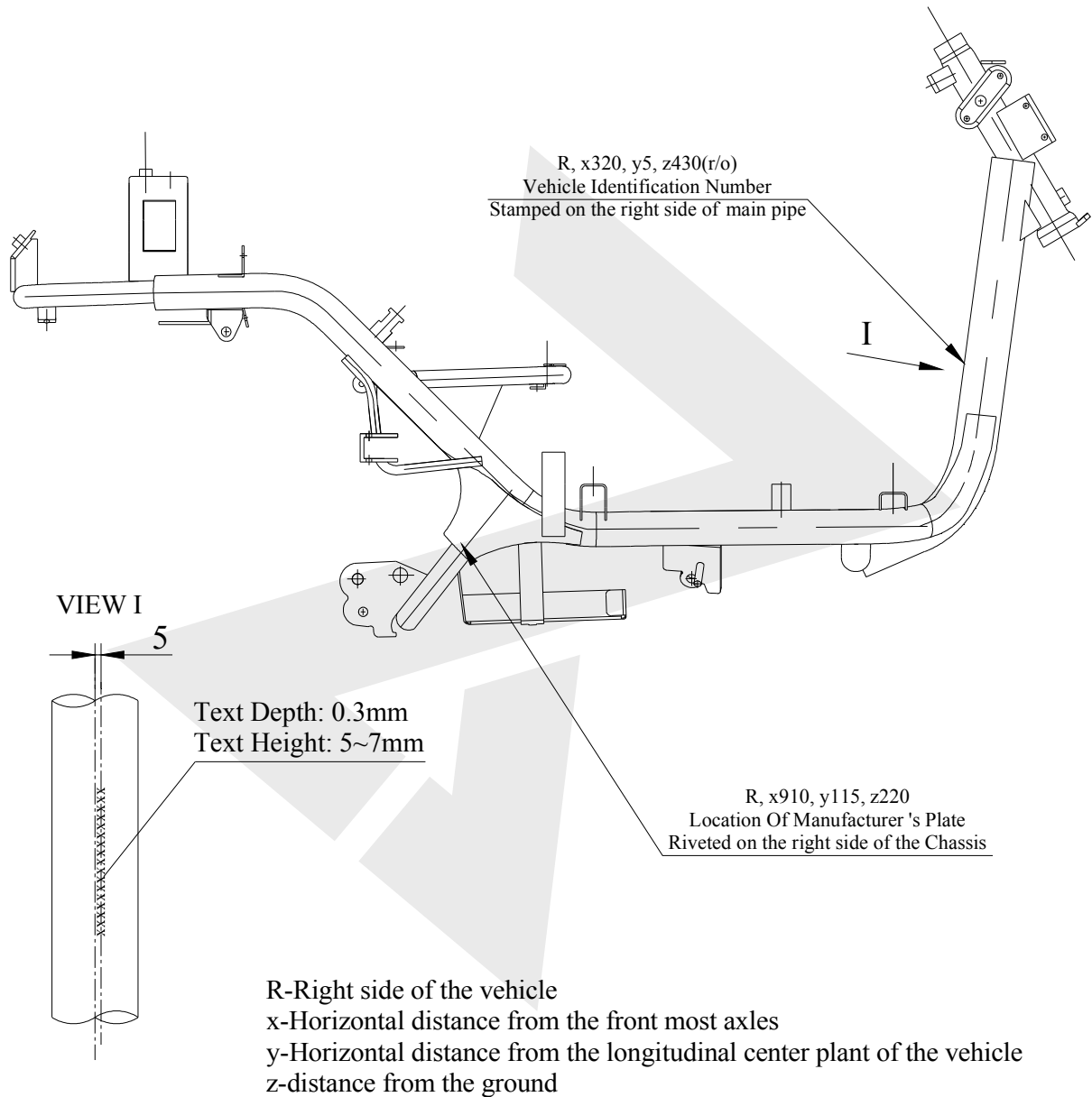
Axle	Make	Dimension	Load index	Speed category	Component Approval No.	Remarks
Front	CHAOYANG	3.00-10	42	J	E4-75R-0005902	--
	KENDA	3.00-10	42	J	E11 75R-000207	
	CHENG SHIN	3.00-10	42	J	E4-75R-000103	
	YUANXING	3.00-10	42	J	E4*75R00/17*6927*04	
Rear	CHAOYANG	3.00-10	42	J	E4-75R-0005902	--
	KENDA	3.00-10	42	J	E11 75R-000207	
	CHENG SHIN	3.00-10	42	J	E4-75R-000103	
	YUANXING	3.00-10	42	J	E4*75R00/17*6927*04	

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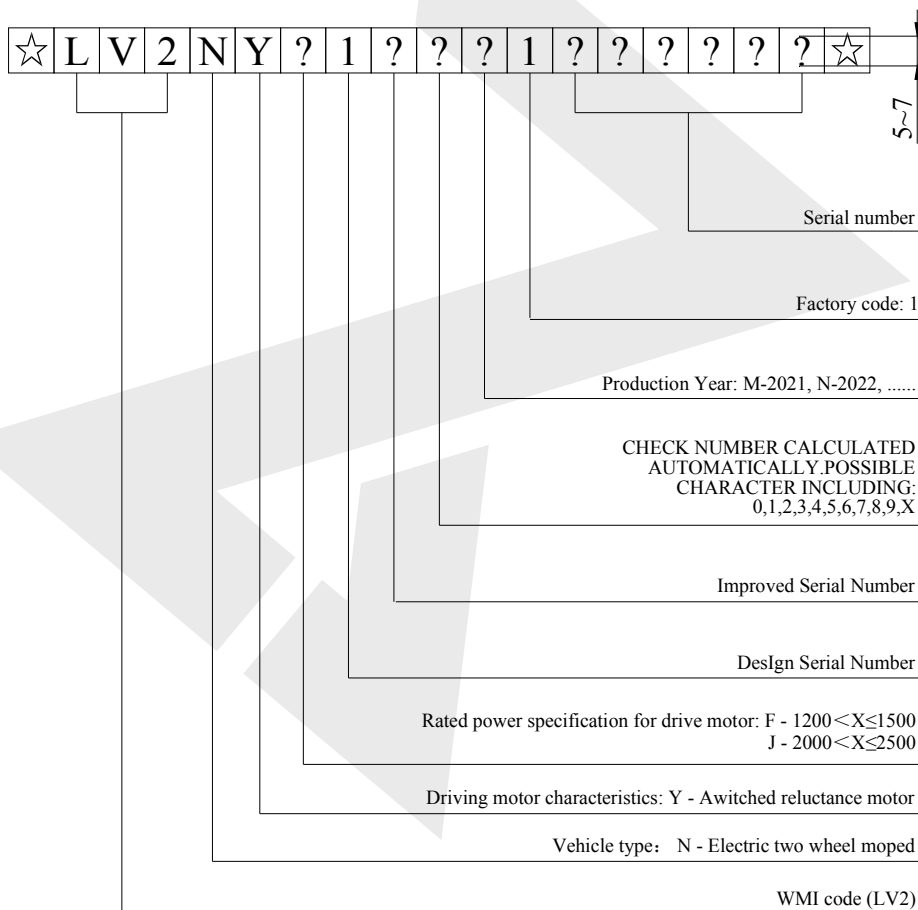
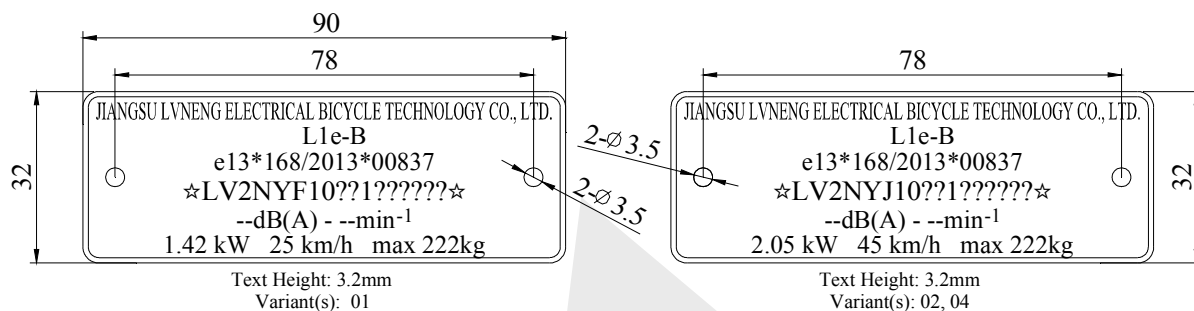
Vehicle Type	LX02
Location of the manufacturer's data plate and chassis number	
Drawing No.	LX02-01-01

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Variant(s)/Version(s)  
01/01: ☆LV2NYF10??1?????☆  
02(04)/01: ☆LV2NYJ10??1?????☆

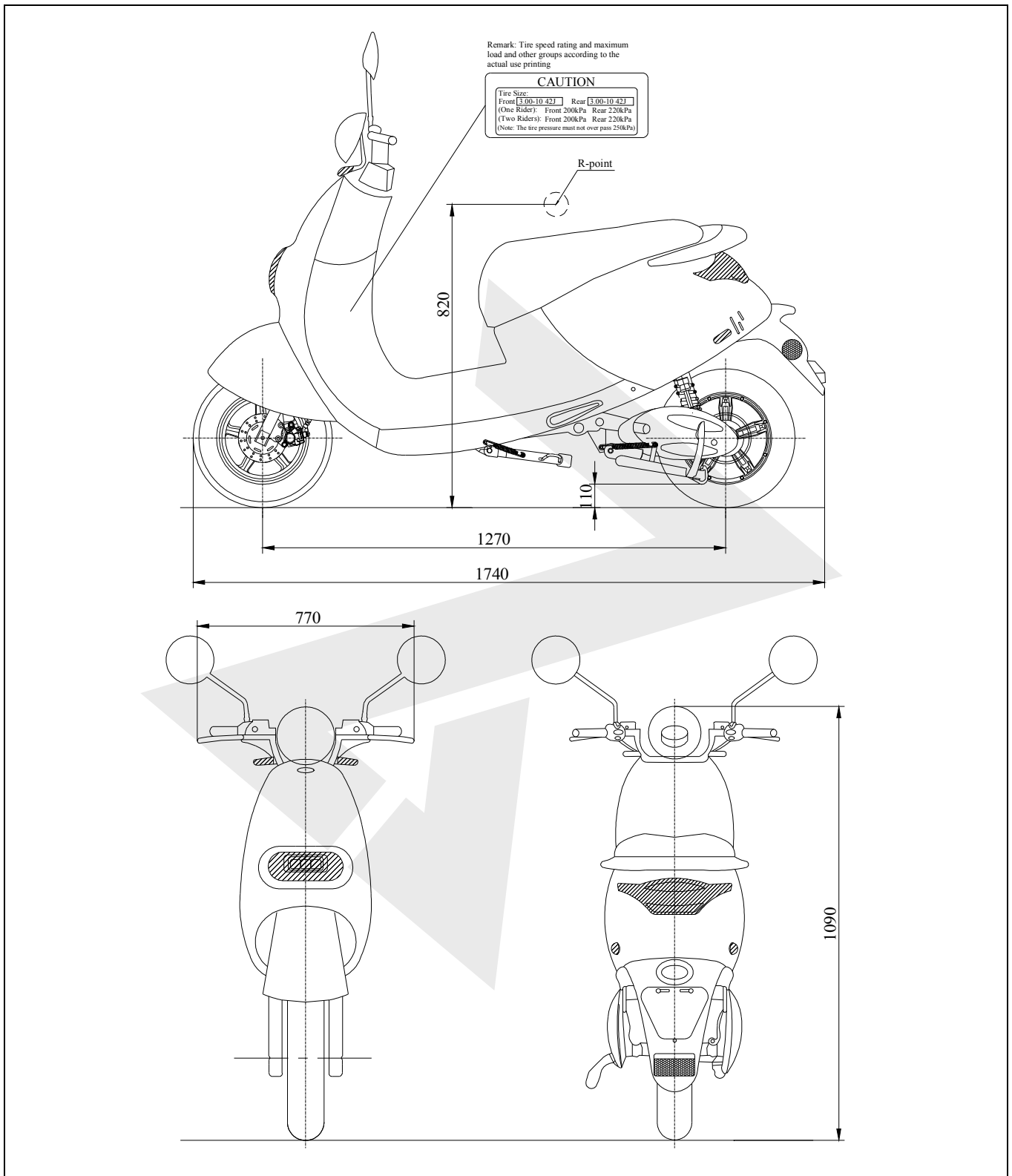
Vehicle Type	LX02
Manufacturer's data plate and chassis number	
Drawing No.	LX02-02-01

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Remark: Standard rear fork guard plate

Vehicle Type	LX02
Complete vehicle dimension	
Drawing No.	LX02-03-01

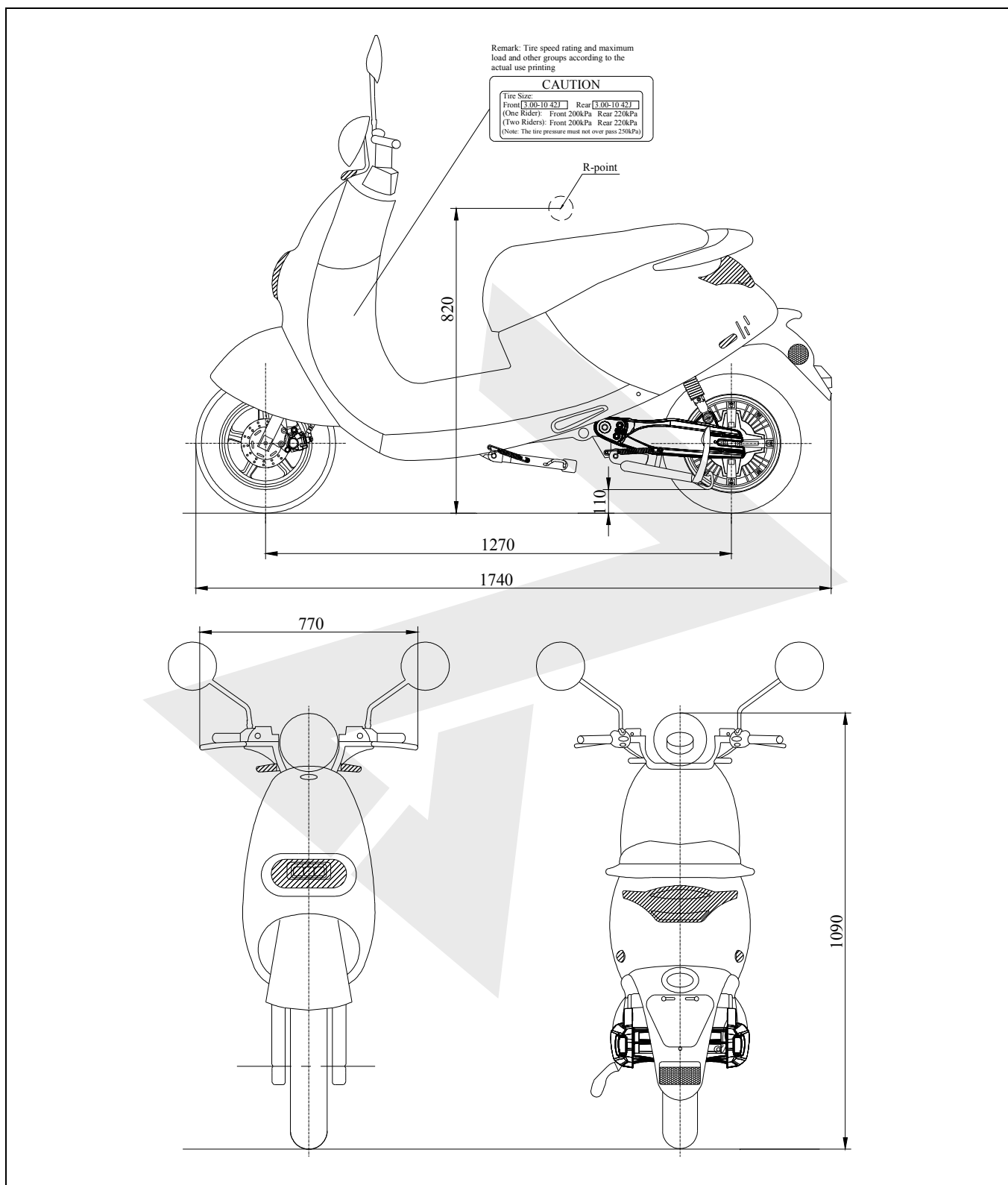


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Remark: Optional rear fork guard plate

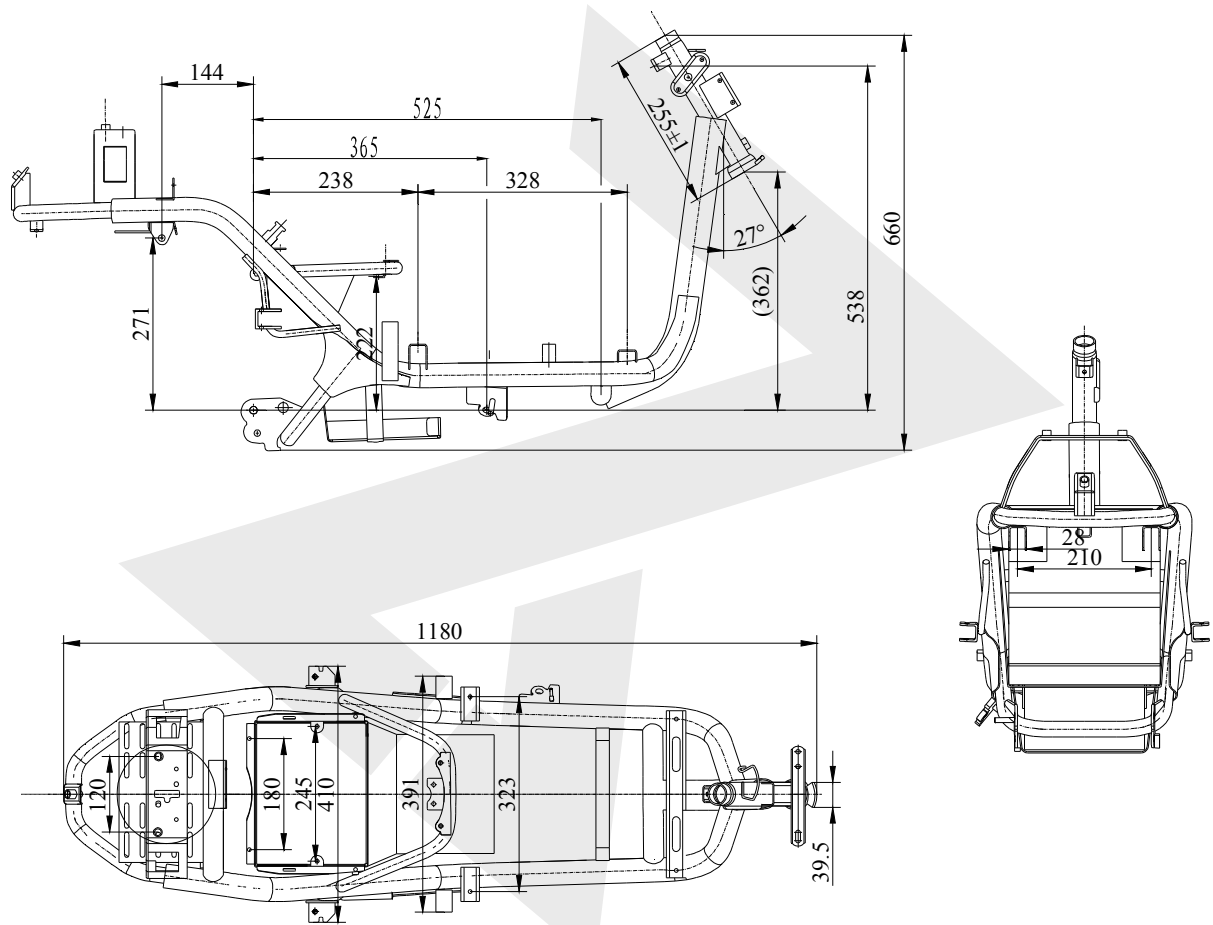
Vehicle Type	LX02
Complete vehicle dimension(Optional)	
Drawing No.	LX02-03-02

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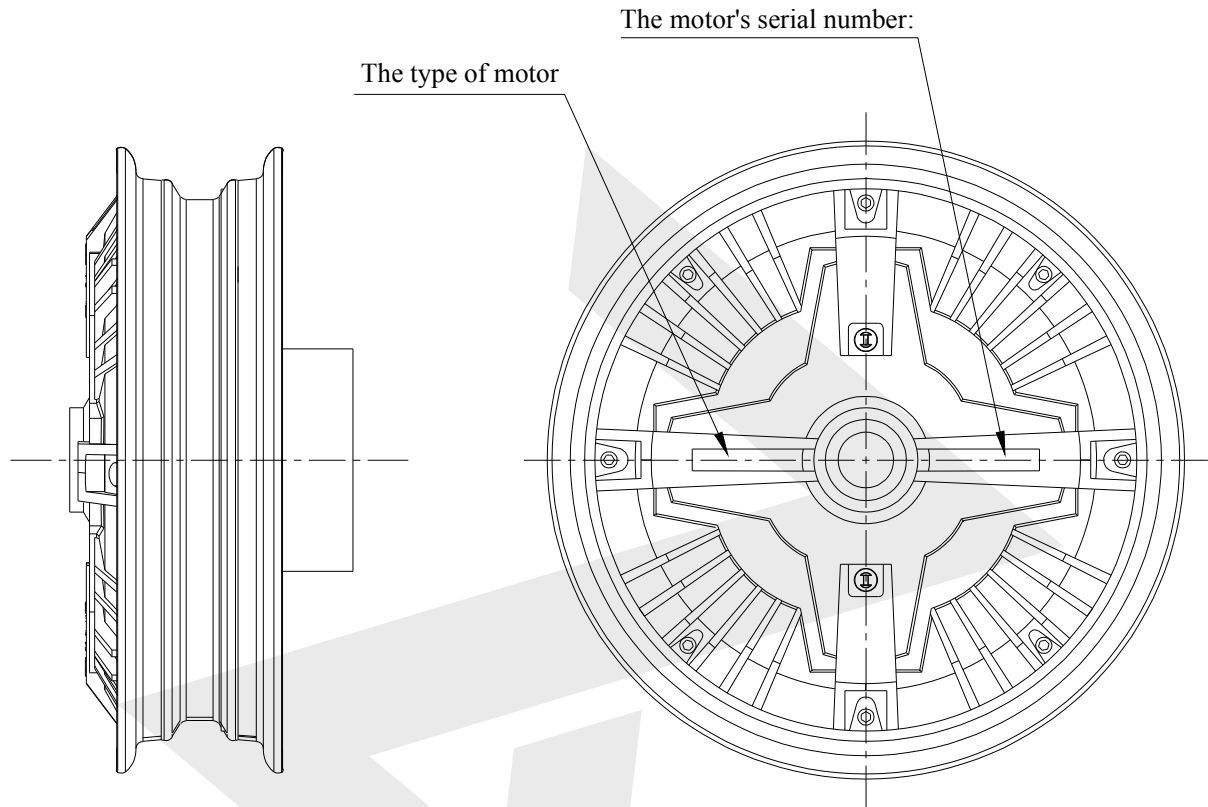
Vehicle Type	LX02
Chassis	
Drawing No.	LX02-04-01

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Make: BOSCH or See to Information 0.1  
 Variant(s)-01:  
 Type: CH610r120°eM  
 Rated voltage: 60V  
 Maximum continuous-rated power: 1420W  
 Variant(s)-02, 04:  
 Type: CJ610r120°eM  
 Rated voltage: 60V  
 Maximum continuous-rated power: 2050W

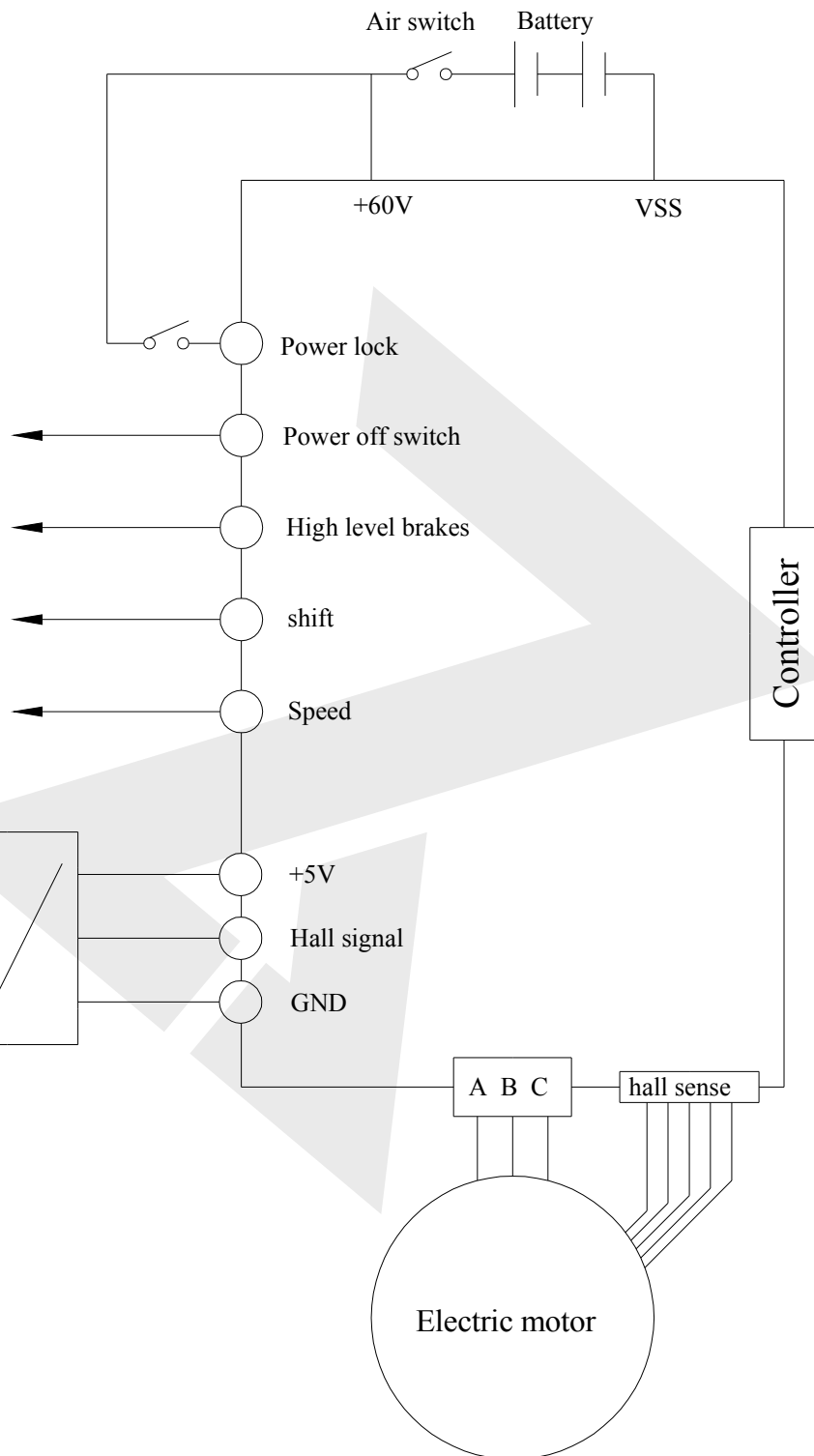
Vehicle Type	LX02
General view of motor	
Drawing No.	LX02-05-01

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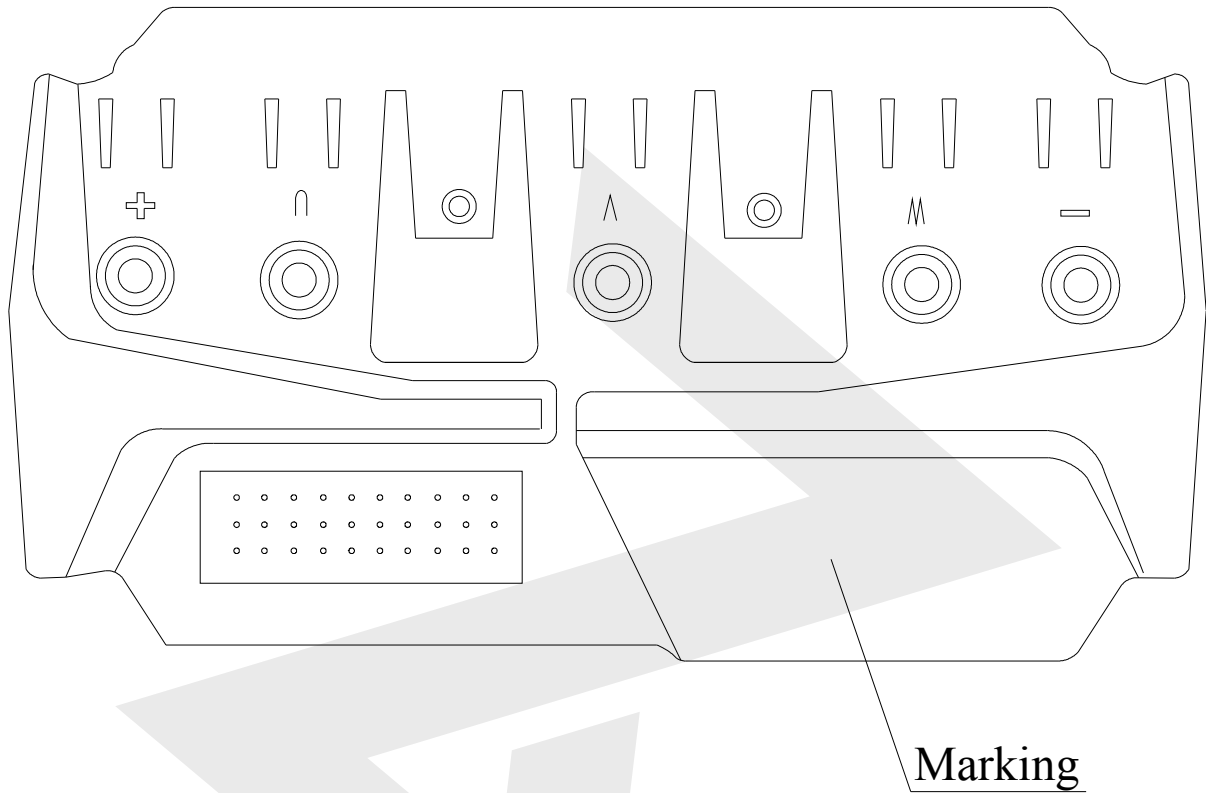
Vehicle Type	LX02
Control system of pure propulsion	
Drawing No.	LX02-06-01

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Marking print like as follow:

Variant(s)-01:



Make:

Marking: ZWK060035A-1

Manufacturer: Wuxi Lingbo Electronic Technology Co., Ltd.

Variant(s)-02, 04:



Make:

Marking: ZWK060240A

Manufacturer: Wuxi Lingbo Electronic Technology Co., Ltd.

