Mercedes-Benz Powertrain

Bus EURO VI.

Mercedes-Benz
Welcome to the Global Leader. Mercedes-Benz Powertrain.
Mercedes-Benz Powertrain offers outperforming and individually engineered aggregates: engine systems, transmissions, and axles—each will provide our customers with the highest durability and quality at the same time. Together, they compose an even more sophisticated, technologically advanced and with regards to fuel efficiency, unbeatable powertrain.

Let's develop together the best individual solution for your success.

Benefits for you.
✓ Reduces integration efforts
✓ Leads to an optimized system setup due to common electric and electronic architecture (EE architecture) for efficient interaction of all aggregates
✓ One electronic tool for end of line commissioning and diagnosis requires less training for your engineering group
✓ Guarantees our premium Mercedes-Benz quality standards due to the production on our high-volume production lines
✓ High invest in Mercedes-Benz R&D assures state-of-the-art quality
✓ One Key Account Manager as main contact partner
✓ One system supplier for your individual powertrain solution
✓ One contractual partner

Benefits for your customers.
✓ Provides optimized fuel efficiency by tailor-made powertrain solutions
✓ Ensures robust and reliable performance in every scenario of operation
✓ Increases the resale value of the vehicles due to the highest quality standards offered by Mercedes-Benz
✓ Minimizes downtimes as our worldwide after-sales network covers warranty and policy from one source
✓ Optimizes maintenance and repair worldwide via our one-stop shop logic for the complete powertrain

1 + 1 + 1 > 3
Mercedes-Benz engine systems.

OM 93X and OM 47X model series.

Outstanding design and efficiency. Specifically developed to comply with the EURO VI emission standard.
There are many factors in operating a bus or a coach that cost money. More than a third of these can be influenced. A cost factor of up to 30% can be attributed to energy consumption. Bringing together the very latest innovative engine technology, our engine systems are designed with a rigorous focus on environment conservation, effectiveness and performance.

The benefits for our customers are:

- low fuel consumption,
- long engine life,
- extended maintenance intervals.

Our engines deliver a spontaneous response, impressive power output and the smoothest running characteristics. Based on these characteristics our engines in all series are ideal for short radius distribution, construction site transport and long distance haulage.

With our new BlueEfficiency Power engines we not only comply with the ambitious Euro VI standards, but also set new benchmarks for power, consumption and weight. The lower consumption and improved power delivery can be attributed to the highly efficient combustion strategy of the engines, supported among other things by the X-Pulse common-rail high-pressure fuel injection system.

Our engine product portfolio: TCO reduction at its best.
Derivation "Nomenclature" - engines.

<table>
<thead>
<tr>
<th>Model series</th>
<th>Type</th>
<th>Cylinder Displ. [liters]</th>
<th>Power range [kW]</th>
</tr>
</thead>
<tbody>
<tr>
<td>OM 93X</td>
<td>MD</td>
<td>934 L4 5.1</td>
<td>93, 115</td>
</tr>
<tr>
<td>OM 936</td>
<td>MD</td>
<td>936 L6 7.7</td>
<td>130, 155</td>
</tr>
<tr>
<td>M 936 G</td>
<td>MD</td>
<td>936 G L6 7.7</td>
<td>175, 200</td>
</tr>
<tr>
<td>OM 47X</td>
<td>HD</td>
<td>470 L6 10.7</td>
<td>220, 260</td>
</tr>
<tr>
<td>OM 471</td>
<td>HD</td>
<td>471 L6 12.8</td>
<td>290, 350</td>
</tr>
</tbody>
</table>

OM = Oil (diesel) engine  
M = Gas (goline) engine  
3 = Medium-duty engine  
7 = Heavy-duty engine  
G = Gas

9 = 93X model series (MD)  
4 = 47X model series (HD)  
4 = L4 cylinder engine (5.1 l)  
6 = L6 cylinder engine (7.7 l)  
0 = L6 cylinder engine (10.7 l)  
1 = L6 cylinder engine (12.8 l)

Engines for EURO VI.

