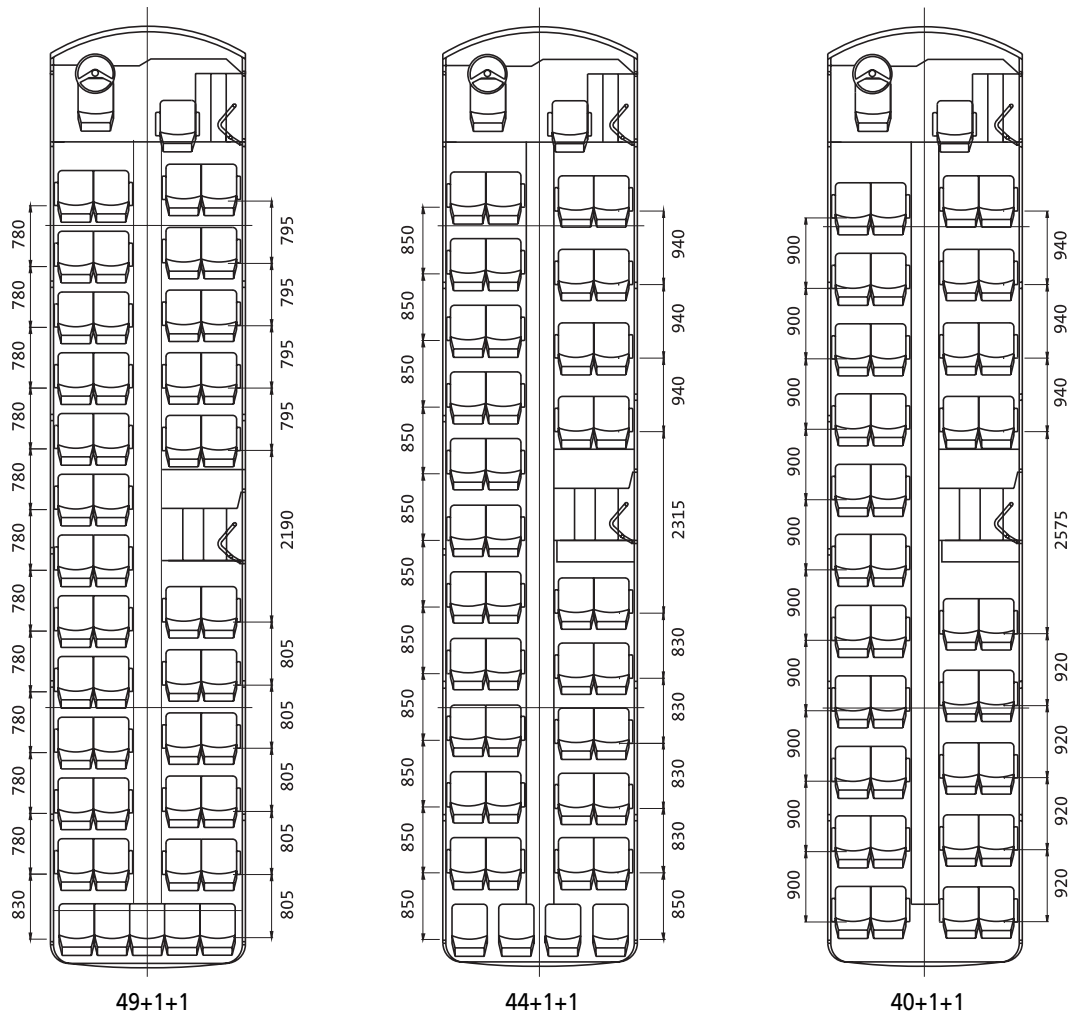
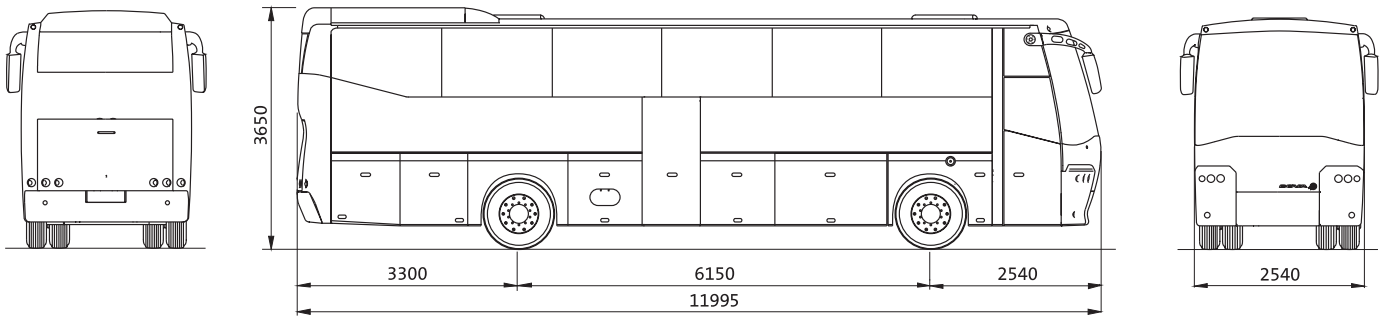


