TA001$_{M23}$

INFORMATION DOCUMENT
FOR LIGHT BUSES AND BUSES

☐ **Initial type approval**	☐ **Extension of a type of vehicle** **Previous TA no.**	☐ **Extension for modification** **Previous TA no.**

Any drawings must be supplied in appropriate scale and in sufficient detail on size A4, or on a folder of A4 format. Photographs, if any, must show sufficient detail. Submissions in soft copy format are acceptable. If the systems, components or separate technical units have electronic controls, information concerning their performance must be supplied.

Note: The information item printed in *Italic* shall also be completed if available.

0. GENERAL

0.1.	Make (trade name of manufacturer):	
0.2.	Type (multiple entries under one type is allowed):	
	Variant/ Version/ Model Code [(1)] (Only list out model under this application):	
0.2.1.	Commercial Name or Model Name or Sale Designation:	
0.3.	Means of identification of type, if marked on the vehicle [(b)]:	
0.3.1.	Location of that marking:	
0.4.	Category of vehicle:	
0.5.	Name and address of manufacture:	
0.5.a.	Name and address of manufacturer's local authorized representative and his **C & E ID**, if any:	
0.6.	Location of the statutory plates (if any): …….and	
0.6.a.	Location of the vehicle identification number (enter details in Section 9.17.):	
0.6.b.	The serial numbering of the type begins with no.:	

0.8. Address(es) of assembly plants(s):

1. GENERAL CONSTRUCTION CHARACTERISTICS OF THE VEHICLE

1.1. Photographs and drawings of a representative vehicle (showing the plan, front and rear elevations, nearside and offside elevations seat arrangement and space for standing passenger):

1.3. Number of axles: .....and wheels: ..... _____ axle(s) _____ wheels

1.4. Chassis (overall drawing):

2. MASSES AND DIMENSIONS (in kg and mm) (Refer to drawing where applicable)

2.1. Wheelbase(s) (fully loaded): Axle 1 to 2:

Axle 2 to 3:

2.3.1. Track of each steered axle: Axle 1:

Axle 2:

Axle 3:

2.3.2. Track of all other axles: Axle 1:

Axle 2:

Axle 3:

2.4. Range of vehicle dimensions (overall)

2.4.2. For chassis with bodywork

2.4.2.1. Length:

2.4.2.2. Width:

2.4.2.3. Height:

2.6. Mass of the vehicle [0]: (maximum and minimum for each variant):

2.6.1. Distribution of this mass among the axles (maximum and minimum for each variant):

Axle 1:

Axle 2:

Axle 3:

2.8. Technically permissible maximum laden mass[Z2] stated by the manufacturer [*]:

2.8.1. Distribution of this mass among the axles [*]:

Axle 1:

Axle 2:

Axle 3:

2.9. Technically permissible maximum mass on each axle:

Axle 1:

Axle 2:

Axle 3:

3. POWER PLANT

3.1. Manufacturer (Make):

3.1.1.	Manufacturer's engine code as marked on engine (Type):	
3.1.1.c	Emission approval reference: **(Please enclosed EPD's Approval**	
3.2.	Internal combustion engine	
3.2.1.1.	Working principle:	
3.2.1.2.	Number and arrangement of cylinders:	
3.2.1.3.	Engine capacity:	c.c.
3.2.1.8.	Maximum power output at speed:	kW@ RPM
3.2.9	Exhaust system	
3.2.9.2	Description and/or drawing of the exhaust system:	
3.2.12.2.1.	Catalytic converter	Yes
	Identification Code (same as those stated in VECA in your first application, if applicable)	
3.2.12.2.6.	Particulate trap	Yes
	Identification Code (same as those stated in VECA in your first application, if applicable)	
3.2.12.2.7.	On-board-diagnostic (OBD) system	Yes
3.2.15.	LPG fueling system:	Yes
3.2.15.1.	Type-approval number: **(Please enclosed EMSD's Approval letter)**	

3.3. Electric Motor

3.3.1.	Type (winding, excitation):	
3.3.1.1.	Maximum hourly output:	kW
3.3.1.1.2.	Maximum 30-minutes power according to ECE R85:	kW
3.3.1.2.	Operating voltage:	V

3.3.2. Battery

3.3.2.1.	Number of cells/modules: cells modules	cells modules
3.3.2.2.	Mass:	kg
3.3.2.3.	Capacity:	Ah V
3.3.2.5.	Position:	

3.3.3 Charging

3.3.3.1.	Charging standard	
3.3.3.2.	Charging Current (Standard / Medium / Quick)	A A A
	Charging time (Standard / Medium / Quick)	Hrs Hrs Hrs
	Charging Mode Options	Yes
3.3.3.3.	Vehicle Inlet	