Portfolio of EURO VI engines for buses

<table>
<thead>
<tr>
<th>Model series</th>
<th>Type</th>
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<th>Power range [kW]</th>
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<tr>
<td>OM 471</td>
<td>HD</td>
<td>471 L6 12.8</td>
<td>290, 350</td>
</tr>
</tbody>
</table>

Power range of the EURO VI engines for buses

<table>
<thead>
<tr>
<th>Torque [Nm]</th>
<th>Power [kW]</th>
</tr>
</thead>
<tbody>
<tr>
<td>2500</td>
<td>550</td>
</tr>
<tr>
<td>2000</td>
<td>450</td>
</tr>
<tr>
<td>1500</td>
<td>350</td>
</tr>
<tr>
<td>1000</td>
<td>250</td>
</tr>
<tr>
<td>500</td>
<td>150</td>
</tr>
</tbody>
</table>

Engine systems

Transmissions

Axles
Medium-duty engine systems.

Performance. Even on challenging terrain.

**Your product benefits** for medium-duty engine systems:

- 4- and 6-cylinder diesel engines in an in-line arrangement with cooled exhaust gas recirculation
- Displacement of 5.1 and 7.7 liters
- Output of 115 up to 260 kW
- Special combustion system to minimize fuel consumption
- Common rail injection system up to 2400 bars and multiple injection
- Tailor-made charging system with 1- and 2-stage turbochargers
- Future-proof valve timing gear with 2 overhead camshafts and 4-valve technology
- Powerful and dynamic engine brakes with up to 300 kW brake power
- Multiple power take-off options
- "One box" exhaust after-treatment with SCR and DPF
- Special gas-powered variant
OM 934 LA
Arrangement: In-line 4
Displacement: 5.1 l

Weight and dimensions*

<table>
<thead>
<tr>
<th>Weight</th>
<th>DIN 70020 - GZ</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>single stage charger</td>
<td>495 kg</td>
<td>510 kg</td>
</tr>
<tr>
<td>dual stage chargers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dimensions

| A  = length                  | 810 mm          |
| B  = width (excl. charge air pipe) | 680 mm          |
| C  = height                 | 900 mm          |

* depending on equipment installed

Rated power and maximal torque

<table>
<thead>
<tr>
<th>Rated power [kW/hp]</th>
<th>115/156</th>
<th>130/177</th>
<th>155/211</th>
<th>170/231</th>
</tr>
</thead>
<tbody>
<tr>
<td>at engine speed [rpm]</td>
<td>1800</td>
<td>1800</td>
<td>1800</td>
<td>1800</td>
</tr>
</tbody>
</table>

OM 936 LA
Arrangement: In-line 6
Displacement: 7.7 l

Weight and dimensions*

<table>
<thead>
<tr>
<th>Weight</th>
<th>DIN 70020 - GZ</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>single stage charger</td>
<td>652 kg</td>
<td>666 kg</td>
</tr>
<tr>
<td>dual stage chargers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dimensions

| A  = length                  | 1057 mm         |
| B  = width (excl. charge air pipe) | 680 mm          |
| C  = height                 | 910 mm          |

* depending on equipment installed

Rated power and maximal torque

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>at engine speed [rpm]</td>
<td>1800</td>
<td>1800</td>
<td>1800</td>
<td>1800</td>
<td>1800</td>
</tr>
</tbody>
</table>

Performance

<table>
<thead>
<tr>
<th>Power [kW]</th>
<th>180</th>
<th>160</th>
<th>140</th>
<th>120</th>
<th>100</th>
<th>80</th>
<th>60</th>
<th>40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Torque [Nm]</td>
<td>800</td>
<td>800</td>
<td>600</td>
<td>400</td>
<td>200</td>
<td>800</td>
<td>1000</td>
<td>1200</td>
</tr>
</tbody>
</table>
M 936 G

Arrangement: In-line 6
Displacement: 7.7 l
Fuel: CNG

Weight and dimensions*:
- Weight: GZ 691 kg

Dimensions:
- A = length: 1060 mm
- B = width (excl. charge air pipe): 780 mm
- C = height: 930 mm

* depending on equipment installed

Performance:

<table>
<thead>
<tr>
<th>Power [kW]</th>
<th>Torque [Nm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>260</td>
<td>1400</td>
</tr>
<tr>
<td>240</td>
<td>1200</td>
</tr>
<tr>
<td>220</td>
<td>1000</td>
</tr>
<tr>
<td>200</td>
<td>800</td>
</tr>
<tr>
<td>180</td>
<td>600</td>
</tr>
<tr>
<td>160</td>
<td>400</td>
</tr>
<tr>
<td>140</td>
<td>800</td>
</tr>
<tr>
<td>120</td>
<td>1000</td>
</tr>
<tr>
<td>100</td>
<td>1200</td>
</tr>
<tr>
<td>80</td>
<td>1400</td>
</tr>
</tbody>
</table>

