



NSAI

ECE TYPE-APPROVAL CERTIFICATE



Communication concerning:² ~~Approval granted~~
~~Approval extended~~
~~Approval refused~~
~~Approval withdrawn~~
~~Production definitively discontinued~~

of a type of a vehicle/~~component/separate technical unit~~² with regard to Regulation No. 107.

Approval No: **E24*107R07/04*0021*02**

Reason for extension/revision:

- See test report for full details

SECTION I

1. Make (trade name of manufacturer): ***ISUZU, ANADOLU ISUZU, TURKUAZ, TURQUOISE, AIOS, AOS, GLOBUS***
2. Type: ***B801***
Commercial Description(s): ***N/A***
3. Means of identification of type if marked on the vehicle/
~~component/separate technical unit~~: ***N/A***
- 3.1 location of that marking: ***N/A***
4. Category of vehicle: ***M3***
Class: ***I***
5. Name and address of manufacturer: ***Anadolu Isuzu Otomotiv Sanayi ve Ticaret A.Ş.
Şekerpınar Mahallesi Otomotiv Caddesi
No:2 41435 ÇAYIROVA-KOCAELİ-
TURKEY***
6. In the case of components and separate technical units,
Location and method of affixing the Type-Approval mark: ***N/A***
7. Address(es) of assembly plant(s): ***Anadolu Isuzu Otomotiv Sanayi ve Ticaret A.Ş.
Şekerpınar Mahallesi Otomotiv Caddesi
No:2 41435 ÇAYIROVA-KOCAELİ-
TURKEY***



NSAI

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SECTION II

1. Additional information (where applicable): *See Addendum*
 2. Technical service responsible for carrying out the tests: ***Optival Belgelendirme Hizmetleri A.Ş
Evliya Çelebi Mh. Küme Sk. Tuzla Ticaret
Merkezi Sit. No:2C/15 Tuzla
İstanbul/Turkey***
 3. Date of report issued by that service: *As before and 26.08.2021*
 4. Number of test report: *New: OPH-T-01344-01 Rev00
Former: OPH-T-01344-00 Rev01
17-00282-CT-IST-00*
 5. Remarks (if any): *See Addendum*
 6. Place: *Dublin.*
 7. Date: *1st September, 2021*
 8. Signature: 
9. The index to the information package lodged with the Approval Authority, which may be obtained upon request, is attached.



¹ Distinguishing number of the country which has granted/extended/refused or withdrawn approval (see approval provision in the Regulation).

² Delete where not application

³ If the means of identification of type contains characters not relevant to describe the vehicle, component or separate technical unit types covered by this Type-Approval certificate such characters shall be represented in the documentation by the symbol: "?" (e.g. ABC??123??).

⁴ As defined in the Consolidated resolution on the Construction of vehicles (R.E.3), document ECE/TRANS/WP.29/78/Rev.3, para.2.



ADDENDUM
to Type-Approval Certificate No: E24*107R07/04*0021*02
Concerning the Type-Approval of a vehicle with regard to Regulation No: 107

1.	Additional information		
1.1	Category of vehicle (M ₂ , M ₃):	<i>M3</i>	
1.2	Bodywork concept (single/ double-deck, articulated , low-floor):	<i>Single Deck, Low Floor</i>	
1.3	Technically permissible maximum mass (kg):	<i>11160kg</i>	
1.4	Length (overall):	Max.	<i>8010mm</i>
1.5	Width (overall):	<i>Electric:</i>	<i>2463mm</i>
		<i>Deisel:</i>	<i>2435mm</i>
1.6	Height (overall):	<i>Electric:</i>	<i>3250mm</i>
		<i>Diesel:</i>	<i>3184mm</i>
1.7	Number of passengers (seated and standing):	<i>Max: 60</i>	
1.7.1	Total:	<i>See information document for full details</i>	
1.7.2	Upper Deck:	<i>N/A</i>	
1.7.3	Lower Deck:	<i>N/A</i>	
1.7.4	Number of passengers seated:	<i>See information document for full details</i>	
1.7.4.1	Total:	<i>See information document for full details</i>	
1.7.4.2	Upper Deck:	<i>N/A</i>	
1.7.4.3	Lower Deck:	<i>N/A</i>	

⁵ In the case of an articulated vehicle, specify the number of seats in each rigid section.

