

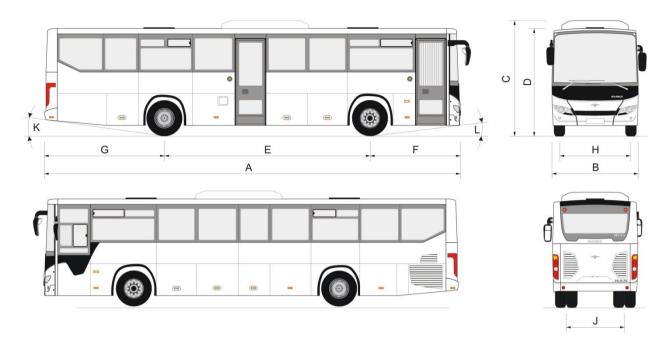
TECHNICAL SPECIFICATION

IK 3 1 2 M

INTERCITY BUS

Technical specification – IK 312M





DIMENSIONS

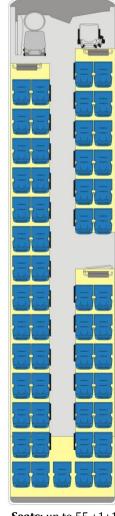
| • A – Length | 12300 mm |
|------------------------------|----------|
| • B – Width | 2550 mm |
| • C - Height (including A/C) | 3380 mm |
| • D - Height | |
| • E – Wheelbase | 6100 mm |
| • F - Front overhang | 2655 mm |
| • G - Rear overhang | |
| • H – Front track | 2094 mm |
| • J – Rear track | 1822 mm |
| Interior height | 2050 mm |
| • Floor height | 1025 mm |
| • First step height | |
| Aproach angle | |
| Departure angle | |

AXLE LOADS & WEIGHTS

| • Front axle load (maximum permissible) | 6500 kg |
|---|----------|
| • Rear axle load (maximum permissible) | 11500 kg |
| • Cross vehicle weight (CVW) | 18000 kg |

SEATING ARRANGEMENT

- This seating arrangement is an example
- Other variants are possible



Seats: up to 55 +1+1

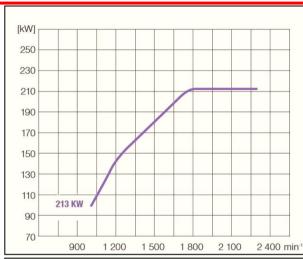




| Manufacturer | MAN |
|--------------|----------------------------------|
| • Type | Lion's Chassis (IC 19.290) / RR8 |

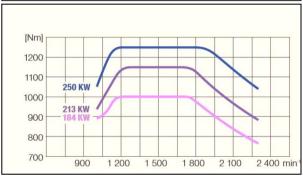
ENGINE

| ManufacturerMAN |
|---|
| • TypeD0836 LOH64 |
| • Emission standardEURO 5 |
| • Fuel typediesel |
| • Construction4-stroke engine |
| with turbocharger and intercooler |
| • Mounting positionrear, vertical engine |
| • Cylinders (number, arrangement) |
| • Displacement (Swept volume)6871 cm ³ |
| • Cylinder bore x Piston stroke 108 x 125 mm |
| • Rated power213 kW (290 hp) / 2300 min ⁻¹ |
| • Maximum torque1100 Nm / 1200-1700 min-1 |
| • Fuel injection system |
| • Engine controlEDC 7 C32 |
| • Turbocharger2-stage |
| • Exhaust gas treatment |



TRANSMISSION

| Manufacturer | ZF |
|----------------------------------|--|
| • Type | 6 S 1911 BO (EcoShift) |
| • Transmission | manual |
| | with integrated retarder (ZF intarder) |
| • Number of gears | 6 + 1(R) |
| Ratios | 6.44-0.81: R 5.89 |



REAR AXLE

| Manufacturer | MAN |
|--------------|--------------|
| • Type | HY-1350-B-03 |
| • Ratio | 4,56 |

FRONT AXLE

| Manufacturer | MAN |
|----------------------------------|-------------|
| • Type | VOK-08-B-05 |
| | rigid |

STEERING

- Hydraulic power-assisted steering
- ZF 8098 Servocom
- \bullet Adjustable steering column with pneumatic lock

WHEELS & TYRES

| • Rims | 8,25 x 22,5' |
|---------|---------------|
| • Tyres | 295/80 R22,5' |