*magiq*

HD 120-340XE/380XE



# Technical specifications HD 120-340XE/380XE



## MEASUREMENTS - WEIGHTS

- Overall length ..... 11,995 mm
- Overall width ..... 2,540 mm
- Overall height ..... 3,650 mm
- Wheel base ..... 6,150 mm
- Front overhang ..... 2,540 mm
- Rear overhang ..... 3,300 mm
- Interior saloon height ..... 1,920 mm
- Entrance step height front ..... 342 mm
- Entrance step height amidships ..... 368 mm
- Floor height above front axle ..... 1,450 mm
- Floor height above rear axle ..... 1,480 mm
- Seat height, front ..... 1,450 mm
- Seat height, rear ..... 1,480 mm
- Turning circle ..... 20,700 mm
- Max. design weight, front axle\* ..... 7,100 kg
- Max. design weight, rear axle\* ..... 12,000 kg
- Max. total design weight\* ..... 19,100 kg
- Luggage locker ..... approx. 10 m<sup>3</sup>

\* The maximum technical axle loads and weights can deviate from the maximum legally allowed axle loads and weights.

## ENGINE

- Make ..... DAF
- Type ..... XE 250 C1 and XE 280 C1
- Mounting ..... vertical, rear mounted
- Construction ..... 4-stroke diesel engine with direct injection,  
6 cylinders in line, turbocharged  
and air to air aftercooled
- Number of valves ..... 24
- Bore x Stroke ..... 130 x 158 mm
- Swept volume ..... 12,58 litres
- Compression ratio ..... 16.0:1
- Max. power ..... 250 kW (340 bhp) / 280 kW (380 bhp),  
both at 1900 rpm
- Max. torque ..... 1600 Nm between 1000-1450 rpm (XE 250 C1)  
1750 Nm between 1000-1500 rpm (XE 280 C1)
- Specific fuel consumption ..... 199 g/kWh
- Engine oil capacity ..... 31.5 litres
- Speed limiter ..... DAF 100 km/h
- Emission level ..... Euro 3 97/20/EC - 2001/27/EC

## TRANSMISSION

- Clutch ..... single dry plate,  
hydraulically operated,  
air assisted, 430 mm diameter
- Gearbox ..... ZF 6 S 1600 + ZF intarder
- Operation ..... HGS system (Hydraulic Gear Shift)
- Ratios ZF 6 S 1600

1	2	3	4	5	6	Rev.
7.72	4.42	2.66	1.79	1.28	1.00	7.10

### Option:

**Gearbox ZF 8 S 180 + ZF intarder (XE 280 C1) (Nr. 412500)**

- Ratios ZF 8 S 180

1	2	3	4	5	6	7	8	Rev.
8.73	6.38	4.63	3.44	2.54	1.86	1.35	1.00	8.04

## REAR AXLE

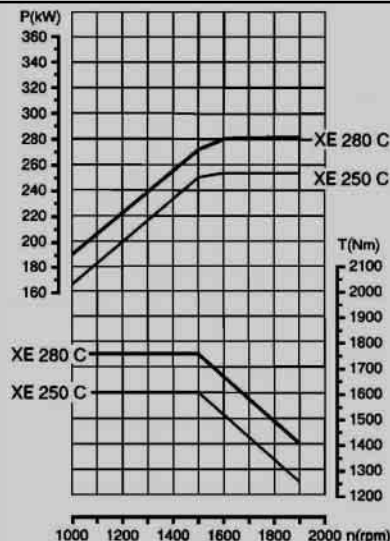
- Rear axle ..... ZF A-132
- Ratio ..... 2.93:1