⁶ If the vehicle is equipped to carry wheelchairs, indicate here the maximum number to be carried.
If passenger capacity is dependant on the number of wheelchairs to be carried, indicate permissible combinations of seated, standing and wheelchair passengers.



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- | | | |
|------|---|---|
| 1.8 | Volume of baggage compartments (m ³): | N/A |
| 1.9 | Area for baggage transportation on the roof (m ²): | N/A |
| 1.10 | Technical devices facilitating access to the vehicle (ramp, lifting platform, kneeling-system): | <i>Kneeling system and manually operated ramp and electrically operated ramp</i> |
| 1.11 | Position of the centre of gravity of the laden vehicle in the longitudinal, transverse and vertical directions: | <i>See information document for full details</i> |
| 2. | Remarks: | N/A |



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Index to the Information Package

Date of issue: *15th January, 2018*

Date of latest amendment: *1st September, 2021*

Reason for extension/revision: *See information document for full details*

1. Additional conditions, and advisory notes on legal alternatives.

2. Test report(s)

- numbers(s): *New: OPH-T-01344-01 Rev00*
Former: OPH-T-01344-00 Rev01
17-00282-CT-IST-00

- date of issue: *15.12.2017*

- date of latest amendment: *26.08.2021*

3. Information document

- number(s): *816. Up to 02*

- date of issue: *17.11.2017*

- date of latest amendment: *19.08.2021*

Documentation: *51 pages*



Approval No: E24*107R07/04*0021*02

Appendix: **Additional conditions, and advisory notes on legal alternatives**

A: Additional conditions:

1. The attached technical report, with any of its attachments, forms part of this Type Approval certificate.
2. Each type from series production shall be to the measurements specified in the attached drawings, and shall be manufactured only from the materials specified in the Approval documents.
3. Changes in the type are permitted only with the explicit permission of NSAI. Breaches of this requirement will lead to a withdrawal of the Type Approval, and in addition may be subject to criminal prosecution.
4. At regular intervals, any tests or associated checks prescribed by the applicable legislation to verify continued conformity with the approved type shall be carried out. The manufacturer shall demonstrate compliance with this by submitting to NSAI evidence of adequate arrangements and documented control plans for each type approved.
5. Any set of samples or test pieces showing evidence of non-conformity shall give rise to further sampling and testing and all steps shall be taken to restore conformity of production.
6. This Type Approval will expire when it is surrendered by the holder, or withdrawn by NSAI, or when the approved type no longer conforms to legal requirements. The recall of the Type Approval can be issued by NSAI when the conditions required for the issuing or continuation of the Type Approval are no longer current, or when the Approval holder is in breach of the duties attached to the Type Approval, or when it is established that the approved type no longer meets the requirements of traffic safety.
7. Changes in the company name, address or manufacturing site, as well as in any of the sales or other agents specified in the issuing of the approval must immediately be notified to NSAI.
8. The duties imposed by the issuing of this certificate are not transferable. The legal protection of third parties is not affected by this certificate.
9. When the manufacture or sale of the system, component or separate technical unit has not been started within one year of the date of issue of this certificate, then NSAI is to be informed. This requirement also applies when the manufacture or sale has been halted for more than one year, or when it ought to have been halted for more than one year. The initial commencement of manufacture or sale, or the resumption of manufacture or sale, shall then be notified to NSAI within one month of commencement or resumption.

B: Legal Options:

Any objection to the requirements set out in this certificate shall be made within one month of the date of issue. The objection shall be made, in writing, to NSAI in Dublin.



