





Version for France Technical data sheet

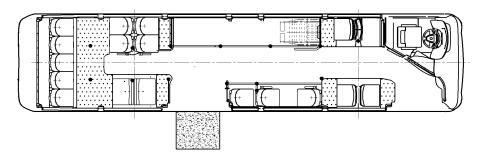
July 2010

# **WEIGHTS**

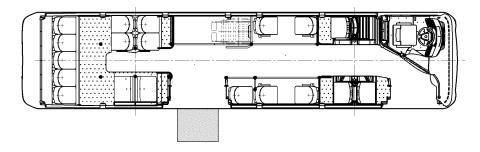
Gross kerb weight	according to equipments
G.V.W	17 900 kg
on front axle	7 245 kg
on rear axle	10 800 kg
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DIMENSIONS	
Overall length	10 645 m
Front overhang	2.515 m
Wheelbase	5 355 m
Rear overhang	2.775 m
Overall width	2.330 m
Total height, full load	2 885m
Inside headroom	2.395 m
1 <sup>st</sup> step-height	
front door	0.320 m
	0.330 m
Width of front / centre doors	1 000 / 1200 mm
Floor height	0.340 m
Ground clearance, under skirt	0.300 m
Front/rear tracking	
Inner Turning radius	8.060 m
Outer Turning radius	
Angle of attack / escape	8°/7,2

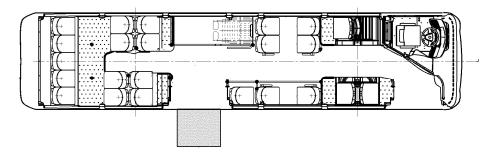




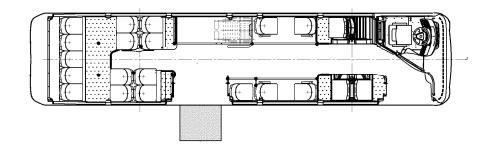
17 seats + driver + driver + "wheelchair" space + 72 standees



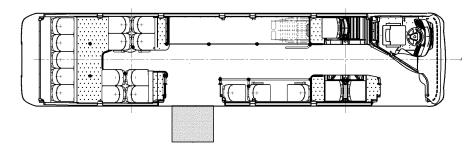
19 seats + driver + driver + "wheelchair" space + 67 standees



23 seats + driver + driver + "wheelchair" space + 54 standees



21 seats + driver + driver + "wheelchair" space + 67 standees



19 seats + driver + driver + "wheelchair" space + 72 standees

## **CHASSIS AND STRUCTURE**

Self-supporting integral structure. Anti-corrosion treatment of chassis by cataphoretic immersion. Body structure consisting in 5 panels (front/rear/left/right/top) made of welded stainless steel sections and sheet panels. Assembling of the 5 panels to the chassis by bolting. 12mm thick plywood floor, protected by phenolic resins on both sides and wax containing resins on ground side.

## OPTIONS:

. Fire detector in engine	. Fire detector and extinguisher
compartment.	in engine compartment.

#### **PAINT & DECORATION**

Exterior paint : polyurethane lacquer finish (white, RAL 9010), without customising.

## OPTIONS:

. Custom finish	. Lettering and adhesives

#### **EXTERIOR EQUIPMENT**

Left and right rear-view mirrors. Integrated flag holders. Wheel nut quards on front wheels.

## OPTIONS:

Self de-frosting rear-view mirrors Side and rear advertising frames	. Motor driven and self de- frosting rear-view mirrors controlled from driving position
. Fender skirt	. Front and rear wheel caps

#### **EXTERIOR TRIM**

Composite front and rear ends, roof and side panels. Bonded assembly. Gravel resistant protected wheel arches. Composite front and rear bumpers in 3 parts at front end and in 2 parts at rear end.

### **GLAZING**

TSA tinted Panoramic laminated glass windscreen bonded on front face. Tinted rear window. Bonded side windows: right-hand side: 4 fixed single-panel windows and 1 tilting window / left-hand side: 4 fixed single panel windows, 2 tilting windows. Driver's window: sliding type in front part. TSA tinted glass all round.