Engine systems, Transmissions, Axles
Your product benefits for heavy-duty engine systems:

- 6-cylinder diesel engines in an in-line arrangement with cooled exhaust gas recirculation
- Displacement of 10.7 to 12.8 liters
- Output of 265 up to 375 kW
- Special combustion system to minimize fuel consumption
- New engine generation combines higher performance with lower fuel consumption
- Common rail injection system up to 2700 bars and unrestricted choice of injection process
- 1-stage turbocharger with asymmetrical turbine geometry
- Future-proof valve timing gear with 2 overhead camshafts and 4-valve technology
- Powerful and dynamic engine brakes
- Additional power take-off options
- "One box" exhaust after-treatment with SCR and DPF
OM 470
Arrangement: In-line 6
Displacement: 10.7 l

Weight and dimensions*

- Weight: DIN 70020 - GZ 952 kg
- Dimensions:
  - A = length 1289 mm
  - B = width (excl. charge air pipe) 750 mm
  - C = height 1029 mm

Rated power and maximal torque

- Rated power: [kW/hp]
  - 350/476
  - 375/510
  at engine speed [rpm]
  - 1600

- Maximal torque: [Nm]
  - 2300
  at engine speed [rpm]
  - 1100

OM 471
Arrangement: In-line 6
Displacement: 12.8 l

Weight and dimensions*

- Weight: DIN 70020 - GZ 1104 kg
- Dimensions:
  - A = length 1307 mm
  - B = width (excl. charge air pipe) 770 mm
  - C = height 1058 mm

Rated power and maximal torque

- Rated power: [kW/hp]
  - 265/360
  - 290/394
  at engine speed [rpm]
  - 1600

- Maximal torque: [Nm]
  - 1700
  at engine speed [rpm]
  - 1100

* depending on equipment installed
In view of the high requirements stipulated by the EU VI emission standard, Mercedes-Benz has developed cooled exhaust gas recirculation (EGR), particulate filters and SCR technology for its new generation of engines. This has already proven to be a winning combination in its use in commercial vehicles from Daimler Trucks. Together, the systems result in an extremely efficient exhaust after-treatment.

**Clean from start to finish.**

*Your product benefits for the after-treatment system:*

- Low exhaust back pressure
- Significant NOx reduction at a broad range of exhaust gas volume flows and exhaust gas temperatures
- Maximum possible soot burn-off in the diesel particulate filter (DPF) by means of automatic regeneration
- In addition, adaptive regeneration of the DPF in all relevant driving cycles
- Large capacity for ash storage in the DPF to make maintenance intervals as long as possible
- Small installation space and low weight
- Long service lifetime, adapted to the engine’s service lifetime
- Consistent common parts strategy
- Many different variants for exhaust gas inlet and outlet
- Metering of AdBlue® without compressed air; very low AdBlue® consumption

**EURO VI exhaust after-treatment system.**
Mercedes-Benz transmissions.

Reliable transmissions for a wide range of applications.
Derivation "Nomenclature" - transmissions.

- **GO** = Mercedes-Benz transmission for buses & coaches
- **CPS** = Mechanical manual transmission
- **PowerShift 3** = Automated gearshift
- **SWR** = Secondary water retarder
- **K** = Non synchronized transmission
- **S** = Synchronized transmission
- **-8** = 8 gears
- **250** = Maximum torque/10 (2500 Nm)

### Transmissions for EURO VI.

<table>
<thead>
<tr>
<th>Model series</th>
<th>Type</th>
<th>Ratio</th>
<th>Forward gears</th>
<th>Max. input torque [Nm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G 71-6S</td>
<td>9.20</td>
<td>-1.00/9.20</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>G 90-6S</td>
<td>6.70</td>
<td>-0.73/9.20</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>GO 190-6 CPS</td>
<td>6.70</td>
<td>-0.73/9.18</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>GO 230-6E CPS</td>
<td>6.53</td>
<td>-0.80/8.16</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>GO 250-8 PowerShift 3</td>
<td>6.57</td>
<td>-0.63/10.38</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