TECHNICAL REPORT

OPH-T-01344-01 Rev00 Dated 26.08.2021

Applicant : Anadolu Isuzu Otomotiv Sanayi ve Ticaret A.Ş.
Regulatory act : UNECE Regulation No. 107
M2 and M3 vehicles
Supplement 4 to the 07 Series of amendments
Type : B801

Application for:

- Vehicle
 System
 Component
 Seperate technical unit

Information regarding approval status:

- First approval application
 Application for extension from E24*107R07/04*0021*01 E24*107R07/04*0021*02
 Technical report

Information regarding based on the standard:

- ISO/IEC 17020:2012
 ISO/IEC 17025:2017

0. INDEX

- 1 Attachments
- 2 General Information
- 3 Reasons for extension
- 4 Test equipment and conditions
- 5 Identification of test vehicle
- 6 Requirements and test results
- 7 Conclusion and status of conformity
- 8 Copyrights

1. ATTACHMENTS

- 1.1 Manufacturer's information document No: 816.02
Date: 19.08.2021

2. GENERAL INFORMATION

- 2.1 Make (trade name of manufacturer) : ISUZU, ANADOLU ISUZU, TURKUAZ, TURQUOISE, AIOS, AOS, GLOBUS
- 2.2 Type : B801
- 2.3 Means of identification of type, if marked on the vehicle : N/A
- 2.3.1 Location of that marking : N/A
- 2.4 Category of vehicle : M3
- 2.5 Company name and address of manufacturer : Anadolu Isuzu Otomotiv Sanayi ve Ticaret A.Ş.
Şekerpınar Mahallesi Otomotiv Caddesi
No:2
41435 ÇAYIROVA-KOCAELİ-TURKEY
- 2.6 Name(s) and address(es) of assembly plant(s) : Anadolu Isuzu Otomotiv Sanayi ve Ticaret A.Ş.
Şekerpınar Mahallesi Otomotiv Caddesi
No:2
41435 ÇAYIROVA-KOCAELİ-TURKEY
- 2.7 Name and address of the manufacturer's representative (if any) : N/A
- 2.8 Location of approval mark : Close to manufacturer's plate

- Date : 25.08.2021
- Location : Anadolu Isuzu Otomotiv Sanayi ve Ticaret A.Ş., Kocaeli, TR
- Test expert : Semih Kart

3. REASONS FOR EXTENSION

- 3.1 Index to the information document is modified.
- 3.2 New information is added for 141 kw battery electrical vehicle.
- 3.3 Attachment 2 , New seating layouts are added.
- 3.4 Attachment 3, New weight calculation is added.

4. TEST EQUIPMENT AND CONDITION

4.1. Equipment name	ID Number
Tape measure	OPH003
Wheel load balances	OPH018-OPH019
Wheel load balance indicator	OPH020
Radius gauge	OPH032
Digital angle gauge	OPH024
GPS based speed and acceleration device	OPH069

4.2. Ambient conditions

Ground Flatness Flat measuring area

5. IDENTIFICATION OF TEST VEHICLE

VIN : NNAM0BELAGD000003
Vehicle type : B801
Category of vehicle : M3
Class of vehicle : Class I
If prototype, prototype number : N/A
Hand of drive : Left
Number of passengers :

No	Seated passengers	Standing passengers	Wheelchair user
1	22	38	0

Axle number : 2
Tire size : Axle 1: 245/70 R17,5
Axle 2: 245/70 R17,5
Position of engine : At the rear, latitudinal
Test mass : 7460 kg
Technically permissible maximum laden mass : 11600 kg
Technically permissible maximum mass for each axles : Axle 1: 4500 kg
Axle 2: 7100 kg
Type of suspension : Air suspension
Type of boarding device : Kneeling and manually operated ramp
Additional information, if necessary : The electric vehicle has 141Kw, 211 kW and 268 kW engine options.

6. REQUIREMENTS AND TEST RESULTS

6.1. REQUIREMENTS TO BE MET BY ALL VEHICLES – ANNEX 3

Item 7.1. of Annex 3

General

If the driver's compartment is without a roof, the driver should have some special protection against strong wind, sudden dust, heavy rain, etc.

In conformity

Item 7.2. of Annex 3

Masses and Dimensions

Item 7.2.1. of Annex 3

The vehicles shall comply with the requirements of Annex 11.

In conformity

Item 3.1. of Annex 11

Measurement of the Mass of the Vehicle in Running Order and of its Distribution Among the Axles

The mass of the vehicle in running order and its distribution on the axles are measured on the vehicle(s) submitted in accordance with Paragraph 3.4. of this Regulation placed in a stationary position with their wheels set straight ahead. If the measured masses differ by no more than 3% from the masses stated by the manufacturer for the corresponding technical configurations within the type, or by no more than 5% if the vehicle is of Category M₂ not exceeding 3,500kg, the masses in running order and their distribution among the axles as stated by the manufacturer are used for the purpose of the requirements below. Otherwise the measured masses shall be used and the technical service may then, if necessary, carry out additional measurements on vehicle(s) other than those submitted in accordance with Paragraph 3.4. of this Regulation.

