



## **TECHNICAL SPECIFICATION**

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# **IK I I 2 M**

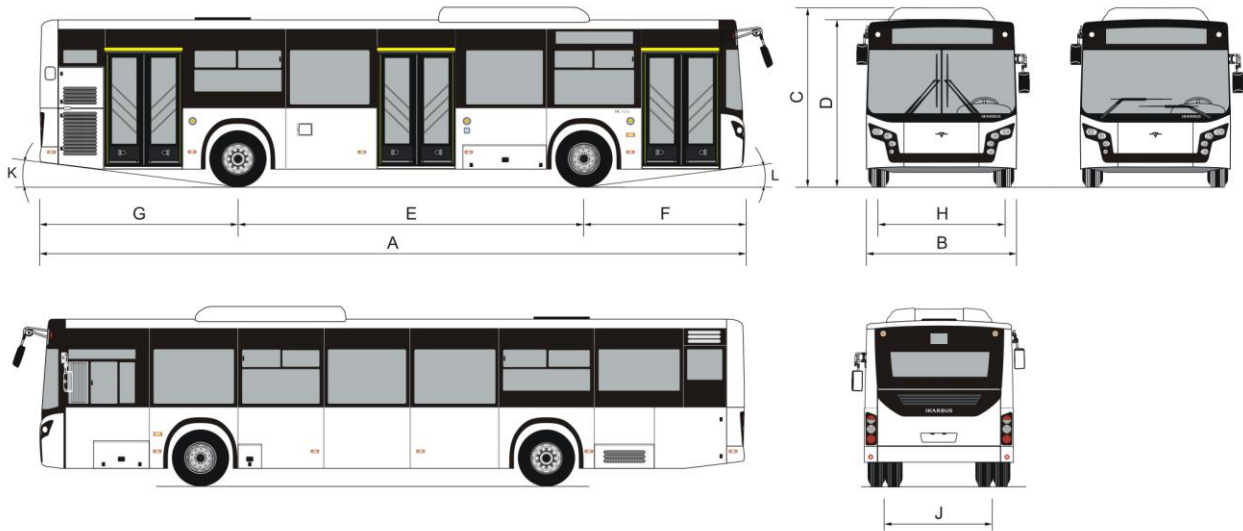
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**MAN D2066 LUH32 (E5)**

**VOITH DIWA.6**

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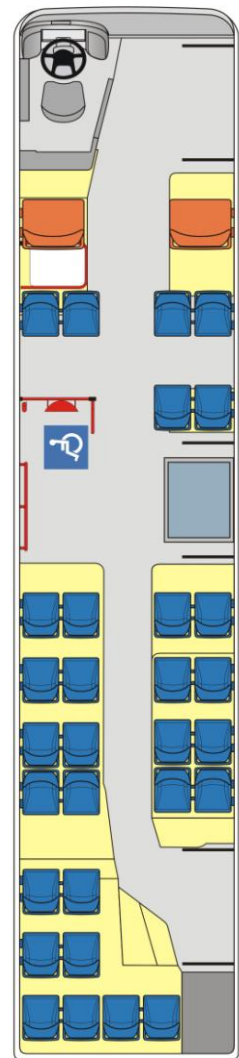
# Technical specification - IK 112M (E5)



A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	J [mm]	K [°]	L [°]
11960	2535	3047	2777	5875	2718	3367	2078	1834	7	7

*Shown seats arrangement is example.*

*Other arrangements are possible.*



Doors: 3  
Seats: 30+2+1



## DIMENSIONS

- (A) Overall length..... 11960 mm
- (B) Overall width..... 2535 mm
- (C) Overall height (with A-C)..... 3047 mm
- (D) Overall height..... 2777 mm
- (E) Wheelbase..... 5875 mm
- (F/G) Overhang (front/rear)..... 2718/3367 mm
- (H/I) Track (front/rear)..... 2078/1834 mm
- Interior saloon height..... 2385 mm
- Floor height at 1<sup>st</sup> and 2<sup>nd</sup> door..... 340 mm
- Minimum turning circle..... 22180 mm
- Prilazni ugao (prednji/zadnji)..... 7°/7°

## CHASSIS

- MAN A22

## ENGINE

- Manufacturer..... MAN
- Type..... D2066 LUH32
- Emission standard..... EURO 5
- Mounting..... horizontal, rear
- Construction..... 4-taktni dizel motor  
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
- Rated power..... 235 kW (320 hp) / 1900 min<sup>-1</sup>
- Maximum torque..... 1600 Nm / 1000-1400 min<sup>-1</sup>
- Electronically controlled fuel-injection system  
direct injection EDC7 C32 P362 V43

## TRANSMISSION

- Gearbox..... automatic, VOITH DIWA.6 (D 864.6)  
with integrated retarder
- Number of gears..... 4+1(R)
- Ratios..... 1:4.9-0.73