## OPTIONS:

. Lower windows on platform.	. Heat-reflecting side windows.
. 3 tilting windows on the left	
side and 2 tilting ons on the right	. Heat-reflecting windscreen.
side.	. Sliding type side windows.
Glazed roof · Lumi'Bus	

#### **ACCESS AND DOORS**

2 inward swing doors. 2-leaf doors are air-driven. Both leaves of front door are double glazed. Brakes applied by opening of the central door. Manual access ramp on the central door. Buzzer on doors.

## OPTIONS:

0	
. Floor mounted BIRCHER step-	. Brakes applied by opening of
on sensors on front doors.	the front door.
. Safety by photo-cells on doors.	. Door opening by passenger.
Passenger counting system on LCD screen. Self service.	. Electrical access ramp . Center sliding doors.

#### INTERIOR TRIM

High wear resistant floor covering up to plinths top. Laminated roof and side panels. Thermo-formed wheel arches. Polyester ceiling arches.

## DRIVER'S COMPARTMENT

Adjustable steering wheel (height and angle). Air-suspended driver's seat with adjustment control on right-hand side. VDV instrument panel with warning lamps and control display panel. Pivoting door, wall behind the driver with a glazed upper part. Interior rear-view mirrors. Left side and front sun visor. Driver's individual light, luggage.

#### **INTERIOR FINISHES**

Front destination indicator with full opening door. TSA tinted glazed partitions on doors. 4 loudspeakers. 5 « emergency exit » hammers. Fire extinguisher location close to the driving position. 5 « stop requested » push buttons with acoustic warning. « wheelchair » space with padding and sensitive « stop requested » push button with acoustic warning.

## OPTIONS:

. Padding on platform	. Fire extinguisher
. Additional « stop requested »	. Interior information frames
switches.	. First-aid box (empty).
. Video surveillance	. Driver loudspeaker.
. Viaco sarveniarioc	. Dilver loudopeaker.

## **HEATING - COOLING**

Front heating/de-frosting unit used for driver's compartment (air from outside or re-circulated air). 4-speed control (power: 17 500 W). 1-off passenger heater (forced air, 8 140 W) with 2 speeds controlled from the dashboard. Insulated roof.

OPTIONS :	
. Motor driven roof hatches.	. Additional heater in passenger
. Hand actuated roof hatches.	Compartment.
. Passenger and driver's	. Autonomous heater.
compartment air conditioning.	. Heat-reflecting glazed roof
. Driver's compartment air	hatches, motor-driven.
conditioning.	
	. Hand actuated roof hatches Passenger and driver's compartment air conditioning Driver's compartment air

#### **SEATS LAYOUTS**

4 seats dedicated to people with reduced mobility. Epoxy stanchions and handrails. Grey epoxy-painted seat legs.

## **OPTIONS:**

. Multi-branch stanchion on	. For passenger seats options
central platform	(anti-vandalism upholstered,
. Stainless steel stanchions and	or other seat models etc) please
handrails	contact us

#### **DESTINATION AND INFORMATION EQUIPMENT**

Preparation for front or lateral electronic destination indicator. 1-off illuminated « stop requested » sign box at the front. Preparation for illuminated strip display behind the driver. Preparation for acoustic and visual information.

#### OPTIONS:

0	
. Line stops map (single or double sided) near the ceiling	. Additional illuminated « stop requested » sign boxes
. Lateral destination indicator flush mounted with side window top	Line number display at rear window Front destination indicator Acoustic and visual information of destination.

#### **ELECTRICAL EQUIPMENT**

24 Vdc nominal voltage. 2-off 12 V 185 A/h maintenance-free batteries mounted on a sliding support located in an outside compartment at the vehicle front left-hand side . Battery re-loading and engine start FENWICK socket. 2-off 90 A alternators. Thermal circuit-breakers. Front lights : parking lights, dipped headlights, driving lights hinge fitted and turning lights. Rear lights : parking lights, stop lights, fog lights, reverse lights and turning lights: 3-speed electrical windscreen wipers with intermittent speed controller. Electrical windscreen washer with wiper mounted nozzles. Passenger compartment lighted by fluorescent overhead lights (staggered lighting possible). Door step lighting at door opening. Lighting of driver's compartment, paying position and steps. Engine compartment lighting. Electricity-saving system for intensive use whilst engine is off. Electrical cabinet located in the lower section of the wall behind the driver's seat. Diagnosis system on board (1st level).