Axle No.	Measured mass in running order	Declared value by the manufacturer	Limit	Difference	Conformity
Axle 1	2760 kg	2766 kg	%3	% 0,21	In conformity
Axle 2	4700 kg	4698 kg		% 0,04	In conformity
Total	7460 kg	7464 kg		% 0,05	In conformity

Item 3.2. of Annex 11

Mass Distribution Calculations

Item 3.2.2.1. of Annex 11

The sum of the technically permissible maximum mass on the axles shall not be less than the technically permissible maximum laden mass of the vehicle.

In conformity

Item 3.2.2.2. of Annex 11

For each group of axles designated 'j', the sum of the masses m_i on its axles shall not be less than the mass μ_j . In addition, each of the masses m_i shall not be less than the part of μ_j applying on the axle 'i' as determined by the mass distribution laws for that group of axles.

Not applicable

Item 3.2.2.3. of Annex 11

The sum of the the technically permissible maximum mass on the solo axle or group of axles shall not be less than the technically permissible maximum laden mass of the vehicle,

In conformity

Item 3.2.2.4. of Annex 11

The technically permissible maximum laden mass of the combination shall not exceed the sum of technically permissible maximum laden mass of the vehicle and the technically permissible maximum towable mass.

Not applicable

Item 3.2.3.1. of Annex 11

The mass of the vehicle in running order, plus the mass Q multiplied by the number of seated and standing passengers, plus the masses WP, B and BX as defined in Paragraph 3.2.3.2.1. of Annex 11, plus the technical permissible maximum mass on the coupling point, if a coupling is fitted by the manufacturer, shall not exceed the technically permissible maximum laden mass.

In conformity

Test vehicle	Mass in running order (kg)	Mass of optional equipment (kg)	Q x number of passengers (kg)	250 x number of wheelchair place (kg)	100 x volume of luggage compartment (kg)	Mass on the coupling point (kg)	Total (kg)	Technically permissible maximum laden mass (kg)
1	7460	-	4080	-	-	-	11540	11600

*See item 3.2.3.2.1. of Annex 11 of the regulation for Q value.

Item 3.2.3.2. of Annex 11

When the vehicle in running order is laden as described in Paragraph 3.2.3.2.1. of Annex 11, the mass corresponding to the load on each axle shall not exceed the technically permissible maximum mass on each axle, and the mass corresponding to the load on each solo axle or group of axles shall not exceed the technically permissible maximum mass on the solo axle or group of axles. Moreover, the mass corresponding to the load on the driving axle or the sum of masses, corresponding to the loads on the driving axles shall be at least 25% of the technically permissible maximum laden mass of the vehicle.

In conformity

Item 3.2.3.3. of Annex 11

When the vehicle is in running order or laden as specified in Paragraph 3.2.3.2.1. of Annex 11, the mass corresponding to the load on the front axle or group of axles shall not be less than the percentage of the mass of the vehicle in running order or of the technically permissible maximum laden mass 'M' laid down in the following table:

Classes I and A		Class II		Classes III and B	
Rigid	Articulated	Rigid	Articulated	Rigid	Articulated
20	20	25 ⁽¹⁾	20	25 ⁽¹⁾	20

(1) This figure is reduced to 20% for 3 axle vehicles of Classes II and III having two steered axles.

Mass in running order:	7460	Technically permissible maximum laden mass:	11600
Mass on the front axle:	2760	Mass on the front axle:	4500
Percentage of the mass of the vehicle in running order:	%36,99	Percentage of the technically permissible maximum laden mass:	%38,74
Specified percentage:	%20	Specified percentage:	%20
Conformity	In conformity	Conformity	In conformity

Item 3.3. of Annex 11

Marking of Vehicles

The vehicle shall be clearly marked on the inside in a position visible to the driver in his seating position accordance with subitems of item 3.3..