**GO** = GL = Mercedes-Benz transmission for buses & coaches

**250** = Maximum torque/10 (2500 Nm)

**K** = Non synchronized transmission

**S** = Synchronized transmission

**PowerShift 3** = Automated gearshift

**CPS** = Mechanical manual transmission

**SWR** = Secondary water retarder

- **500 1000 1500 2000 2500 3000**

<table>
<thead>
<tr>
<th>Engine systems</th>
<th>Transmissions</th>
<th>Axles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercedes-Benz</td>
<td>Transmissions</td>
<td>EURO VI</td>
</tr>
</tbody>
</table>
Our range of service extends from 6-speed to 8-speed automated manual shifted transmissions for buses and coaches. All transmissions are manufactured on a large scale by Mercedes-Benz buses and coaches and are engineered to meet the highest standards of technology and quality.

Meeting the demands of our customers is the focus of our work. We feel committed to advancing the design of our systems in a consistent and innovative way in-line with market and customer requirements.

Our know-how is based on decades of experience in the manufacturing and development of buses and coaches transmissions. This manufacturing expertise distinguishes our transmissions today particularly by three features:

- Very smooth running characteristics
- Low weight
- Extreme durability

In future, we will continue to stand for innovative products focused on customer-oriented applications.

Our transmission product portfolio:
Smooth operation in every situation.

Meaning of symbols:
- Manual shifted transmission
- Fully automated manual transmission
- Transmission for buses and coaches
Redefining efficiency.

Your product benefits of transmissions for buses & coaches:

- 6-speed and 8-speed automated shifted manual transmissions
- Resilient from 700 Nm to 2500 Nm max. input torque
- Gear ratio spread from 8.00 to 10.38
- Permissible max. gross combination weight (GCW) up to 28.5 t
- Secondary water retarder available for heavy-duty
- Bus specific degressive gradation characteristics for high driving comfort
- Quiet running characteristics and long service life through optimized gear set geometry and high-precision processing technologies
- Long service intervals and low operating costs due to a fuel-efficient design optimized for specific operating condition
- More comfortable vibration characteristics due to an integrated engine suspension
Specifications and dimensions

G 90-6S

<table>
<thead>
<tr>
<th>Gear</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>R</th>
<th>Gear ratio spread</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio</td>
<td>6.696</td>
<td>3.806</td>
<td>2.289</td>
<td>1.480</td>
<td>1.000</td>
<td>0.728</td>
<td>6.294</td>
<td>9.20</td>
</tr>
</tbody>
</table>

GO 190-6 CPS

<table>
<thead>
<tr>
<th>Gear</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>R</th>
<th>Gear ratio spread</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio</td>
<td>8.170</td>
<td>3.711</td>
<td>2.790</td>
<td>1.810</td>
<td>1.250</td>
<td>1.000</td>
<td>7.683</td>
<td>8.17</td>
</tr>
</tbody>
</table>

Specifications and dimensions

Max. input torque 1000 Nm
Permissible gross combination weight (GCW) 28 t
Transmission weight excl. oil 138.5 kg
Oil filling capacity 9 l

A = length 709 mm
B = width 562 mm
C = center to center 130 mm

* with retarder

Max. input torque 1900 Nm
Permissible gross combination weight (GCW) 20 t
Transmission weight excl. oil 225 kg
Oil filling capacity 9 l

A = length 709 mm
B = width 630 mm
C = center to center 152 mm

* with retarder
### GO 230-6E CPS

- 6 degressive stepped gears
- Overdrive configuration
- Outer cone synchronization
- All components optimized specifically for use in buses
- Secondary water retarder can be adopted

<table>
<thead>
<tr>
<th>Gear</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>R 1</th>
<th>R 2</th>
<th>Gear ratio spread</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio</td>
<td>6.528</td>
<td>3.711</td>
<td>2.238</td>
<td>1.443</td>
<td>1.000</td>
<td>0.799</td>
<td>6.136</td>
<td>8.160</td>
<td></td>
</tr>
</tbody>
</table>

### GO 250-8 NewAMT

- 8 degressive stepped gears
- 8-speed none synchronized transmission with wide gear ratio spread
- Double-overdrive configuration
- All components optimized specifically for use in buses
- Secondary water retarder can be adapted