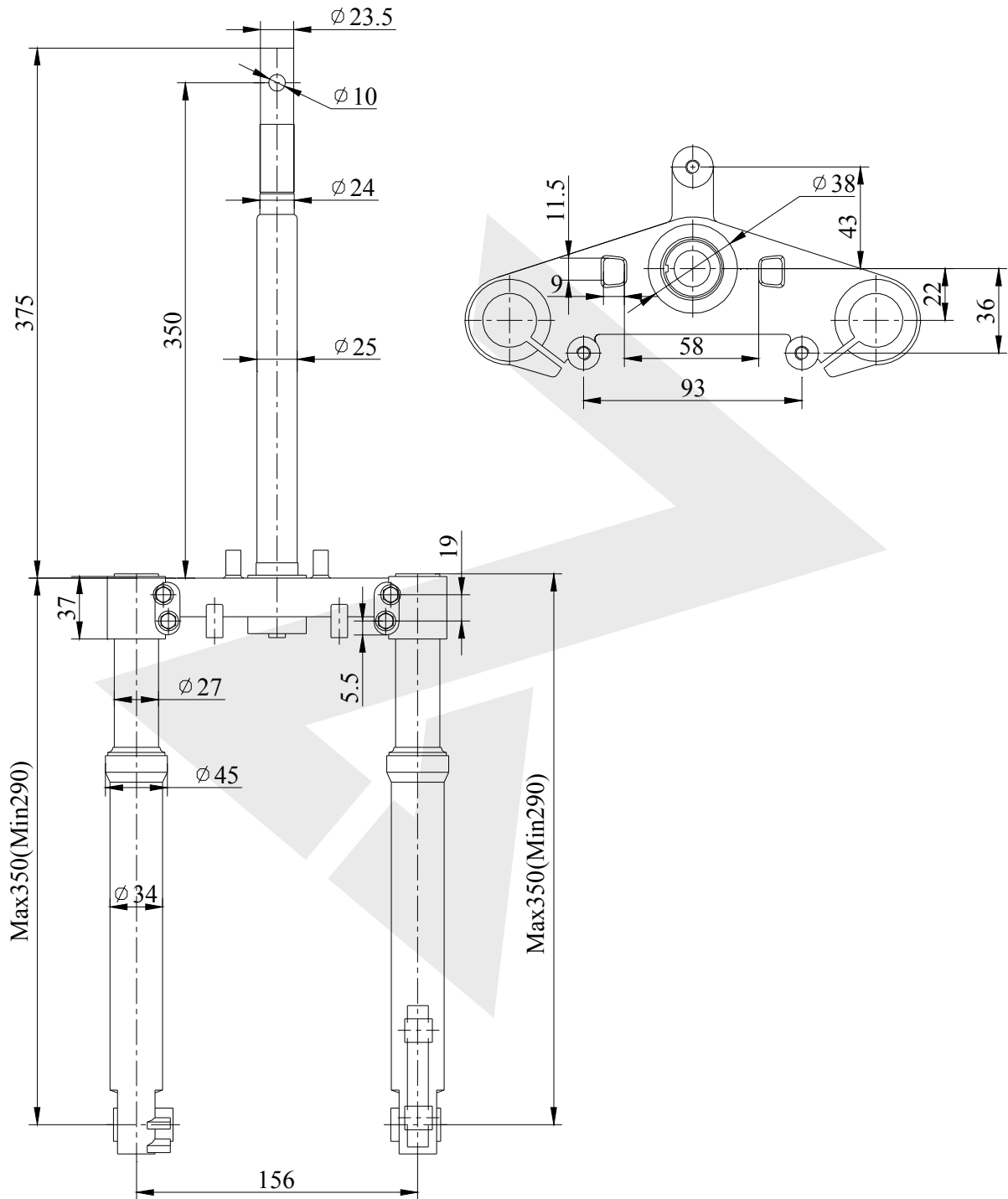
Vehicle Type	LX02
Controller	
Drawing No.	LX02-08-01

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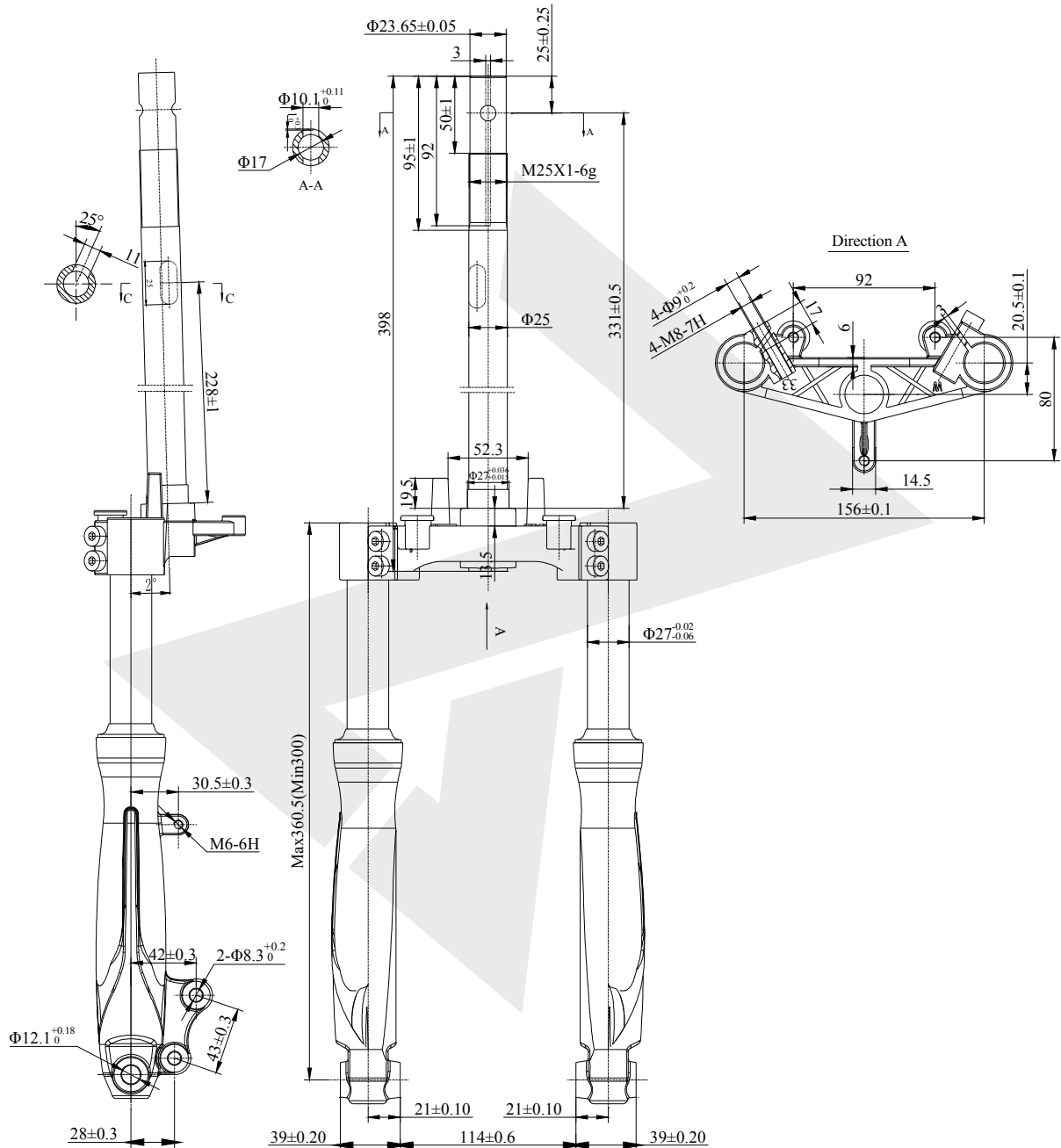
Vehicle Type	LX02
Front suspension arrangements	
Drawing No.	LX02-09-01

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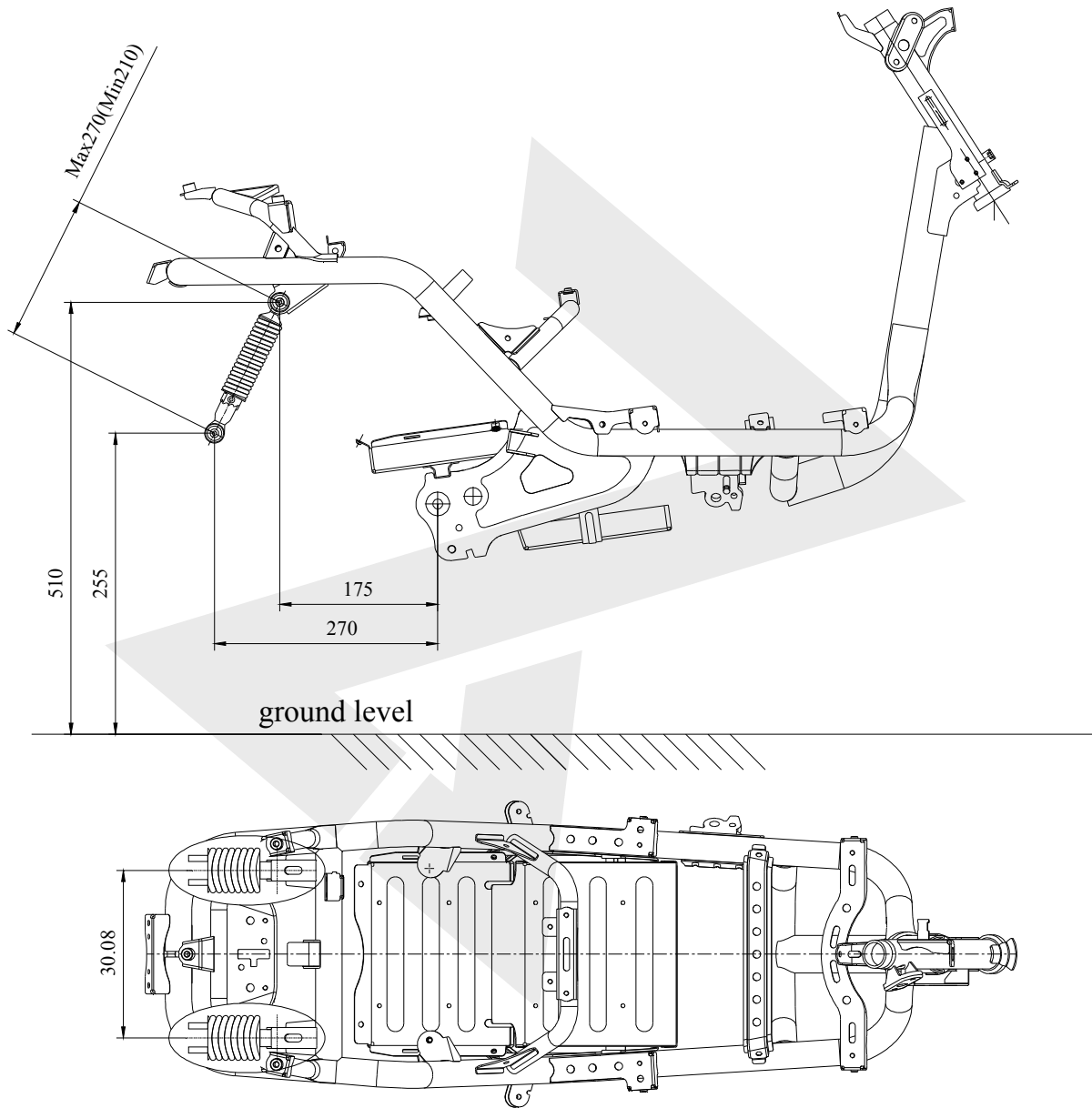
Vehicle Type	LX02
Front suspension arrangements(Optional)	
Drawing No.	LX02-09-02

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Vehicle Type	LX02
Rear suspension arrangements	
Drawing No.	LX02-10-01

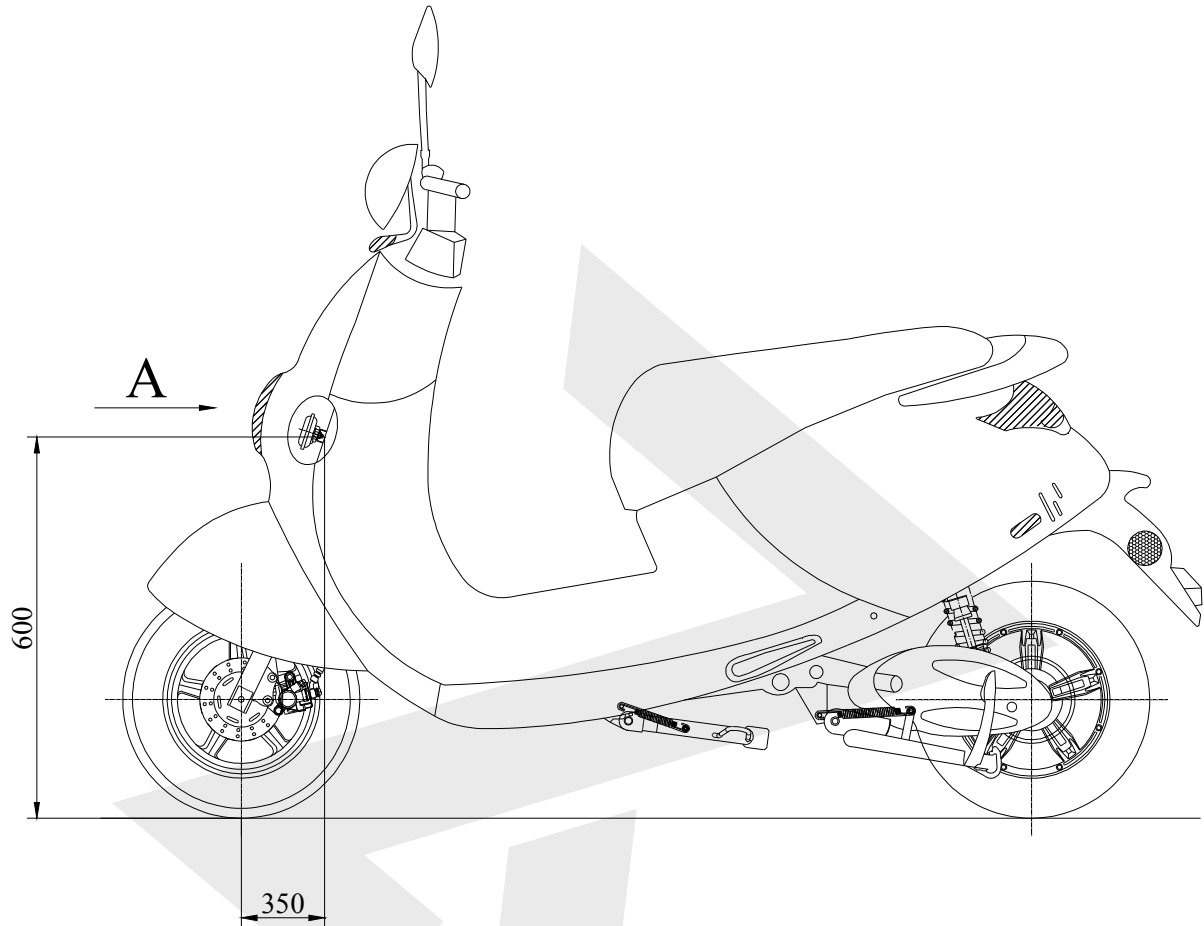


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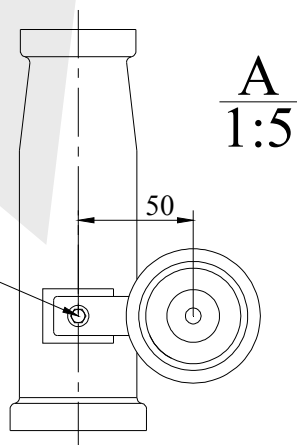
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GB/T5783-2000  
M6\*12



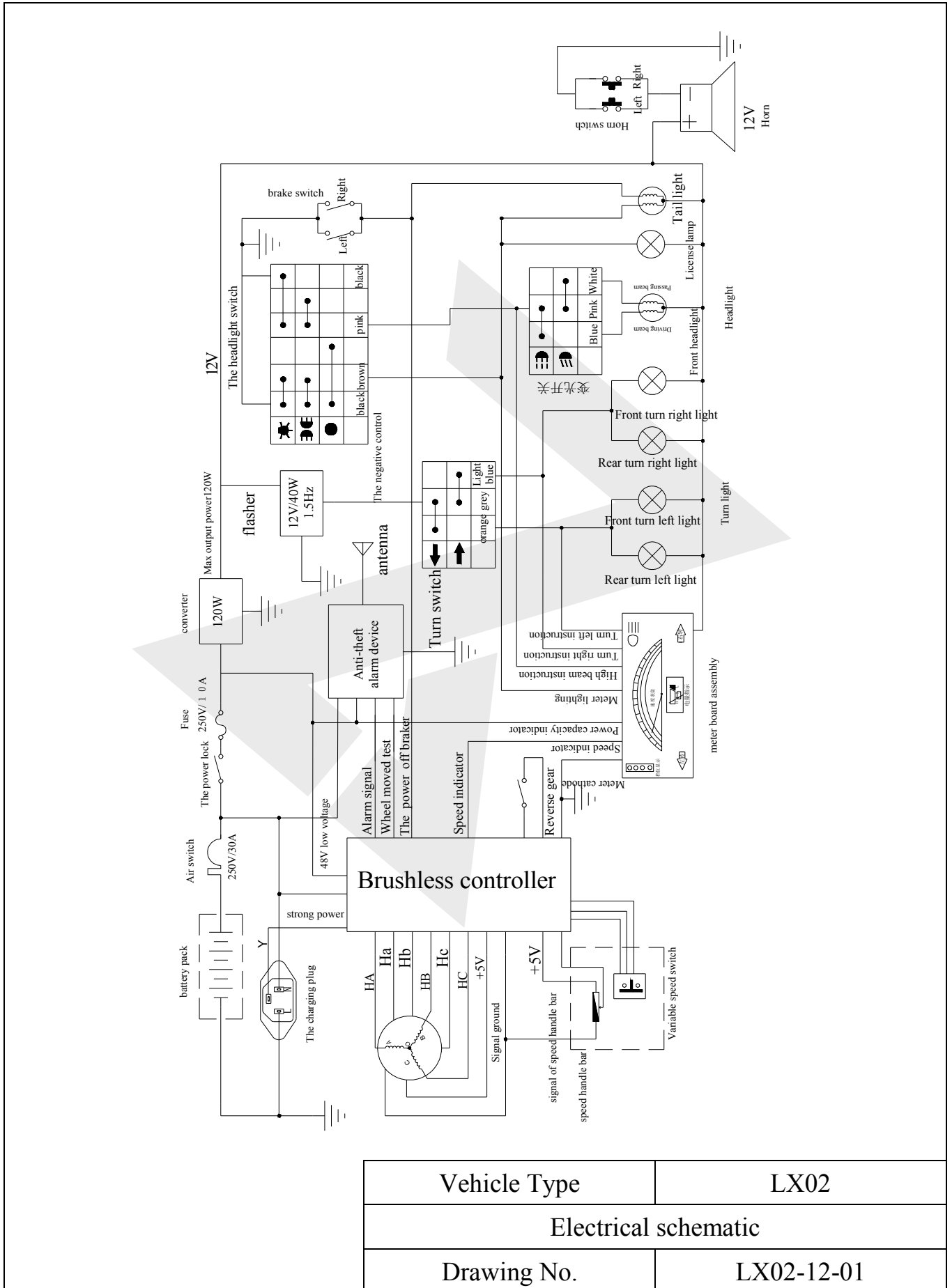
Vehicle Type	LX02
Location of audible warning device	
Drawing No.	LX02-11-01

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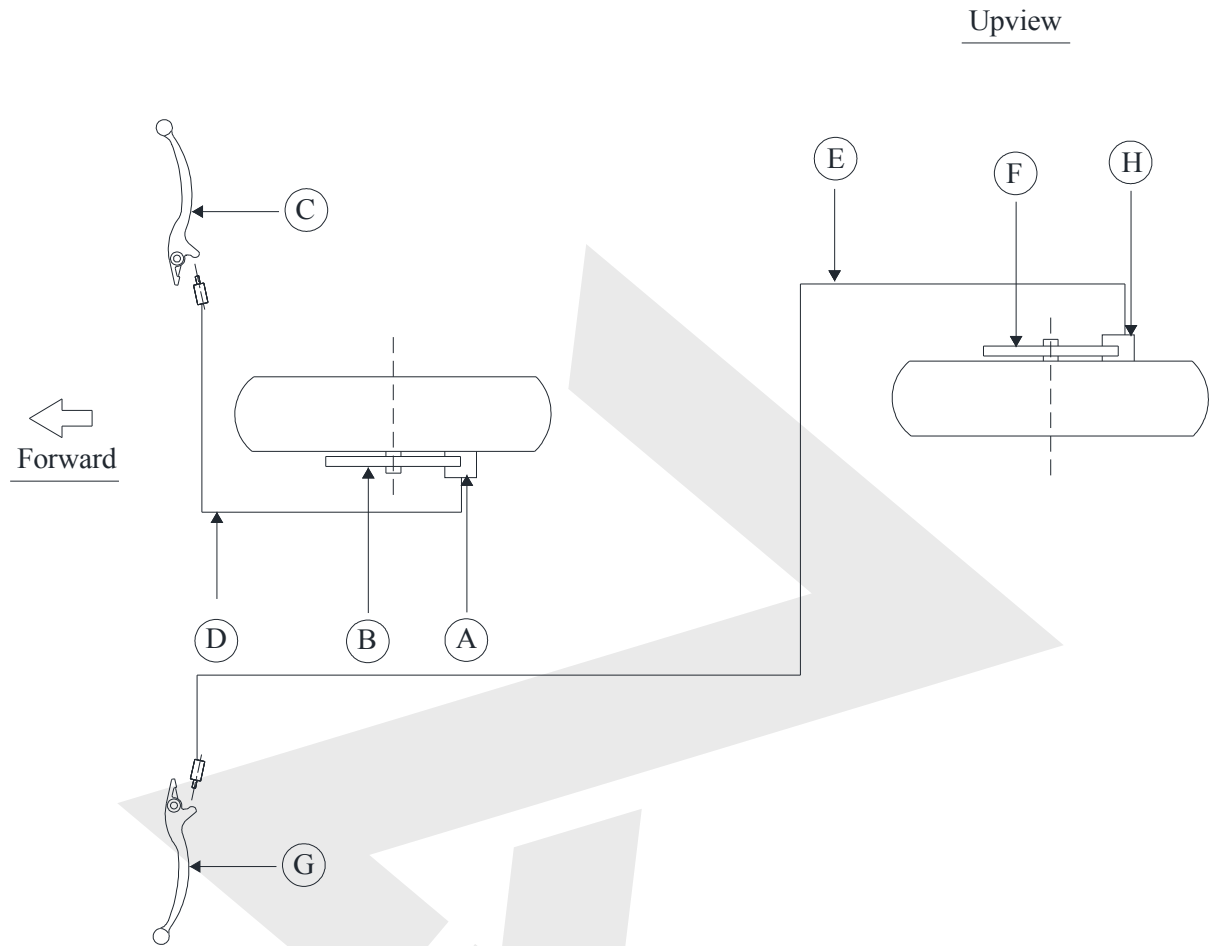
Vehicle Type	LX02
Electrical schematic	
Drawing No.	LX02-12-01

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POS.	Description
A	Front brake caliper
B	Front brake disc
C	Front brake Lever
D	Front brake oil pipe
E	Rear brake oil pipe
F	Rear brake disc
G	Rear brake Lever
H	Rear brake caliper

Vehicle Type	LX02
Brake system	
Drawing No.	LX02-13-01

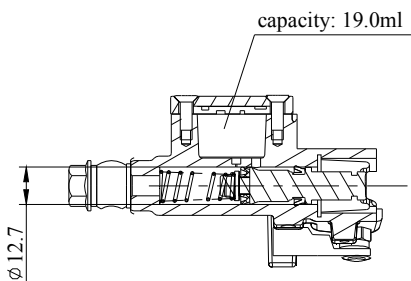
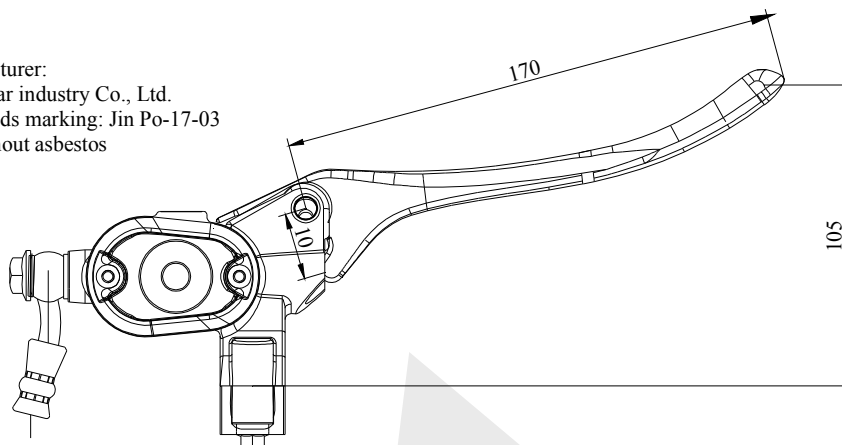
**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou

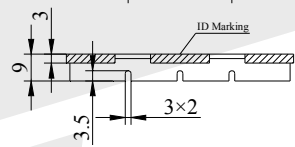
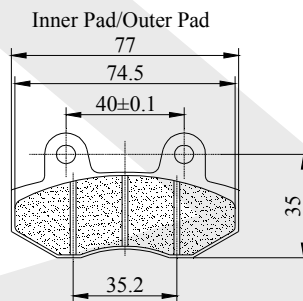
Information document number: 168/2013-LX02-01

Application date: August 18, 2021

Front manufacturer:  
Wuxi Jin Po car industry Co., Ltd.  
Front brake pads marking: Jin Po-17-03  
Material: Without asbestos

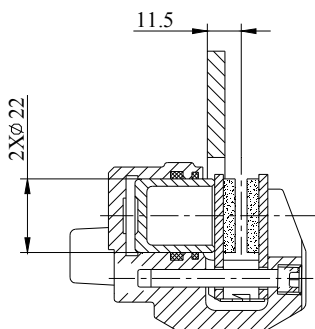


FRONT PISTON AREA IN  
MASTER CYLINDER  
 $F_2=126.61\text{mm}^2$

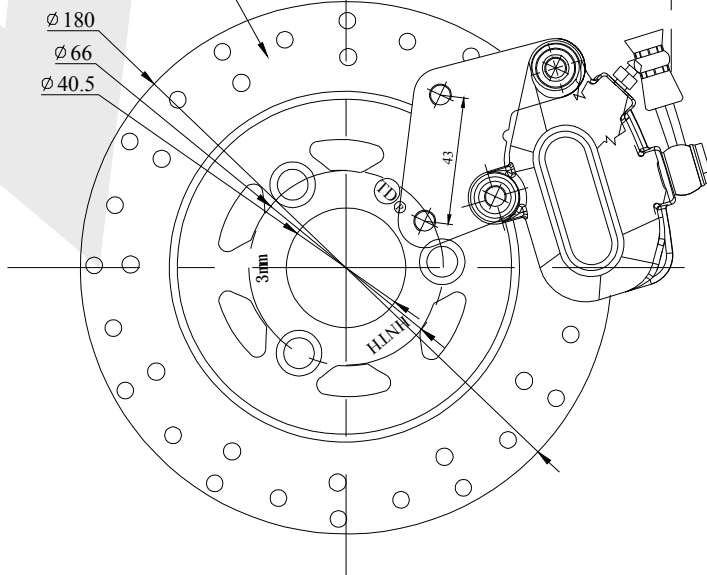


Rear Brake Pad Area  
 $1583.78\text{mm}^2 \times 2 = 3167.56\text{mm}^2$

FRONT PISTON AREA IN  
WHEEL CYLINDER  
 $F_2=380.13\text{mm}^2 \times 2 = 760.26\text{mm}^2$



New thickness: 3.50mm  
Used thickness: 3.00mm



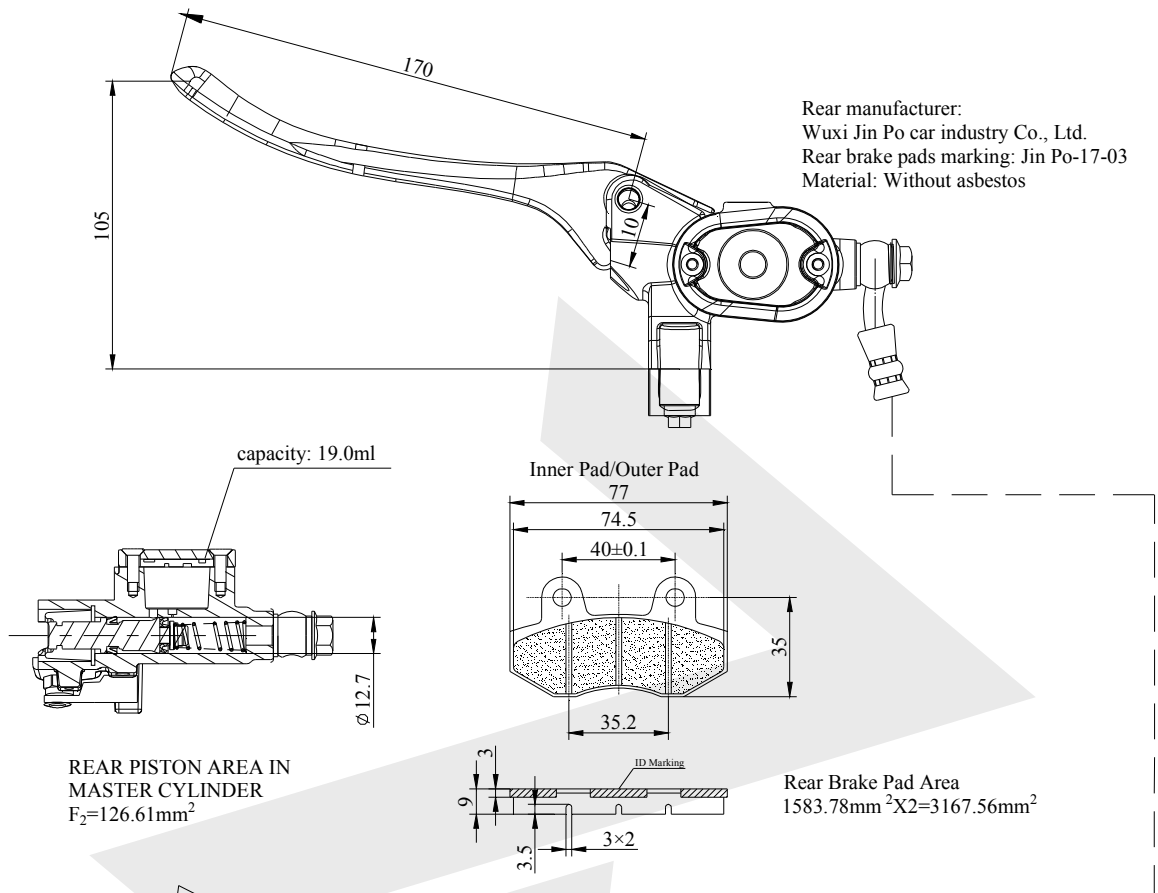
Vehicle Type	LX02
Front brake system	
Drawing No.	LX02-13-02

**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

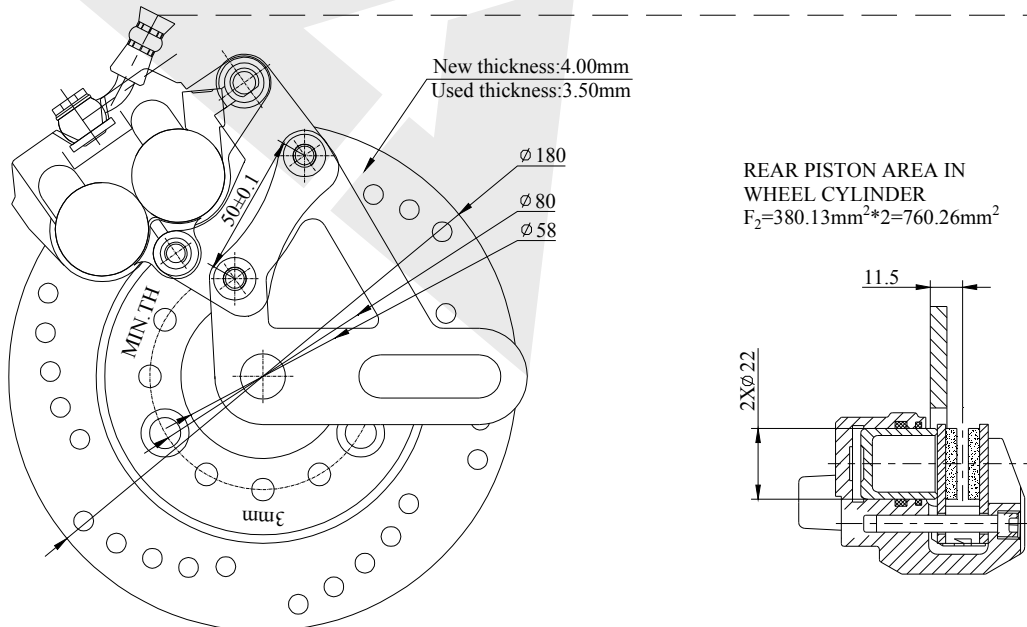
No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou

Information document number: 168/2013-LX02-01

Application date: August 18, 2021



Rear manufacturer:  
Wuxi Jin Po car industry Co., Ltd.  
Rear brake pads marking: Jin Po-17-03  
Material: Without asbestos