In conformity

Item 3.4. of Annex 11

Manoeuvrability

Any vehicle must be able to manoeuvre on either side for a complete circular trajectory of 360° inside an area defined by two concentric circles, the outer circle having a radius of 12.50m and the inner circle having a radius of 5.30m, without any of the vehicle's outermost points (with the exception of the protruding parts excluded from the measurement of the vehicle width) projecting outside the circumferences of the circles.

In conformity

For vehicles with axle-lift devices, this requirement also applies with the retractable axle(s) in the lifted position or loadable axle(s) in the unladen condition.

Not applicable

When the vehicle moves from a straight line approach into the circular area described above, no part of it shall move outside of that vertical plane by more than 0.60 m.

In conformity

Item 7.2.2. of Annex 3

Area Available for Passengers

In conformity

Item 7.3. of Annex 3

Prevention of Accidents

If the engine compartment of a vehicle is located to the rear of the driver's compartment, it shall not be possible to start the engine from the driver's position when the main engine access panel located in the rear face of the vehicle is open and which provide direct access to parts that represent a hazard when the engine is running (e.g. pulley of belt drives).

In conformity

Item 7.4. of Annex 3

Stability Test

The stability of a vehicle shall be such that the point at which overturning occurs would not be passed if the surface on which the vehicle stands were tilted to both sides in turn to an angle of 28° from the horizontal.

In conformity

Item 7.5. of Annex 3

Protection against Fire Risks

Item 7.5.1. of Annex 3

Engine Compartment

In conformity

Item 7.5.1.5. of Annex 3

In the case of vehicles having an internal combustion engine or a combustion heater located to the rear of the driver's compartment, the compartment shall be equipped with an alarm system providing the driver with both an acoustic and a visual signal, and activating the hazard warning signal, in the event of excess temperature in the engine compartment and in each compartment where a combustion heater is located.

In conformity

In addition to the alarm system, vehicles of Classes I, II and III shall be equipped with a fire suppression system in the engine compartment and each compartment where a combustion heater is located. Vehicles of Classes A and B, may be equipped with a fire suppression system in the engine compartment and in each compartment where a combustion heater is located.

In conformity

Item 7.5.1.5.1. of Annex 3

The alarm system and the fire suppression system, if fitted, shall be automatically activated through a fire detection system. The detection system shall be designed so as to detect a temperature in the engine compartment, and in each compartment where a combustion heater is located in excess of the temperature occurring during normal operation.

In conformity

Item 7.5.1.5.2. of Annex 3

Paragraph 7.5.1.5.1. above is considered to be satisfied if the following areas of the engine compartment, and each compartment where a combustion heater is located, are monitored regarding excess temperature:

In conformity

Item 7.5.1.5.2.1. of Annex 3

Areas in which, in case of leakage, flammable fluids (liquid or gas) may come into contact with exposed components, e.g. the supercharger or the exhaust-system, including engine mounted components, whose working temperature is equal to or greater than the ignition temperature of the flammable fluids (liquid or gas);

In conformity

Item 7.5.1.5.2.2. of Annex 3

Areas in which, in case of leakage, flammable fluids (liquid or gas) may come into contact with shielded components, e.g. an independent heating device, whose working temperature is equal to or greater than the ignition temperature of the flammable fluids (liquid or gas); and

In conformity

Item 7.5.1.5.2.3. of Annex 3

Areas in which, in case of leakage, flammable fluids (liquid or gas) may come into contact with components, e.g. the alternator, whose temperature, in case of failure, may be equal to or greater than the ignition temperature of the flammable fluids (liquid or gas).

In conformity

Item 7.5.1.5.3. of Annex 3

The alarm system and the fire suppression system shall be operational whenever the engine start device is operated, until such time as the engine stop device is operated, regardless of the vehicle's attitude. They may remain operational after the ignition is switched off or the vehicle master control switch is deactivated, wherever applicable. The alarm system shall remain operational whenever the combustion heater is in operation.

In conformity

Item 7.5.1.5.4. of Annex 3

The installation of the fire suppression system shall comply with the following requirements;

Item 7.5.1.5.4.1. of Annex 3

The fire suppression system shall be installed according to the system manufacturer's installation manual.

