

The CapaCity. The CapaCity L.

Technical information.



Mercedes-Benz The standard for buses.

Model designations

CapaCity (C 628.446-13)









Model designations

CapaCity L (C 628.448-13)









Dimensions and weights

| | CapaCity | CapaCity L |
|--|----------------|----------------|
| Vehicle length | 19,725 mm | 20,995 mm |
| Vehicle width | 2,550 mm | 2,550 mm |
| Vehicle width (incl. mirrors) | 2,950 mm | 2,950 mm |
| Vehicle height (incl. rear roof ventilator) | 3,095 mm | 3,095 mm |
| Vehicle height (incl. air conditioning system) | 3,120 mm | 3,120 mm |
| Wheelbase, front axle – centre axle | 5,900 mm | 5,900 mm |
| Wheelbase, centre axle – drive axle | 5,990 mm | 7,260 mm |
| Wheelbase, drive axle – trailing axle | 1,600 mm | 1,600 mm |
| Front/rear overhang | 2,805/3,430 mm | 2,805/3,430 mm |
| Angle of approach/departure | 7°/7° | 7°/7° |
| Tyre size | 275/70 R 22.5 | 275/70 R 22.5 |
| Total passenger carrying capacity (ECE R107) | 1/181 | 1/191 |
| of which seats/standees | 44/137 | 45/146 |
| Boarding height, door 1–4 | 320 mm | 320 mm |
| Clear door width | 1,250 mm | 1,250 mm |
| Standing height front/rear | 2,313/2,317 mm | 2,313/2,317 mm |
| Height of floor above road surface | 370 mm | 370 mm |
| Platform height | 310 mm | 310 mm |
| Waistline height (above floor) | 952 mm | 952 mm |
| Fuel tank capacity | 300 I | 300 I |
| Capacity of AdBlue additive tank | 32 I | 32 I |
| Gross vehicle weight | 32,000 kg | 32,000 kg |
| Axle loads, max. permissible* | | |
| - Front axle | 7,500 kg | 7,500 kg |
| - Centre axle | 10,000 kg | 10,000 kg |
| - Drive axle | 13,000 kg | 13,000 kg |
| - Trailing axle | 6,930 kg | 6,930 kg |

 * depending on country of registration, example based on Germany

Turning circle



| | CapaCity | CapaCity L |
|---|-----------|------------|
| A: Front overhang | 2,805 mm | 2,805 mm |
| B: Rear overhang | 3,430 mm | 3,430 mm |
| C: Wheelbase, front axle – centre axle | 5,900 mm | 5,900 mm |
| m+n: Wheelbase, centre axle – drive axle | 5,990 mm | 7,260 mm |
| o: Wheelbase, drive axle – trailing axle | 1,600 mm | 1,600 mm |
| D: Minimum turning circle | 22,926 mm | 24,466 mm |
| E: Minimum track circle | 19,109 mm | 20,901 mm |
| F: Swept annular width – minimum turning circle | 7,4795 mm | 7,095 mm |
| D: BOKraft turning circle | 25,000 mm | 25,000 mm |
| F: BOKraft swept annular width | 6,769 mm | 6,928 mm |
| F: Maximum permissible swept annular width according to BOKraft | 7,200 mm | 7,200 mm |
| Maximum front axle turning angle, inside/outside wheel | 53°/46° | 53°/46° |

Drive train/Technology



P_{max} 265 kW at 1,600 rpm (80/1269/EEC) T_{max} 1,700 Nm at 1,100 rpm

Steady-state full-load curves



CapaCity, CapaCity L

| Engine (Euro VI) | OM 470 |
|-----------------------|--|
| Displacement | 10,700 cm ³ |
| Output (standard) | 265 kW |
| Cylinders/arrangement | 6/in-line |
| Max. torque | 1,700 Nm at 1,100 rpm |
| Transmission | Transmission Voith Diwa.6, 4-speed, automatic transmission |
| Steering | ZF power steering |
| Axles | |
| – Front axle | ZF, independent wheel suspension |
| - Centre axle | ZF AVN 133 |
| - Drive axle | ZF AV 133 |
| - Trailing axle | ZF, independent wheel suspension |
| Brakes | Electropneumatic-Braking-System (EBS) with disk brakes |
| | Anti-lock Braking System (ABS) |
| · | |