Vehicle Type	LX02
Rear brake system	
Drawing No.	LX02-13-03

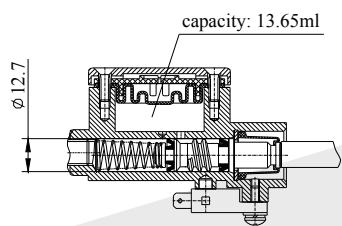
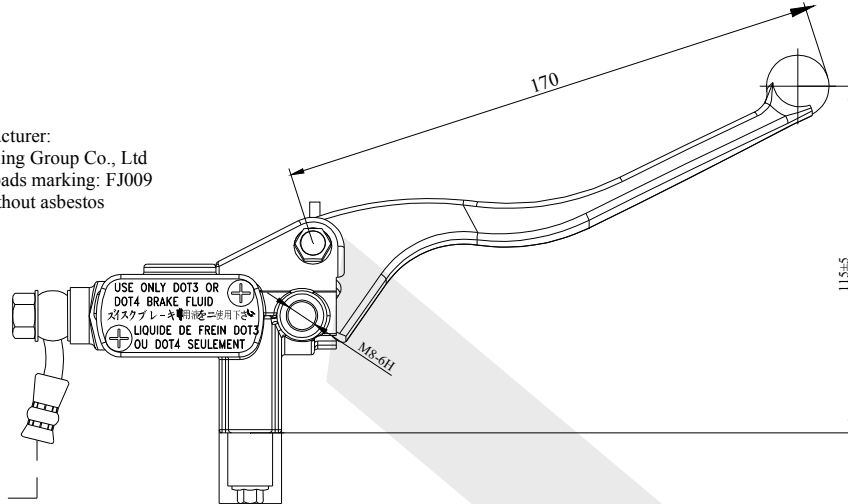
**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou

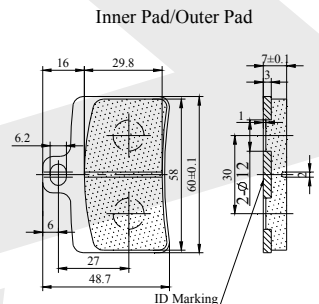
Information document number: 168/2013-LX02-01

Application date: August 18, 2021

Front manufacturer:  
YuHuan Kailing Group Co., Ltd  
Front brake pads marking: FJ009  
Material: Without asbestos

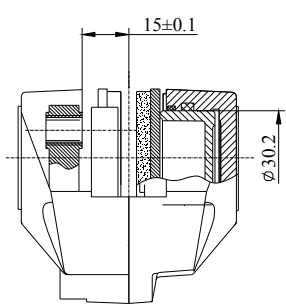


FRONT PISTON AREA IN MASTER CYLINDER  
 $F_2=126.61\text{mm}^2$

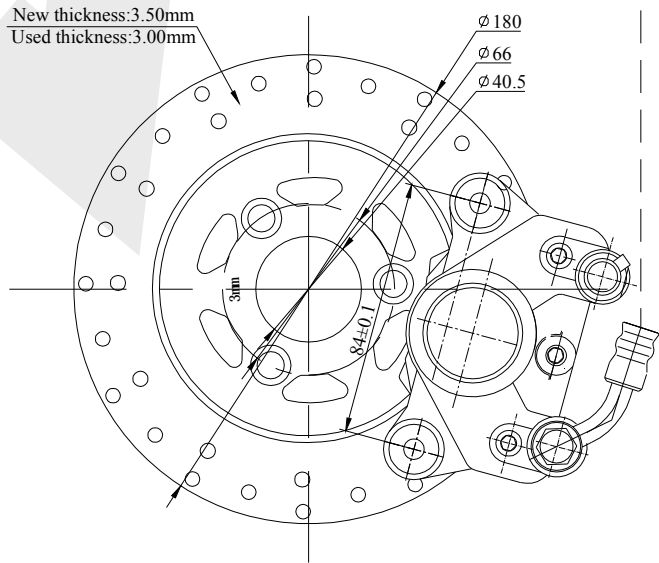


Front Brake Pad Area  
 $1561.14\text{mm}^2 \times 2 = 3122.28\text{mm}^2$

FRONT PISTON AREA IN WHEEL CYLINDER  
 $F_2=716.32\text{mm}^2$



New thickness: 3.50mm  
Used thickness: 3.00mm



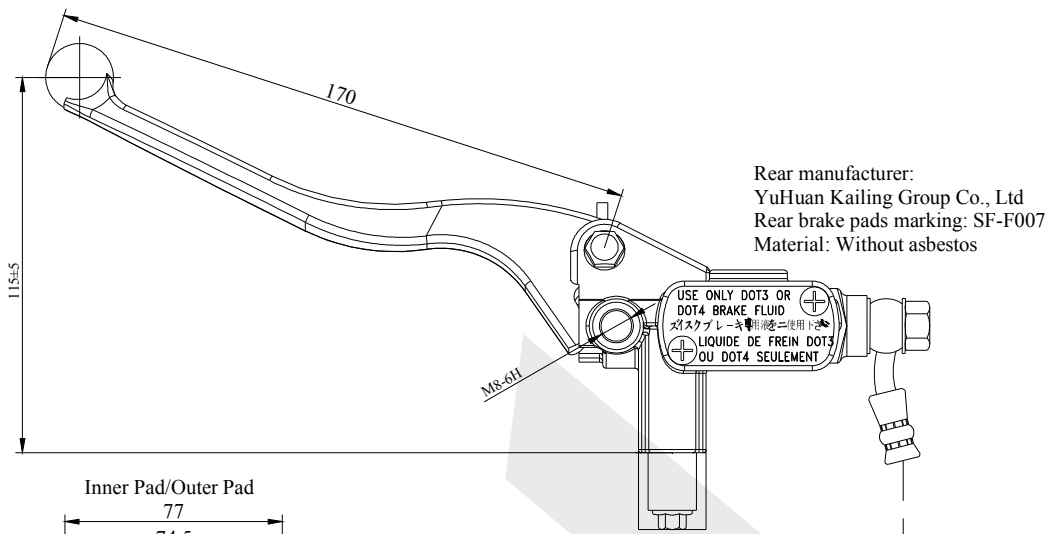
Vehicle Type	LX02
Front brake system(Optional)	
Drawing No.	LX02-13-04

**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

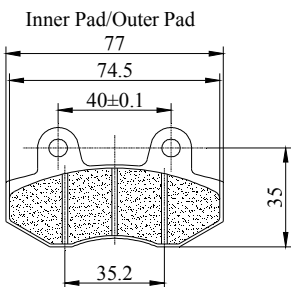
No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou

Information document number: 168/2013-LX02-01

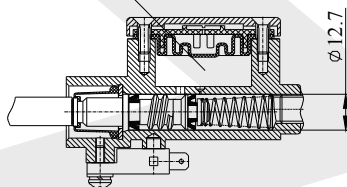
Application date: August 18, 2021



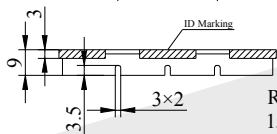
Rear manufacturer:  
YuHuan Kailing Group Co., Ltd  
Rear brake pads marking: SF-F007  
Material: Without asbestos



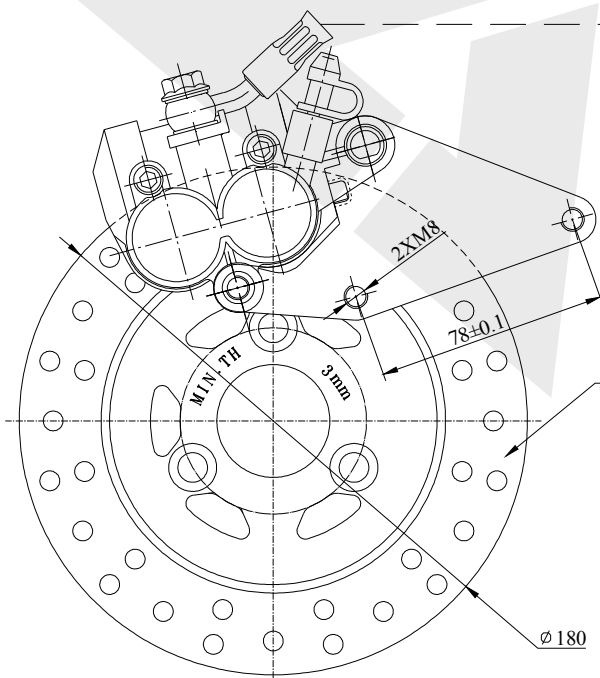
capacity: 13.65ml



REAR PISTON AREA IN  
MASTER CYLINDER  
 $F_2=126.61\text{mm}^2$

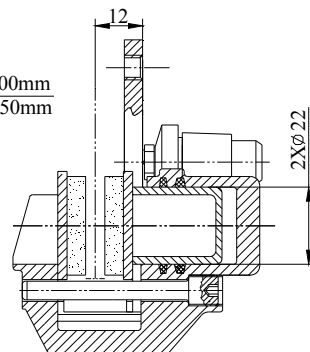


Rear Brake Pad Area  
 $1583.78\text{mm}^2 \times 2 = 3167.56\text{mm}^2$



REAR PISTON AREA IN  
WHEEL CYLINDER  
 $F_2=380.13\text{mm}^2 \times 2 = 760.26\text{mm}^2$

New thickness: 4.00mm  
Used thickness: 3.50mm



Vehicle Type	LX02
Rear brake system(Optional)	
Drawing No.	LX02-13-05

**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou

Information document number: 168/2013-LX02-01

Application date: August 18, 2021

Variant(s)-01:



When the current reaches 40A, the overload protector is disconnected.

Variant(s)-02, 04:



When the current reaches 50A, the overload protector is disconnected.

Vehicle Type	LX02
Functional range of circuit breaker	
Drawing No.	LX02-14-01

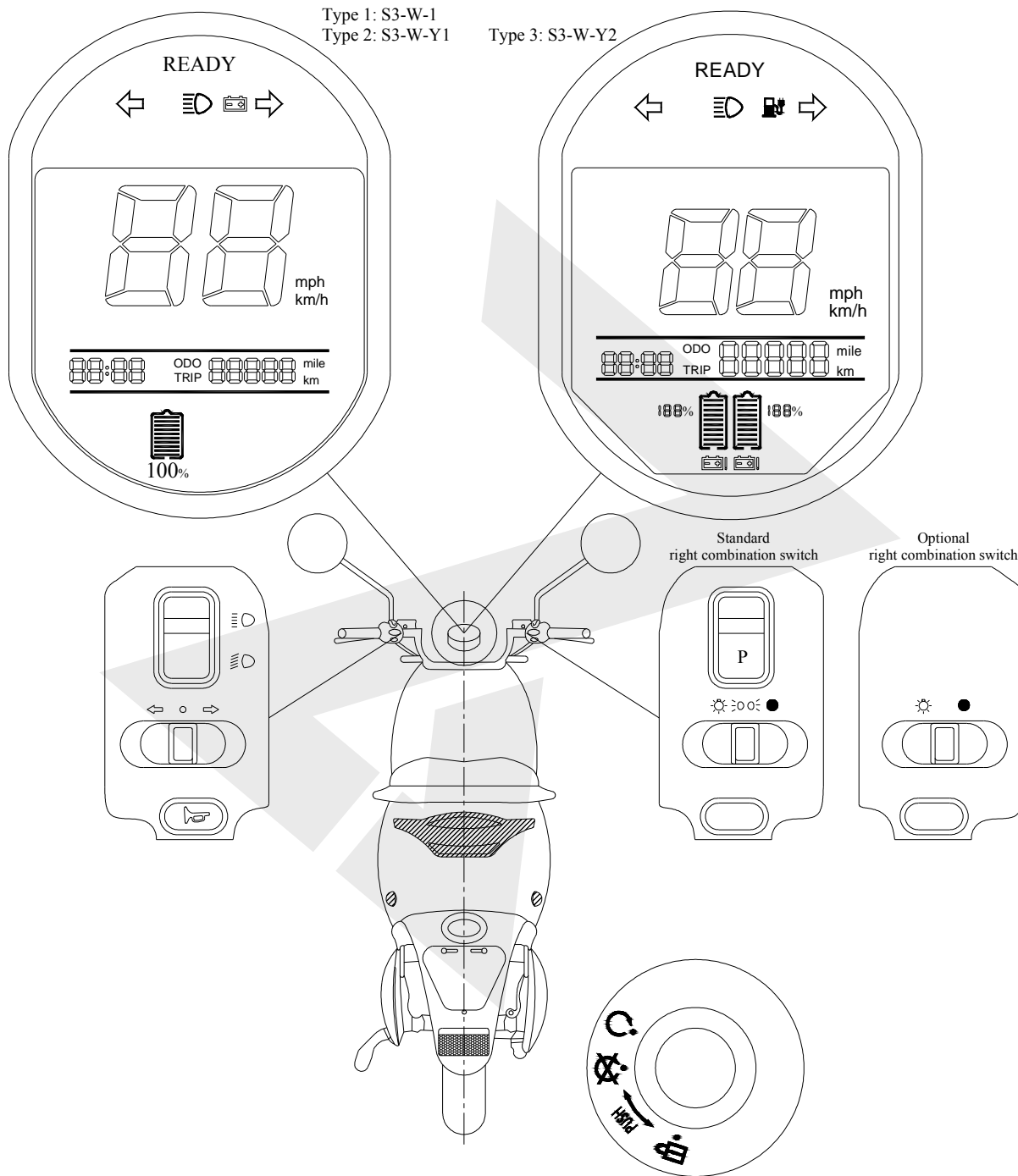


**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou

Information document number: 168/2013-LX02-01

Application date: August 18, 2021



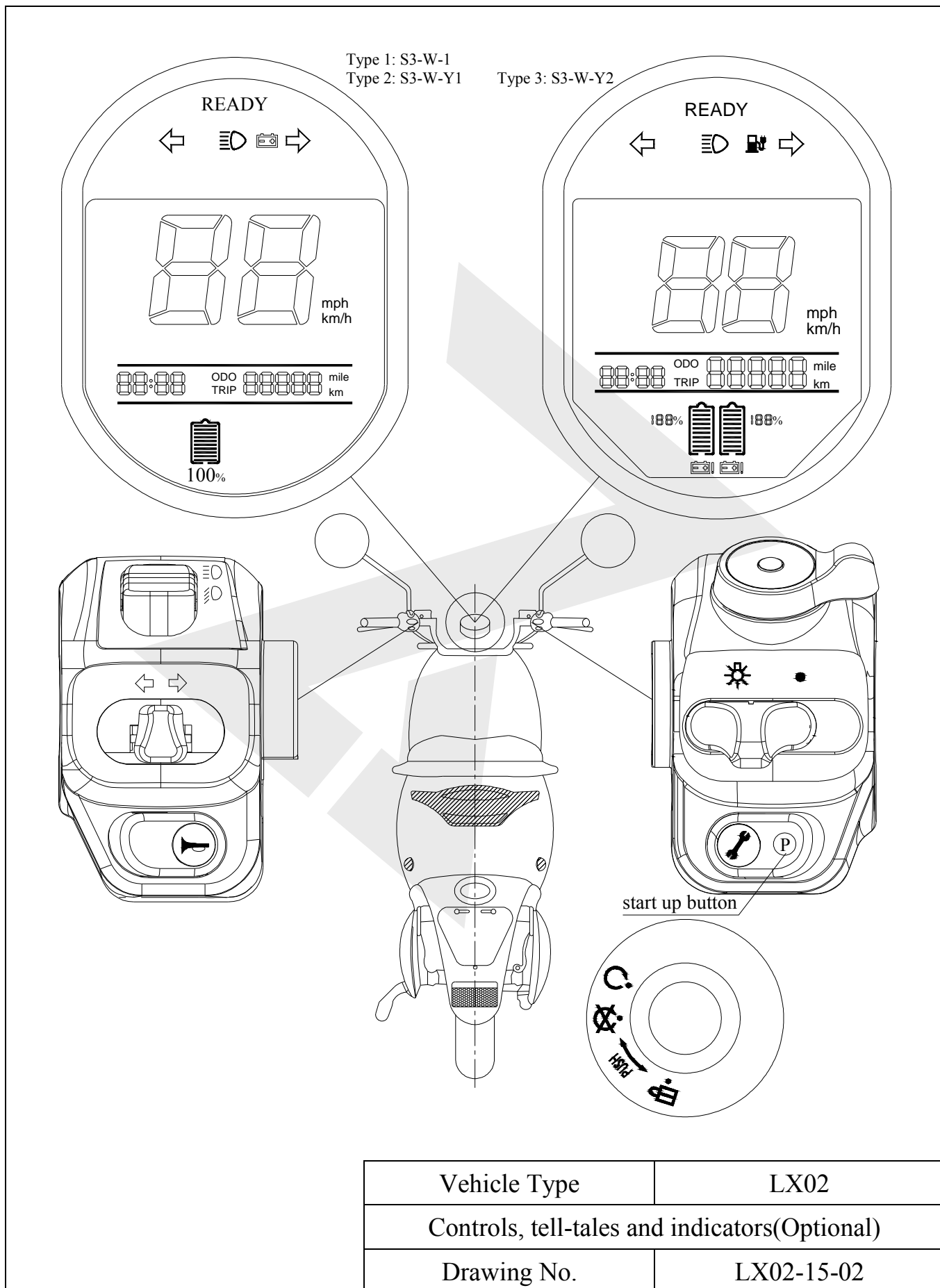
Vehicle Type	LX02
Controls, tell-tales and indicators	
Drawing No.	LX02-15-01

**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou

Information document number: 168/2013-LX02-01

Application date: August 18, 2021

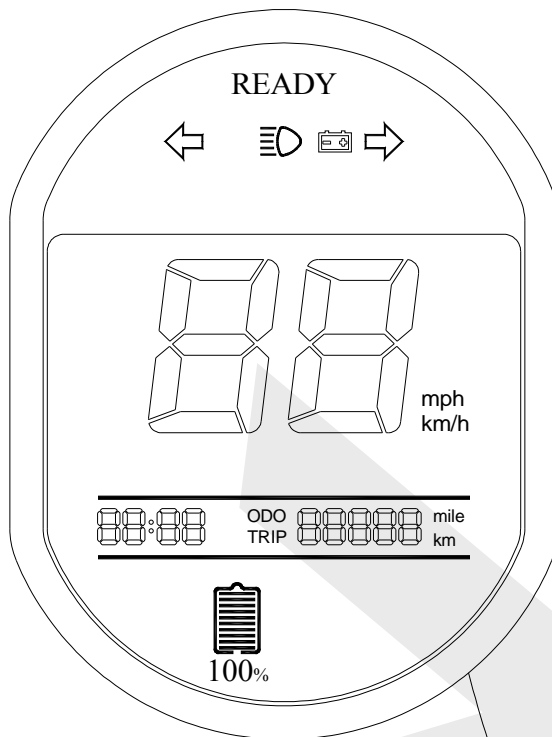


**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou

Information document number: 168/2013-LX02-01

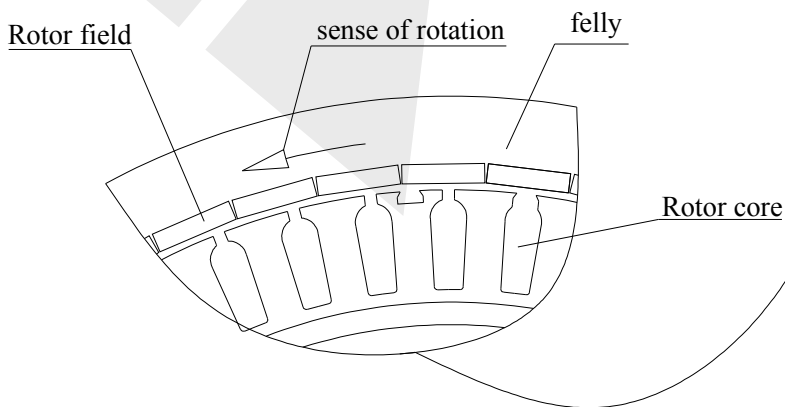
Application date: August 18, 2021



Hall wiring harness

- Direction: ⇐ ⇨ Color: Green
- High Beam: ≡☞ Color: Blue
- Electrical charging: ≡🔌 Color: Red

Note: metric/imperial units it needs electronic tablet control to mutually exchange



Speedometer Type 1: S3-W-1  
 Speedometer Type 2: S3-W-Y1

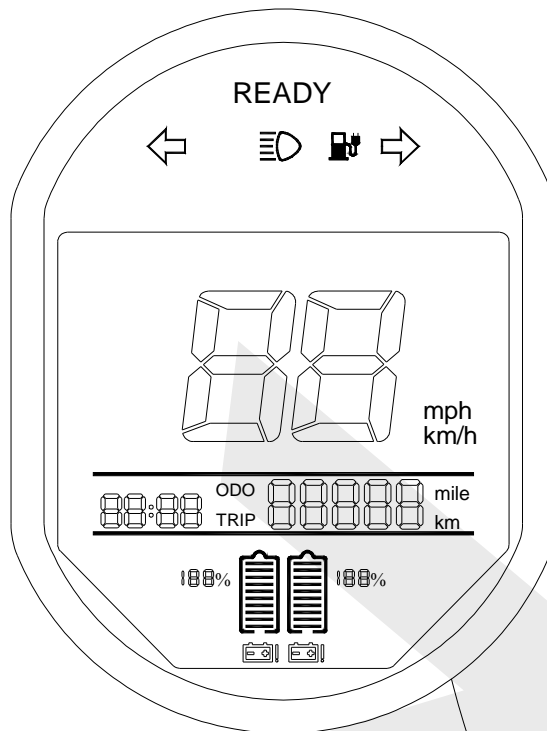
Vehicle Type	LX02
Speedometer system (Type 1)	
Drawing No.	LX02-16-01

**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou

Information document number: 168/2013-LX02-01

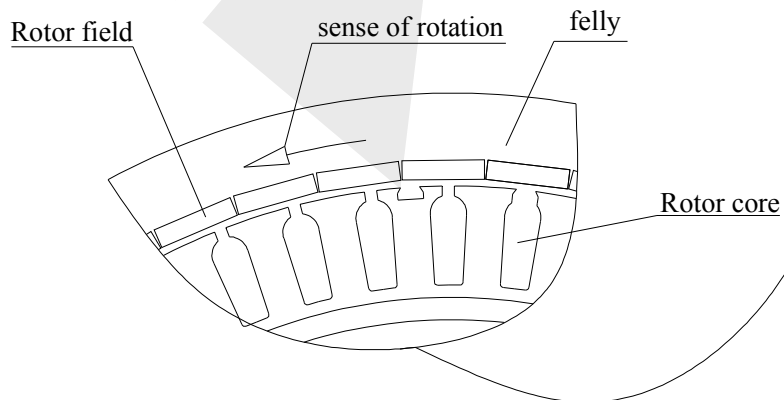
Application date: August 18, 2021



Hall wiring harness

- Direction: ⇐ ⇨
- High Beam: ≡▷
- Electrical charging: 🔌
- Electrical charging: 🔌
- Color: Green
- Color: Blue
- Color: Red
- Color: Yellow

Note: metric/imperial units it needs electronic tablet control to mutually exchange



Speedometer Type 3: S3-W-Y2

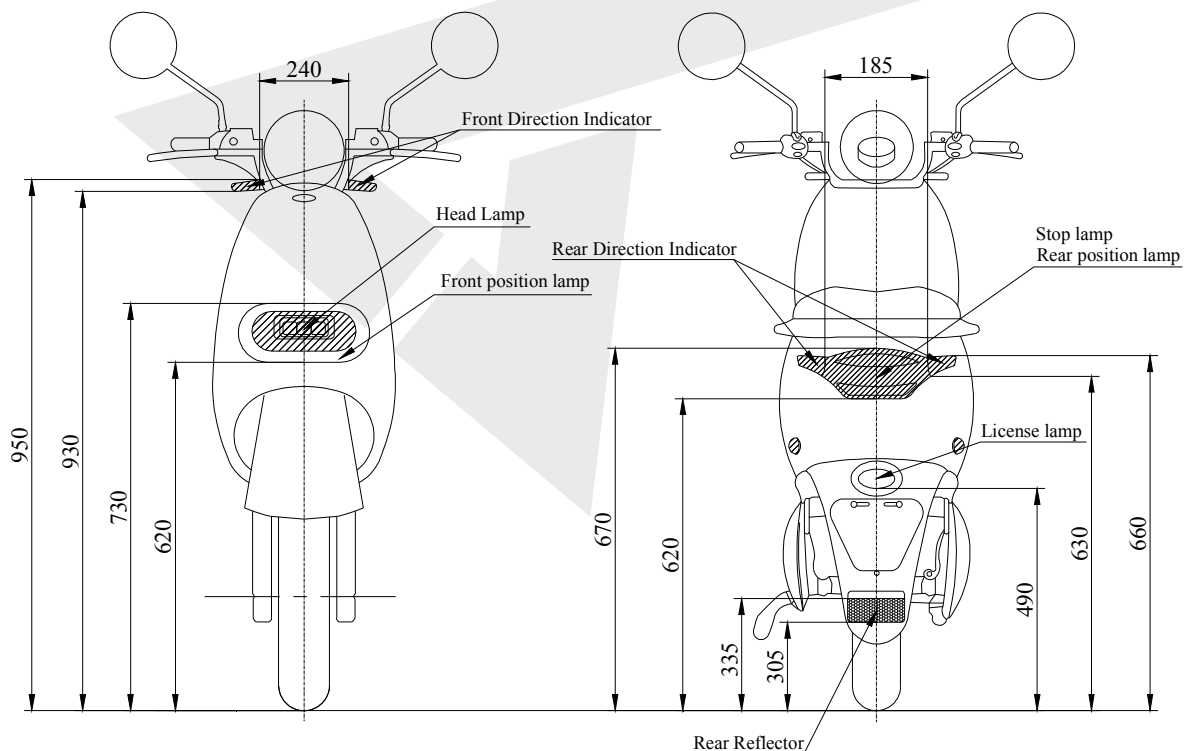
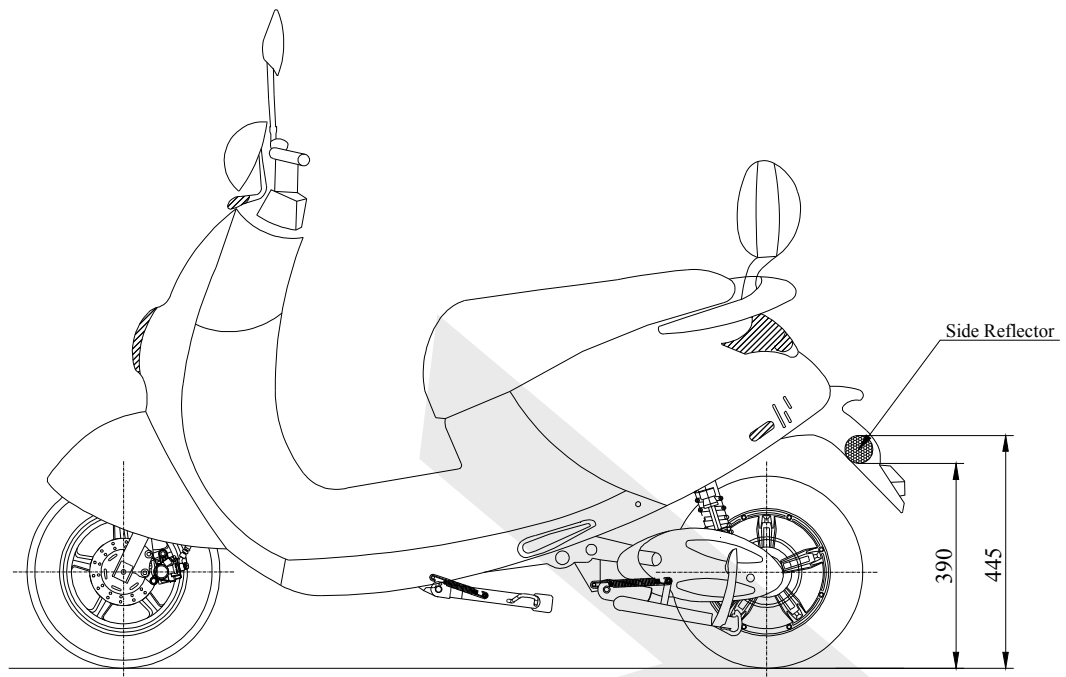
Vehicle Type	LX02
Speedometer system (Type 2)	
Drawing No.	LX02-16-02

**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou

Information document number: 168/2013-LX02-01

Application date: August 18, 2021



Remark: Dipped beam with function of automatically switch on.