In conformity

Item 7.5.1.5.4.2. of Annex 3

An analysis shall be conducted prior to the installation in order to determine the location and direction of the suppression agent discharge point(s) (e.g. nozzles, extinguishing agent generators or extinguishing agent discharge tube or other distribution points). Potential fire hazards within the engine compartment and each compartment where a combustion heater is located, shall be identified and the discharge point(s) located such that the suppression agent will be distributed to cover the fire hazard when the system activates. The spray pattern and direction of discharge point(s) as well as the throwing distance shall be ensured to cover identified fire hazards. The system shall also be ensured to work properly regardless of the vehicle's attitude.

In conformity

Fire hazards to be taken into account in the analysis shall at least consist of the following: components whose surface may reach temperatures above the auto-ignition temperature for fluids, gases or substances that are present within the compartment and electrical components and cables with a current or voltage high enough for an ignition to occur as well as hoses and containers with flammable liquid or gas (in particular, if those are pressurized). The analysis shall be fully documented.

In conformity

Item 7.5.1.5.4.3. of Annex 3

The suppression system shall be scaled from the tested system, based on the total gross volume of the engine and combustion heater compartments where the system is to be installed. When measuring the engine compartment and the combustion heater compartments, the gross volume of these compartments shall be measured, i.e. the volume of the engine and its components shall not be subtracted.

In conformity

The scaling of the system includes the mass of the suppression agent, all discharge points and the mass of the propellant gas container, if applicable. The system pressure shall remain the same as in the tested system. If the system includes a discharge tube for the extinguishing agent, the length of the tube shall be scaled without nozzles. It is acceptable if the suppression system has more extinguishing agent and/or more discharge points and/or a longer discharge tube for the extinguishing agent and/or more propellant gas than required according to the scaling models found below.

In conformity

If the gross volume of the engine and combustion heater compartments exceed 4m³, the suppression system shall be scaled up using the following scaling factor calculated in (1) below. If the gross volume is less than 4m³, it is allowed to scale down the suppression system using the scaling factor (2) below. S_x S_x denotes the scaling factor and x denotes the total gross volume including the engine and combustion heater compartments [m³].

In conformity

Diesel&Electric Vehicle :
[Option 1] Firezone / Type: MSTR ,
[Option 2] Fogmaker / Type: Suppressant -35
[Option 3] Firecom - Firetürk / Type: AK0746
[Option 4] Firedect / Type: FRDCT

Diesel&Electric Vehicle :
[Option 1] E6*107R06/07*0055 *
[Option 2] E5 107R-06001
[Option 3] E13*107R07/01*0043*
[Option 4] E6*107R06*0056*

Alarm system	Yes	In conformity
Fire suppression system	Yes	In conformity

Item 7.5.2. of Annex 3

Electrical Equipment and Wiring

In conformity

Item 7.5.3. of Annex 3

Batteries

In conformity

Item 7.5.4. of Annex 3

Fire Extinguisher and First-aid Equipment

In conformity

Item 7.5.5. of Annex 3

Materials

No flammable material shall be permitted within 100mm of the exhaust system component, any high voltage electrical equipment or any other significant source of heat unless the material is effectively shielded. Where necessary, shielding shall be provided to prevent grease or other flammable materials coming into contact with exhaust system or other significant heat sources. For the purposes of this Paragraph, a flammable material is considered to be one which is not designed to withstand the temperatures likely to be encountered in that location.

In conformity

Item 7.5.6. of Annex 3

Fire Detection

In conformity

Item 7.6. of Annex 3

Item 7.6.1. of Annex 3

Number of Exits

In conformity

Item 7.6.2. of Annex 3

Positioning of Exits

7.6.2.1. of Annex 3

Vehicles of Classes I, II and III

In conformity

Item 7.6.2.2. of Annex 3

Vehicles of Classes A and B

Not applicable

Item 7.6.3. of Annex 3

Minimum Dimensions of Exits

Vehicles of Class I, II or III shall meet the following requirements:

Item 7.6.3.1.1. of Annex 3

Service doors shall have an aperture creating an access in accordance with the requirements shown in Paragraph 7.7.1 of Annex III.