P_{max} 290 kW at 1,600 rpm (80/1269/EEC) T_{max} 1,900 Nm at 1,100 rpm

Steady-state full-load curves





CapaCity, CapaCity L

| Engine (Euro VI) | OM 470 |
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| Brakes | Electropneumatic-Braking-System (EBS) with disk brakes |
| | Anti-lock Braking System (ABS) |

Seating variants CapaCity

Standard



Number of seats: 1/44

Special equipment (example)



Number of seats: 1/36

Special equipment (example)



Number of seats: 1/54

Seating variants CapaCity L

Standard



Number of seats: 1/45

Special equipment (example)



Number of seats: 1/43

Special equipment (example)



Number of seats: 1/62

Standard and special equipment (selected)

| Engine and running gear | CapaCity | CapaCity L |
|--|----------|------------|
| Engine Mercedes-Benz OM 470, 265 kW (Euro VI) | • | • |
| Engine Mercedes-Benz OM 470, 290 kW (Euro VI) | 0 | 0 |
| Transmission Voith Diwa.6, 4-speed, automatic transmission | • | • |
| Transmission ZF-EcoLife, 6-speed, automatic transmission | 0 | 0 |
| Low friction portal axle ZF AV133 ep | 0 | 0 |
| Recuperation module | • | • |
| Electrohydraulic steering (intelligent eco steering) | 0 | 0 |
| Electropneumatic-Braking-System (EBS) | • | • |
| Anti-lock Braking System (ABS) | • | • |
| Acceleration Slip Regulation (ASR) | 0 | 0 |
| Anti-jackknife ATC (Articulation Turntable Controller) | • | • |
| Automatic bus stop brake with pull-away lock | • | • |
| Air suspension via electronic level control system (ENR) | • | • |
| Air suspension via electronic level control system (ENR), incl. kneeling | 0 | 0 |
| /ehicle lift 70 mm, with button on instrument panel/console | 0 | 0 |
| Hub caps stainless steel | 0 | О |
| Hub caps plastic | 0 | О |
| yre pressure monitoring system | 0 | 0 |
| Rough road running gear | 0 | О |

| Driver's area | CapaCity | CapaCity L |
|---|----------|------------|
| Driver's seat GRAMMER Linea MSG 90.6 P, air-sprung | • | • |
| Driver's seat ISRI 6860, integrated pneumatic system, 3-point seat belt | 0 | 0 |
| Seat heater for driver's seat | 0 | 0 |
| Driver's cab door | • | • |
| Compartment for driver's bag at cab door, open | • | • |
| Compartment for driver's bag at cab door, lockable, hinged | 0 | 0 |
| Provision for a ticket machine printer | 0 | 0 |
| Steering column and instrument panel with height and tilt adjustment | • | • |
| Cruise control | 0 | 0 |
| Eco Driver Feedback (EDF) | 0 | 0 |
| Sideguard Assist | 0 | 0 |
| Preventive Brake Assist | 0 | 0 |
| Heated exterior mirror with school bus approval | • | • |
| Exterior mirrors heated, electrically adjustable with school bus approval | 0 | 0 |
| Driver's microphone | 0 | 0 |
| Reversing buzzer | 0 | 0 |
| Reversing camera | 0 | 0 |
| Blind across 1/2 of windscreen, electrically operated | • | • |
| Blind across 2/3 of windscreen, electrically operated | 0 | 0 |
| Fire detection system for engine compartment monitoring | • | • |
| Fire extinguishing system | 0 | 0 |
| Flat wiper blades with water fed through wiper blade (Aqua Blade®) | • | • |

