



## **TECHNICAL SPECIFICATION**

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# **IK 103**

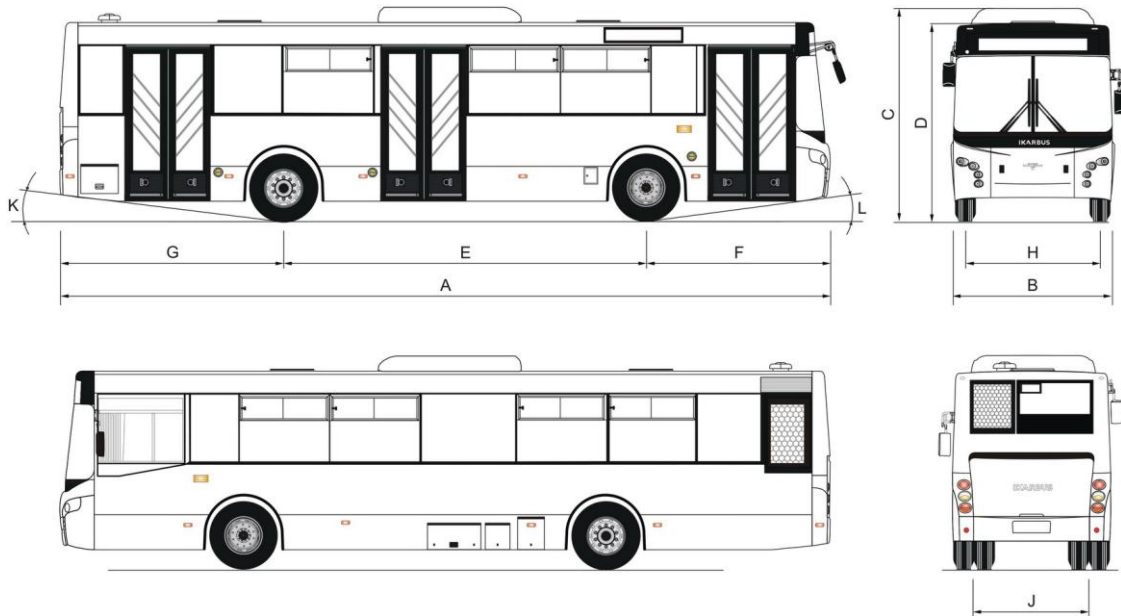
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**MAN D2066 LUH32 (E5)  
VOITH DIWA.5**

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*2016.*

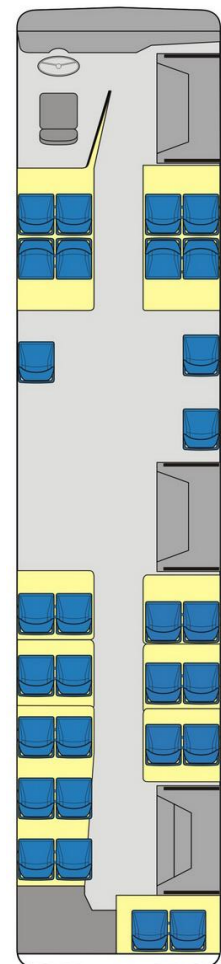
# Technical specification - IK 103 (E5)



A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	J [mm]	K [°]	L [°]
11995	2500	3056	3300	5650	2858	3487	2023	1835	7	7

*Shown seat configurations are examples.*

*Other configurations are possible.*



Doors: 3  
Seats: 29+1



## MEASUREMENTS

- (A) Overall length..... 11995 mm
- (B) Overall width..... 2500 mm
- (C) Overall height (with A-C)..... 3300 mm
- (D) Overall height..... 3056 mm
- (E) Wheelbase..... 5650 mm
- (F/G) Overhang (front/rear)..... 2858/3487 mm
- (H/I) Track (front/rear)..... 2023/1835 mm
- Interior saloon height..... 2260 mm
- Floor height in 1<sup>st</sup> and 2<sup>nd</sup> door area zone..... 750 mm
- First step height..... 360 mm
- Turning circle..... 22429 mm
- Approach / departure angle..... 7° / 7°

## ENGINE

- Manufacturer..... MAN
- Type..... D2066 LUH32
- Emission level..... EURO 5
- Mounting..... horizontal, rear
- Construction..... 4-stroke diesel engine  
6 cylinders in line, with turbo and intercooler
- Swept volume (displacement)..... 10518 cm<sup>3</sup>
- Bore x stroke..... 120 x 155 mm
- Compression ratio..... 17:1
- Max. power..... 235 kW (320 hp) / 1900 min<sup>-1</sup>
- Max. torque..... 1600 Nm / 1000-1400 min<sup>-1</sup>
- Electronically controlled fuel-injection EDC7 C32 P362  
V43 Common Rail with integrated speed limiting device

## TRANSMISSION

- Gearbox..... automatic, VOITH DIWA.5 (D 864.5)  
with integrated retarder
- Number of gears..... 4+1(R)
- Ratios..... 1:4,9-0,73