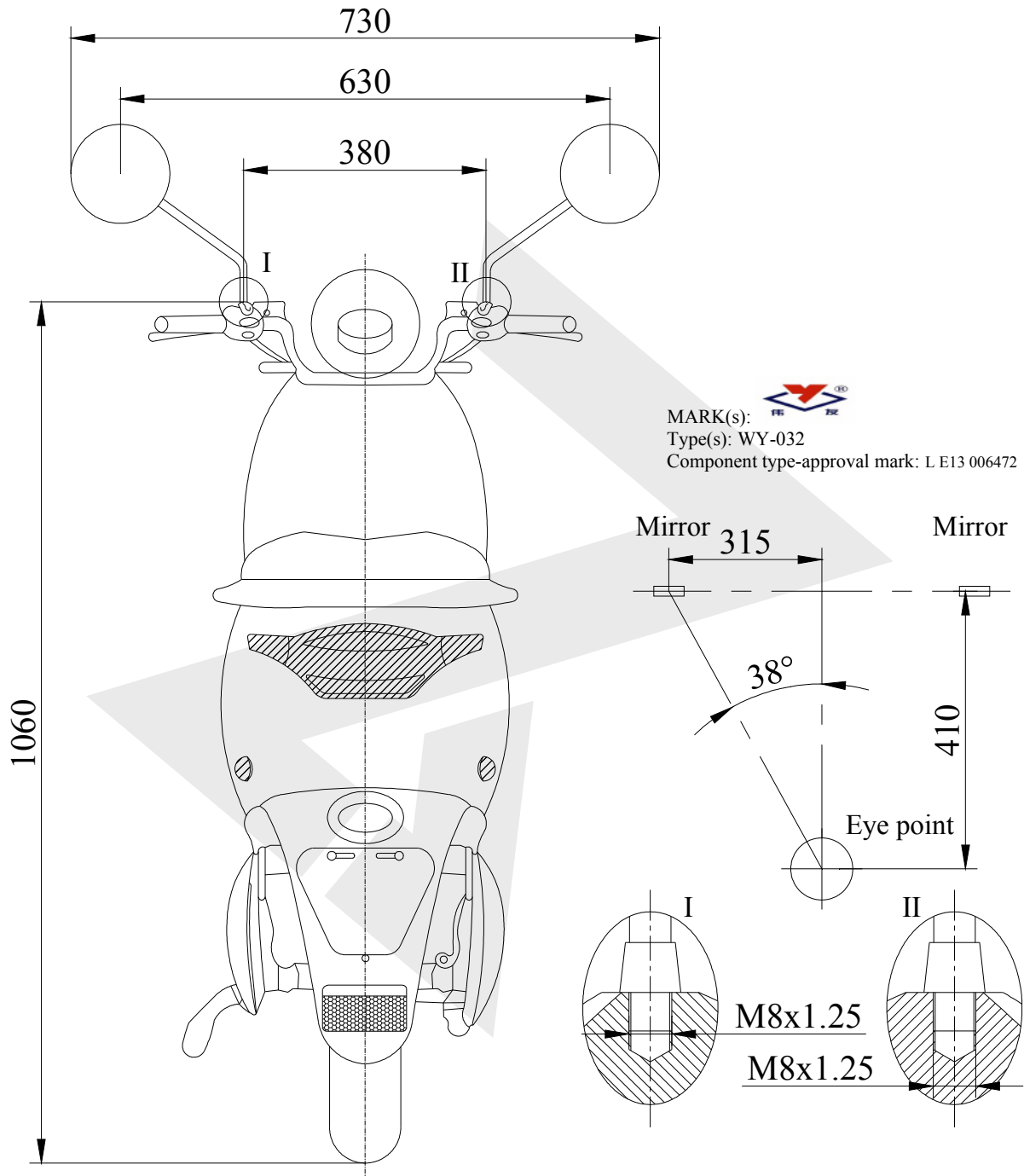
Vehicle Type	LX02
Lighting installation	
Drawing No.	LX02-17-01

**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou

Information document number: 168/2013-LX02-01

Application date: August 18, 2021



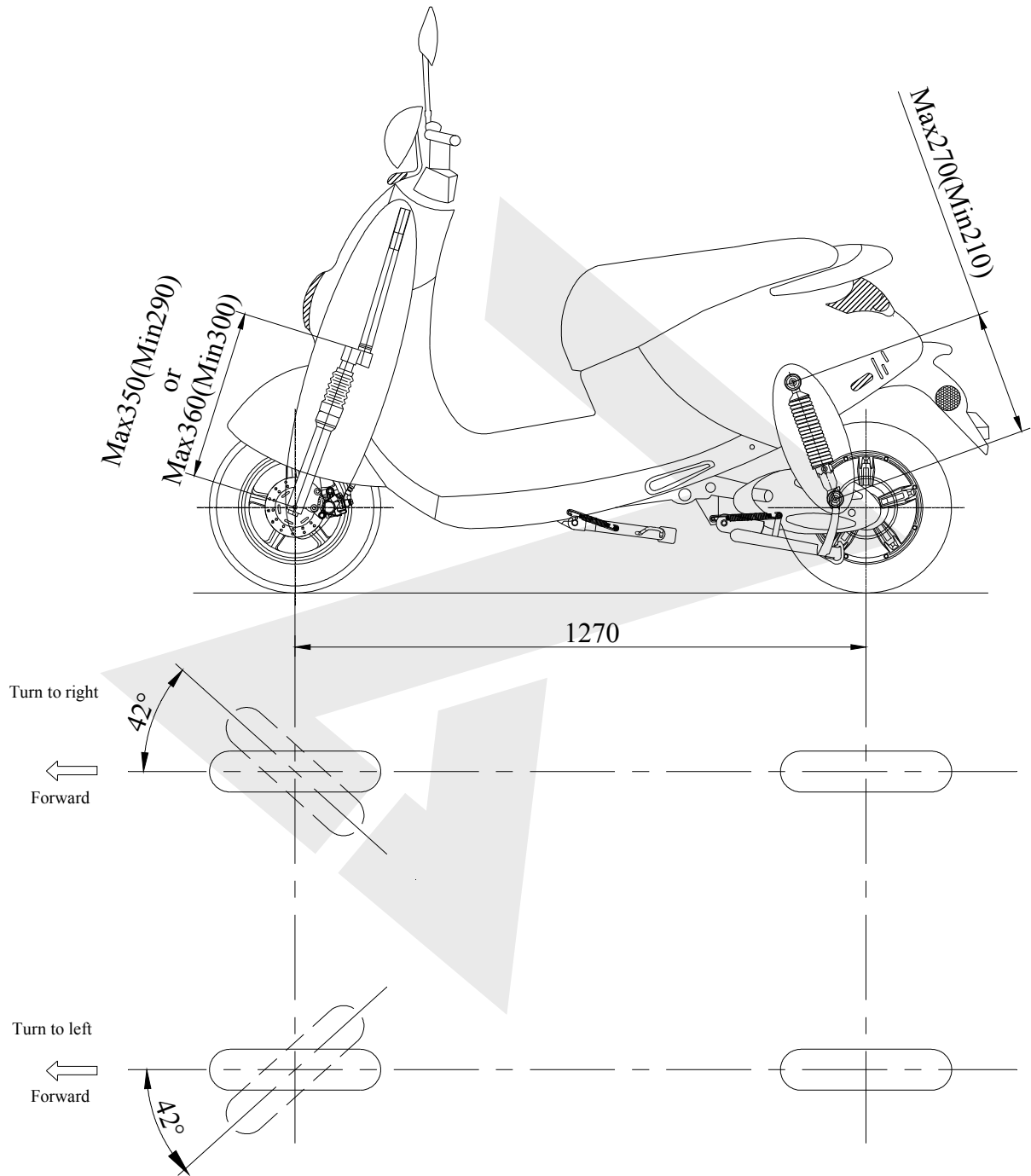
Vehicle Type	LX02
Location of rear view mirror	
Drawing No.	LX02-18-01

**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou

Information document number: 168/2013-LX02-01

Application date: August 18, 2021



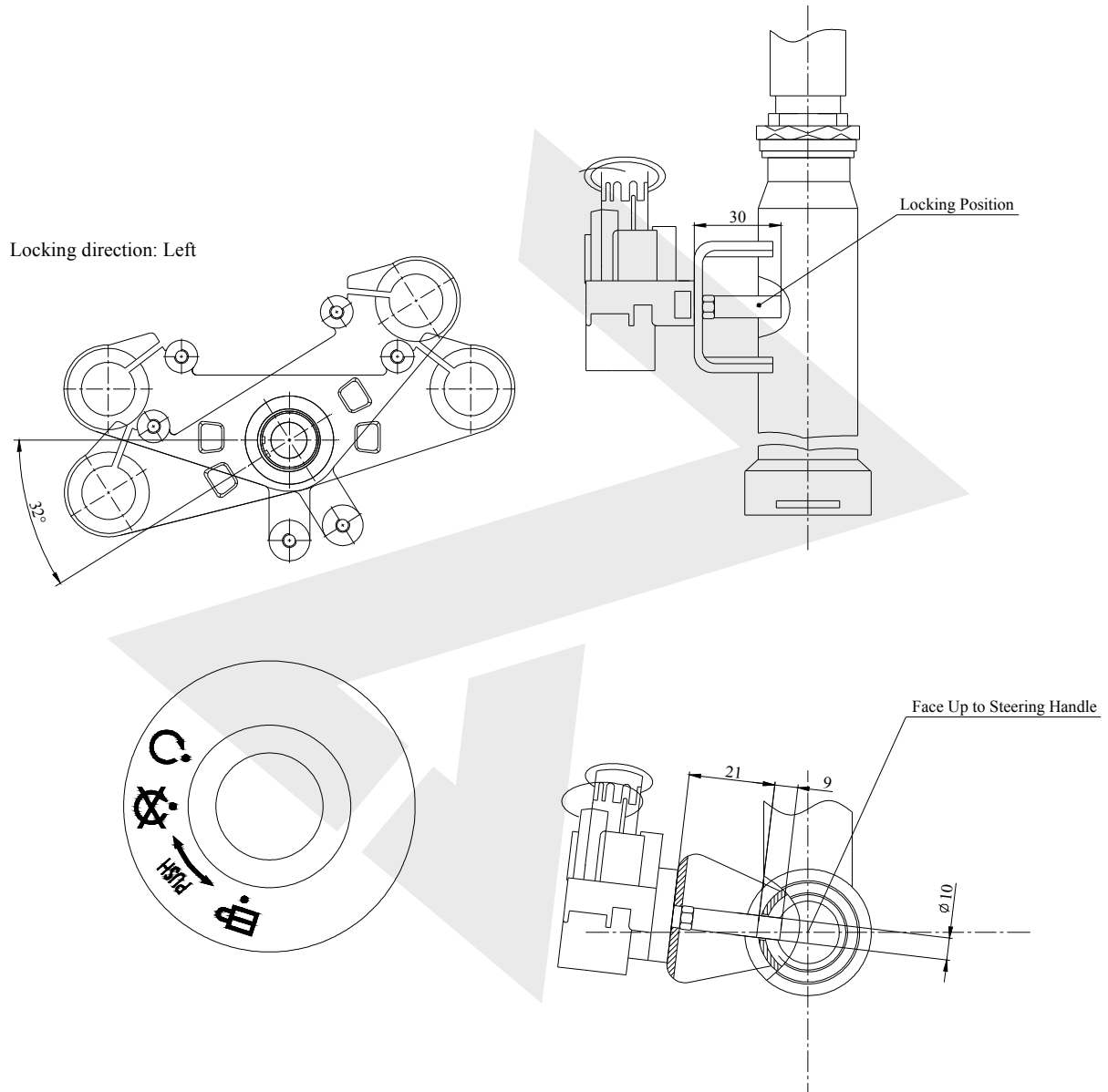
Vehicle Type	LX02
Steering geometry	
Drawing No.	LX02-19-01

**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou

Information document number: 168/2013-LX02-01

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Vehicle Type	LX02
Anti-theft device	
Drawing No.	LX02-20-01

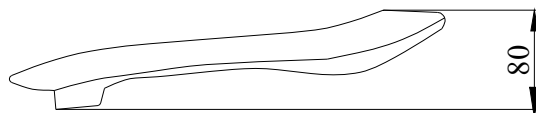
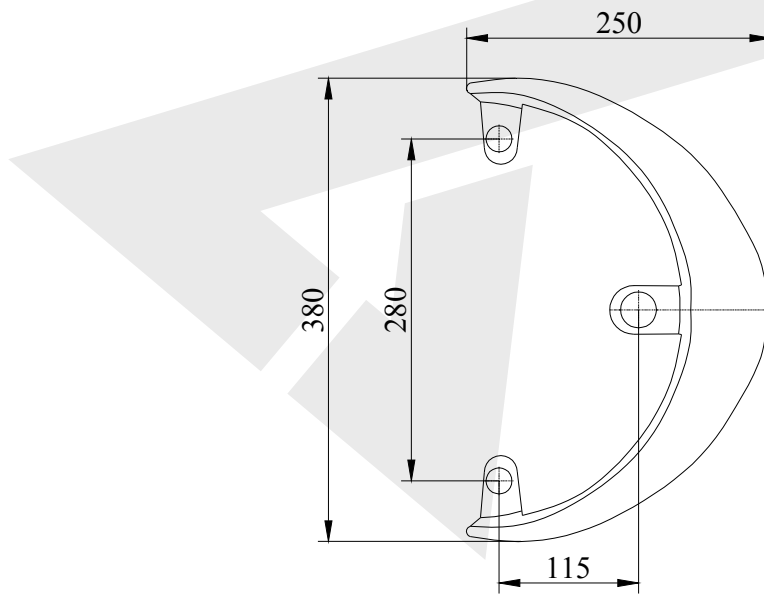
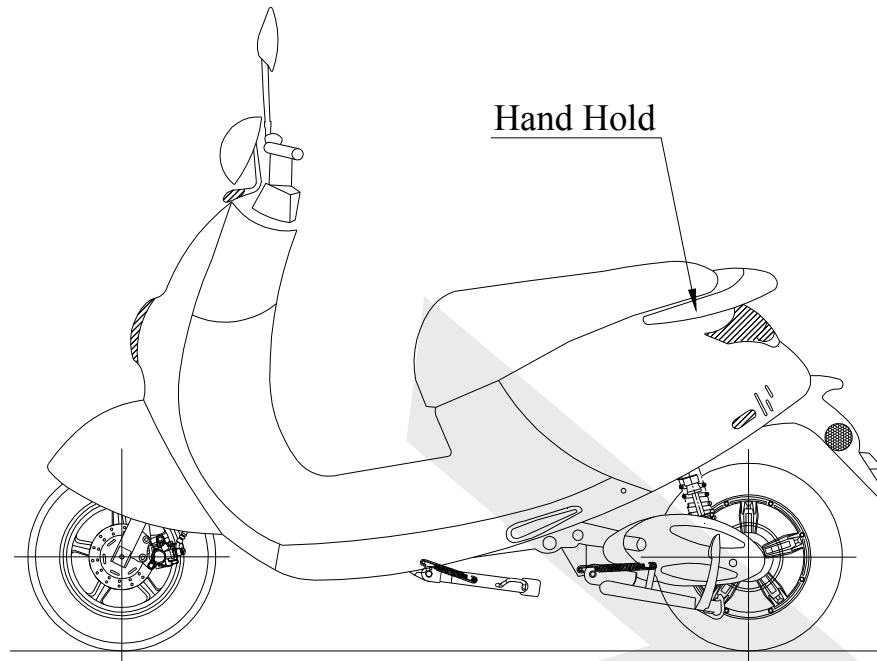


**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou

Information document number: 168/2013-LX02-01

Application date: August 18, 2021



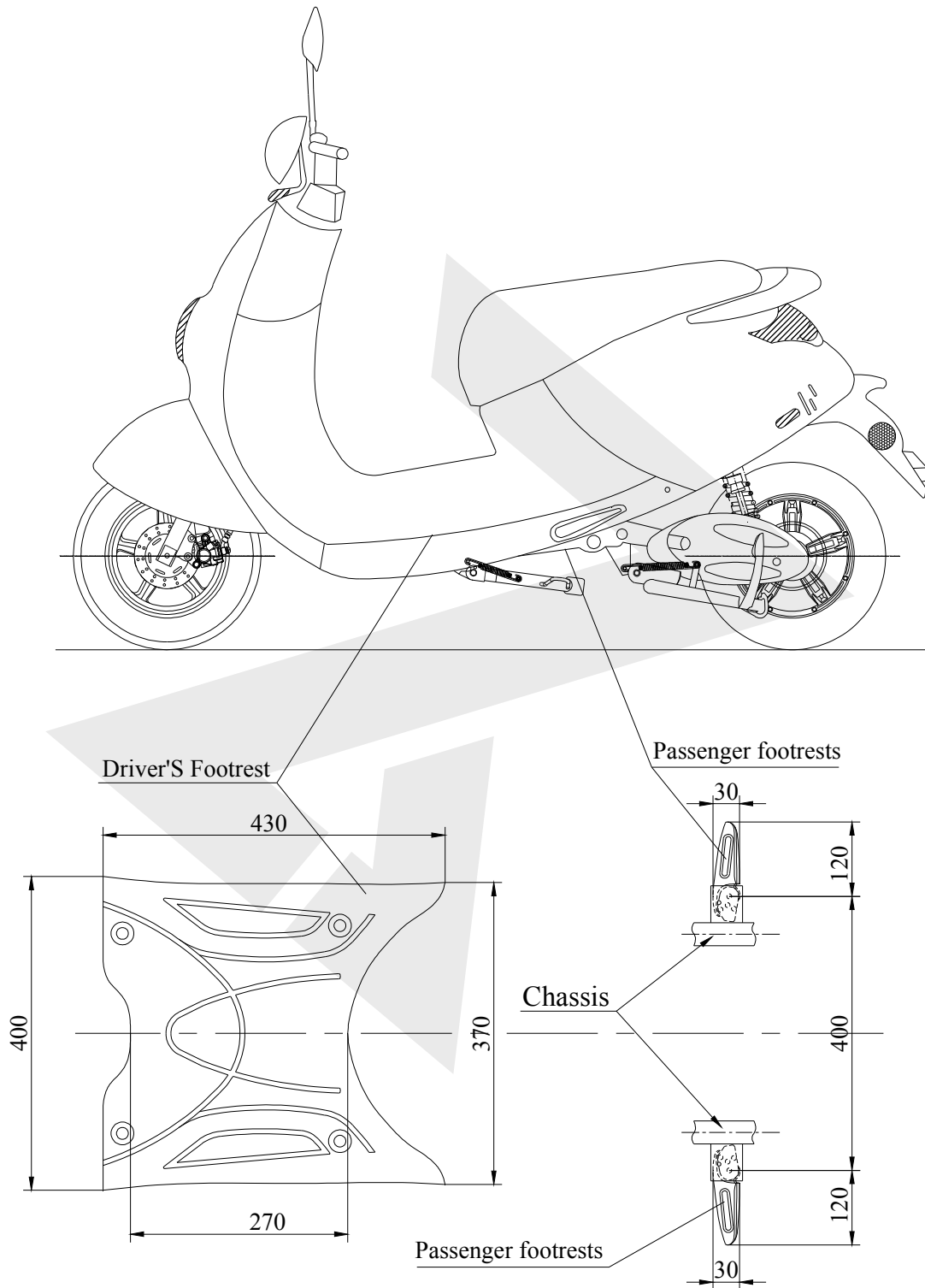
Vehicle Type	LX02
Hand-hold	
Drawing No.	LX02-21-01

**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou

Information document number: 168/2013-LX02-01

Application date: August 18, 2021



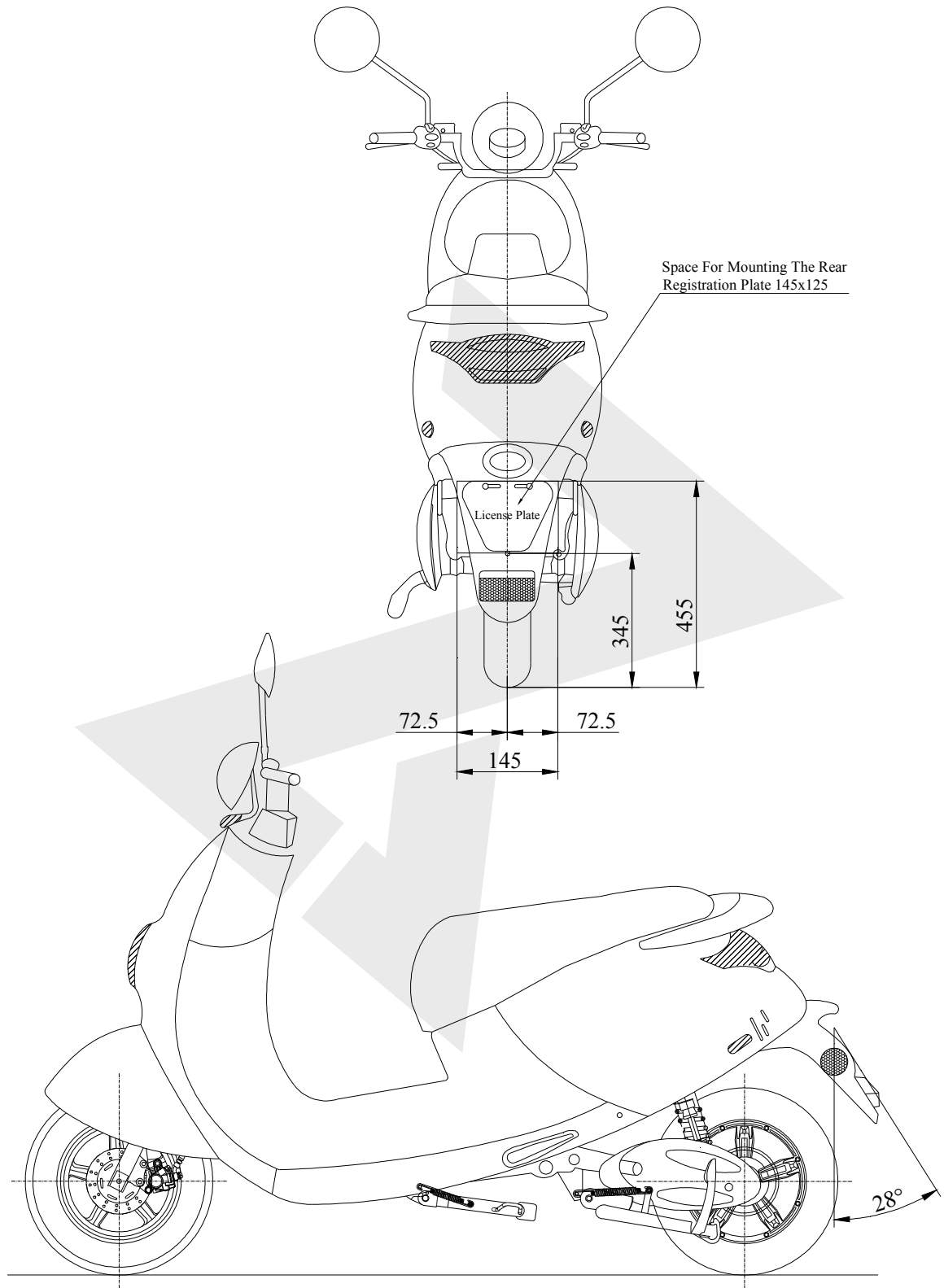
Vehicle Type	LX02
Footrest	
Drawing No.	LX02-22-01

**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou

Information document number: 168/2013-LX02-01

Application date: August 18, 2021



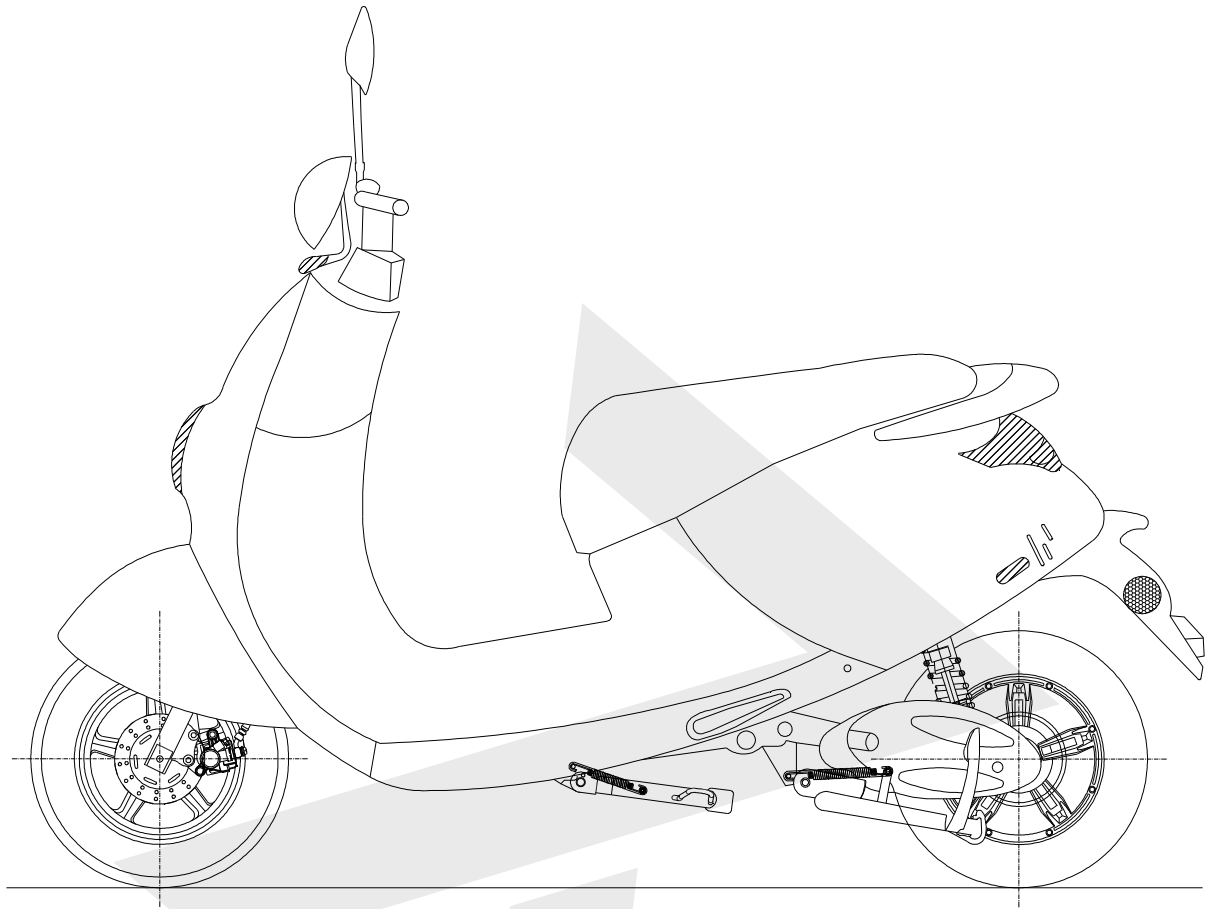
Vehicle Type	LX02
Space for rear registration plate	
Drawing No.	LX02-23-01

**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou

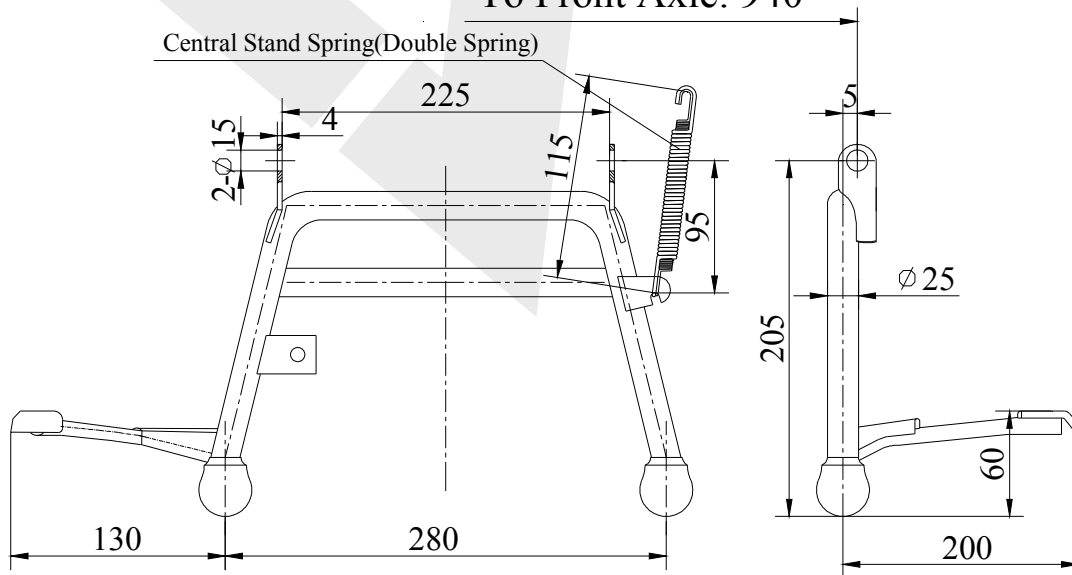
Information document number: 168/2013-LX02-01

Application date: August 18, 2021



To Front Axle: 940

Central Stand Spring(Double Spring)



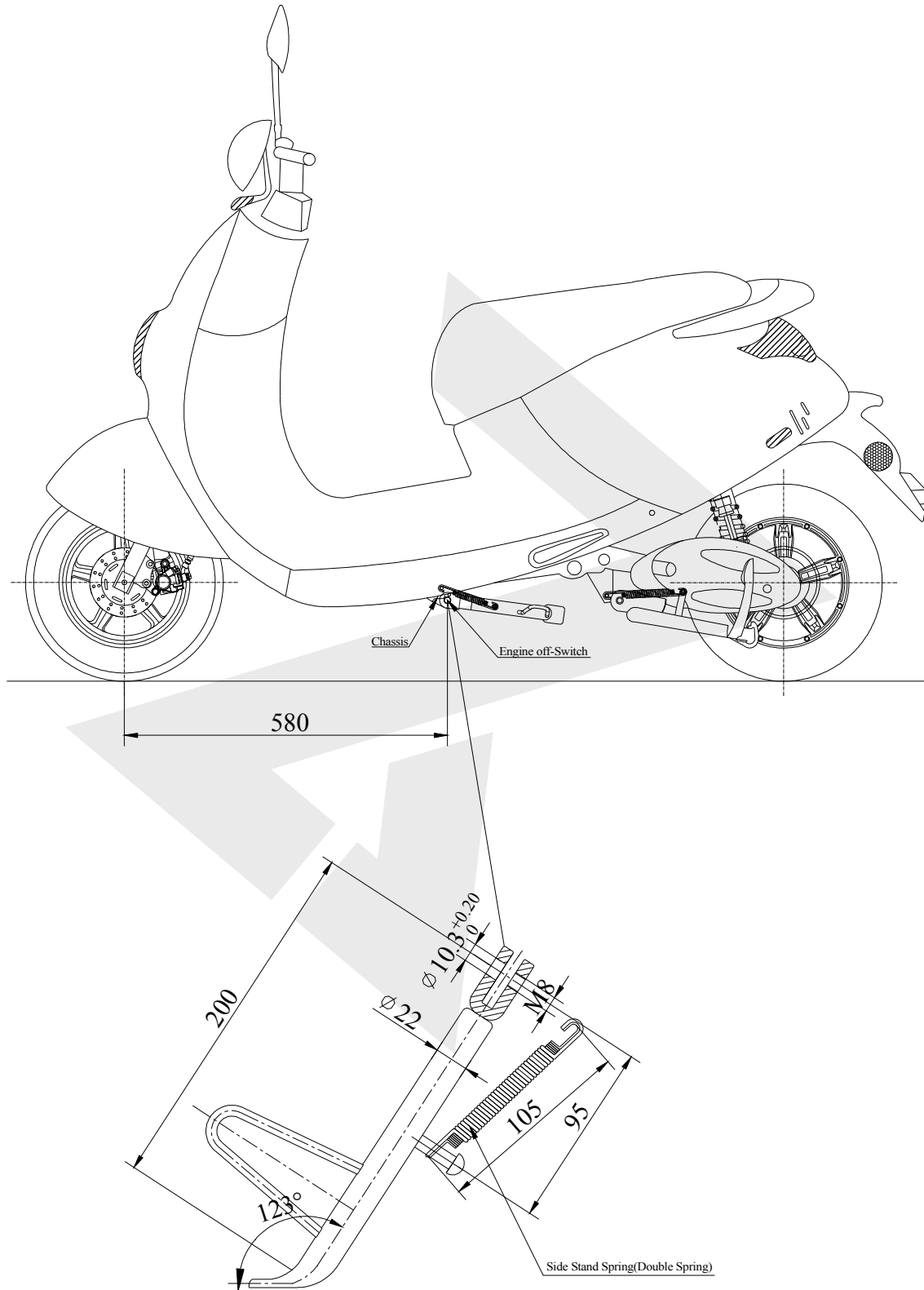
Vehicle Type	LX02
Central stand	
Drawing No.	LX02-24-01

**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou

Information document number: 168/2013-LX02-01

Application date: August 18, 2021



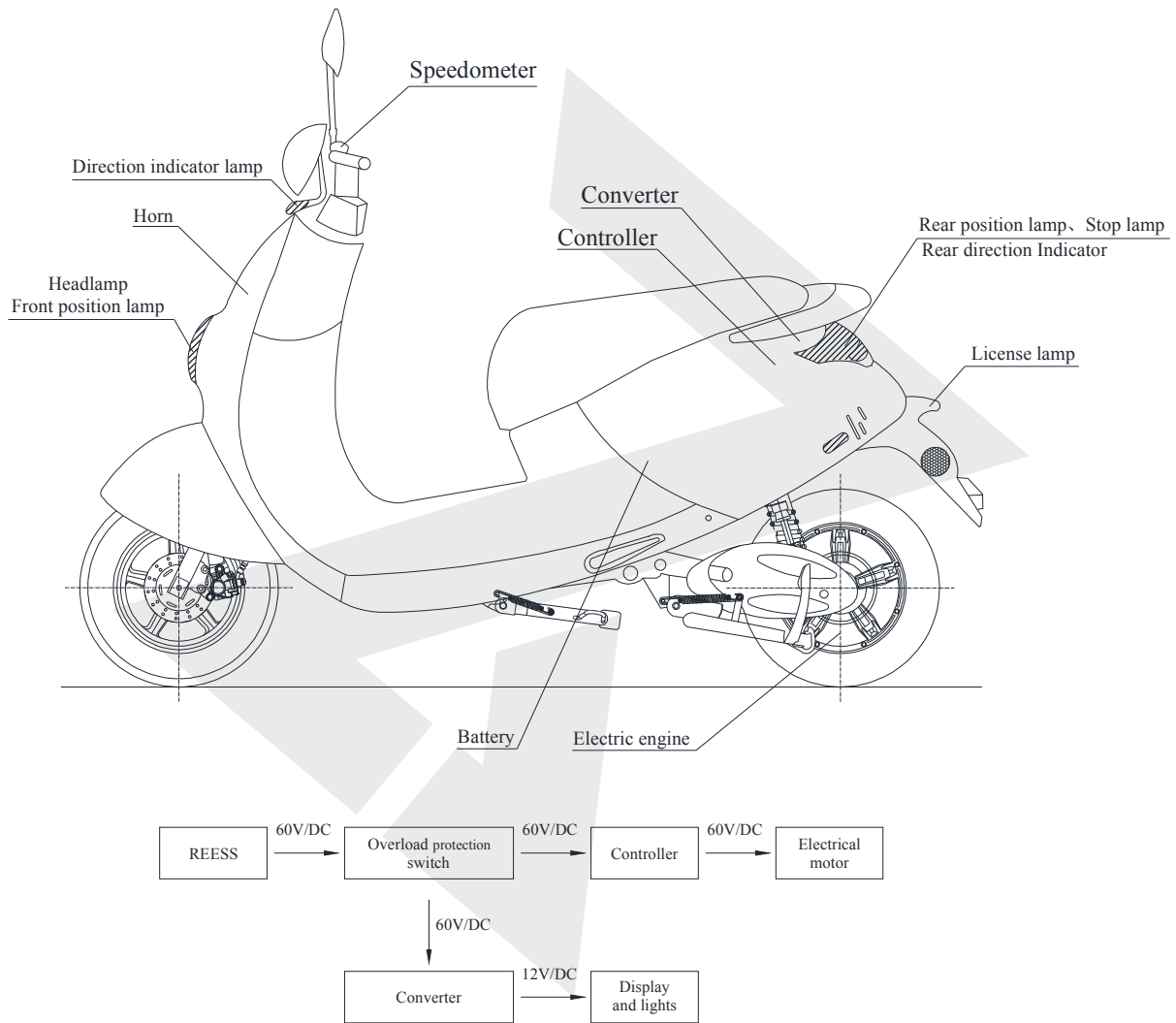
Vehicle Type	LX02
Side stand	
Drawing No.	LX02-24-02

**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou

Information document number: 168/2013-LX02-01

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Vehicle Type	LX02
Location of the power circuit components	
Drawing No.	LX02-25-01

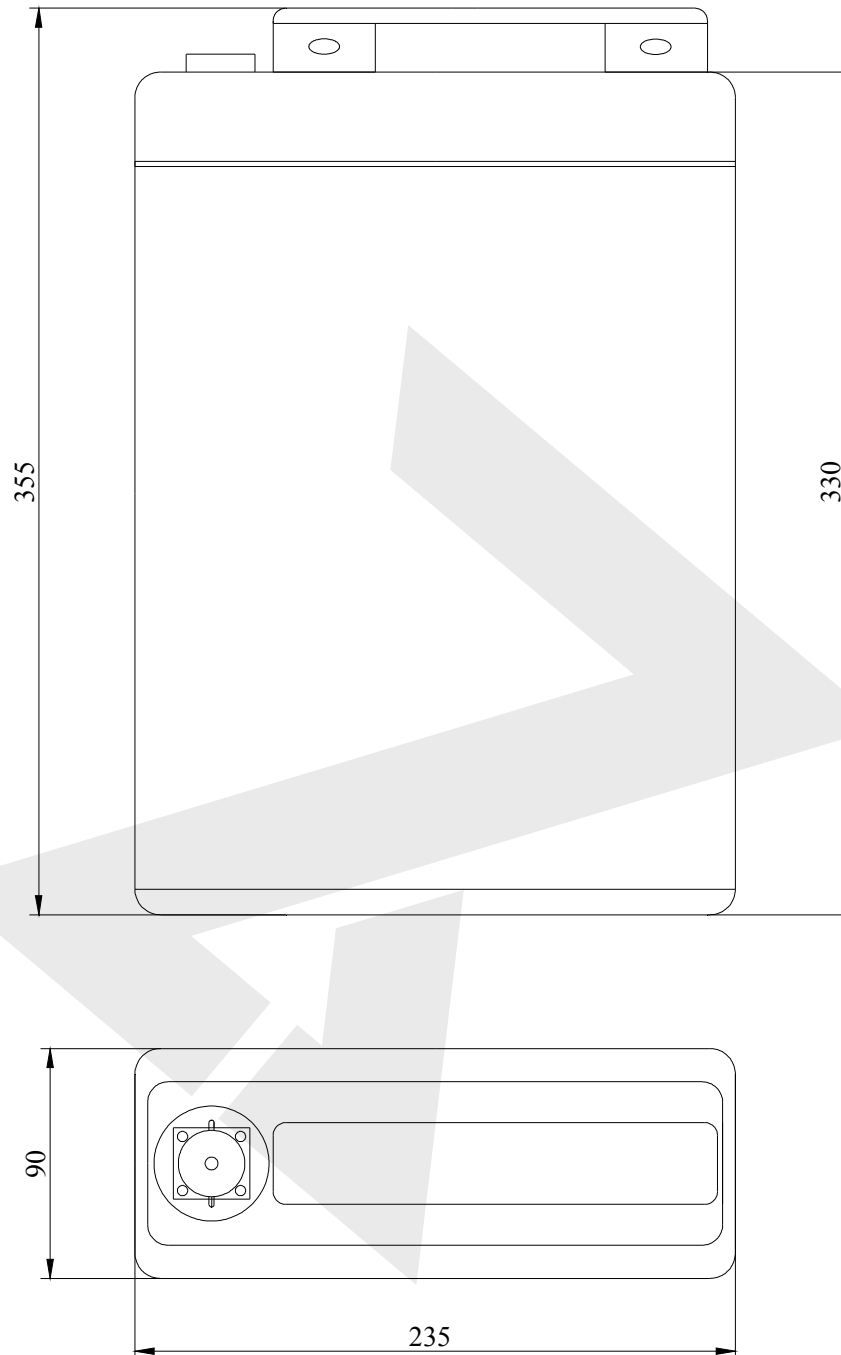
**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou

Information document number: 168/2013-LX02-01

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Variant(s): 01, 02

Make: GREENWAY

Type: DM1501709 60V23.4Ah

working voltage: 60V/DC

Manufacturer: Dongguan Greenway Battery Co., Ltd.