Standard and special equipment (selected)

| Climate control | CacpaCity | CacpaCity L |
|--|-----------|-------------|
| Turbo roof ventilator | • | • |
| Roof duct ventilation system with integral heating | 0 | О |
| Roof-mounted air conditioning system / Roof-mounted air conditioning system, uprated version | 0/0 | 0/0 |
| Electrical roof-mounted air conditioner (modular system) | 0 | О |
| Electrical roof-mounted air conditioner (modular system) for the driver's workstation | 0 | О |
| Heating with side panel heating units | • | • |
| Heater with convectors | 0 | О |

| Information systems | CapaCity | CapaCity L |
|---|----------|------------|
| Radio system with CD player | О | 0 |
| Multi-function antenna for radio, mobile phone, navigation | О | 0 |
| Bus stop display inside, cross duct | О | 0 |
| Destination system LED or LCD | О | 0 |
| Camera for swinging out at rear, left + right | • | • |
| Cameras on left and right behind the joint with monitors in the driver's area | О | 0 |
| Digital clock in cross duct | О | 0 |

| The air-conditioning system and the refrigerator of your vehicle are filled with the coolant R-134a and contain a fluorinated greenhouse | | CapaCity | CapaCity L |
|--|--------------------------------|-----------|------------------|
| gas. The GWP value of the refrigerant used is 1,430. Signs with detailed specifi- | Air-conditioning system | | |
| cations of the coolant type in use are located on the respective devices. | Filling capacity [kg] | 0 - 16,01 | |
| As to this, please note the Operating Manual of your vehicle. | CO ₂ equivalent [t] | 0 - 22 | ,88 ¹ |

¹ dependent on the installed air conditioning variant: EvoCool Basic or electrical modular air conditioning system, and the installation of an air conditioner for the driver's area

| Interior | CapaCity | CapaCity L |
|--|----------|------------|
| Seating CityStarEco (CSE) | • | • |
| Wheelchair space | 0 | О |
| Stop request button | • | • |
| Stowage on front wheel arch, left / right | 0/0 | 0/0 |
| Emergency hammers secured with rope, automatic retractor | • | • |
| Sidewall lining in needle felt | 0 | 0 |
| Ambient lighting with LEDs | 0 | 0 |
| Video recording system in passenger compartment | 0 | 0 |

| CapaCity | CapaCity L |
|----------|------------|
| 0 | 0 |
| • | • |
| 0 | 0 |
| 0 | 0 |
| 0 | 0 |
| • | • |
| 0 | 0 |
| • | • |
| 0/0 | 0/0 |
| | |

Glossary

Acceleration slip regulation (ASR):

ASR prevents wheelspin when driving away on a slippery surface. It provides no more power than the drive wheels are able to transfer to the road surface. Wheelspin by one wheel – e.g. on an icy roadside – is prevented by metered braking.

Anti-jackknife ATC (Articulation Turntable Controller):

The ATC is a dynamic drive system that controls the hydraulic damping of the articulation joint rapidly as required, as a function of the steering angle, articulation angle, speed, and load. For this purpose the ATC has access to the data of the CAN bus data.

The effect is as follows: If the otherwise normally high basic damping of the joint leads to a strong tendency to understeer in turns and increased tyre wear on the front axle, then under normal stable driving conditions the joint of the vehicle runs almost freely, and is damped solely through the friction of the elements.

Anti-lock Braking System (ABS):

The braking forces acting on the individual wheels are distributed by the ABS so that even in an emergency braking situation no wheel is blocked for any length of time and the steering performance of the bus is largely maintained.

BiXenon headlamp:

The BiXenon headlamps with computer optimised optical system produce a bright, bluish light for dipped and high beams. The high light output greatly improves illumination of the carriageway and roadside.

Body framework structure:

The increased strength of the body shell improves the safety of the passenger compartment. This is achieved by the use of connection elements that resemble the hilt of a sword between the body shell elements.

Cataphoretic dip priming (KTL in German):

Cataphoretic dip priming is an electro-chemical process for coating the complete body shell in an immersion bath. It is ideal for painting intricate structures and large numbers of units. Water-based paint protects the bus so perfectly against corrosion because the paint coat is applied to every part of the body. Currently, cataphoretic dip priming is demonstrably the best protection available against corrosion in vehicle construction.

Collision protection:

For additional collision protection, a crash element is built into the extended front end. Together with a strengthened frame design, this channels impact forces directly into the substructure. The result is improved protection for the driver and the cockpit footwell area. The requirements based on the pendulum impact test as laid down in ECE R29 are met.

Cornering lights/steering-dependent headlamps:

When turning or cornering, the fog lamp on the inside of the bend is steered so that the road ahead is much better illuminated. The cornering light switches on automatically up to a speed of 40 km/h if the main headlamps are switched on, and the turn indicator is set or the steering wheel turned.