3.3.3.4. Supply Voltage: 220V

3.4. Other engines or motors or combinations thereof (particulars regarding the parts of such engines or motors)

3.4.1. Hybrid electric vehicle: Yes

3.4.2. Category of Hybrid electric vehicle: Off vehicle charging (plug in hybrid)

4. TRANSMISSION

4.5. Gearbox(Make and Type) :

4.5.1. Type (manual/automatic/CVT (continuously variable transmission))[(1)]: Manual

4.6. Gear ratios

Gear	Internal gearbox ratios (ratios of engine to gearbox output shaft revolutions)	Fianl drive ratio(s) (ratio of gearbox output shaft to driven wheel revolutions)	Total gear ratios
Maximum for CVT * 1. 2. 3. … Minimum for CVT * Reverse			
* Continuously variable transmission.			

4.7. Maximum vehicle speed (in km/h)(A 5% tolerance is permitted):

4.8. Speedometer Make(s)/ Type(s):

4.8.1. *Method of operation and description of drive mechanism:*

4.8.2. *Instrument constant of the speedometer: e.g. plus per km*

4.8.3. *Tolerance of the measuring mechanism of the speedometer:* %

4.8.4. *Overall transmission ratio or equivalent data:*

4.8.5. *Diagram of the speedometer scale or other forms of display:*

4.8a. Speed display device Make(s)/Type(s): (for Public light Bus only)

6. SUSPENSION

6.2.	Type of the suspension:	Axle 1:	
		Axle 2:	
		Axle 3:	

6.6. Tyres and wheels

6.6.1. Tyre/Wheel combination(s) (for tyres indicate size designation, minimum load-capacity index, minimum speed category symbol; for wheels indicate rim size(s) and off-set(s))

6.6.1.1. Axles

6.6.1.1.1.	Axle 1:	
6.6.1.1.2.	Axle 2:	
6.6.1.1.3.	Axle 3:	

7. STEERING (Make and Type):

8. BRAKES

8.1. Type and characteristics of the brakes with a drawing:

8.2. Operating diagram, description and/or drawing of

8.2.1. Service braking system:

8.2.2. Secondary braking system:

8.2.3. Parking braking system:

8.2.4. Any additional braking system (if fitted e.g. retarder etc).:

8.5. Anti-lock braking system: yes/ no [1] Yes

9. BODYWORK

9.5. Windscreen and other windows

9.5.1. Windscreen

9.5.1.1. Materials used (e.g. safety glass, safety plastic etc.) and standard (ECE, BS):

9.5.2. Other windows

9.5.2.1. Materials used (e.g. safety glass, safety plastic etc.) and standard (ECE, BS):

9.10.3.	Seats (including seat, impact energy absorption material and fire resistance material)	
9.10.3.1.	Number of seat:	
9.10.3.2.	Drawing of seat's position and their arrangement (including controlled surface, restraining barrier etc):	
9.10.3.4.1.	Drawing of seat and their anchorage:	

9.12. Safety belts and/or other restraint systems

9.12.1. Number and position of safety belts and restraint systems and seats on which they can be used:

		Declare the Type-approval mark (e.g. ECE, BS, EC etc)	Variant (if applicable)	Belt adjustment device for height (indicate yes/no/optional)
First row of seats	L			
	C			
	DR			
2nd-3rd row of seats*	L			
	C			
	R			
4th-7th row of seats*	L			
	C			
	R			

L = left-hand side; R = right-hand side; C = center; DR = Driver seat

* The table may be extended as necessary for vehicle with more than two rows of seats or if there are more than three seats acrross the width of the vehicle

9.13.	Safety belt anchorages **(Please enclosed a test certificate)**	
9.13.1.	Photographs and/or drawings of the bodywork showing the position and dimensions of the actual and the effective anchorages including the R-points:	
9.17.	Statutory plates (if any) and vehicle identification number	
9.17.1.	Photographs and/or drawings of the locations of the statutory plates and inscriptions and of the vehicle identification number:	
9.17.2.	Photographs and/or drawings of the official part of the plates and inscriptions (completed example with dimensions):	
9.17.3.	Photographs and/or drawings of the chassis number (completed example with dimensions):	
9.17.4.	Manufacturer's declaration of compliance with the requirement	
9.17.4.1	The meaning of characters shall be explained:	

10. LIGHTING AND LIGHT-SIGNALLING DEVICES

10.1.	List of all devices(mentioning the number, type approval marks, colour, the corresponding tell-tale):	*See chart below*
10.4.	Dipped beam lamps	
10.4.1.	Value of initial adjustment	%