Vehicle Type	LX02
Lithium battery	
Drawing No.	LX02-26-01

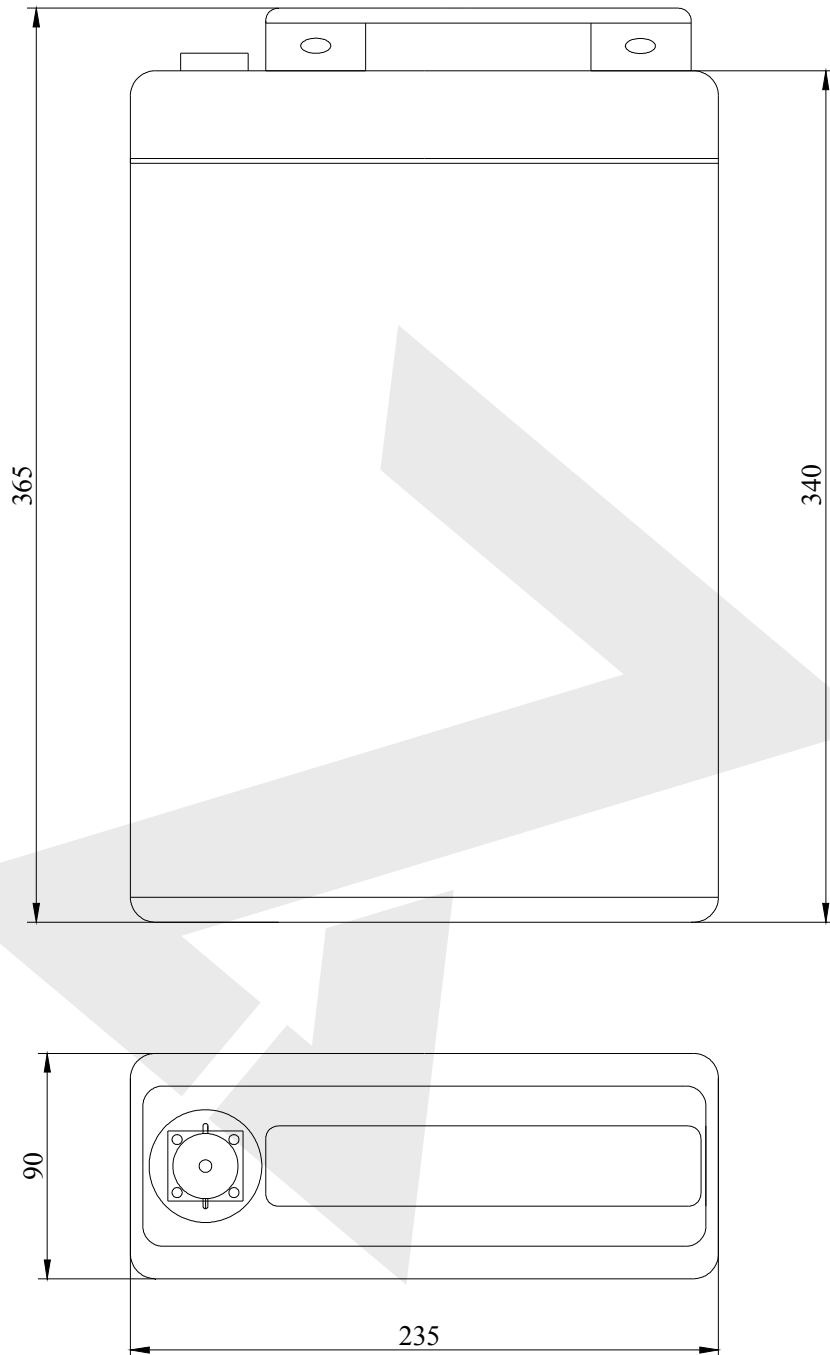
**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou

Information document number: 168/2013-LX02-01

Application date: August 18, 2021

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Variant(s): 04

Make: GREENWAY

Type: DM2851709

working voltage: 60V/DC

Manufacturer: Dongguan Greenway Battery Co., Ltd.

Vehicle Type	LX02
Lithium battery	
Drawing No.	LX02-26-02



**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou

Information document number: 168/2013-LX02-01

Application date: August 18, 2021



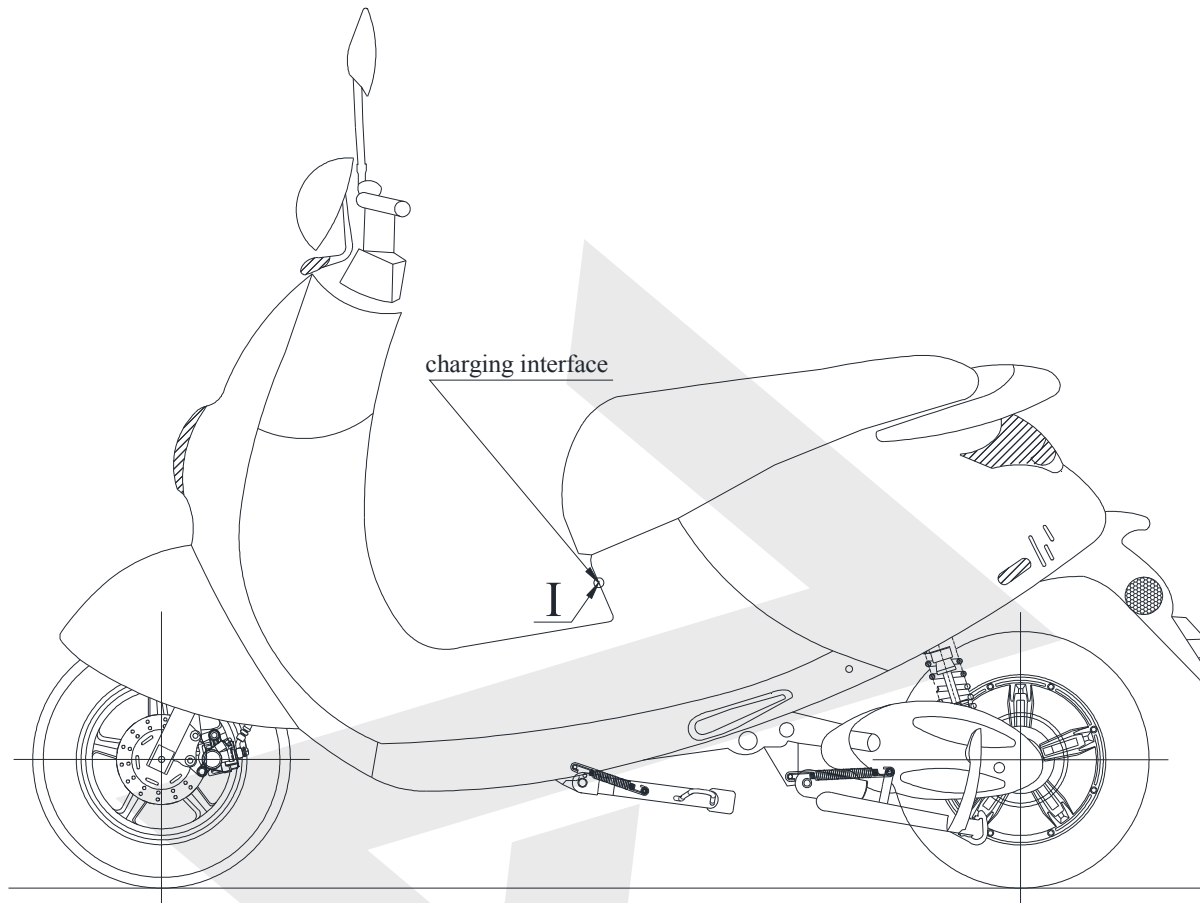
Vehicle Type	LX02
Installation of the battery	
Drawing No.	LX02-27-01

**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

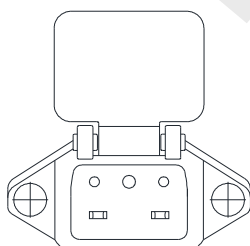
No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou

Information document number: 168/2013-LX02-01

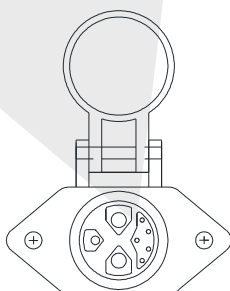
Application date: August 18, 2021



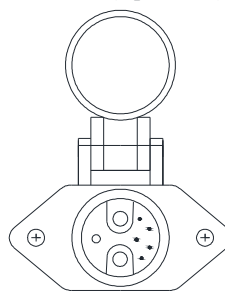
VIEW I (Standard)



VIEW I (Optional)



VIEW I (Optional 1)



Remark: Warning label  
Background: yellow  
Bordering and arrow: black

Vehicle Type	LX02
External charger socket	
Drawing No.	LX02-28-01

**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou, P.R. China

**Information folder sheet**

A duly completed version of this statement shall be included in the information folder.

The undersigned: **[Mr. Lu Wei / Manager]**

Company name and address of the manufacturer:

**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

**No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou, P.R. China**

Name and address of the manufacturer's representative (if any):

**IVA Mobility B.V.**

**Sportlaan 391, 3364DK Sliedrecht, The Netherlands**

Hereby applies for type-approval procedure(4):

~~(a) step-by-step type approval~~

**(b) single-step type-approval**





~~(c) mixed type approval~~

Where procedures (a) or (c) are chosen, compliance with requirements as under (b) is declared for all systems, components and separate technical units.

Multi-stage type-approval chosen in accordance with Article 25(5) of Regulation (EU) No 168/2013: ~~yes~~/no(4)

**Information on the vehicle(s) to be filled in, if application is for EU whole-vehicle type-approval(3):**

0.1. Make (trade name of the manufacturer):

 LVNENG, , Skand, Smartway, VEMO, Senzo, Hype-Bike, IVA, , , , WAYEL, rutec, , bensom, Greenwolke

0.2. Type(17): **LX02**

0.2.1. Variant(s)(17): **01, 02, 04**

0.2.2. Version(s)(17): **01**

0.2.3. Commercial name(s) (if available):

**LX02, COMO, eXcellent, MOSCU, E-GO S3**

0.3. Category, subcategory and sub-subcategory of vehicle(2): **L1e-B**

**Information to be filled in, if application is for type-approval of a system/component/separate technical unit(3)(4):**

0.7. Make(s) (trade name(s) of manufacturer): Not applicable

0.8. Type: Not applicable

0.8.1. Commercial name(s) (if available): Not applicable

1.6. Virtual and/or self-testing(3)

## Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.

No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou, P.R. China

1.6.1. Overview list with virtual and/or self-tested systems, components or separate technical units pursuant to point 6 of Annex III to Commission Delegated Regulation (EU) No 44/2014 below:

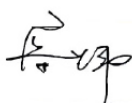
**Overview table virtual and/or self-testing**

Delegated act	Annex	Subject	Virtual and/or self-tested: yes/no(4)
Commission Delegated Regulation (EU) No134/2014(*)	X	Testing procedures on maximum design vehicle speed	Self-testing: <del>yes</del> /no(4)
Commission Delegated Regulation (EU) No3/2014	II	Audible warning devices	Self-testing: <del>yes</del> /no(4)
Commission Delegated Regulation (EU) No3/2014	VIII	Driver-operated controls including identification of controls, tell-tales and indicators	Self-testing: <del>yes</del> /no(4)
Commission Delegated Regulation (EU) No3/2014	IX	Installation of lighting and light-signaling devices	Virtual testing: <del>yes</del> /no(4)
Commission Delegated Regulation (EU) No3/2014	X	Rearward visibility	Virtual testing: <del>yes</del> /no(4)
Commission Delegated Regulation (EU) No3/2014	XV	Installation of tyres	Virtual testing: <del>yes</del> /no(4)
Commission Delegated Regulation (EU) No44/2014	XIV	Registration plate space	Self & Virtual testing: <del>yes</del> /no(4)
Commission Delegated Regulation (EU) No44/2014	XVI	Stands	Self-testing: <del>yes</del> /no(4)
This Commission Implementing Regulation (EU) No 901/2014	V	Statutory plate and EU type-approval mark	Self-testing: <del>yes</del> /no(4)
(*) Commission Delegated Regulation (EU) No 134/2014 of 16 December 2013 supplementing Regulation (EU) No 168/2013 of the European Parliament and of the Council with regard to environmental and propulsion unit performance requirements and amending Annex V thereof (OJL 53, 21.2.2014, p. 1).			

1.6.2. Detailed report on validation of virtual and/or self-testing added: ~~yes~~/no(4)

Place: **Changzhou City, Jiangsu Province, China**      Date: **2021.08.25**

Signature:



Name and position in the company: **Mr. Lu Wei / Manager**

Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.

No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou, P.R. China

**Manufacturer's statement on endurance testing (Annex V to Commission Delegated Regulation (EU) No 3/2014)**

A duly completed version of this statement shall be included in the information folder

The undersigned: **[Mr. Lu Wei / Manager]**

Company name and address of the manufacturer:

**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

**No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou, P.R. China**


Name and address of the manufacturer's representative (if any):



**IVA Mobility B.V.**

**Sportlaan 391, 3364DK Sliedrecht, The Netherlands**

Hereby states that the vehicles:

0.1. Make (trade name of the manufacturer):

**LVNENG 绿能**, LVNENG, , Skand, Smartway, VEMO, Senzo, Hype-Bike, IVA,

**genergia**, , , WAYEL, rutec, **CETUR**, bensom, Greenwolke

0.2. Type (1): **LX02**

0.2.1. Variant(s) (1): **01, 02,04**

0.2.2. Version(s) (1): **01**

0.2.3. Commercial name(s) (if available):

**LX02, COMO, eXcellent, MOSCU, E-GO S3**

0.3. Category, subcategory and sub-subcategory of vehicle (2): **L1e-B**

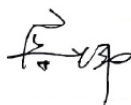
for which type-approval is sought shall withstand normal use as intended for at least 16500 km travelled within five years of first registration, taking into account regular and scheduled maintenance and specific equipment adjustments, as described clearly and unambiguously in the instructions manual delivered with the vehicles.

The undersigned furthermore confirms that the endurance of the systems, parts and equipment critical for functional safety is ensured through appropriate testing and the use of good engineering practice.

This declaration has no bearing on any vehicle warranty.

Place: **Changzhou City, Jiangsu Province, China** Date: **2021.08.25**

Signature:



Name and position in the company: **Mr. Lu Wei / Manager**

Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.

No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou, P.R. China

**Manufacturer's statement on structure integrity  
(Annex XIX to Commission Delegated Regulation (EU) No 3/2014)**

A duly completed version of this statement shall be included in the information folder.

The undersigned: **[Mr. Lu Wei / Manager]**

Company name and address of the manufacturer:

**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

**No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou, P.R. China**




Name and address of the manufacturer's representative (if any):

**IVA Mobility B.V.**

**Sportlaan 391, 3364DK Sliedrecht, The Netherlands**

Hereby states that the vehicles:

0.1. Make (trade name of the manufacturer):

**LVNENG 绿能**, LVNENG, , Skand, Smartway, VEMO, Senzo, Hype-Bike, IVA, **genergia**, , , WAYEL, rutec, **CETUR**, bensom, Greenwolke

0.2. Type (1): **LX02**

0.2.1. Variant(s) (1): **01, 02, 04**

0.2.2. Version(s) (1): **01**

0.2.3. Commercial name(s) (if available): **LX02, COMO, eXcellent, MOSCU, E-GO S3**

0.3. Category, subcategory and sub-subcategory of vehicle (2): **L1e-B**

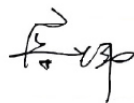
shall be constructed in a proper manner and are designed to be sufficiently robust to withstand the intended use over the vehicle's lifetime, taking into account regular and scheduled maintenance and specific equipment adjustments, as described clearly and unambiguously in the instructions manual delivered with the vehicles.

The undersigned furthermore agrees to and guarantees that specific analyses of vehicle structures, components and/or parts using engineering calculations, virtual testing methods and/or structural testing shall be made available in a timely manner to the approval authority and the European Commission upon request in case of a recall due to a serious safety risk.

This declaration applies to all vehicles covered by the type-approval to which this statement is annexed and has no bearing on any vehicle warranty.

Place: **Changzhou City, Jiangsu Province, China** Date: **2021.08.25**

Signature:



Name and position in the company: **Mr. Lu Wei / Manager**

## Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.

No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou, P.R. China

**Manufacturer's declaration on powertrain tampering prevention measures  
(anti-tampering)**

**1. Vehicle manufacturer's declaration on powertrain tampering prevention measures  
(anti-tampering):**

- not to market interchangeable components which could enable propulsion unit performance to exceed levels applicable to the relevant (sub) category;
- manufacturer-facilitated modifications shall not increase the propulsion unit performance of the vehicle;
- modifications and interchangeability of parts and components

**Manufacturer's declaration not to market interchangeable components which could enable propulsion unit performance to exceed levels applicable to the relevant (sub) category**

A duly-completed version of this statement shall be included in the information folder.

**The undersigned: [Mr. Lu Wei / Manager]**

0.4. Company name and address of manufacturer:

**Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.**

**No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou, P.R. China**

0.4.2. Name and address of the manufacturer's representative (if any) (0):

**IVA Mobility B.V.**

**Sportlaan 391, 3364DK Sliedrecht, The Netherlands**

**Hereby declares that:**

**For the L1e/L2e, (L3e/L4e) A1/(L3e/L4e) A2/L6e/L7e (1) category vehicle:L1e**

0.1 Make (trade name of the manufacturer):

**LVNENG 绿能**, LVNENG, , Skand, Smartway, VEMO, Senzo,

Hype-Bike, IVA, , , , WAYEL, rutec, **CETUR**, bensom,

Greenwolke

0.2. Type (4): **LX02**

0.2.1. Variant(s) (4): **01, 02,04**

0.2.2. Version(s) (4): **01**

0.2.3 Commercial name(s) (if available):

**LX02, COMO, eXcellent, MOSCU, E-GO S3**

0.3. Category, subcategory and sub-subcategory of vehicle (5): **L1e-B**

Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.

No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou, P.R. China

**Will not market interchangeable components which could enable propulsion unit performance to exceed levels applicable to the relevant (sub) category;**

and that

**The manufacturer-facilitated modifications of the following characteristics:**

- (a) spark delivery of the ignition system if applicable;
- (b) fuel feed and delivery system;
- (c) air intake system including air filter(s) (modification or removal);
- (d) propulsion battery configuration or electric power to the electric motor(s) if applicable;
- (e) drive-train;
- (f) and the control unit(s) that control(s) the propulsion unit performance of the powertrain.

**shall comply with the requirements set out in point 2.6. of Annex II to Commission Delegated Regulation (EU) No 44/2014**

**For ~~L3e-A2/L4e-A2/L7e-1~~ category vehicles the manufacturer declares that:**

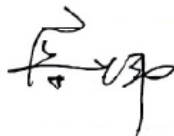
**The modifications and interchangeability of:**

- (a) spark delivery of the ignition system, if applicable;
- (b) fuel feed and delivery system;
- (c) air intake system including air filter(s) (modification or removal);
- (d) the drive train;
- (e) the control unit(s) for the propulsion unit performance of the powertrain;
- (f) removal of any component (mechanical, electrical, structural, etc.) which limits full engine load, leading to any change in the propulsion unit performance as approved in accordance with Annex II (A) to Regulation (EU) No 168/2013

**shall comply with the requirements set out in point 5.2 of Annex II to Commission Delegated Regulation (EU) No 44/2014**

Place: **Changzhou City, Jiangsu Province, China**      Date: **2021.08.25**

Signature:



Name and position in the company: **Mr. Lu Wei / Manager**



# COMPLETE VEHICLE EU CERTIFICATE OF CONFORMITY

The undersigned, Lu Wei / Manager

Hereby certifies that the following complete vehicle:

- 0.1. Make (trade name of the manufacturer): LVNENG, LVNENG's logo\*2, Skand, Smartway, VEMO, IVA, Hype-Bike, Senzo, VA's logo, gennergia's logo, whattz's logo, WAYEL, rutec, CETUR's logo, bensom, Greenwolke
- 0.2. Type: LX02
- 0.2.1. Variant: 01
- 0.2.2. Version: 01
- 0.2.3. Commercial name (if available): LX02, COMO, eXcellent, MOSCU, E-GO S3
- 0.3. Category, subcategory and sub-subcategory of vehicle: L1e-B
- 0.4. Company name and address of manufacturer:  
Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.  
No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou, P.R. China
- 0.4.2. Name and address of manufacturer's authorized representative (if any):  
IVA Mobility B.V.  
Sportlaan 391, 3364DK Sliedrecht, The Netherlands
- 0.5.1. Location of the manufacturer's statutory plate(s):  
Riveted on the right side of chassis.  
R, x:910, y:115, z:220
- 0.5.2. Method of attachment of the manufacturer's statutory plate(s):  
Riveted on the chassis
- 0.6. Location of the vehicle identification number:  
R, x:320, y:5, z:430(t/o)
1. Vehicle identification number: ☆LV2NYF10??1?????☆

conforms in all respects to the type described in EU type-approval (e13\*168/2013\*00837\*01 type-approval number including extension number) issued on (DD, MM, YYYY date of issue) and can be permanently registered in Member States having right/left-hand traffic and using metric/imperial units for the speedometer.

Changzhou, P.R.China

(place)

DD, MM, YYYY

(date)

(signature)

## General construction characteristics

- 1.3. Number of axles: 2 and wheels: 2
- 1.3.1. Axles with twinned wheels: N.A.
- 1.3.2. Powered axles: R
- 6.2.4. Advanced braking system: N.A.

## Main dimensions

- 2.2.1. Length: 1740 mm
- 2.2.2. Width: 770 mm
- 2.2.3. Height: 1090 mm
- 2.2.4. Wheelbase: 1270 mm
- 2.2.4.1. Wheelbase sidecar: N.A.
- 2.2.5. Track width: N.A.
- 2.2.5.1. Track width front: N.A.
- 2.2.5.2. Track width rear: N.A.
- 2.2.5.3. Track width sidecar: N.A.
- 2.2.10.6 Ground clearance between the axles: N.A.
- 2.2.15. Wheelbase to ground clearance ratio: N.A.
- 2.2.17. Seat height: N.A.

## Masses

- 2.1.1. Mass in running order: 62 kg
- 2.1.2. Actual mass: 156 kg
- 2.1.3. Technically permissible maximum laden mass: 222 kg
- 2.1.3.1. Technically permissible maximum mass on front axle: 72 kg
- 2.1.3.2. Technically permissible maximum mass on rear axle: 150 kg
- 2.1.3.3. Technically permissible maximum mass on sidecar axle: N.A.
- 2.1.7. Technically permissible maximum towable mass: N.A.
- Braked: N.A.
- Unbraked: N.A.
- 2.1.7.1. Technically permissible maximum laden mass of the combination: N.A.
- 2.1.7.2. Technically permissible maximum mass at the coupling point: N.A.

## Powertrain

- 3.1.1.1. Manufacturer: N.A.
- 3.1.1.2. Engine code (as marked on the engine or other means of identification): N.A.
- 3.2.1.2. Working principle of the combustion engine: ~~internal combustion engine (ICE)/positive ignition/~~  
~~compression ignition/external combustion engine (ECE)/turbine/compressed air~~ N.A.
- 3.2.1.4.1. Number of cylinders: N.A.
- 3.2.1.4.2. Arrangement of cylinders: N.A.
- 3.2.1.5. Engine capacity: N.A.
- 1.9. Maximum net power: N.A.
- 1.10. Ratio maximum net power/mass of the vehicle in running order: N.A.

3.2.3.1.	Fuel type:	N.A.	Environmental performance	
3.2.3.2.	Vehicle fuel combination: mono-fuel/bi-fuel/flex-fuel	N.A.		
3.2.3.2.1.	Maximum amount of bio-fuel acceptable in fuel:	N.A.	4.0.1.	Environmental step: Euro 5
3.1.2.1.	Manufacturer: BOSCH (Ningbo) light electric vehicle motor Co., Ltd.		4.0.6.	Sound level measured according to: N.A.
3.1.2.2.	Electric motor code (as marked on the engine or other means of identification): CH610r120°eM *????????*?		4.0.6.1.	Stationary: N.A.
3.3.3.4.	15/30 minutes power: 1.42 kW at 251 min <sup>-1</sup>		4.0.6.2.	Drive-by: N.A.
3.1.3.1.	Manufacturer: N.A.		4.0.6.3.	Limit value for L <sub>urban</sub> : N.A.
3.1.3.2.	Application code (as marked on the engine or other means of identification): N.A.		3.2.15.	Exhaust emissions measured according to: N.A.
3.3.1.	Electric vehicle configuration: Pure electric		3.2.15.1.	Type I test: tailpipe emissions after cold start, including the deterioration factor, if applicable: N.A.
3.3.5.2.	Category of hybrid electric vehicle: N.A.			
3.9.2.	Maximum assistance factor: N.A.			
Maximum speed				
1.8.	Maximum speed of vehicle: 25 km/h			
3.9.3.	Maximum vehicle speed for which the electric motor gives assistance: N.A.			
Drive-train and control				
3.5.3.9.	Transmission (type): W			
3.5.4.	Gear ratios: N.A.			
3.5.4.1.	Final drive ratio: N.A.			
3.5.4.2.	Overall gear ratio in highest gear: N.A.			
Installation of tyres				
6.18.1.1.	Tyre size designation: Front: 3.00-10 42J 200kPa 2.15-10; Rear: 3.00-10 42J 220kPa 2.15-10; Sidecar wheel: N.A.			
Bodywork				
6.20.2.1.	Door configuration and number of doors: N.A.			
6.16.1.	Number of seating positions: 2			
6.16.1.1.	Location and arrangement: N.A.			
Coupling devices				
7.2.8.	Type-approval number of coupling-device: N.A.			
			CO :	N.A.
			THC :	N.A.
			NMHC :	N.A.
			NOx :	N.A.
			THC+NOx :	N.A.
			PM :	N.A.
			3.2.15.2.	Type II test: tailpipe emissions at (increased) idle and free acceleration: N.A.
			3.2.15.3.	Smoke corrected absorption coefficient: N.A.
			Energy efficiency	
			4.0.2.	Fuel consumption: N.A.
			4.0.3.	CO <sub>2</sub> emissions: N.A.
			4.0.4.	Energy consumption: 38Wh/km
			4.0.5.	Electric range: 138km
			Conversion of the performance of the vehicle:	
			8.1.	Vehicle appropriate for converting its performance level between subcategories (L3e/L4e)-A2 and (L3e/L4e)-A3 and vice versa: N.A.
			Additional information:	
			9.1.	Remarks: N.A.
			9.2.	Exemptions: N.A.

# COMPLETE VEHICLE EU CERTIFICATE OF CONFORMITY

The undersigned, Lu Wei / Manager

Hereby certifies that the following complete vehicle:

- 0.1. Make (trade name of the manufacturer): LVNENG, LVNENG's logo\*2, Skand, Smartway, VEMO, IVA, Hype-Bike, Senzo, VA's logo, gennergia's logo, whattz's logo, WAYEL, rutec, CETUR's logo, bensom, Greenwolke
- 0.2. Type: LX02
- 0.2.1. Variant: 02
- 0.2.2. Version: 01
- 0.2.3. Commercial name (if available): LX02, COMO, eXcellent, MOSCU, E-GO S3
- 0.3. Category, subcategory and sub-subcategory of vehicle: L1e-B
- 0.4. Company name and address of manufacturer:  
Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.  
No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou, P.R. China
- 0.4.2. Name and address of manufacturer's authorized representative (if any):  
IVA Mobility B.V.  
Sportlaan 391, 3364DK Sliedrecht, The Netherlands
- 0.5.1. Location of the manufacturer's statutory plate(s):  
Riveted on the right side of chassis.  
R, x:910, y:115, z:220
- 0.5.2. Method of attachment of the manufacturer's statutory plate(s):  
Riveted on the chassis
- 0.6. Location of the vehicle identification number:  
R, x:320, y:5, z:430(t/o)
1. Vehicle identification number: ☆LV2NYJ10??1?????☆

conforms in all respects to the type described in EU type-approval (e13\*168/2013\*00837\*01 type-approval number including extension number) issued on (DD, MM, YYYY date of issue) and can be permanently registered in Member States having right/left-hand traffic and using metric/imperial units for the speedometer.

Changzhou, P.R.China

(place)

DD, MM, YYYY

(date)

(signature)

## General construction characteristics

- 1.3. Number of axles: 2 and wheels: 2
- 1.3.1. Axles with twinned wheels: N.A.
- 1.3.2. Powered axles: R
- 6.2.4. Advanced braking system: N.A.