Eco Driver Feedback (EDF):

Eco Driver Feedback provides the driver with individual feedback on his or her personal driving behaviour. The objective is to exploit every potential in terms of fuel saving.

Electronic level control:

Passengers and luggage are not always evenly distributed in the vehicle. As a result, the height of the vehicle varies from wheel to wheel. The electronic level control automatically regulates the vehicle height at each wheel so that the step height is always the same.

Electropneumatic-Braking-System (EBS):

EBS is a further development of the conventional air brake and offers numerous advantages. When braking, the control unit first activates the retarder. If greater deceleration is required, the control unit uses the information in the data network to determine the optimum braking pressure for every axle. The Electropneumatic-Braking-System thus results in much shorter stopping distances and significantly less wear on brake linings and discs.

LED headlamps:

The light cone of the LED headlamp can be defined with particular accuracy. The light colour is somewhat like daylight, thus ensuring that the driver's eyes tire less quickly. Increased brightness and a greater range further enhance safety. LED lamps are approximately two or three times more efficient than conventional light bulbs.

Preventive Brake Assist:

With Preventive Brake Assist, Mercedes-Benz is offering the world's first active brake assist system for city public service buses. The assist system issues a warning before a collision with standing or moving objects and, if there is an acute danger of a collision, it automatically initiates a braking operation with partial braking. The warning cascade and the braking intervention are designed precisely for use in city traffic.

In the event of a threat of a collision, the Preventive Brake Assist warns the driver both visually with a red triangle with a vehicle symbol lighting up in the central display and also acoustically, and at the same time the system initiates a partial braking. This braking continues until either the driver intervenes or the bus comes to a standstill. The basis of the Preventive Brake Assist is a new generation of radar technology: the radar system continuously scans the traffic lane at a distance of up to 250 metres ahead of the bus, and works reliably even at night and in adverse weather conditions.

Recuperation module:

In the deceleration phase, the current produced by the generators during overrun is stored in double layer capacitors (supercaps) and kept available for auxiliary consumers. In the vehicle acceleration phase, the vehicle electrical system is supported by discharging the stored electricity in the capacitors. This relieves additional load on the engine and reduces fuel consumption.

Tyre pressure monitoring system:

The tyre pressure monitoring system indicates the actual pressure in the individual tyres, and warns of any deviation from the optimum pressure. This reduces wear on the tyres, has a positive effect on fuel consumption, and prevents dangerous tyre damage.

Sideguard Assist:

The turn assistant Sideguard Assist helps the driver to recognise critical situations in good time when turning. The system works in several stages: in the first stage, it informs the driver and, in the second stage, it emits an additional warning.

If there is a moving object in the side monitoring zone, the driver gets a visual warning. In the A0 pillar on the codriver's side, an LED lamp lights up yellow in the form of a triangle. In addition, a warning message appears in the central display. If the driver initiates or continues an action that could lead to a collision, an additional visual warning is given: the LED lamp flashes red several times with increasing brightness and then stays on permanently. In addition, there is a vibration warning in the driver's seat. Sideguard Assist also warns of stationary obstacles in the turning curve of the bus and can take on the additional task of a lane change assistant; in this case, it works with the same warning cascade.

Important for you. Important for us. Technical data stored in the vehicle.

Electronic vehicle components (e.g. Engine Control Unit) contain data storage for vehicle Technical Data, including but not limited to Diagnostic Trouble Codes in the event of a malfunction, vehicle speed, braking force, or operating conditions of the Restraint System and Driver Assistance Systems in case of an accident (no audio and no video data recording). This data is either stored volatile, punctual as snapshot e.g. Diagnostic Trouble Codes, over a short period of time (a few seconds only) e.g. in case of an accident or in aggregated form e.g. for component load evaluation. The data can be read using interfaces connected to the vehicle. Trained technicians can process and utilize the data to diagnose and repair possible malfunctions. The manufacturer can use the data to analyze and improve vehicle functions. When requested by the customer, Technical Data can form the basis of additional optional services. In general, data from the vehicle is transferred to the manufacturer or a third party only according to legal allowance, or based on a contractual customer consent in accordance with data protection laws. Further information regarding storage of vehicle Technical Data is provided in the vehicle Owner's Manual. Mercedes-Benz Buses and Coaches naturally handles customer data confidentially.

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