10.1	*Category*	*Colour*	*No.*	*Circuit-closed tell-tale*	*Approval mark/ number*	*Light source**
a	Main-beam Headlamp			Yes		

b	Dipped-beam Headlamp					
c	Front Retro reflectors					
d	Front position lamps			Yes		
e	Direction indicator lamps--					
	Front:			Yes		
	Side:					
	Rear:					
f	Hazard warning signal			Yes		
g	Rear Position lamps			Yes		
h	Stop lamps					
	High Mounted					
i	Rear registration plate lamp					
j	Reversing lamps					
k	Rear Retro reflectors					
Optional device (if present)						
l	Front fog lamps			Yes		
m	Daytime running lamps					
n	Cornering lamps					
o	Parking lamps					
p	End-outline marker lamps					
q	Side marker lamps					
r	Side Retro reflectors					
s	Rear fog lamps			Yes		

This table can be extended to suit.
*Light Source: "F" for filament lamp. "H" for HID lamp: "L" for LED

13 SPECIAL PROVISIONS FOR VEHICLES USED FOR THE CARRIAGE OF PASSENGERS COMPRISING MORE THAN EIGHT SEATS IN ADDITION TO THE DRIVER'S SEAT

13.2.	Area for passengers	
13.2.4.	Standing passengers	
13.3.	Number of passengers (seated and standing)	
13.3.1.	Total:	
13.3.2.	Upper deck (1)	
13.3.3.	Lower deck (1)	
13.4	Number of passengers (seated) (for Buses and Light Buses)	
13.4.1.	Total:	
13.4.2.	Upper deck (1):	
13.4.3.	Lower deck (1):	
13.4.4.	Number of wheelchair positions for category M_2 and M_3 vehicles:	
13.5	Number of service doors	

13.6	Number of emergency exits (doors, windows, escape hatches, intercommunication staircase and half staircase)	
13.6.1.	Total:	
13.6.2.	Upper deck (1):	
13.6.3.	Lower deck (1):	
13.7	Volume of luggage compartments (m^3):	
13.9.	Technical devices facilitating the access to vehicles (e.g. ramp, lifting platform, kneeling system), if fitted:	

Summary of the construction standards and certificates

Item No.	Subject*	Standard	Certificate and test report Ref. No.	Remarks
3.1.1c	Sound level (e.g. 70/157/EEC, ECE 51…)			
3.1.1c	Exhaust emission (e.g. 70/220, 715/2007, ECE 83…)			
4.8.	Speedometer (e.g. 70/220, 715/2007, ECE 83…)			
4.8a	Speed display device			
9.5.	Safety glass (e.g. ECE 43...)			
9.10.3.	Seat(including seats'/controlled surfaces'/ restraining barriers' etc certificate and reports on impact energy absorption material and fire resistance material etc)			
9.12	Seat belts (e.g. ECE 16...)			
9.13	Seat belt anchorages (e.g. ECE 16...)			
10.1	Installation of lighting and signaling devices (e.g. ECE 48…)			
a, b	Headlamps (e.g. ECE 98, 112, 113,			
c	Front retro reflector (non-triangle)			
d, g, h, m, q, p	Front position lamps, rear position lamps, stop lamps, daytime running lamps, side maker lamp, end-outline marker lamps, (e.g. ECE 7, 87, 91…)			
e,f	Direction indicator (e.g. ECE 6...) Front Side Rear			
i	Rear registration plate lamp			

j	Reversing lamp (e.g. ECE 23)			
k	Rear retro reflector (non-triangle)			
l	Front fog lamps			
n	Cornering lamp (e.g. ECE 119...)			
o	Parking lamp (e.g. ECE 77)			
r	Side retro reflector (non-triangle)			
s	Rear fog lamp			

If those data required in this form is available in your test report/ certificate whilst you can provide a hyperlink in this form to the test report and certificate in CD-ROM accomplished with this application, you are not required to repeat the data entry in this form.

* Delete if not applicable

Authority Signature :_____

Post :_____

Company :_____

Date : :_____

Company chop

Note

(*) Please fill in here the upper and lower values for the variant

(1) Delete where not applicable (there are cases where nothing need be deleted when more than one entry is applicable).

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

(c) Classified according to the definitions listed in Annex 7 to the Consolidated Resolution on the Construction of Vehicle (R.E.3) or the vehicle approval standard in building such vehicle (e. M1/EU, Passenger Motor Vehicle//Japan etc.).

(o) Mass of the vehicle with bodywork (if applicable) in running order including coolant, oils, fuel, spare wheels, tools and driver. The mass of the driver is 75 kg (according to ISO Standard 2416-1992) and the fuel tank is filled to 90 % and the other liquid containing systems (except those for used water) to 100 % of the capacity specified by the manufacturer.

(Z2) Technically permissible maximum laden mass (M)' means the maximum mass of the vehicle based on its construction and performance, stated by the manufacturer.