## Main dimensions

- 2.2.1. Length: 1740 mm
- 2.2.2. Width: 770 mm
- 2.2.3. Height: 1090 mm
- 2.2.4. Wheelbase: 1270 mm
- 2.2.4.1. Wheelbase sidecar: N.A.
- 2.2.5. Track width: N.A.
- 2.2.5.1. Track width front: N.A.
- 2.2.5.2. Track width rear: N.A.
- 2.2.5.3. Track width sidecar: N.A.
- 2.2.10.6 Ground clearance between the axles: N.A.
- 2.2.15. Wheelbase to ground clearance ratio: N.A.
- 2.2.17. Seat height: N.A.

## Masses

- 2.1.1. Mass in running order: 62 kg
- 2.1.2. Actual mass: 156 kg
- 2.1.3. Technically permissible maximum laden mass: 222 kg
- 2.1.3.1. Technically permissible maximum mass on front axle: 72 kg
- 2.1.3.2. Technically permissible maximum mass on rear axle: 150 kg
- 2.1.3.3. Technically permissible maximum mass on sidecar axle: N.A.
- 2.1.7. Technically permissible maximum towable mass: N.A.
- Braked: N.A.
- Unbraked: N.A.
- 2.1.7.1. Technically permissible maximum laden mass of the combination: N.A.
- 2.1.7.2. Technically permissible maximum mass at the coupling point: N.A.

## Powertrain

- 3.1.1.1. Manufacturer: N.A.
- 3.1.1.2. Engine code (as marked on the engine or other means of identification): N.A.
- 3.2.1.2. Working principle of the combustion engine: ~~internal combustion engine (ICE)/positive ignition/~~  
~~compression ignition/external combustion engine (ECE)/turbine/compressed air~~ N.A.
- 3.2.1.4.1. Number of cylinders: N.A.
- 3.2.1.4.2. Arrangement of cylinders: N.A.
- 3.2.1.5. Engine capacity: N.A.
- 1.9. Maximum net power: N.A.
- 1.10. Ratio maximum net power/mass of the vehicle in running order: N.A.



# COMPLETE VEHICLE EU CERTIFICATE OF CONFORMITY

The undersigned, Lu Wei / Manager

Hereby certifies that the following complete vehicle:

- 0.1. Make (trade name of the manufacturer): LVNENG, LVNENG's logo\*2, Skand, Smartway, VEMO, IVA, Hype-Bike, Senzo, VA's logo, gennergia's logo, whattz's logo, WAYEL, rutec, CETUR's logo, bensom, Greenwolke
- 0.2. Type: LX02
- 0.2.1. Variant: 04
- 0.2.2. Version: 01
- 0.2.3. Commercial name (if available): LX02, COMO, eXcellent, MOSCU, E-GO S3
- 0.3. Category, subcategory and sub-subcategory of vehicle: L1e-B
- 0.4. Company name and address of manufacturer:  
Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.  
No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou, P.R. China
- 0.4.2. Name and address of manufacturer's authorized representative (if any):  
IVA Mobility B.V.  
Sportlaan 391, 3364DK Sliedrecht, The Netherlands
- 0.5.1. Location of the manufacturer's statutory plate(s):  
Riveted on the right side of chassis.  
R, x:910, y:115, z:220
- 0.5.2. Method of attachment of the manufacturer's statutory plate(s):  
Riveted on the chassis
- 0.6. Location of the vehicle identification number:  
R, x:320, y:5, z:430(t/o)
1. Vehicle identification number: ☆LV2NYJ10??1?????☆

conforms in all respects to the type described in EU type-approval (e13\*168/2013\*00837\*01 type-approval number including extension number) issued on (DD, MM, YYYY date of issue) and can be permanently registered in Member States having right/left-hand traffic and using metric/imperial units for the speedometer.

Changzhou, P.R.China

(place)

DD, MM, YYYY

(date)

(signature)

## General construction characteristics

- 1.3. Number of axles: 2 and wheels: 2
- 1.3.1. Axles with twinned wheels: N.A.
- 1.3.2. Powered axles: R
- 6.2.4. Advanced braking system: N.A.

## Main dimensions

- 2.2.1. Length: 1740 mm
- 2.2.2. Width: 770 mm
- 2.2.3. Height: 1090 mm
- 2.2.4. Wheelbase: 1270 mm
- 2.2.4.1. Wheelbase sidecar: N.A.
- 2.2.5. Track width: N.A.
- 2.2.5.1. Track width front: N.A.
- 2.2.5.2. Track width rear: N.A.
- 2.2.5.3. Track width sidecar: N.A.
- 2.2.10.6 Ground clearance between the axles: N.A.
- 2.2.15. Wheelbase to ground clearance ratio: N.A.
- 2.2.17. Seat height: N.A.

## Masses

- 2.1.1. Mass in running order: 62 kg
- 2.1.2. Actual mass: 156 kg
- 2.1.3. Technically permissible maximum laden mass: 222 kg
- 2.1.3.1. Technically permissible maximum mass on front axle: 72 kg
- 2.1.3.2. Technically permissible maximum mass on rear axle: 150 kg
- 2.1.3.3. Technically permissible maximum mass on sidecar axle: N.A.
- 2.1.7. Technically permissible maximum towable mass: N.A.
- Braked: N.A.
- Unbraked: N.A.
- 2.1.7.1. Technically permissible maximum laden mass of the combination: N.A.
- 2.1.7.2. Technically permissible maximum mass at the coupling point: N.A.

## Powertrain

- 3.1.1.1. Manufacturer: N.A.
- 3.1.1.2. Engine code (as marked on the engine or other means of identification): N.A.
- 3.2.1.2. Working principle of the combustion engine: ~~internal combustion engine (ICE)/positive ignition/~~  
~~compression ignition/external combustion engine (ECE)/turbine/compressed air~~ N.A.
- 3.2.1.4.1. Number of cylinders: N.A.
- 3.2.1.4.2. Arrangement of cylinders: N.A.
- 3.2.1.5. Engine capacity: N.A.
- 1.9. Maximum net power: N.A.
- 1.10. Ratio maximum net power/mass of the vehicle in running order: N.A.

3.2.3.1.	Fuel type:	N.A.	Environmental performance	
3.2.3.2.	Vehicle fuel combination: mono-fuel/bi-fuel/flex-fuel	N.A.		
3.2.3.2.1.	Maximum amount of bio-fuel acceptable in fuel:	N.A.	4.0.1.	Environmental step: Euro 5
3.1.2.1.	Manufacturer: BOSCH (Ningbo) light electric vehicle motor Co., Ltd.		4.0.6.	Sound level measured according to: N.A.
3.1.2.2.	Electric motor code (as marked on the engine or other means of identification): CJ610r120°eM *????????*?		4.0.6.1.	Stationary: N.A.
3.3.3.4.	15/30 minutes power:	2.05 kW at 505 min <sup>-1</sup>	4.0.6.2.	Drive-by: N.A.
3.1.3.1.	Manufacturer:	N.A.	4.0.6.3.	Limit value for L <sub>urban</sub> : N.A.
3.1.3.2.	Application code (as marked on the engine or other means of identification):	N.A.	3.2.15.	Exhaust emissions measured according to: N.A.
3.3.1.	Electric vehicle configuration:	Pure electric	3.2.15.1.	Type I test: tailpipe emissions after cold start, including the deterioration factor, if applicable:
3.3.5.2.	Category of hybrid electric vehicle:	N.A.		
3.9.2.	Maximum assistance factor:	N.A.	CO :	N.A.
			THC :	N.A.
			NMHC :	N.A.
			NOx :	N.A.
			THC+NOx :	N.A.
			PM :	N.A.
			3.2.15.2.	Type II test: tailpipe emissions at (increased) idle and free acceleration: N.A.
			3.2.15.3.	Smoke corrected absorption coefficient: N.A.
Maximum speed			Energy efficiency	
1.8.	Maximum speed of vehicle:	45 km/h	4.0.2.	Fuel consumption: N.A.
3.9.3.	Maximum vehicle speed for which the electric motor gives assistance:	N.A.	4.0.3.	CO <sub>2</sub> emissions: N.A.
			4.0.4.	Energy consumption: 33Wh/km
			4.0.5.	Electric range: 114km
Drive-train and control			Conversion of the performance of the vehicle:	
3.5.3.9.	Transmission (type):	W	8.1.	Vehicle appropriate for converting its performance level between subcategories (L3e/L4e)-A2 and (L3e/L4e)-A3 and vice versa: N.A.
3.5.4.	Gear ratios:	N.A.		
3.5.4.1.	Final drive ratio:	N.A.	Additional information:	
3.5.4.2.	Overall gear ratio in highest gear:	N.A.	9.1.	Remarks: N.A.
			9.2.	Exemptions: N.A.
Installation of tyres				
6.18.1.1.	Tyre size designation:			
	Front: 3.00-10 42J 200kPa 2.15-10;			
	Rear: 3.00-10 42J 220kPa 2.15-10;			
	Sidecar wheel:	N.A.		
Bodywork				
6.20.2.1.	Door configuration and number of doors:	N.A.		
6.16.1.	Number of seating positions:	2		
6.16.1.1.	Location and arrangement:	N.A.		
Coupling devices				
7.2.8.	Type-approval number of coupling-device:	N.A.		

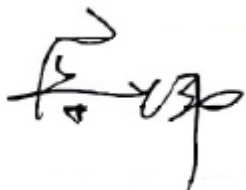
Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.  
No 158 shengjia village, Wuyi village, Heng shan qiao town, Wujin district, Changzhou, P.R. China

## Statement Concerning Authority Of Signature On COC Paper

We, Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd. declare that the undersigned, Mr. Lu Wei the Manager of our company, will be the authorized person to sign the COC paper of the motorcycle.

Type: LX02

Specification of signature of COC:

A handwritten signature in black ink, appearing to be 'Lu Wei', written in a cursive style.

Mr. Lu Wei / Manager

Jiangsu LVNENG Electrical Bicycle Technology Co., Ltd.

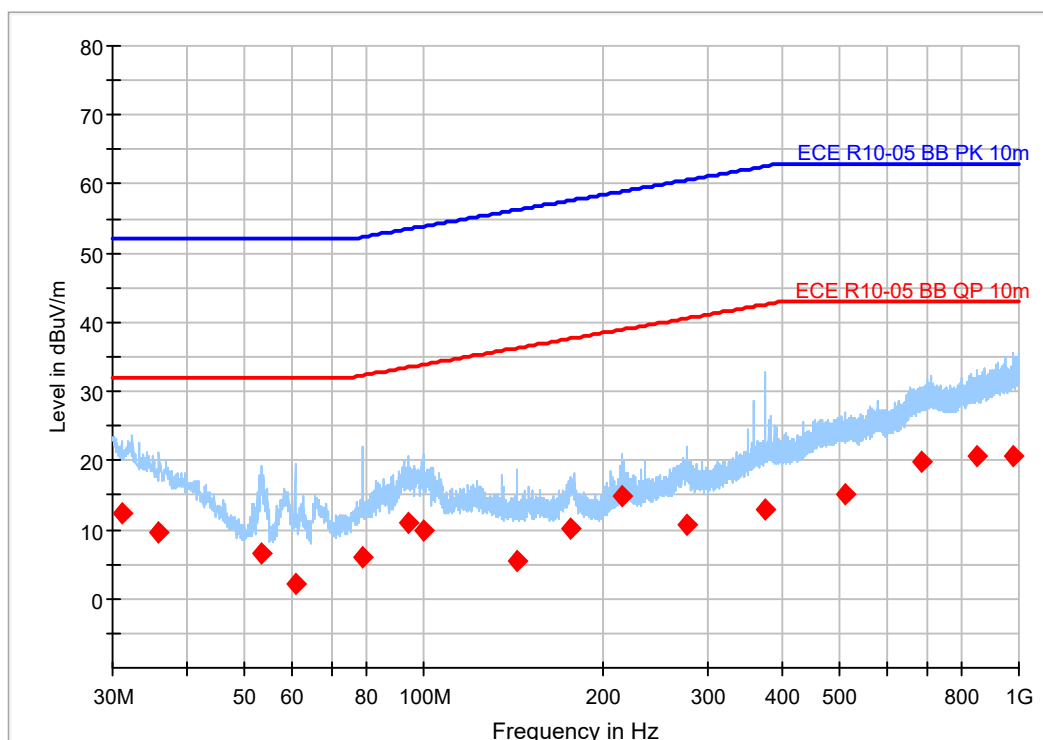
Date: 2021.08.25

# Test Report

## Common Information

Test Description:	Emission
Test Site:	SMVIC
Test Standard:	ECE R10-05
Test Distance:	10m
Polarity:	Vertical and Horizontal
Comment:	Antenna:HL562
Operator Name:	Chen Yi, Wang Tao
Test Date:	2018/7/13

Full Spectrum



	Preview Result 1-PK+		ECE R10-05 BB QP 10m
	ECE R10-05 BB PK 10m		Final_Result QPK

## Final Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)
31.050000	12.27	32.00	19.73
35.900000	9.56	32.00	22.44
53.550000	6.70	32.00	25.30
60.750000	2.28	32.00	29.72
78.750000	6.15	32.32	26.17
94.350000	11.09	33.51	22.42
100.150000	9.86	33.90	24.04
143.750000	5.57	36.28	30.71
176.700000	10.09	37.63	27.54
215.600000	14.87	38.94	24.07
276.350000	10.69	40.57	29.88
375.950000	12.92	42.59	29.67
508.950000	15.26	43.00	27.74
688.550000	19.83	43.00	23.17
849.500000	20.61	43.00	22.39
978.400000	20.51	43.00	22.49

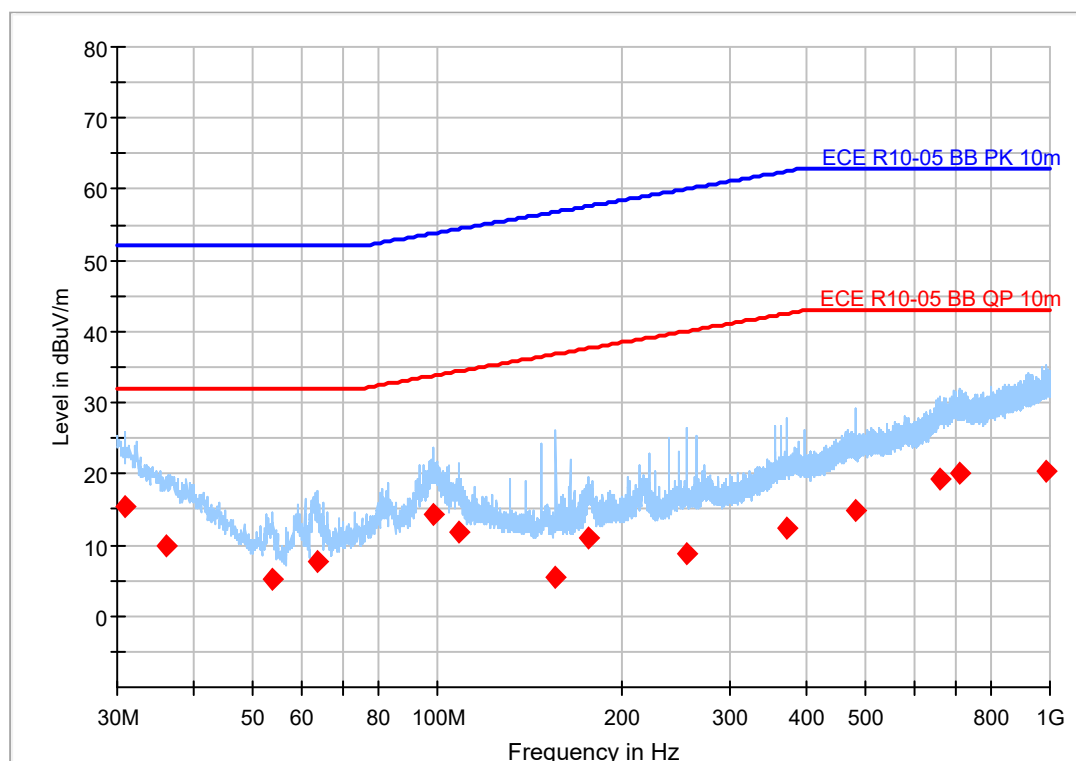


# Test Report

## Common Information

Test Description:	Emission
Test Site:	SMVIC
Test Standard:	ECE R10-05
Test Distance:	10m
Polarity:	Vertical and Horizontal
Comment:	Antenna:HL562
Operator Name:	Chen Yi, Wang Tao
Test Date:	2018/7/13

Full Spectrum



— Preview Result 1-PK+      — ECE R10-05 BB QP 10m  
— ECE R10-05 BB PK 10m      ◆ Final\_Result QPK

## Final\_Result

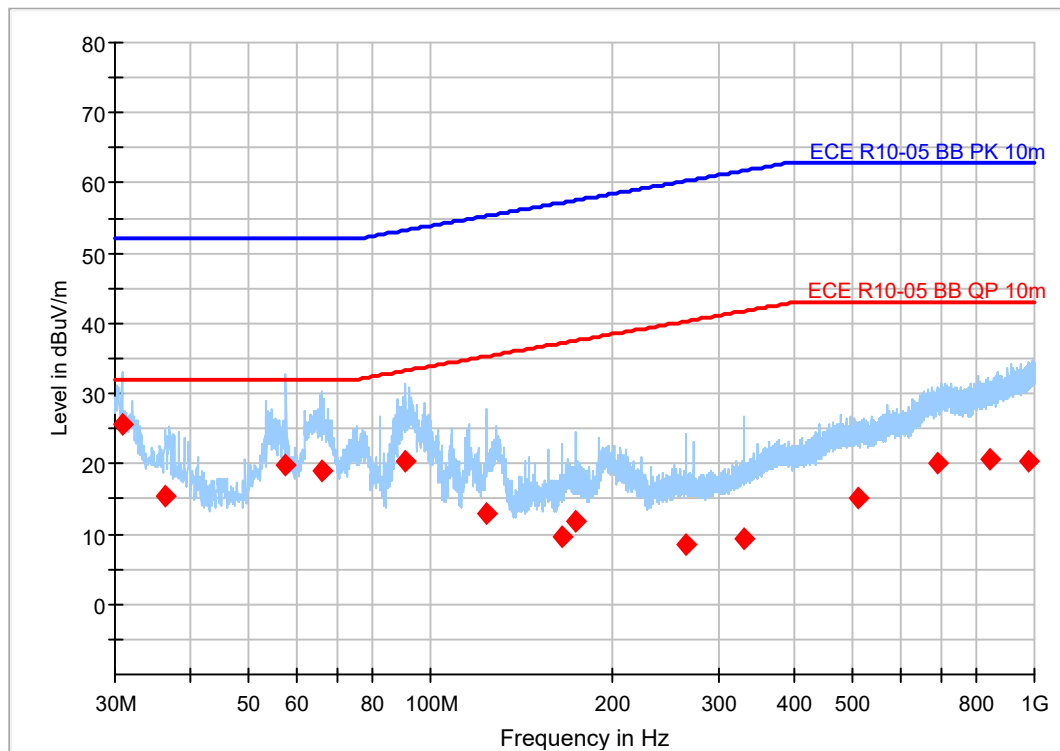
Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)
30.850000	15.32	32.00	16.68
36.050000	10.01	32.00	21.99
53.800000	5.14	32.00	26.86
63.750000	7.80	32.00	24.20
98.650000	14.19	33.80	19.61
108.550000	11.83	34.43	22.60
156.150000	5.55	36.82	31.27
176.400000	10.87	37.62	26.75
255.700000	8.75	40.06	31.31
371.900000	12.41	42.52	30.11
479.850000	14.86	43.00	28.14
663.150000	19.30	43.00	23.70
712.950000	20.16	43.00	22.84
982.000000	20.40	43.00	22.60

# Test Report

## Common Information

Test Description:	Emission
Test Site:	SMVIC
Test Standard:	ECE R10-05
Test Distance:	10m
Polarity:	Vertical and Horizontal
Comment:	Antenna:HL562
Operator Name:	Chen Yi, Wang Tao
Test Date:	2018/7/13

Full Spectrum



— Preview Result 1-PK+      — ECE R10-05 BB QP 10m  
— ECE R10-05 BB PK 10m      ◆ Final\_Result QPK

## Final Result

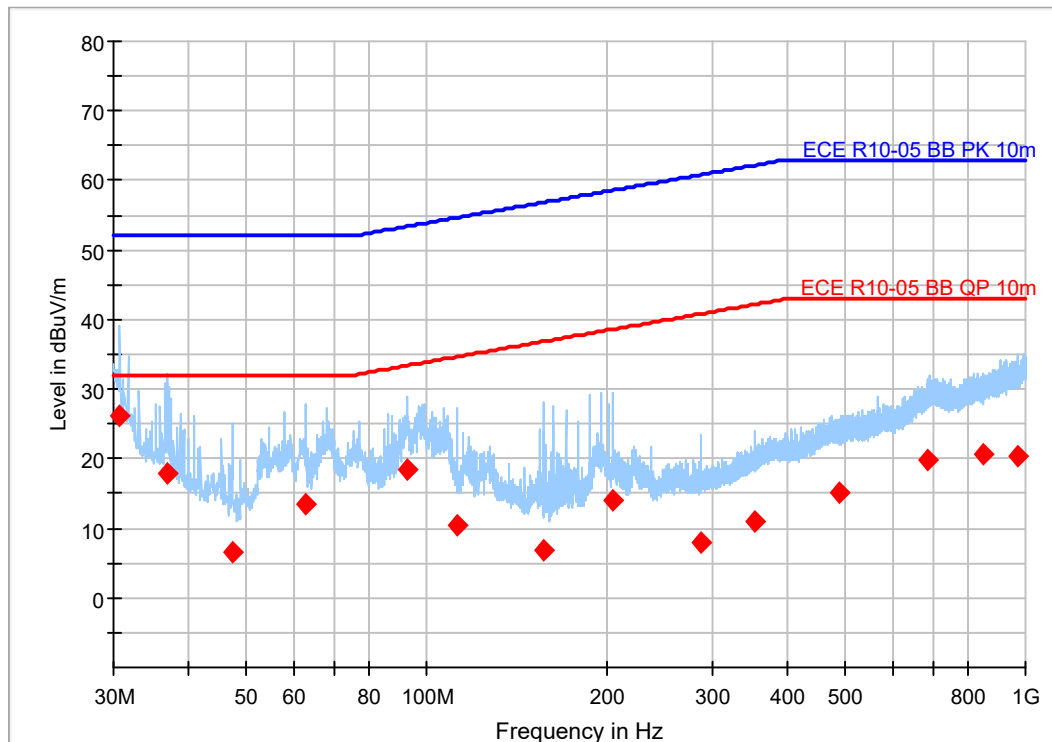
Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)
30.800000	25.56	32.00	6.44
36.350000	15.52	32.00	16.48
57.650000	19.70	32.00	12.30
65.950000	18.98	32.00	13.02
90.850000	20.28	33.26	12.98
123.950000	13.04	35.30	22.26
165.350000	9.52	37.20	27.68
173.650000	11.93	37.52	25.59
264.750000	8.44	40.29	31.85
331.100000	9.44	41.76	32.32
512.600000	15.25	43.00	27.75
691.750000	20.01	43.00	22.99
844.600000	20.55	43.00	22.45
979.950000	20.37	43.00	22.63

# Test Report

## Common Information

Test Description:	Emission
Test Site:	SMVIC
Test Standard:	ECE R10-05
Test Distance:	10m
Polarity:	Vertical and Horizontal
Comment:	Antenna:HL562
Operator Name:	Chen Yi, Wang Tao
Test Date:	2018/7/13

Full Spectrum



	Preview Result 1-PK+		ECE R10-05 BB QP 10m
	ECE R10-05 BB PK 10m		Final_Result QPK

## Final Result

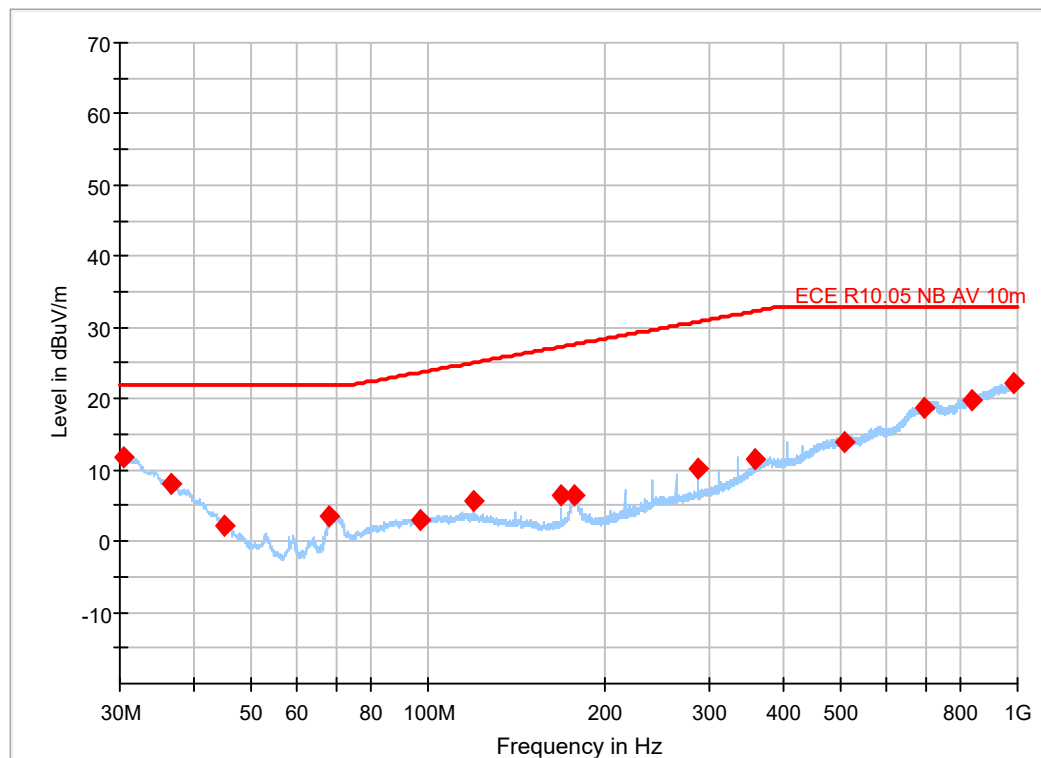
Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)
30.750000	26.09	32.00	5.91
37.000000	17.80	32.00	14.20
47.300000	6.66	32.00	25.34
62.800000	13.50	32.00	18.50
92.550000	18.49	33.38	14.89
112.600000	10.46	34.67	24.21
156.750000	6.72	36.84	30.12
203.850000	13.95	38.57	24.62
286.950000	7.91	40.82	32.91
353.400000	10.88	42.19	31.31
488.900000	15.06	43.00	27.94
685.900000	19.71	43.00	23.29
848.500000	20.51	43.00	22.49
970.450000	20.50	43.00	22.50

# Test Report

## Common Information

Test Description:	Emission
Test Site:	SMVIC
Test Standard:	ECE R10-05
Test Distance:	10m
Polarity:	Vertical and Horizontal
Comment:	Antenna:HL562
Operator Name:	Chen Yi, Wang Tao
Test Date:	2018/7/13

Full Spectrum



— Preview Result 1-AVG    — ECE R10.05 NB AV 10m    ◆ Final\_Result AVG

## Final\_Result

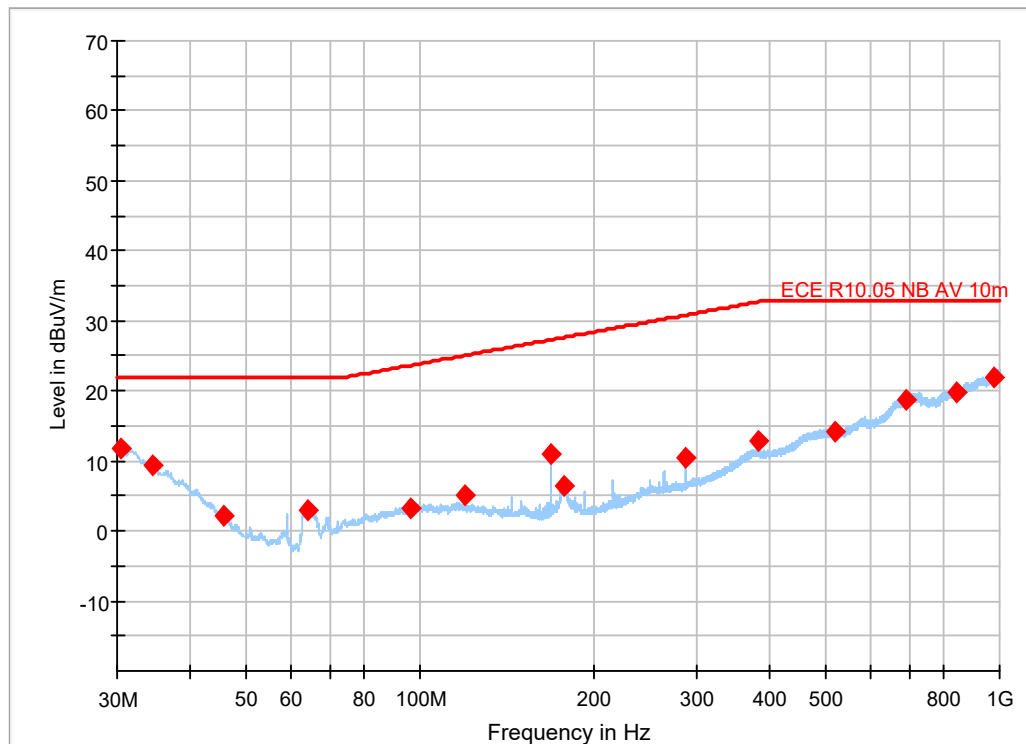
Frequency (MHz)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)
30.400000	11.78	22.00	10.22
36.600000	8.15	22.00	13.85
45.200000	2.11	22.00	19.89
68.150000	3.56	22.00	18.44
97.150000	2.89	23.70	20.81
119.800000	5.52	25.08	19.56
167.700000	6.42	27.29	20.87
177.550000	6.49	27.66	21.17
287.500000	10.06	30.83	20.77
359.400000	11.60	32.30	20.70
507.200000	14.01	33.00	18.99
692.950000	18.74	33.00	14.26
836.150000	19.70	33.00	13.30
985.750000	22.15	33.00	10.85

# Test Report

## Common Information

Test Description:	Emission
Test Site:	SMVIC
Test Standard:	ECE R10-05
Test Distance:	10m
Polarity:	Vertical and Horizontal
Comment:	Antenna:HL562
Operator Name:	Chen Yi, Wang Tao
Test Date:	2018/7/13

Full Spectrum



— Preview Result 1-AVG    — ECE R10.05 NB AV 10m    ◆ Final\_Result AVG

## Final Result

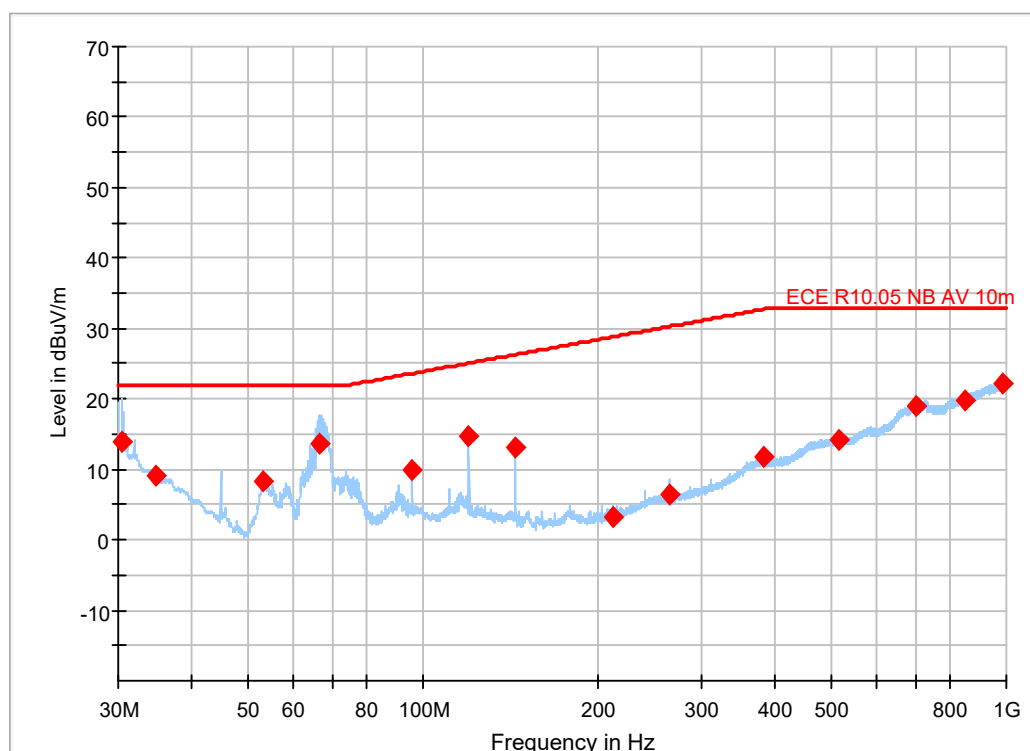
Frequency (MHz)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)
30.500000	11.74	22.00	10.26
34.600000	9.34	22.00	12.66
45.800000	2.15	22.00	19.85
63.950000	2.89	22.00	19.11
96.600000	3.29	23.66	20.37
119.800000	5.09	25.08	19.99
167.700000	10.99	27.29	16.30
177.550000	6.56	27.66	21.10
287.450000	10.46	30.83	20.37
383.300000	12.92	32.72	19.80
519.200000	14.17	33.00	18.83
691.200000	18.65	33.00	14.35
843.650000	19.74	33.00	13.26
979.350000	21.89	33.00	11.11