• Spare wheel

SUSPENSION

- ECAS (Electronically Controlled Air Suspension)
- Front axle
- air springs (air bellows).....x2
 shock absorbersx2
- Rear axle
 - air springs (air bellows).....x4
 shock absorbersx4
 - stabiliser

FUEL TANK

| • Capacity440 (2 x 220) li | tres |
|------------------------------|------|
| Made of stainless materials | |
| Trade of Starrings materials | |

• Filler cap at right-hand side



BRAKING SYSTEM

ELECTRICAL EOUIPMENT

• Disk brakes

- Braking system.....dual-circuit, pneumatic
- EBS (Electronic Braking System) including:
 - ABS (Anti-lock Braking System)
 - ASR (Acceleration Slip Regulation)
- Auxiliary braking.....retarder (ZF intarder)
 - hand and foot operated
- Parking brake
- Air dryersingle chamber with replaceable element and pressure regulator
- Oil separator
- Compressor......2-cylinder, 600 cm³

SAFETY & ADVANCED EQUIPMENT

- ESP (Electronic Stability Program)
- Cruise control (Tempomat)

HEATING - VENTILATION - AIR CONDITION

HEATING

- Passenger compartment
 - convectors
 - roof heating (via A/C)
- Driver's compartment
 - frontbox:
 - heater mounted under driver's control desk (front pult) which also serves for demisting/defrosting the windscreen
- Autonomous heater, pre-start heating of engine

VENTILATION

- Natural
 - roof hatches
 - slide-windows
- Forced
 - roof air conditioner
 - frontbox

AIR CONDITION

- Passenger compartment
 - roof air conditioner
- Driver's compartment
 - frontbox



| • Dashboard |
|--|
| • Starter 24V / 5 kW |
| • Tachographdigital (DTCO) |
| • Safety switchin accordance with ECE R36 |
| • Water cooling with level sensor, buzzer and optic signal |
| • Engine protection with buzzer and optic signal for too low oil pressure and too high temperature |
| • Headlightshalogen |
| • Front fog lightshalogen |
| • Rear fog lightshalogen |
| • Reversing lightshalogen |
| • Stop lightshalogen |
| • End-outline lamps (front and rear)halogen |
| • Interior lightingLED |

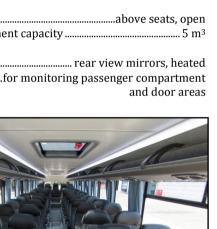


| Passenger seats |
|-------------------------------------|
|-------------------------------------|

- luxurious, ergonomically shaped, upholstered
- comfortable and appropriate for all traveling distances
- single and double in accordance with seat arrangement
- backrestadjustable - armrest......foldable
- restraint system.....2-point and 3-point seat-belt
- in accordance with seat arrangement
- additional accessories...... optionally, by choice

• Driver's seat

- with air suspension and automatic weight adjustment
- heightadjustable
- tilt......adjustable - headrest.....adjustable
- backrestadjustable
- Roller blinds for
 - windscreen
 - driver's window
- Luggage racks.....above seats, open
- Luggage compartment capacity 5 m³
- Mirrors
 - exterior.....rear view mirrors, heated
 - interiorfor monitoring passenger compartment





DOORS

- Door arangement......1-1-0 - single-panel plug door (outward).....x2
- Power operated by driver (pneumatically, with electronic control)
- Emergency door opening.....control valves inside and outside, in doors area



GLAZING

- Windscreen.....laminated, 1-piece
- Side windows.....single-glazed, tempered, bonded
- Door glassestempered, bonded

BODY STRUCTURE

- Combined steel frame tubular structure (frame / chassis)
- All cavities are protected from inside and outside
- Side panels in wheel arches areastainless steel
- Lower side cavity.....stainless steel
- Wheel arches.....stainless steel
- Side panelsaluminium
- Roof and sidewalls with thermal insulation

ADDITIONAL EQUIPMENT (on request)

• Passenger information system:

Route and destination displays (monochrome or color):

- Frontroute number + destination - Right side.....route number + destination - Rear.....route number
- Interiorroute number + destination
- Fire suppression system for engine compartment, including:
 - -automatic fire detection system
 - -automatic fire extinguishing system
- Audio-video system:
 - -Audio-system + microphone
 - -LCD monitor 19".....x2
- Automatic oil level control (replenishment) system
- Central lubrication system