## REAR (DRIVE) AXLE

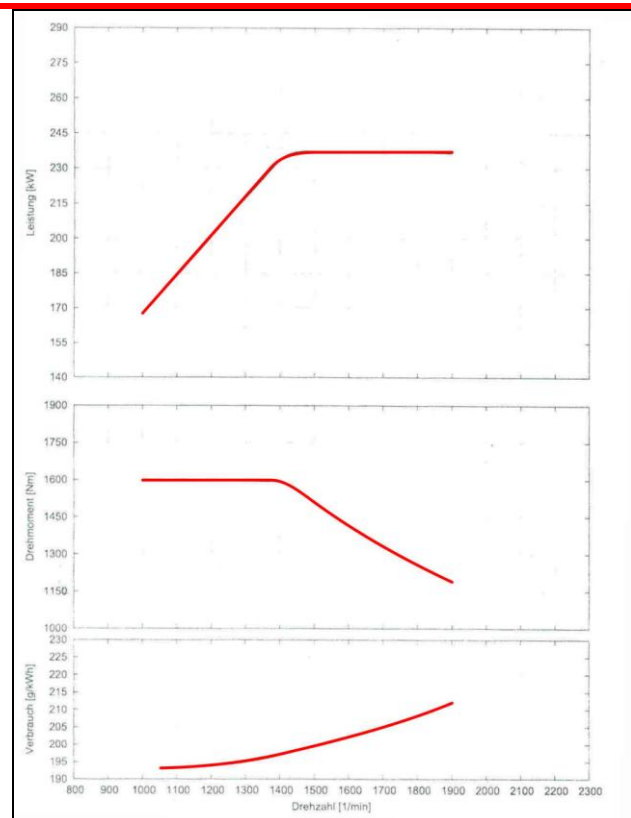
- Rear axle..... RABA 718.05
- Friction drum brake
- Ratio..... 6,194

## FRONT AXLE

- Front axle..... rigid, RABA 932.11
- Friction disc brake with floating brake caliper and ventilated disc

## WEIGHTS

- Max. front axle load (technically permissible)..... 7200 kg
- Max. rear axle load (technically permissible)..... 13000 kg
- Max. permissible gross vehicle weight (GVW)..... 18000 kg



## STEERING GEAR

- Hydraulic power-assisted steering
- PPT 8045
- Adjustable steering column



## SUSPENSION

- Front axle..... 2 roller bellows and 2 double-action shock absorbers
- Rear axle..... 4 roller bellows and 4 double-action shock absorbers

## BRAKING SYSTEM

- Dual-circuit braking system, pneumatic
- Front axle: friction disc brake with floating brake caliper and ventilated disc
- Rear axle: drum brake (S-Cam Brake)
- Anti-lock Braking System with Skid Reduction (ABS/ASR)
  - ABS (Anti-lock Braking System), and
  - ASR – TCS (Acceleration Skid Reduction - Traction Control System)
- Spring parking brake
- Bus stop brake: door-operated halt-brake on the rear axle in combination with ANS/NBS
- Auxiliary brake .....hydrodynamic retarder
  - integrated in automatic gearbox
  - hand and foot operated
- Air dryer..... single chamber with replaceable element and pressure regulator
- Oil separator
- Compressor ..... 2-cylinder, 720 cm<sup>3</sup>

## FUEL TANK

- Capacity ..... 280 (2x140) liters
- Made of stainless materials
- Filler cap ..... at right-hand side

## WHEELS – TYRES

- Rims..... 8,25 x 22,5"
- Tyres ..... 295/80 R22,5"

## ELECTRICAL EQUIPMENT



- Battery ..... 2 x 180 Ah / 12 V
- Generator (Alternator)..... 3 x 120 A / 28,5 V
- Starter ..... 5,5 kW
- Tachograph ..... digital (DTCO)
- Safety switch..... in 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
- Headlights ..... halogen
- Front fog lights ..... halogen
- Rear fog lights ..... in accordance with ECE R37
- Reversing lights..... in accordance with ECE R37
- Stop lights..... in accordance with ECE R37
- End-outline lamps (front and rear) ..... in accordance with ECE R37
- Interior lighting..... LED
- Doors area lighting ..... halogen/LED
- Cash register lighting
- Stop indicators..... push buttons on handrails

## PASSENGERS INFORMATION SYSTEM

### Option:

- Information panels:
  - Front: ..... route number + destination
  - Right side: ..... route number + destination
  - Rear: ..... route number
- Information panels – color:
  - Front: ..... route number + destination
  - Right side: ..... route number + destination
  - Rear: ..... route number
- Information panels (interior)
- LCD monitor 19"
- Audio-system



## **HEATING – VENTILATION – AIR CONDITION**

- Passenger compartment heating system:
  - blower heaters
- Driver’s cab heating system:
  - heater mounted under driver’s control desk (front pult) which also serves for demisting/defrosting the windscreen
  - additional heater embedded in the cradle the driver’s seat
- Liquid
- Autonomous heater, pre-start heating of engine
- Silicon rubber pipes
- Ventilation:
  - roof hatches
  - slide-windows
- Air-conditioner

### Option:

- Air-conditioner with heating

## **INTERIOR**

- Passenger seats ..... single, plastic, vandal resistant
- Driver’s seat ..... with air suspension and automatic weight adjustment
- Handrails ..... powder painted steel pipes
- Roller blind for windscreen and driver’s window
- Heated exterior mirrors
- Interior mirrors

### Option:

- Passenger seats ..... single, plastic, vandal resistant city bus upholstered seats (easy upholstered seats)
- Central lubricating system
- Oil filling automatic system
- Automatic extinguisher system in engine compartment
- CCTV

## **STRUCTURE**

- Steel frame tubular structure ..... square profiles
- Cavities of steel profiles are protected from inside and outside
- Sides structure in area around wheels made of stainless steel
- Wheel arches ..... made of stainless steel
- Roof and sidewalls with thermal insulation

## **DOORS**

- Door arrangement ..... 2-2-2
- 3 leaf inward swing door (Slide-Glide)
- Power operated by driver (pneumatically with electronic control)
- Emergency door control valve inside/outside

## **GLAZING**

- Windscreen ..... laminated, 2 pieces
- Side windows ..... tempered, bonded
- Door glasses ..... bonded