<table>
<thead>
<tr>
<th>Gear</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>R 1</th>
<th>R 2</th>
<th>Gear ratio spread</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio</td>
<td>6.571</td>
<td>4.158</td>
<td>2.748</td>
<td>1.739</td>
<td>1.259</td>
<td>1.000</td>
<td>0.797</td>
<td>0.633</td>
<td>6.176</td>
<td>3.909</td>
<td>10.380</td>
</tr>
</tbody>
</table>

### Specifications and dimensions

**Max. input torque**: 2300 Nm

**Permissible gross combination weight** (GCW): 24 t

**Transmission**: 225 kg/weight excl. oil 268 kg*

**Oil filling capacity**: 13 l

- A = length 846 mm
- B = width 630 mm
- C = center to center 152 mm

* with retarder

### Specifications and dimensions

**Max. input torque**: 2500 Nm

**Permissible gross combination weight** (GCW): 28.5 t

**Transmission**: 221 kg/weight excl. oil 264 kg*

**Oil filling capacity**: 13.5 l

- A = length 846 mm
- B = width 630 mm
- C = center to center 152 mm

* with retarder
The integrated secondary water retarder offers a high braking torque in combination with a compact, weight-saving design. The weight advantages of the new retarders are 43 kg (SWR) compared to previous oil retarders. The braking power of the retarder is also independent of selected gear or current engine speed.

A gear change does not result in any interruption in the retarder braking action and the retarder braking power depends only on the current driving speed. The braking power can be controlled precisely in five stages using the right hand control stalk on the steering column. In addition to the engine brake, the retarder provides a maximum braking torque up to 3500 Nm.

Your product benefits:
- Reduction of friction by axial rotor displacement
- No heat exchanger required since the cooling water is used as the operating medium directly
- Compact unit requires only minimal installation space
- Freedom from maintenance for reduced vehicle service costs
- Significantly lighter than comparable hydrodynamic retarder
- Increased comfort through low noise emission
- Integration into the vehicle management
- Between 20–30% higher constant brake power than current oil retarders

max. braking torque [Nm] max. braking power [kW] max. rotation [min⁻¹]
Mercedes-Benz axles.

Reliable axles for every application.
Our product range consists of various axles which are highly suitable for nearly all bus categories from minibuses through to coaches, in urban areas or overland. We use our customers’ experience, their requirements and demands as an essential precondition in the development and technology of new axle concepts.

Our innovative state-of-the-art engineering and our quality-driven plants in Germany give our axles outstanding performance in:

- Durability
- Fuel efficiency
- Quiet operation

Top vehicle manufacturers around the world trust on the outstanding quality and performance of our axles and the reliability of our services. We are one of the world’s biggest producers of commercial axles and we want to share our experience and technology with you.

Convince yourself and discover the advantages of Mercedes-Benz axles.

Our axle product portfolio:
Efficiency on demand.

Meaning of symbols:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FA</td>
<td>Front axles</td>
</tr>
<tr>
<td>RA</td>
<td>Rear axles</td>
</tr>
<tr>
<td>Axles for minibuses</td>
<td></td>
</tr>
<tr>
<td>Axles for midibuses</td>
<td></td>
</tr>
<tr>
<td>Axles for city buses &amp; coaches</td>
<td></td>
</tr>
</tbody>
</table>
Derivation "Nomenclature" – axles.

Non-driven axles

Driven axles

F = Front axle
FO = Front axle omnibus
F = Rear axle
RT = Rear axle tandem
RO = Rear axle omnibus
FD = Front axle driven
FT = Front axle tandem driven

Number = Axle load [t]
Number = Ring gear diameter [mm]

The right axle for every application.

Axle portfolio: front axles* and rear axles.

* front axles are applicable as steered tag and pusher axles
For further applications see truck axle portfolio.
Reliability at high level.