# Test Report

## Common Information

Test Description:	Emission
Test Site:	SMVIC
Test Standard:	ECE R10-05
Test Distance:	10m
Polarity:	Vertical and Horizontal
Comment:	Antenna:HL562
Operator Name:	Chen Yi, Wang Tao
Test Date:	2018/7/13

Full Spectrum



— Preview Result 1-AVG    
 — ECE R10.05 NB AV 10m    
 ◆ Final\_Result AVG

## Final Result

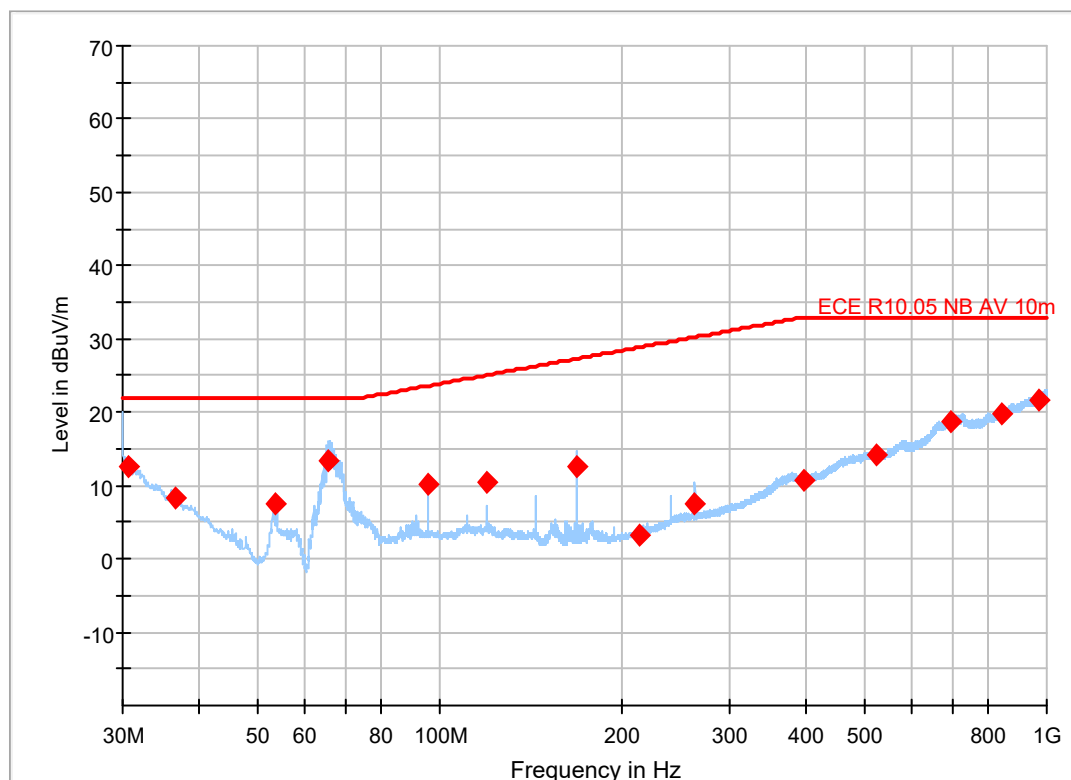
Frequency (MHz)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)
30.500000	14.01	22.00	7.99
34.850000	9.05	22.00	12.95
53.300000	8.36	22.00	13.64
66.400000	13.71	22.00	8.29
95.900000	9.79	23.62	13.83
119.850000	14.72	25.08	10.36
143.800000	13.04	26.28	13.24
211.650000	3.36	28.82	25.46
263.650000	6.40	30.26	23.86
383.500000	11.86	32.72	20.86
517.200000	14.15	33.00	18.85
697.550000	18.95	33.00	14.05
847.400000	19.78	33.00	13.22
987.300000	22.20	33.00	10.80

# Test Report

## Common Information

Test Description:	Emission
Test Site:	SMVIC
Test Standard:	ECE R10-05
Test Distance:	10m
Polarity:	Vertical and Horizontal
Comment:	Antenna:HL562
Operator Name:	Chen Yi, Wang Tao
Test Date:	2018/7/13

Full Spectrum



— Preview Result 1-AVG    — ECE R10.05 NB AV 10m    ◆ Final\_Result AVG

## Final\_Result

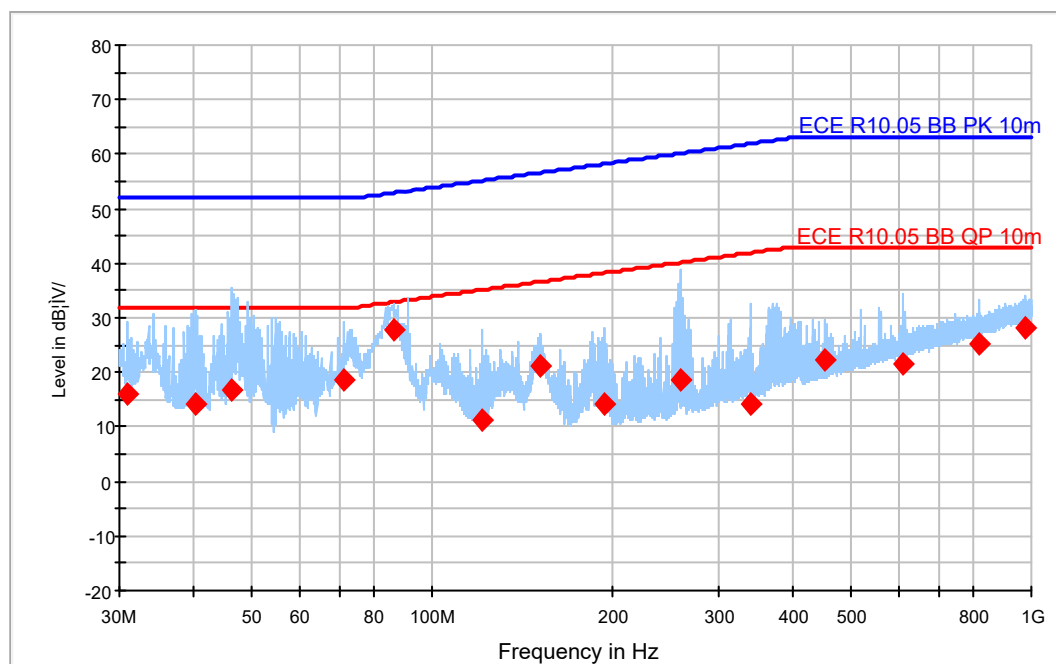
Frequency (MHz)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)
30.700000	12.68	22.00	9.32
36.650000	8.31	22.00	13.69
53.400000	7.54	22.00	14.46
65.650000	13.28	22.00	8.72
95.800000	10.17	23.61	13.44
119.750000	10.45	25.07	14.62
167.700000	12.60	27.29	14.69
213.500000	3.36	28.87	25.51
263.500000	7.51	30.26	22.75
396.800000	10.81	32.95	22.14
523.200000	14.14	33.00	18.86
693.250000	18.74	33.00	14.26
844.650000	19.77	33.00	13.23
973.700000	21.72	33.00	11.28

# Test Report

## Common Information

Test Description:	Emission
Test Site:	SMVIC
Test Standard:	ECE R10-05
Test Distance:	10m
Polarity:	Vertical and Horizontal
Comment:	Antenna:HL562
Operator Name:	Chen Yi, Wang Tao
Test Date:	2018/7/13

Full Spectrum



— ECE R10.05 BB QP 10m.LimitLine  
 — Preview Result 1-PK+

— ECE R10.05 BB PK 10m.LimitLine  
 ◆ Final Result 1-QPK

## Final Result 1

Frequency (MHz)	QuasiPeak (dB µ V/m)	Margin (dB)	Limit (dB µ
30.950000	16.0	16.0	32.0
40.200000	14.4	17.6	32.0
46.150000	16.8	15.2	32.0
71.200000	18.8	13.2	32.0
86.350000	28.0	4.9	32.9
121.050000	11.2	23.9	35.1
151.450000	21.2	15.4	36.6
193.700000	14.4	23.9	38.2
260.000000	18.8	21.4	40.2
339.650000	14.2	27.7	41.9
452.700000	22.4	20.6	43.0
611.950000	21.6	21.4	43.0
819.550000	25.3	17.7	43.0
978.450000	28.0	15.0	43.0

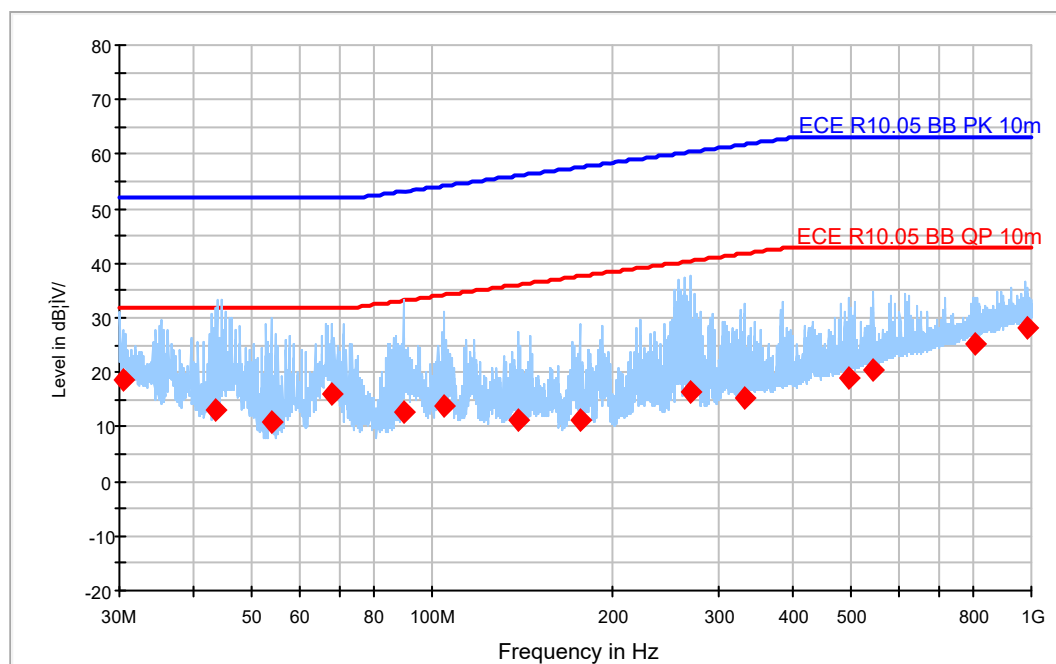


# Test Report

## Common Information

Test Description:	Emission
Test Site:	SMVIC
Test Standard:	ECE R10-05
Test Distance:	10m
Polarity:	Vertical and Horizontal
Comment:	Antenna:HL562
Operator Name:	Chen Yi, Wang Tao
Test Date:	2018/7/13

Full Spectrum



— ECE R10.05 BB QP 10m.LimitLine  
 — Preview Result 1-PK+

— ECE R10.05 BB PK 10m.LimitLine  
 ◆ Final Result 1-QPK

## Final Result 1

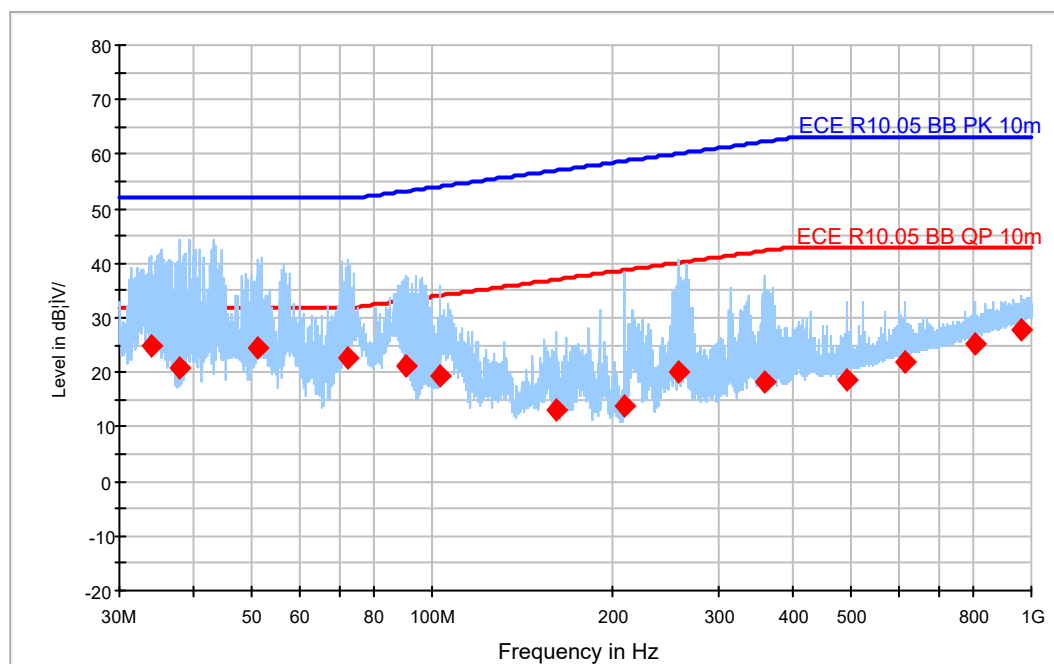
Frequency (MHz)	QuasiPeak (dB µ V/m)	Margin (dB)	Limit (dB µ)
30.350000	18.5	13.5	32.0
43.350000	13.1	18.9	32.0
53.700000	10.8	21.2	32.0
67.800000	15.9	16.1	32.0
89.300000	12.8	20.3	33.1
104.800000	13.8	20.4	34.2
139.250000	11.1	24.9	36.1
175.900000	11.2	26.4	37.6
269.850000	16.5	23.9	40.4
332.600000	15.3	26.5	41.8
497.600000	19.1	23.9	43.0
542.650000	20.4	22.6	43.0
804.650000	25.1	17.9	43.0
986.900000	28.3	14.7	43.0

# Test Report

## Common Information

Test Description:	Emission
Test Site:	SMVIC
Test Standard:	ECE R10-05
Test Distance:	10m
Polarity:	Vertical and Horizontal
Comment:	Antenna:HL562
Operator Name:	Chen Yi, Wang Tao
Test Date:	2018/7/13

Full Spectrum



— ECE R10.05 BB QP 10m.LimitLine  
 — Preview Result 1-PK+

— ECE R10.05 BB PK 10m.LimitLine  
 ◆ Final Result 1-QPK

## Final Result 1

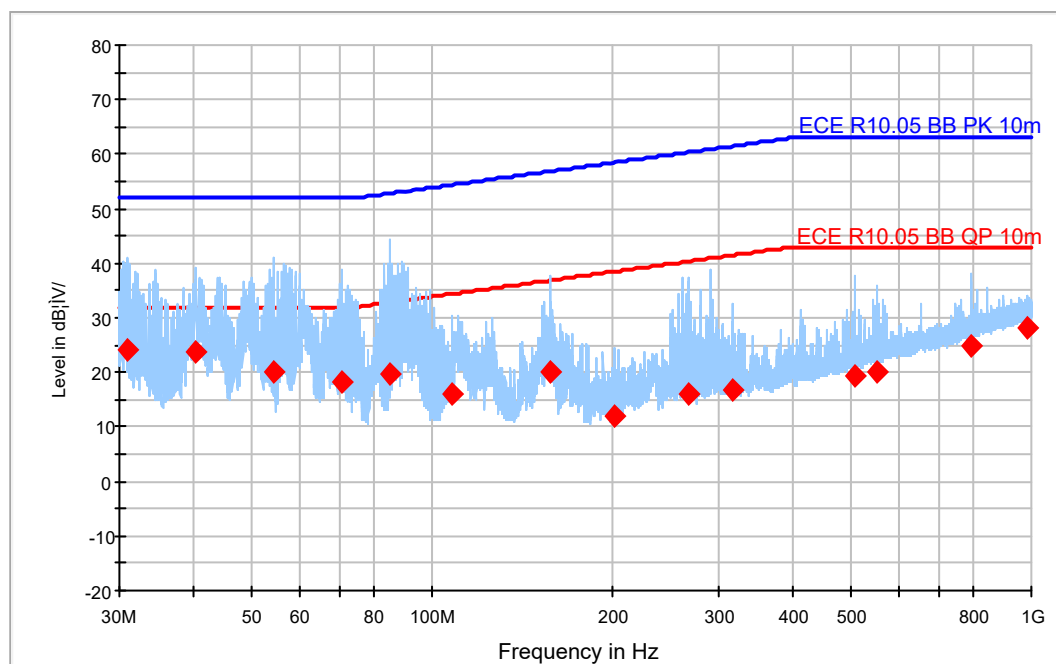
Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Margin (dB)	Limit (dB $\mu$ )
33.850000	24.9	7.1	32.0
37.850000	20.9	11.1	32.0
51.100000	24.6	7.4	32.0
72.200000	22.6	9.4	32.0
90.450000	21.0	12.2	33.2
103.050000	19.3	14.8	34.1
160.600000	13.2	23.8	37.0
209.650000	14.0	24.8	38.8
257.600000	19.9	20.2	40.1
359.500000	18.2	24.0	42.3
493.600000	18.7	24.3	43.0
617.600000	21.7	21.3	43.0
808.150000	25.1	17.9	43.0
965.050000	27.8	15.2	43.0

# Test Report

## Common Information

Test Description:	Emission
Test Site:	SMVIC
Test Standard:	ECE R10-05
Test Distance:	10m
Polarity:	Vertical and Horizontal
Comment:	Antenna:HL562
Operator Name:	Chen Yi, Wang Tao
Test Date:	2018/7/13

Full Spectrum



— ECE R10.05 BB QP 10m.LimitLine  
 — Preview Result 1-PK+

— ECE R10.05 BB PK 10m.LimitLine  
 ◆ Final Result 1-QPK

## Final Result 1

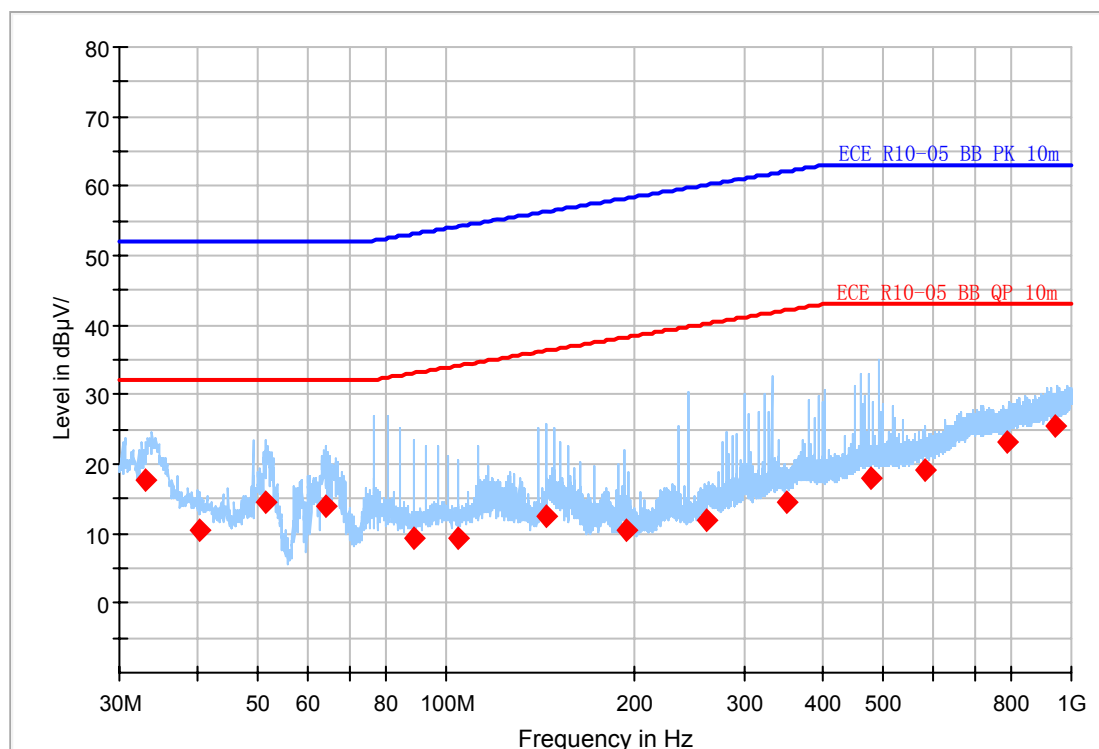
Frequency (MHz)	QuasiPeak (dB µ V/m)	Margin (dB)	Limit (dB µ)
31.050000	24.0	8.0	32.0
40.150000	23.6	8.4	32.0
54.250000	20.2	11.8	32.0
70.600000	18.4	13.6	32.0
84.900000	19.8	13.1	32.8
107.750000	16.1	18.3	34.4
157.550000	20.0	16.8	36.9
201.150000	12.0	26.5	38.5
267.400000	16.2	24.2	40.4
318.000000	16.8	24.7	41.5
505.950000	19.4	23.6	43.0
550.900000	20.2	22.8	43.0
794.800000	24.9	18.1	43.0
987.250000	28.2	14.8	43.0

# Test Report

## Common Information

Test Description:	Emission
Test Site:	SMVIC
Test Standard:	ECE R10-05
Test Distance:	10m
Polarity:	Vertical and Horizontal
Comment:	Antenna:HL562
Operator Name:	Chen Yi, Wang Tao
Test Date:	2019.8.5

Full Spectrum



— Preview Result 1-PK+      — ECE R10-05 BB QP 10m  
— ECE R10-05 BB PK 10m      ◆ Final\_Result QPK

## Final\_Result

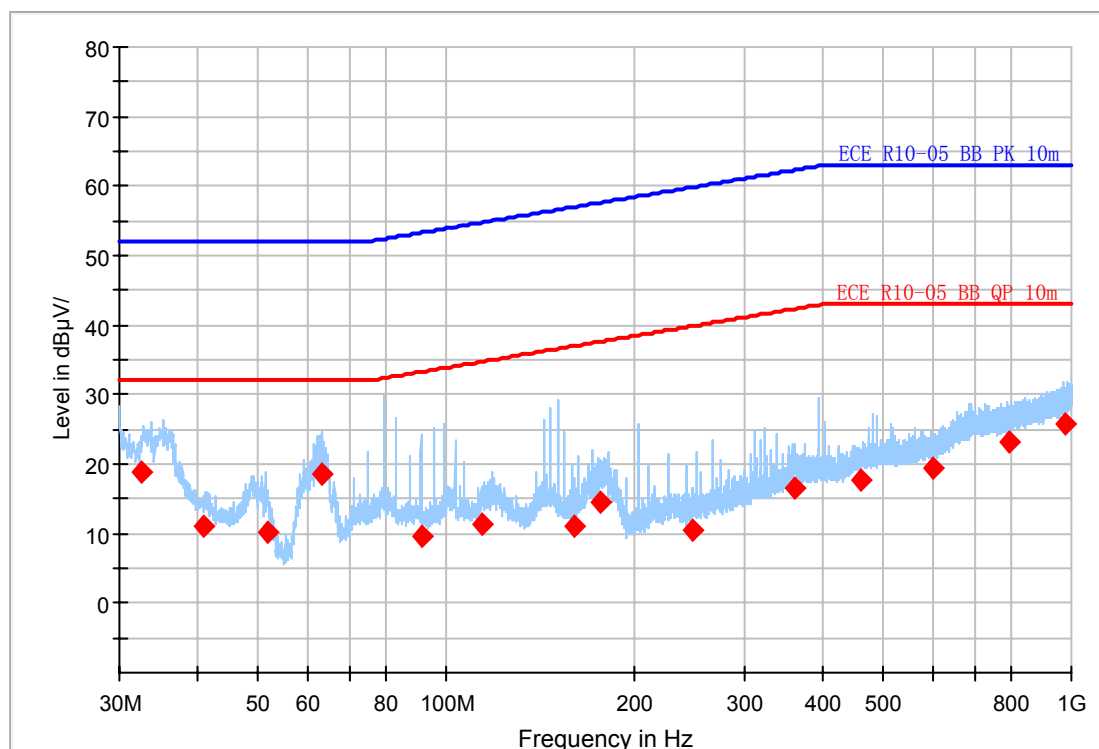
Frequency (MHz)	QuasiPeak (dB µ V/m)	Limit (dB µ)	Margin (dB)
33.100000	17.61	32.00	14.39
40.300000	10.51	32.00	21.49
51.250000	14.60	32.00	17.40
64.300000	14.03	32.00	17.97
88.750000	9.41	33.11	23.70
104.750000	9.24	34.20	24.95
144.650000	12.61	36.32	23.71
193.950000	10.43	38.24	27.82
261.700000	11.84	40.21	28.37
350.400000	14.65	42.13	27.48
479.150000	18.12	43.00	24.88
581.850000	19.18	43.00	23.82
787.800000	23.11	43.00	19.89
940.150000	25.43	43.00	17.57

# Test Report

## Common Information

Test Description:	Emission
Test Site:	SMVIC
Test Standard:	ECE R10-05
Test Distance:	10m
Polarity:	Vertical and Horizontal
Comment:	Antenna:HL562
Operator Name:	Chen Yi, Wang Tao
Test Date:	2019.8.5

Full Spectrum



— Preview Result 1-PK+      — ECE R10-05 BB QP 10m  
— ECE R10-05 BB PK 10m      ◆ Final\_Result QPK

## Final\_Result

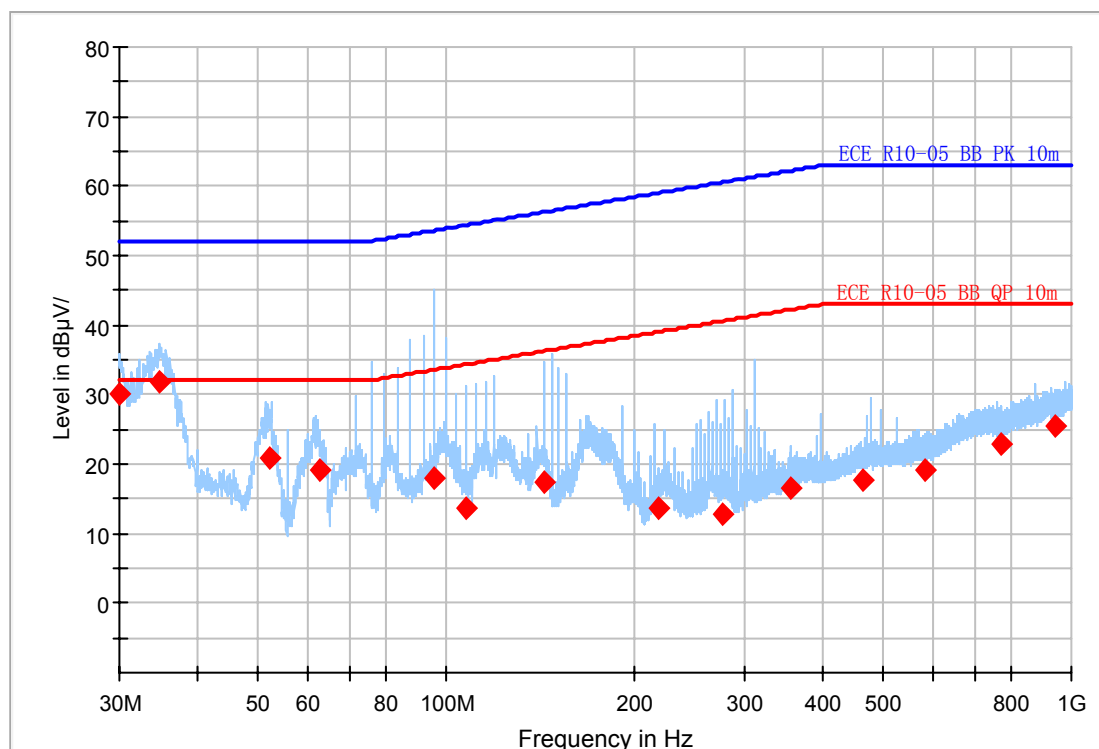
Frequency (MHz)	QuasiPeak (dB µ V/m)	Limit (dB µ)	Margin (dB)
32.550000	18.92	32.00	13.08
40.950000	10.96	32.00	21.04
51.650000	10.17	32.00	21.83
63.450000	18.65	32.00	13.35
91.150000	9.65	33.28	23.63
113.750000	11.30	34.74	23.44
160.050000	11.13	36.98	25.85
176.750000	14.64	37.63	22.99
246.950000	10.42	39.83	29.41
360.350000	16.41	42.31	25.91
461.250000	17.81	43.00	25.19
599.150000	19.33	43.00	23.67
793.700000	23.21	43.00	19.79
974.600000	25.90	43.00	17.10

# Test Report

## Common Information

Test Description:	Emission
Test Site:	SMVIC
Test Standard:	ECE R10-05
Test Distance:	10m
Polarity:	Vertical and Horizontal
Comment:	Antenna:HL562
Operator Name:	Chen Yi, Wang Tao
Test Date:	2019.8.5

Full Spectrum



— Preview Result 1-PK+      — ECE R10-05 BB QP 10m  
— ECE R10-05 BB PK 10m      ◆ Final\_Result QPK

## Final\_Result

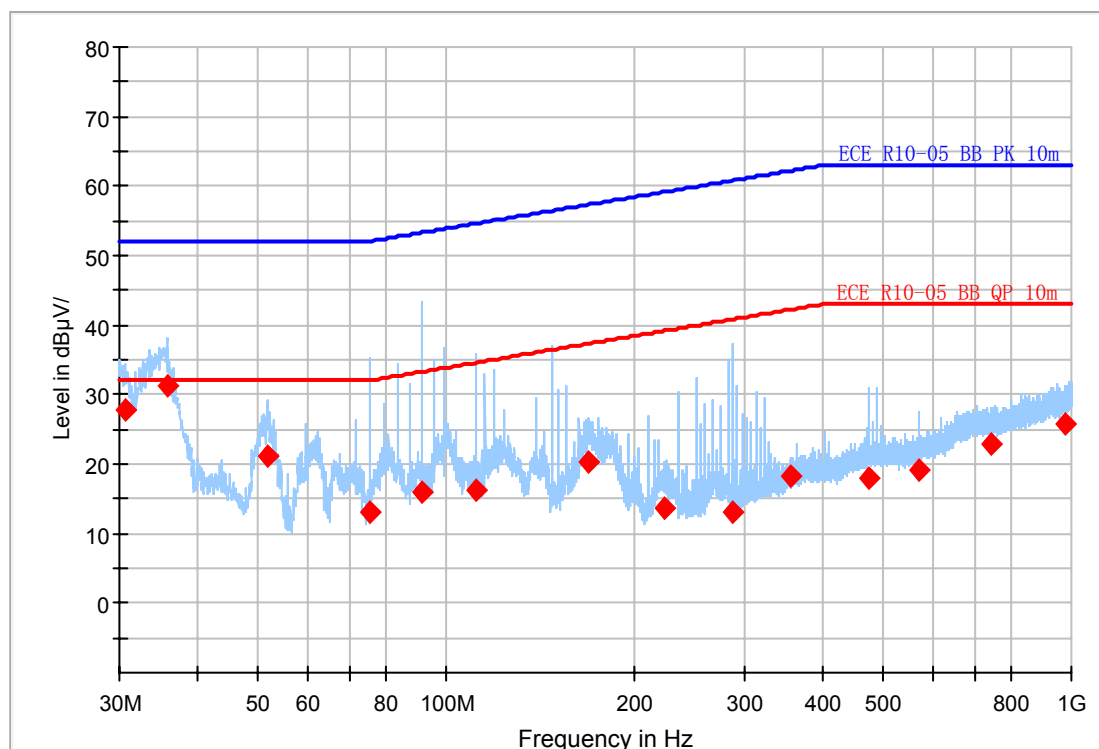
Frequency (MHz)	QuasiPeak (dB µ V/m)	Limit (dB µ)	Margin (dB)
30.050000	30.11	32.00	1.89
34.750000	31.70	32.00	0.30
52.250000	20.75	32.00	11.25
62.800000	19.00	32.00	13.00
95.700000	17.91	33.60	15.69
107.900000	13.53	34.39	20.86
143.600000	17.53	36.27	18.74
219.100000	13.72	39.05	25.32
276.650000	12.79	40.58	27.79
356.400000	16.55	42.24	25.70
465.150000	17.83	43.00	25.17
581.300000	19.24	43.00	23.76
774.000000	22.86	43.00	20.14
940.950000	25.43	43.00	17.57