## FRONT AXLE

- Front axle ..... ZF RL-75, independent front suspension

## STEERING GEAR

- Steering box ..... ZF 8090, hydraulic power
- Ratio ..... 22.2 / 26.2:1
- Steering wheel ..... 450 mm soft grip, adjustable for reach and rake



## SUSPENSION

- Front ..... full air by means of 2 air bellows  
2 Koni shock absorbers
- Rear ..... full air by means of 4 air bellows  
4 Koni shock absorbers  
4 torque rods  
1 anti-roll bar
- Height control ..... WABCO-ECAS (Electronically  
Controlled Air Suspension),  
including lowering and lifting mechanism

## BRAKES

- ZF ventilated disk brakes on front and rear axles
- ZF intarder
- Dual circuit braking system with non-asbestos brake linings
- Sensors on brake lining with wear-indicator on the screen
- APU (Air Processing Unit) including 4 circuit safety valve and air dryer
- ABS (WABCO D)
- ASR

## FUEL TANK

- 2 Low Density Poly Ethylene (LDPE) fuel tanks of 400 litres

## WHEELS - TYRES

- Wheels ..... 7x Michelin 8.25 x 22.5
- Tyres ..... 7x Michelin 295/80 R22.5 XZA2 Energy
- Wheel trims ..... stainless steel
- Spare wheel ..... sliding roller system

### Typical option:

**Michelin tyres 295/80 R22.5 XDA4 (nr. 412800)**

## STRUCTURE - DOORS

- Full integral all metal framing
- Anti-corrosion treated side panelling in one piece, mounted under pre-tension
- Front panel in GRP
- Rear panel in GRP (rear flap: 3D plastic sandwich composite)
- Roof: aluminium sandwich composite
- Parallel opening luggage flaps
- Integrated R66 roll bars in B-pillar and rear wall
- Extensive acoustic and thermal insulation
- Duct moulding protected both internally and externally against corrosion
- Pneumatically operated integral outward gliding doors at front and in middle with anti-jamming contact strip

### Typical option:

*Driver's sleeping berth in main luggage compartment (nr. 442500)*

## GLAZING

- Windscreen . . . . . laminated single glazing, tinted green, bonded into window frame
- Side windows . . . . . toughened double glazing, tinted grey (dark)
- Rear window . . . . . toughened double glazing, tinted grey (dark)
- Driver's window . . . . . toughened double glazing, tinted green
- Entrance door window . . . . . toughened double glazing, tinted green

## ELECTRICAL EQUIPMENT

Combination of a conventional wiring system and a digital multiplex system (CAN: Controller Area Network). Five small computers communicate with a master computer and a screen computer. The driver can operate different vehicle functions via two buttons on the dashboard. Secondary function level warning lamps are incorporated into the screen.

- Batteries 2x 230 Ah - 12 V
- 2x Bosch alternator 100 Amp
- E-Gas system: electronic accelerator pedal with integrated speed limiter
- MTCO: modular EU-tachograph with diagram disk (in DIN housing)
- Electrically operated driver's window
- Electrically operated front blinds
- Windscreen wipers with fixed interval
- Windscreen and headlamp washers
- Adjustable dashboard lighting
- Central locking to luggage compartment flaps, with independent control for left and right sides
- Klaxon and air horn
- Luggage and engine compartment lighting
- Entry light in courier side external mirror
- Fuse diagram in local language
- Adjustable reading lamp above each seat