## REAR AXLE

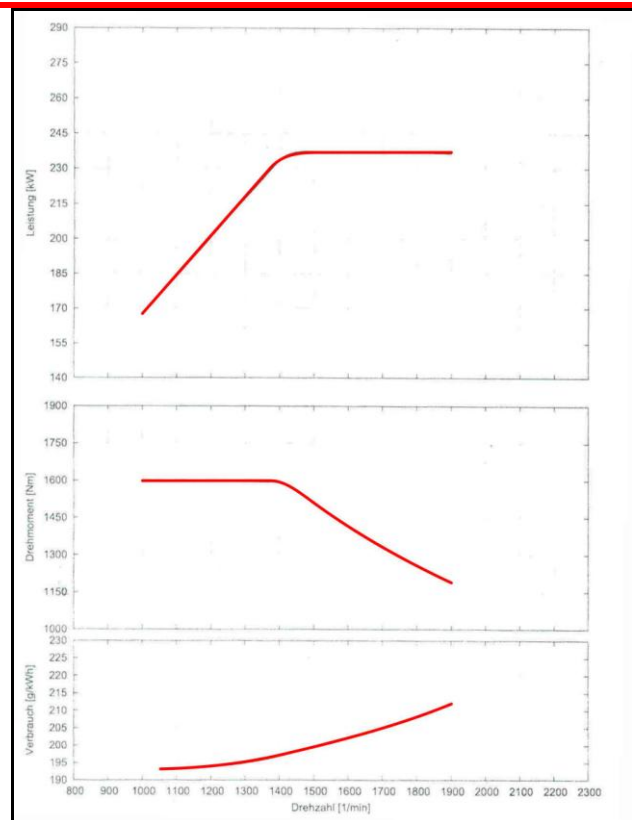
- Rear axle..... MAN HONP 13100
- Friction disc brake with floating brake caliper and ventilated disc
- Ratio..... 5.74

## FRONT AXLE

- Front axle..... rigid, MAN VOK 07-B17
- Friction disc brake with floating brake caliper and ventilated disc

## WEIGHTS

- Max. front axle load (technically permissible)..... 8500 kg
- Max. rear axle load (technically permissible)..... 13000 kg
- Gross vehicle weight (GVW)..... 18000 kg



## STEERING GEAR

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



## SUSPENSION

- Electronically Controlled Air Suspension (ECAS)
- Front axle..... 2 roller bellows and 2 double-action shock absorbers
- Rear (drive) axle..... 4 roller bellows and 4 double-action shock absorbers
- Kneeling, according to ECE R107 i 2001/85/EC

## BRAKING SYSTEM

- Dual-circuit braking system, pneumatic
- Friction disc brakes (with floating brake calipers and ventilated discs) at front and rear axle
- EBS (Electronic Braking System) incorporating:
  - ABS (Anti-lock Braking System)
  - ASR-TCS (Acceleration Skid Control – 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 litara
- Made of stainless materials
- Filler cap .....at right-hand side

## WHEELS – TYRES

- Rims.....7,5 x 22,5"
- Tyres ..... 275/70 R22,5"

## ELECTRICAL EQUIPMENT



- Dashboard according to VDV standard
- Battery ..... 2 x 225 Ah / 12 V
- Generator (Alternator)..... 3 x 120 A / 28,5 V
- Starter ..... 5 kW
- Tachograph ..... digital (DTCO)
- Safety switch..... according to 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 .....LED
- Reversing lights .....LED
- Stop lights .....LED
- End-outline lamps (front and rear) .....LED
- Interior lighting.....LED
- Doors area lighting.....halogen /LED
- Cash register lighting
- Stop indicators..... push buttons on stanchions

## 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:
  - convector type heaters
  - 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
- Folding ramp (wheelchair access ramp) at 2<sup>nd</sup> door, manually operated
- Heated exterior mirrors
- Interior mirrors

### Option:

- Passenger seats ..... single, plastic, vandal resistant city bus upholstered seats (easy upholstered seats)
- Folding ramp (wheelchair access ramp) at 2<sup>nd</sup> door, automatically (electrically) operated
- Central lubricating system
- Oil filling automatic system
- Automatic extinguisher system in engine compartment
- CCTV

## STRUCTURE

- All cavities are protected from inside and outside
- Side panels in wheel arches area and lower side cavity made of stainless steel
- Wheel arches ..... nerđajući čelik
- Side panels .....aluminium
- Roof and sidewalls with thermal insulation

### Option:

- Cavities: ferrite – EN 1.4003

## DOORS

- Door arrangement ..... 2-2-2
- 3 leaf inward swing door (Slide-Glide)
- Emergency door control valve inside/outside

## GLAZING

- Windscreen (variant 1) ..... laminated, 1 piece
- Windscreen (variant 2) ..... laminated, 2 pieces
- Side windows ..... single glazed, bonded
- Door glasses ..... bonded