# Test Report

## Common Information

Test Description:	Emission
Test Site:	SMVIC
Test Standard:	ECE R10-05
Test Distance:	10m
Polarity:	Vertical and Horizontal
Comment:	Antenna:HL562
Operator Name:	Chen Yi, Wang Tao
Test Date:	2019.8.5

Full Spectrum



— Preview Result 1-PK+      — ECE R10-05 BB QP 10m  
— ECE R10-05 BB PK 10m      ◆ Final\_Result QPK

## Final\_Result

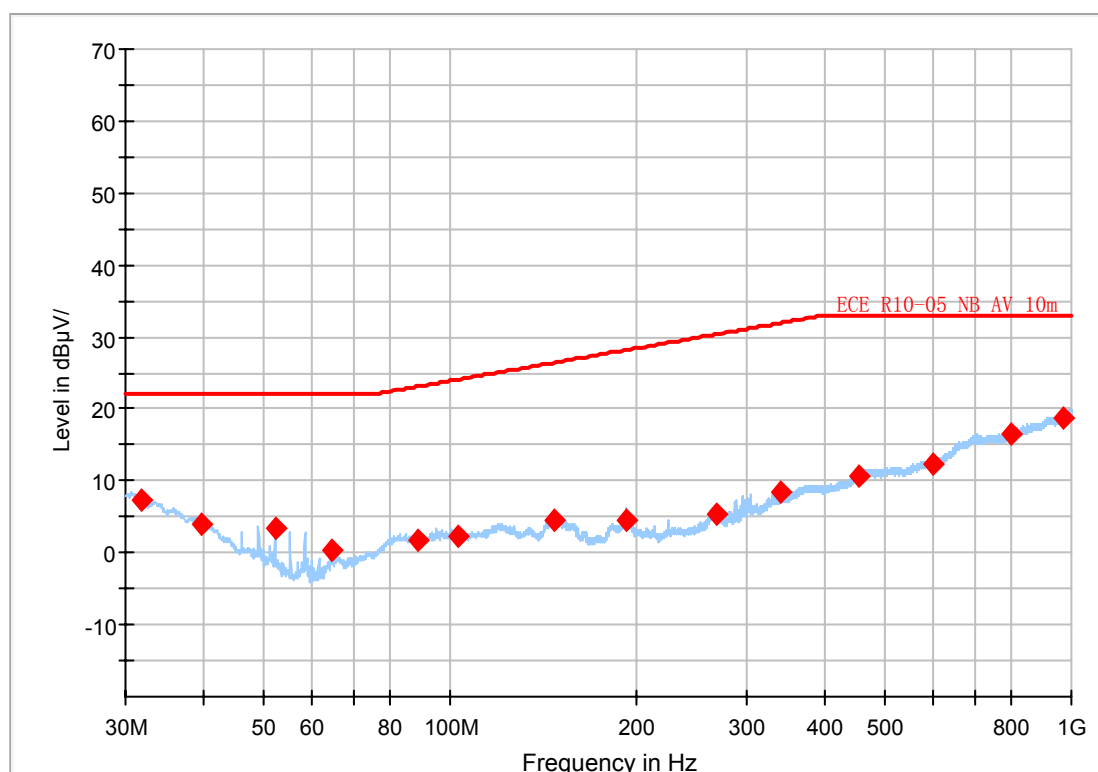
Frequency (MHz)	QuasiPeak (dB µ V/m)	Limit (dB µ)	Margin (dB)
30.650000	27.67	32.00	4.33
35.700000	31.37	32.00	0.63
51.650000	21.24	32.00	10.76
75.450000	13.13	32.04	18.91
91.450000	16.00	33.30	17.30
111.600000	16.28	34.61	18.33
168.750000	20.31	37.33	17.02
223.950000	13.73	39.19	25.46
287.250000	13.19	40.82	27.64
354.850000	18.17	42.21	24.04
474.450000	18.07	43.00	24.93
570.150000	19.00	43.00	24.00
742.300000	22.83	43.00	20.17
974.700000	25.90	43.00	17.10

# Test Report

## Common Information

Test Description:	Emission
Test Site:	SMVIC
Test Standard:	ECE R10-05
Test Distance:	10m
Polarity:	Vertical and Horizontal
Comment:	Antenna:HL562
Operator Name:	Chen Yi, Wang Tao
Test Date:	2019.8.5

Full Spectrum



— Preview Result 1-AVG    — ECE R10-05 NB AV 10m    ◆ Final\_Result AVG

## Final\_Result

Frequency (MHz)	Average (dB $\mu$ )	Limit (dB $\mu$ )	Margin (dB)
31.800000	7.23	22.00	14.77
39.650000	3.98	22.00	18.02
52.200000	3.44	22.00	18.56
64.500000	0.45	22.00	21.55
88.650000	1.67	23.10	21.43
103.350000	2.42	24.11	21.69
147.500000	4.50	26.44	21.94
192.600000	4.59	28.20	23.61
268.800000	5.49	30.39	24.90
340.750000	8.33	31.95	23.61
455.650000	10.57	33.00	22.43
598.850000	12.33	33.00	20.67
801.650000	16.51	33.00	16.49
971.950000	18.85	33.00	14.15

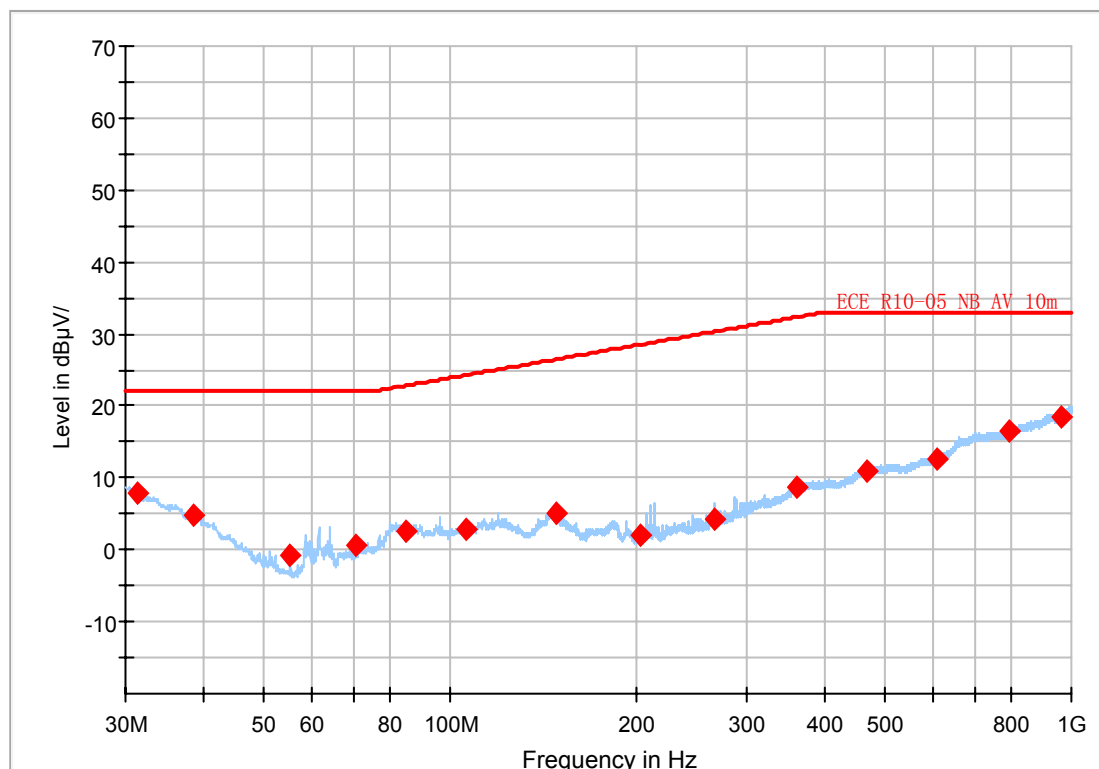


# Test Report

## Common Information

Test Description:	Emission
Test Site:	SMVIC
Test Standard:	ECE R10-05
Test Distance:	10m
Polarity:	Vertical and Horizontal
Comment:	Antenna:HL562
Operator Name:	Chen Yi, Wang Tao
Test Date:	2019.8.5

Full Spectrum



— Preview Result 1-AVG    — ECE R10-05 NB AV 10m    ◆ Final\_Result AVG

## Final\_Result

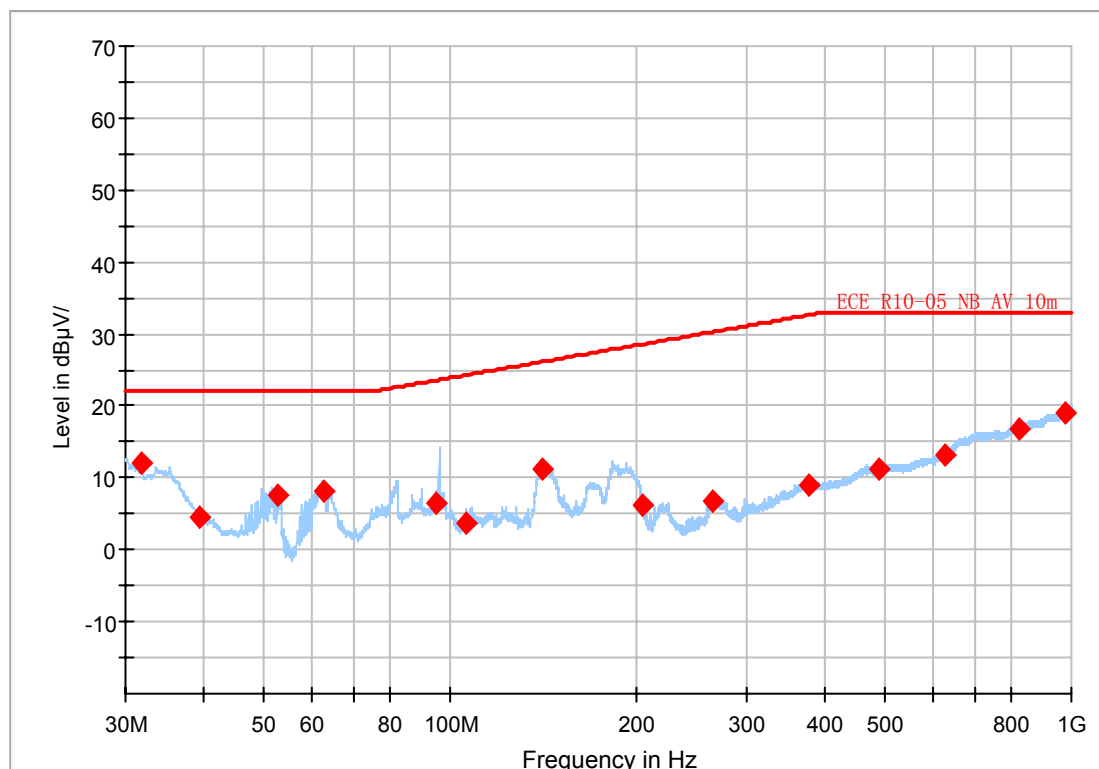
Frequency (MHz)	Average (dB µ)	Limit (dB µ)	Margin (dB)
31.450000	7.99	22.00	14.01
38.750000	4.81	22.00	17.19
55.300000	-0.75	22.00	22.75
70.650000	0.61	22.00	21.39
85.150000	2.47	22.83	20.36
105.750000	2.88	24.26	21.38
148.600000	5.03	26.49	21.46
202.850000	2.04	28.54	26.50
266.550000	4.19	30.33	26.14
360.600000	8.84	32.32	23.48
467.550000	10.87	33.00	22.13
606.100000	12.47	33.00	20.53
797.100000	16.38	33.00	16.62
963.350000	18.59	33.00	14.41

# Test Report

## Common Information

Test Description:	Emission
Test Site:	SMVIC
Test Standard:	ECE R10-05
Test Distance:	10m
Polarity:	Vertical and Horizontal
Comment:	Antenna:HL562
Operator Name:	Chen Yi, Wang Tao
Test Date:	2019.8.5

Full Spectrum



— Preview Result 1-AVG    — ECE R10-05 NB AV 10m    ◆ Final\_Result AVG

## Final Result

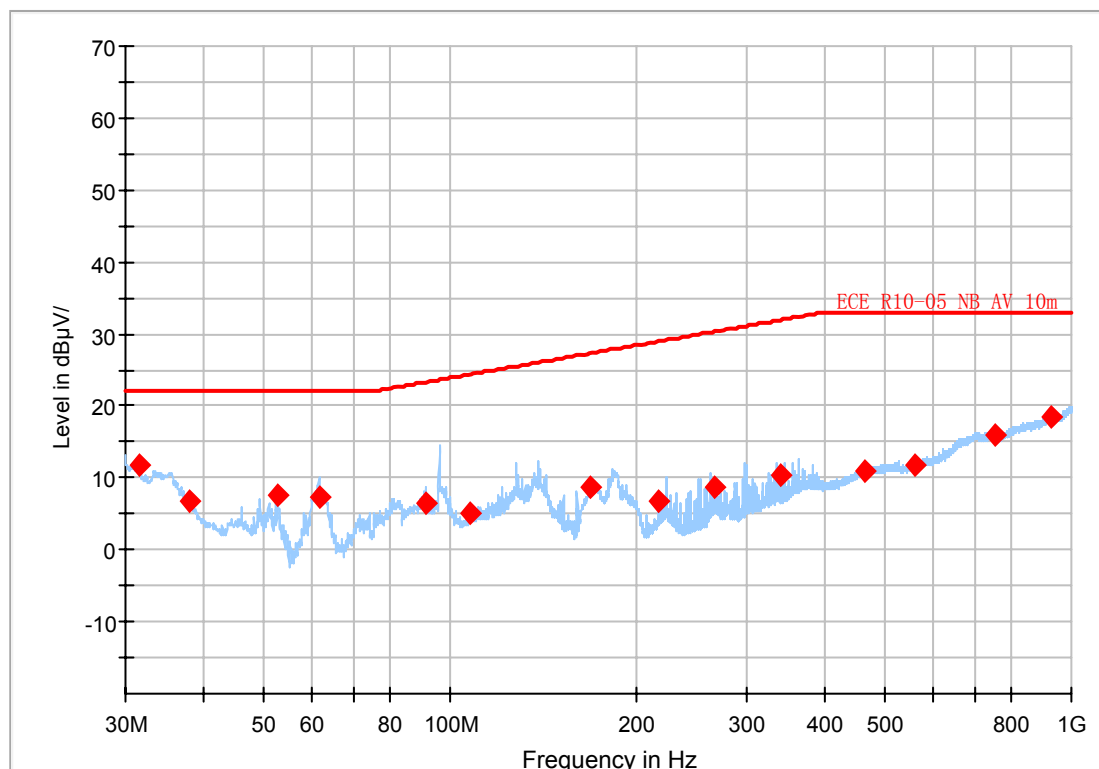
Frequency (MHz)	Average (dB µ)	Limit (dB µ)	Margin (dB)
31.750000	12.04	22.00	9.96
39.550000	4.56	22.00	17.44
52.850000	7.60	22.00	14.40
62.750000	8.13	22.00	13.87
94.750000	6.43	23.54	17.11
106.450000	3.74	24.30	20.56
140.850000	11.23	26.14	14.92
203.250000	6.13	28.55	22.42
264.500000	6.72	30.28	23.56
377.400000	8.90	32.62	23.72
491.000000	11.14	33.00	21.86
627.200000	13.20	33.00	19.80
825.400000	16.90	33.00	16.10
975.450000	18.95	33.00	14.05

# Test Report

## Common Information

Test Description:	Emission
Test Site:	SMVIC
Test Standard:	ECE R10-05
Test Distance:	10m
Polarity:	Vertical and Horizontal
Comment:	Antenna:HL562
Operator Name:	Chen Yi, Wang Tao
Test Date:	2019.8.5

Full Spectrum



— Preview Result 1-AVG    
 — ECE R10-05 NB AV 10m    
 ◆ Final\_Result AVG

## Final\_Result

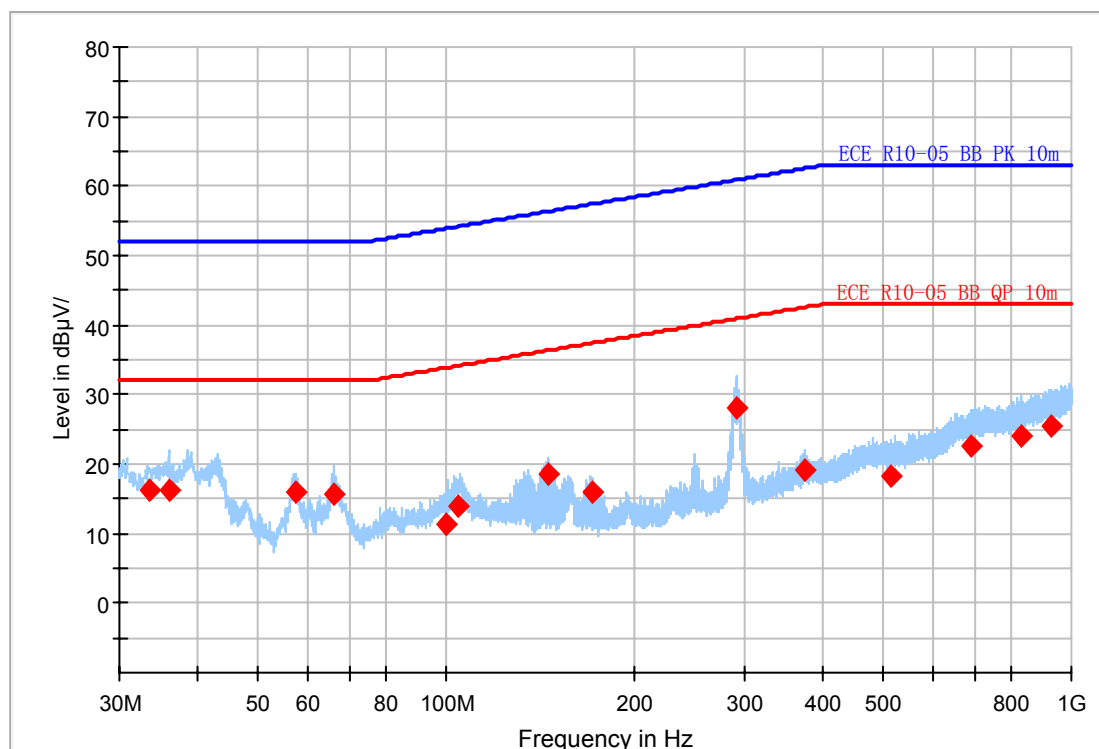
Frequency (MHz)	Average (dB $\mu$ )	Limit (dB $\mu$ )	Margin (dB)
31.600000	11.64	22.00	10.36
38.000000	6.66	22.00	15.34
52.700000	7.51	22.00	14.49
61.850000	7.38	22.00	14.62
91.400000	6.46	23.30	16.84
107.550000	5.20	24.37	19.17
167.700000	8.69	27.29	18.59
216.600000	6.65	28.97	22.31
265.800000	8.70	30.31	21.61
339.500000	10.36	31.92	21.57
465.400000	10.90	33.00	22.10
561.150000	11.77	33.00	21.23
755.350000	15.84	33.00	17.16
927.250000	18.46	33.00	14.54

# Test Report

## Common Information

Test Description:	Emission
Test Site:	SMVIC
Test Standard:	ECE R10-05
Test Distance:	10m
Polarity:	Vertical and Horizontal
Comment:	Antenna:HL562
Operator Name:	Chen Yi, Wang Tao
Test Date:	2019.8.5

Full Spectrum



— Preview Result 1-PK+      — ECE R10-05 BB QP 10m  
— ECE R10-05 BB PK 10m      ◆ Final\_Result QPK

## Final\_Result

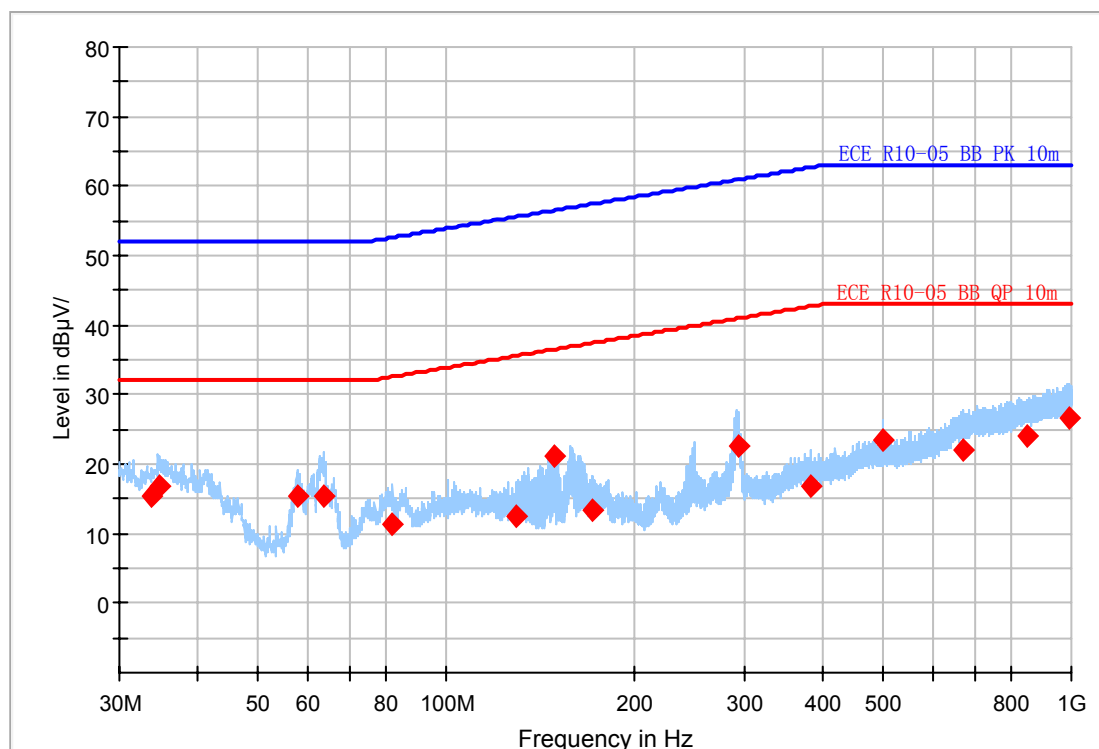
Frequency (MHz)	QuasiPeak (dBu V/m)	Limit (dBu)	Margin (dB)
33.550000	16.25	32.00	15.75
35.950000	16.20	32.00	15.80
57.300000	15.86	32.00	16.14
66.150000	15.59	32.00	16.41
99.650000	11.45	33.87	22.41
104.400000	13.88	34.17	20.29
146.150000	18.49	36.38	17.90
170.750000	16.00	37.41	21.41
291.250000	28.02	40.92	12.89
375.000000	19.01	42.58	23.57
515.700000	18.37	43.00	24.63
693.800000	22.68	43.00	20.32
828.600000	23.93	43.00	19.07
930.250000	25.50	43.00	17.50

# Test Report

## Common Information

Test Description:	Emission
Test Site:	SMVIC
Test Standard:	ECE R10-05
Test Distance:	10m
Polarity:	Vertical and Horizontal
Comment:	Antenna:HL562
Operator Name:	Chen Yi, Wang Tao
Test Date:	2019.8.5

Full Spectrum



— Preview Result 1-PK+      — ECE R10-05 BB QP 10m  
— ECE R10-05 BB PK 10m      ◆ Final\_Result QPK

## Final\_Result

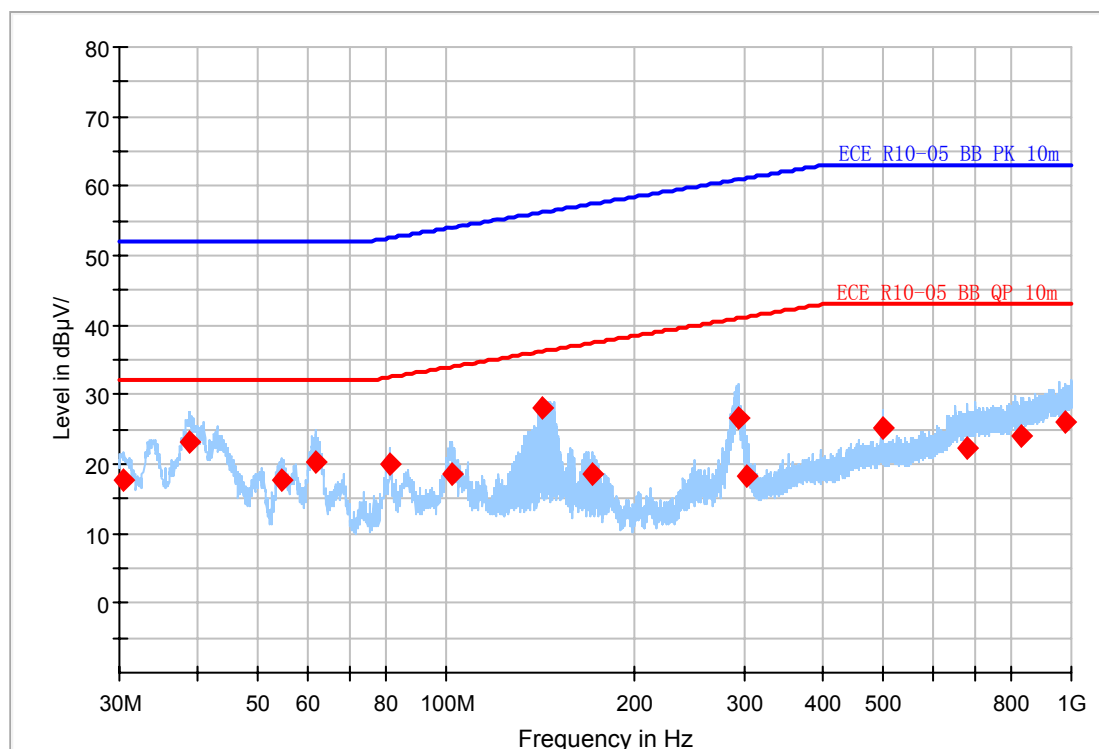
Frequency (MHz)	QuasiPeak (dBu V/m)	Limit (dBu)	Margin (dB)
33.700000	15.30	32.00	16.70
34.850000	16.78	32.00	15.22
57.900000	15.31	32.00	16.69
63.850000	15.47	32.00	16.53
82.150000	11.48	32.60	21.12
129.100000	12.55	35.57	23.02
149.000000	21.02	36.51	15.49
171.100000	13.23	37.42	24.19
292.950000	22.55	40.95	18.40
382.500000	16.85	42.71	25.86
500.000000	23.53	43.00	19.47
669.000000	21.95	43.00	21.05
847.300000	24.14	43.00	18.86
995.100000	26.60	43.00	16.40

# Test Report

## Common Information

Test Description:	Emission
Test Site:	SMVIC
Test Standard:	ECE R10-05
Test Distance:	10m
Polarity:	Vertical and Horizontal
Comment:	Antenna:HL562
Operator Name:	Chen Yi, Wang Tao
Test Date:	2019.8.5

Full Spectrum



— Preview Result 1-PK+      — ECE R10-05 BB QP 10m  
— ECE R10-05 BB PK 10m      ◆ Final\_Result QPK

## Final\_Result

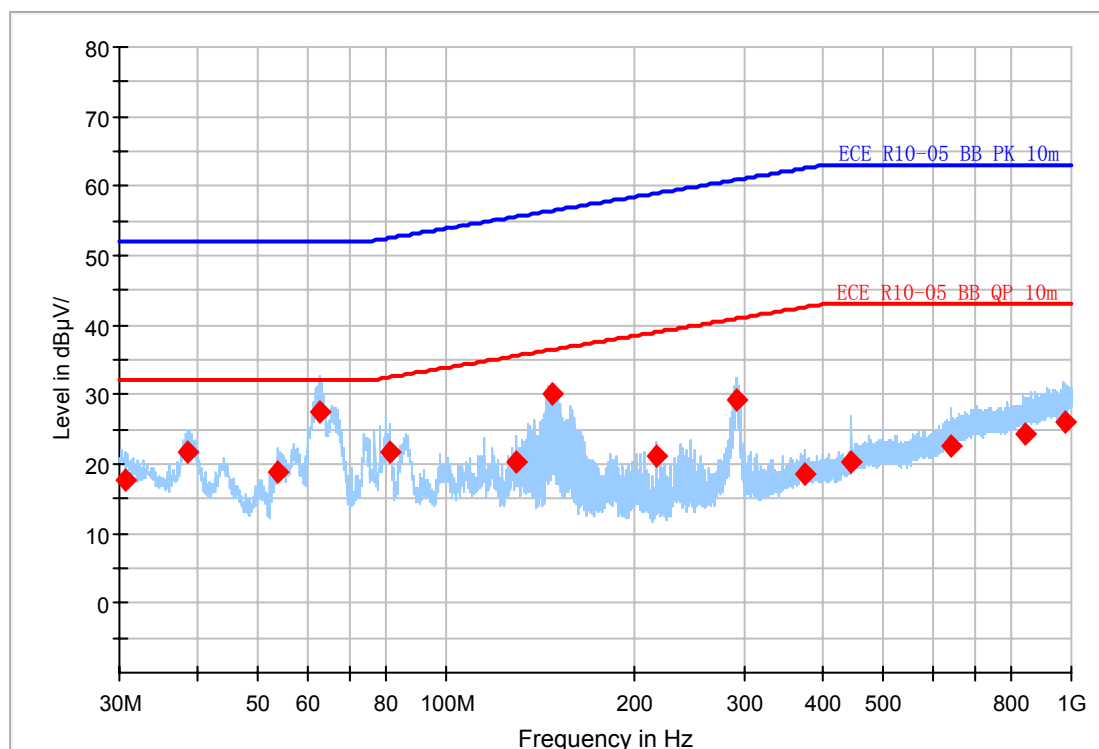
Frequency (MHz)	QuasiPeak (dBu V/m)	Limit (dBu)	Margin (dB)
30.550000	17.67	32.00	14.33
38.800000	23.18	32.00	8.82
54.700000	17.57	32.00	14.43
61.900000	20.40	32.00	11.60
81.400000	19.97	32.54	12.57
102.350000	18.42	34.04	15.62
142.100000	28.15	36.20	8.05
171.550000	18.60	37.44	18.84
292.700000	26.51	40.95	14.44
302.800000	18.15	41.17	23.02
500.050000	25.21	43.00	17.79
682.550000	22.24	43.00	20.76
832.800000	23.99	43.00	19.01
977.150000	26.01	43.00	16.99

# Test Report

## Common Information

Test Description:	Emission
Test Site:	SMVIC
Test Standard:	ECE R10-05
Test Distance:	10m
Polarity:	Vertical and Horizontal
Comment:	Antenna:HL562
Operator Name:	Chen Yi, Wang Tao
Test Date:	2019.8.5

Full Spectrum



— Preview Result 1-PK+      — ECE R10-05 BB QP 10m  
— ECE R10-05 BB PK 10m      ◆ Final\_Result QPK

## Final\_Result

Frequency (MHz)	QuasiPeak (dBu V/m)	Limit (dBu)	Margin (dB)
30.650000	17.67	32.00	14.33
38.700000	21.73	32.00	10.27
53.800000	18.80	32.00	13.20
62.550000	27.54	32.00	4.46
81.450000	21.68	32.54	10.87
129.050000	20.35	35.57	15.21
147.700000	29.97	36.45	6.48
216.600000	21.23	38.97	17.74
291.850000	29.20	40.93	11.73
373.300000	18.65	42.55	23.89
445.450000	20.33	43.00	22.67
643.450000	22.66	43.00	20.34
843.150000	24.28	43.00	18.72
976.150000	25.93	43.00	17.07