- 2x Headlamp (parking lights and dipped beam) DE H1
- 2x Main beam H1
- 2x Fog lamps H3
- 2x Marker lights, top, front, white
- 2x Combined direction indicator lights/positioning lights
- 6x Side marker lights, left and right
- 2x Direction indicators, side and front
- 2x Combined rear light/direction indicators
- 2x Brake lights
- 3<sup>rd</sup> Brake light
- 1x Reversing lamp
- 1x Fog lamp
- 2x Reflectors on rear bumper
- 2x Marker lights, top, rear, red
- Number-plate lighting

### Typical options:

*Cruise control (nr. 401940)*

*Infra-red security system (nr. 421410)*

*Stop buttons in each PSU (nr. 422410)*

*Hostess call button in each PSU with buzzer and lamp next to courier (nr. 422510)*

*Portable mobile phone (nr. 429200)*

*VDO-Dayton navigation system (nr. 429400)*

## AUDIO - VIDEO

- Stereo radio/cd player Blaupunkt Classic Line CRD 41
- Stereo control unit with integrated amplifier Blaupunkt Classic Line CCA 41
- Driver's microphone on movable stalk against the A-pillar, courier's microphone incorporated into courier seat
- 1 Loudspeaker per individual seat and 2 driver's loudspeakers
- Flexible roof-mounted aerial for the radio, compact roof-mounted aerial for mobile communication

### Typical options:

*Video and 2 monitors (nr. 430310)*

*CD-changer in rear shelf (nr. 431100)*

*Reversing camera with screen in dashboard (nr. 433300)*

## **HEATING - VENTILATION**

The integrated climate control system with R134a coolant includes:

- Air conditioning
- Heating via 4 under-floor heaters
- Front heater with demister
- Roof heating, ventilation and cooling with 2 evaporators on the roof with replaceable dust filters
- Left and right continuous roof ducts for constant air flow
- Air venting via the illuminated integrated grab handles along the parcel racks
- Air evacuation duct to the luggage compartment
- Heating of driver's sleeping berth via air vents
- Webasto pre-heater
- Electronically controlled operation, that can be controlled independently front and rear
- Digital control unit with pre-heater and AC control, time display and interior and exterior temperature display

## **SAFETY**

- Integrated R66 roll bars at the front and rear of the coach
- Repeated use of fire-resistant material with UTAC approval
- Safety belts for all passengers and three-point belts for driver and courier
- ABS (Anti-lock Braking System) and ASR (Anti Slip control)
- Ergonomic workplace for the driver with an axially and radially adjustable steering wheel with dashboard/air conditioning vents that also move with it, to maximise ergonomic efficiency
- Optimum interior and exterior lighting
- 3<sup>rd</sup> Brake light
- Electrically adjustable heated mirrors
- 6 Kg powder fire extinguisher located under courier seat

## **INTERIOR**

- Flat floor with seat side runners
- 3 Luggage compartments: 2 at the front and 1 above the centre door
- A PSU for every passenger with reading lamp, adjustable air vent and loudspeaker
- Toilet (CC) in central entrance area
- Step lighting and stepwell handles
- Box (e.g. for a briefcase) and shelf next to the driver's seat
- Air-sprung adjustable driver's seat with three-point seat belt
- Adjustable courier seat with arm rests and three-point seat belt
- Curtains for the side windows and rear window
- Electric blinds for driver and courier
- Carpet to centre gangway and front entrance area
- Atmospheric indirect night lighting
- 2 Upholstered push/ejectable hatches

### *Typical options:*

*The large number of options allows you to express your own individual style by giving the interior a personalised appearance.*

## **EXTERIOR**

- 2 Electrically adjustable heated exterior mirrors (main mirror and kerb mirror), removable with an integrated entry lamp on the courier side which illuminates the entrance of the coach if the door is open
- Mud flaps front and rear
- Sprayed in 1 (non-metallic) colour

### *Typical options:*

*Extra entry mirror on the mirror bracket (courier side) (nr. 470200)  
3500 Kg towbar, detachable (nr. 471350)  
Main colour in metallic (nr. 472400)*



**Autobusfabriek BOVA b.v.**

De Vest 9, 5555 XL Valkenswaard - Postbus 5, 5550 AA Valkenswaard (NL) - Telephone: 0031-40-2084611 - Telefax: 0031-40-2042045  
www.bova.nl - E-mail: info@bova.nl