In conformity

Item 7.6.3.1.2. of Annex 3

Emergency doors shall have an aperture with a minimum height of 1,450mm and a minimum width of 600mm.

In conformity

Item 7.6.3.1.3. of Annex 3

Emergency windows shall have a minimum area of 400,000mm². It shall be possible to inscribe in this area a rectangle measuring 500mm × 700mm.

Item 7.6.3.1.4. of Annex 3

In the case of an emergency window situated in the rear face of the vehicle, either it shall meet the requirements shown in Paragraph 7.6.3.1.3. above,

Not applicable

or it shall be possible to inscribe in the aperture of this emergency window a rectangle 350mm high and 1,550mm wide, the corners of which may be rounded to a radius of curvature not exceeding 250mm.

In conformity

Item 7.6.3.1.5. of Annex 3

Escape hatches shall have an aperture with a minimum area of 450,000mm². It shall be possible to inscribe in this area a rectangle measuring 600 × 700mm.

Not applicable

Item 7.6.3.2. of Annex 3

Vehicles of Class A or B may meet either the requirements shown in Paragraph 7.6.3.1. above (Class A meeting Class I requirements and Class B meeting Class II and III requirements)

In conformity

or those contained in Annex 7, Paragraph 1.1. as below table.

Item 7.6.4. of Annex 3

Technical Requirements for All Service Doors

In conformity

Overnight locking system : N/A

Item 7.6.5. of Annex 3

Additional Technical Requirements for Power-operated Service Doors

In conformity

Item 7.6.6. of Annex 3

Additional Technical Requirements for Automatically-operated Service Doors

Not applicable

Item 7.6.7. of Annex 3

Technical Requirements for Emergency Doors

In conformity

Item 7.6.8. of Annex 3

Technical Requirements for Emergency Windows

In conformity

Item 7.6.9. of Annex 3

Technical Requirements for Escape Hatches

Not applicable

Item 7.6.10. of Annex 3

Technical Requirements for Retractable Steps

Not applicable

Item 7.6.11. of Annex 3

Safety Signs

In conformity

Item 7.6.12. of Annex 3

Service-door Lighting

In conformity

Item 7.7. of Annex 3

Interior Arrangements

Item 7.7.1. of Annex 3

Access to Service Doors

In conformity

Item 7.7.2. of Annex 3

Access to Emergency Doors

In conformity

Item 7.7.3. of Annex 3

Access to Emergency Windows

In conformity

Item 7.7.4. of Annex 3

Access to Escape Hatches

Item 7.7.4.1. of Annex 3

Escape Hatches in the Roof

Not applicable

Item 7.7.4.2. of Annex 3

Escape Hatches in the Floor

Not applicable

Item 7.7.5. of Annex 3

Gangways

In conformity

Item 7.7.6. of Annex 3

Slope of Gangway

The slope of the gangway shall not exceed:

In the longitudinal direction:

8% in the case of a vehicle of Class I, II or A, or

12.5% in the case of a vehicle of Class III and B

In the transversal direction, 5% for all classes.