## OPTIONS:

	Complete radio equipment
	Monoring gong for pedestrian
. flashing/stop indicators on the top of rear end Inside atmosphere lightings.	

## **DRIVE LINE ENGINE**

Engine position	. rear left, in-line
Make	. IVECO
Туре	. F4A
Cycle	
Bore	. 102 mm
Stroke	. 120 mm
Number of cylinders	. 6
Cylinders lay-out	
Cubic capacity	
Compression volumetric ratio	
Overfeed	
	with intercooler
Cooling systemliquid circuit	with thermostat, radiator
	ven cooling fan, steel pip
and silicon flo	
Air filter	drv
Fuel (common rail)	. diesel
Lubrication	
	pressure
	single cartridge oil
	filter
Max. output	. 160 kW (218 HPDIN)
	at 2 500 rpm
Max. torque	
4	1 200 rpm
Fiscal power	
Sound proofing	
3	encapsulation
	of engine
	compartment
Emergency stop / sound alarm	
	Air + gearbox
	+engine water/oil
	+alternator failure
	+probe on cooling liquid
	tool.

## **OPTIONS:**

- . 194 kW (265 HP) engine
- . Diesel pre-heater.
- . E.E.V. version with particle filter.

#### **GEARBOX**

ALLISON T280R automatic gearbox: 4 forward gears, 1 reverse gear. Automatic gear change or from dashboard push buttons, built-in retarder, "YOKE" type propelling shaft.

tank

	1 <sup>st</sup>	2nd	3rd	4th
Gear Ratios	3.49	1.86	1.41	1

#### OPTION:

6 forward gears	1st	2nd	3rd	4th	5 <sup>th</sup>	6th
Gear Ratios	3.49	1.86	1.41	1	0.75	0.65

## FRONT AXLE

Independant front wheels.

#### **REAR AXLE**

ZF AV 132-90  $^{\circ}$  double-reduction axle. Reducers ratio in hubs : 1/3,2. Axle torque : 6.20

## SUSPENSION

Constant height air suspension. 2 air bellows at the front, 4 air bellows at the rear. Constant floor height controlled by electrical levelling valves. Suspension high-position for driving over obstacles. Kneeling and raising system (60 mm stroke) on vehicle right-hand side, controlled from the driving position.

## STEERING

Hydraulic power assisted steering. ZF 8098 steering box.

## **COMPRESSED AIR**

Pressure: 12 bars. 630 cm3 twin-cylinder air compressor with a 760 l/mn flow rate. Driven by sprockets and cooled by the engine circuit. Polyamide and stainless steel piping, quick fittings. Singletower air dryer. Manual bleeding on the air tanks. Cyclone air cleaner.

#### OPTIONS:

. Manual bleeding, offset

## **BRAKES**

Service brakes: air-controlled disc brakes at the front and at the rear. Gear box built-in hydraulic retarder coupled to the service brakes. Pneumatic parking brake actuated by lack of air, spring chamber on rear wheels. Door brake: manually controlled temporary stop operating on the rear braking circuit. Parking brake and door brake controlled via separate circuits. Emergency braking operated by parking brake. ABS braking system.

## OPTION:

. ASR.

#### **FUEL TANK**

Capacity: 160 litres + 16,5 litres of AdBlue additive. Tank filling spouts on vehicle rear right hand side. Fuel filling speed, without discharge, of about 80 l/mn.

#### WHEELS AND TYRES

275/70 R 22.5 tyres at the front and 435/60 R 22.5 tyres at the rear.

#### OPTIONS:

. Rear towing eye bolts.	. Standard vehicle accessories kit.
. Lose spare wheel or rim.	. 455/45 R 22.5 tyres at the rear.

#### **PERFORMANCES**

Maximum speed: 88 km/h. Speed limiter with 6 forward gears gear box.

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