



## **TECHNICAL SPECIFICATION**

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# **IK 218 M**

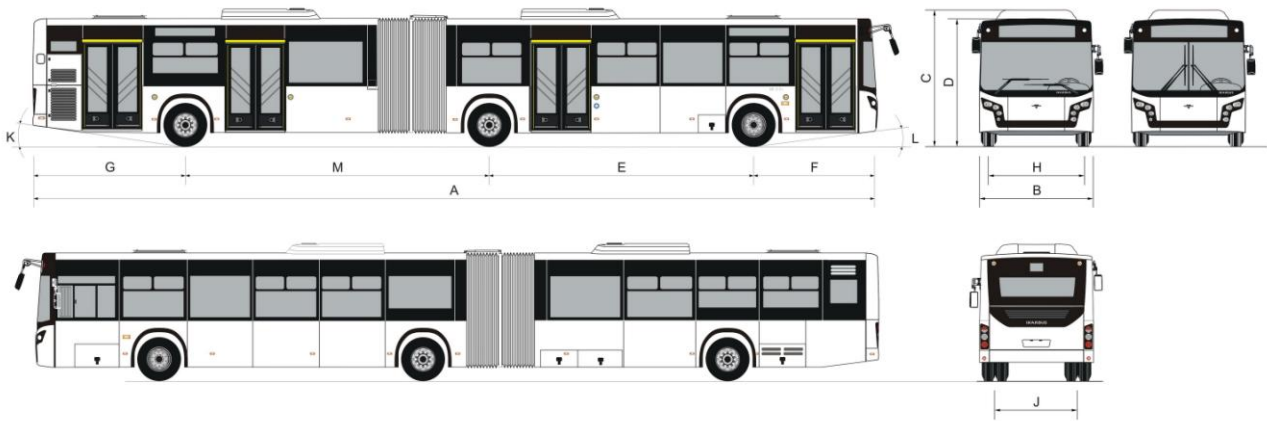
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**MAN D2066 LUH48 (EEV)  
VOITH DIWA.5**

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*2016.*

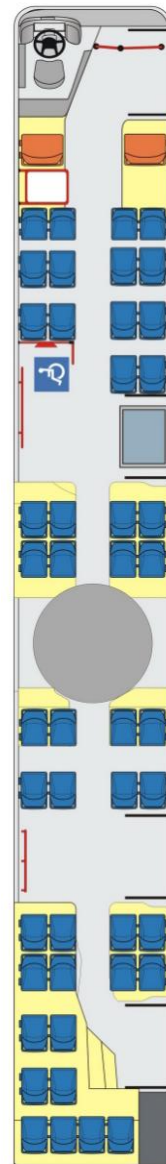
# Technical specification - IK 218M (EEV)



A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	M [mm]	F [mm]	G [mm]	H [mm]	J [mm]	K [°]	L [°]
18750	2525	3040	2805	5875	6770	2735	3370	2096	1836	7	7

Shown seats arrangement is example.

Other arrangements are possible.



**Doors: 4 (2-2-2-2)**  
**Seats: 46+2+1**



## DIMENSIONS

- (A) Length ..... 18750 mm
- (B) Width ..... 2525 mm
- (C) Height (including A/C) ..... 3040 mm
- (D) Height ..... 2805 mm
- (E/M) Wheelbase (I-II/II-III) ..... 5875/6770 mm
- (F/G) Front/Rear overhang ..... 2735/3370 mm
- (H/I) Front/Rear track ..... 2096/1836 mm
- Interior height ..... 2360 mm
- Floor height in door area ..... 340 mm
- Minimum turning circle ..... 23960 mm
- Approach/Departure angle ..... 7°/7°

## CHASSIS

- Low-floor chassis MAN A24

## ENGINE

- Manufacturer ..... MAN
- Type ..... D2066 LUH48
- Emission standard ..... EEV
- Mounting ..... horizontal, rear
- Construction ..... 4-stroke diesel engine  
6 cylinders in line, with turbo and intercooler
- Displacement (Swept volume) ..... 10518 cm<sup>3</sup>
- Bore x stroke ..... 120 x 155 mm
- Compression ratio ..... 20,5 : 1
- Rated power ..... 265 kW (360 hp) / 1900 min<sup>-1</sup>
- Maximum torque ..... 1800 Nm / 1000 - 1400 min<sup>-1</sup>
- Electronically controlled fuel injection system ..... EDC 7  
Common Rail

## TRANSMISSION

- Gearbox ..... automatic, VOITH DIWA.5 (D 864.5)  
with integrated retarder
- Number of gears ..... 4 + 1 (R)
- Ratios ..... 1 : 4,90 - 0,70

## REAR (DRIVE) AXLE

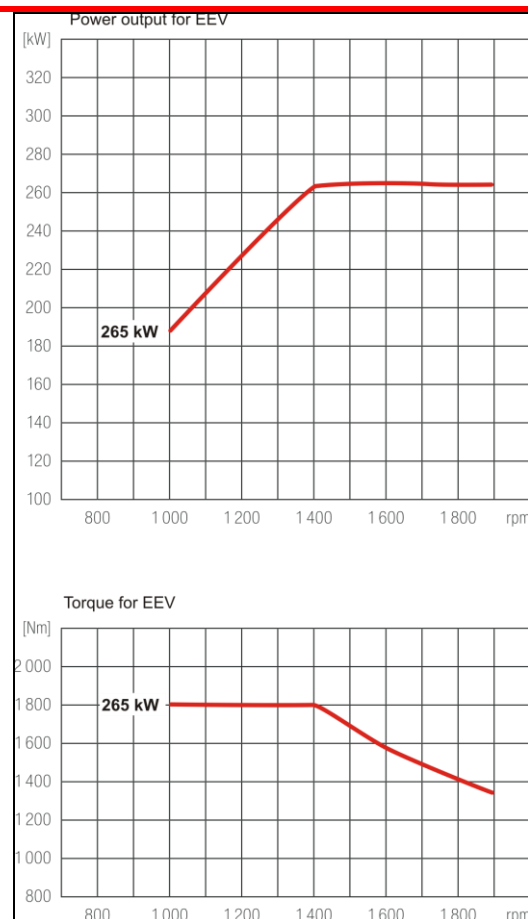
- Manufacturer ..... MAN
- Type ..... HONP-13100
- Ratio ..... 6,20

## FRONT AXLE

- Manufacturer ..... MAN
- Type ..... rigid, VOK-07-B

## AXLE LOADS

- Front axle load (Max. technically permissible) ..... 7245 kg
- Centre axle load (Max. technically permissible) ..... 10000 kg
- Rear axle load (Max. technically permissible) ..... 11500 kg
- Gross vehicle weight (GVW) ..... 28000 kg



## NEUTRAL (CENTRE) AXLE

- Manufacturer ..... MAN
- Type ..... HONP-1300

## 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
- Neutral (centre) axle..... 4 roller bellows and 4 double-action shock absorbers
- Rear 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 all axles
- 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 ..... 350 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..... in accordance with VDV Standard
  - steering wheel.....adjustable height and inclination
- Battery ..... 2 x 225 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 ..... 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

## BODY 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 ..... stainless steel
- Side panels ..... aluminium
- Roof and sidewalls with thermal insulation

### Option:

- Cavities: ferrite – EN 1.4003

## DOORS

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

## GLAZING

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