In conformity

Item 7.7.7. of Annex 3

Steps

In conformity

Item 7.7.8. of Annex 3

Passenger Seats (Including Folding Seats) and Space for Seated Passengers

Item 7.7.8.1. of Annex 3

Minimum Seat Width

In conformity

Item 7.7.8.2. of Annex 3

Minimum Depth of Seat Cushion

In conformity

Item 7.7.8.3. of Annex 3

Height of Seat Cushion

In conformity

Item 7.7.8.4. of Annex 3

Seat Spacing

In conformity

Item 7.7.8.5. of Annex 3

Space for Seated Passengers

In conformity

Item 7.7.8.6. of Annex 3

Free Height Over Seating Positions

In conformity

Item 7.7.9. of Annex 3

Communication with the Driver

In conformity

Item 7.7.10. of Annex 3

Hot Drink Machines and Cooking Equipment

Not applicable

Item 7.7.11. of Annex 3

Doors to Interior Compartments

Not applicable

Item 7.7.12. of Annex 3

Intercommunication Staircase of a Double-deck Vehicle

Not applicable

Item 7.7.13. of Annex 3

Driver's Compartment

In conformity

Item 7.7.14. of Annex 3

Driver's Seat

In conformity

Item 7.8. of Annex 3	
Artificial Interior Lighting	In conformity
Emergency lighting system	Not applicable
Item 7.9. of Annex 3	
Articulated Section of Articulated Vehicles	Not applicable
Item 7.10. of Annex 3	
Direction-holding of Articulated Vehicles	Not applicable
Item 7.11. of Annex 3	
Handrails and Handholds	In conformity
Item 7.12. of Annex 3	
Guarding of Step Wells and Exposed Seats	In conformity
Item 7.13. of Annex 3	
Baggage Racks and Occupant Protection	Not applicable
Item 7.14. of Annex 3	
Trap Doors, if Fitted	Not applicable
Item 7.15. of Annex 3	
Visual Entertainment	Not applicable
Item 7.16. of Annex 3	
Trolleybuses	Not applicable
Item 7.17. of Annex 3	
Passenger Protection in Vehicles without a Roof	Not applicable
Item 7.18. of Annex 3	
Vision and Communication Aid	Not applicable

6.2. ACCOMODATION AND ACCESSIBILITY FOR PASSENGERS OF REDUCED MOBILITY– ANNEX 8

Requirements

Item 3.1. of Annex 8

Steps

In conformity

Item 3.2. of Annex 8

Priority Seats and Space for Passengers with Reduced Mobility

In conformity

Item 3.3. of Annex 8

Communication Devices

In conformity

Item 3.4. of Annex 8

Handrails to Priority Seating

In conformity

Item 3.5. of Annex 8

Floor Slope

In conformity

Item 3.6. of Annex 8

Wheelchair Accommodation Provisions

In conformity

Item 3.7. of Annex 8

Seats and Standing Passengers in the Wheelchair Space

In conformity

Item 3.8. of Annex 8

Stability of Wheelchairs

Item 3.8.2. of Annex 8

Forward-facing Wheelchair

Not applicable

Item 3.8.4. of Annex 8

Rearward-facing Wheelchair

In conformity

Item 3.8.5. of Annex 8

Backrest and Support Requirements

In conformity

Item 3.8.6. of Annex 8

Backrest meeting the requirements

In conformity

Item 3.9. of Annex 8

Door controls

In conformity

Item 3.10. of Annex 8

Provisions for the Accommodation of Unfolded Prams and Pushchairs

In conformity

Item 3.11. of Annex 8

Provisions for Boarding Devices

Item 3.11.1. of Annex 8

General requirements

In conformity

Item 3.11.2. of Annex 8

Kneeling System

In conformity

Item 3.11.3. of Annex 8

Lift

Not applicable

Item 3.11.4. of Annex 8

Ramp

In conformity

Item 3.11.4.1. of Annex 8

General Provisions

In conformity

Item 3.11.4.3. of Annex 8

Additional Technical Requirements for Power-operated Ramps

Not applicable

Item 3.11.4.4. of Annex 8

Operation of power-operated ramps

Not applicable

Item 3.11.4.5. of Annex 8

Operation of manually-operated ramp

In conformity

6.3. FIRE SUPPRESSION SYSTEM – ANNEX 13

In conformity

Approval Number: Diesel&Electric Vehicle :

[Option 1] E6*107R06/07*0055 *

[Option 2] E5 107R-06001

[Option 3] E13*107R07/01*0043*

[Option 4] E6*107R06*0056*

7. CONCLUSION AND STATEMENT OF CONFORMITY

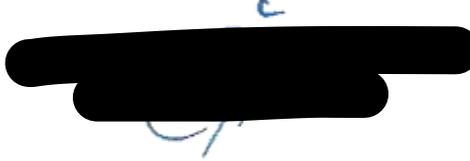
The manufacturer's information document mentioned in item 1.1. and the vehicle type meet the requirements of directive/regulation mentioned on the cover page of this technical report.

Remarks: The vehicle has already E24*107R07/04*0021*01 approval number. Regarding this approval the reasons for the extension are given in item 3.

Optival Belgelendirme Hizmetleri A.Ş. is affirmed by National Standards Authority of Ireland (NSAI) with technical service number 97.0126.

Authorized expert
Semih Kart

Content check by
Ezgi Balcioğlu



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