Your product benefits for front-axles:

- Tire sizes from 17.5 to 22.5 inches
- Axle loads from 3.5 to 9 tons (per axle)
- Gross vehicle weight rating (GVWR) from 6.5 to 24 tons
- Longer lifetime and easy maintenance
- Optimum power/weight ratio due to weight-optimized technical design
- Modular concept provides maximum flexibility to customer request
**F 3.5–F 4.4**

- Axle load: 3.5–4.4 t
- Tire size: 17.5 inches
- Brakes: disk brake
- Axle weight: 245 kg

A = overall width: 2293–2303 mm
B = track width: 1949–1975 mm
C = spring track: 830 mm
D = max. turning angle: 52°

* Data and dimensions

* Steered rigid axle with forged front axle beam
* Recommended for minibuses

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**F 5.3–F 6.1**

- Axle load: 5.3–6.1 t
- Tire size: 19.5/20/22.5 inches
- Brakes: disk brake
- Axle weight: 357 kg

A = overall width: 2346–2389 mm
B = track width: 1955–1991 mm
C = spring track: 830 mm
D = max. turning angle: 52°

* Data and dimensions

* Steered rigid axle with forged front axle beam
* Recommended for midibuses

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**FO 7.5**

- Axle load: 7.5 t
- Tire size: 22.5 inches
- Brakes: disk brake
- Axle weight: 430 kg

A = overall width: 2495 mm
B = track width: 2101 mm
C = spring track: 1094 mm
D = max. turning angle: 55°

* Data and dimensions

* Steered rigid axle with forged front axle beam
* Low-floor option owing to a large drop
* Recommended for city buses and coaches

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* Data and dimensions

* Axle load
* Tire size
* Brakes
* Axle weight

A = overall width
B = track width
C = spring track
D = max. turning angle

* Data and dimensions

* Axle load
* Tire size
* Brakes
* Axle weight
**F 7.5–F 8**

- Steered rigid axle with forged front axle beam
- Recommended for city-buses and coaches

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**Data and dimensions**

- **Axle load**
  - 7.5–8 t

- **Tyre size**
  - 20/22.5/24 inches

- **Brake**
  - Disk brake/drum brake

- **Axle weight**
  - 463 kg

- **A** = overall width: 2486–2583 mm
- **B** = track width: 2046–2153 mm
- **C** = spring track: 840 mm
- **D** = max. turning angle: 48°

*varies depending on configuration

**FA**

- Steered rigid axle with forged front axle beam
- Recommended for city-buses and coaches

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**Data and dimensions**

- **Axle load**
  - 7.5–8 t

- **Tyre size**
  - 20/22.5/24 inches

- **Brake**
  - Disk brake/drum brake

- **Axle weight**
  - 461 kg

- **A** = overall width: 2486–2583 mm
- **B** = track width: 2046–2140 mm
- **C** = spring track: 840 mm
- **D** = max. turning angle: 48°

*varies depending on configuration

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**F 9**

- Steered rigid axle with forged front axle beam
- Recommended for city-buses and coaches

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**Data and dimensions**

- **Axle load**
  - 9 t

- **Tyre size**
  - 20/22.5/24 inches

- **Brake**
  - Disk brake/drum brake

- **Axle weight**
  - 451 kg

- **A** = overall width: 2486–2583 mm
- **B** = track width: 2046–2153 mm
- **C** = spring track: 840 mm
- **D** = max. turning angle: 48°

*varies depending on configuration
Comfort and safety in every situation.

Your product benefits for rear axles:

- Tire sizes from 17.5 to 22.5 inches
- Hypoid driven
- Ring gear diameter from 325 to 440 mm
- Axle loads from 6 to 13 tons (per axle)
- Gross vehicle weight rating (GVWR) from 6.5 to 24 tons
- High fuel efficiency
- Easy maintenance and long oil change intervals
- Longer lifetime and quieter operation due to our optimized gear set design
- Optimum power / weight ratio due to weight-optimized technical design
### Data and dimensions

**Axle load**
6.5–8.3 t

**Tire size**
17.5 inches

**Brake**
Drake disk brake

**Suspension**
air springs/steel springs

**Drive type**
single-stage/hypoid

**Axle weight**
350 kg

**A** = overall width 2232–2330 mm

**B** = track width 1760–1775 mm

**C** = spring track 1022 mm

**Ring Gear Diameter**
325 mm

*varies depending on configuration

- Fabricated axle housing
- Recommended for minibuses

- Fabricated axle housing
- Recommended for midibuses with front engine

- Fabricated axle housing
- Recommended for category city buses and coaches with front engine

**Axle load**
11.5–13 t

**Tire size**
22.5 inches

**Brake**
Drake disk brake

**Suspension**
air springs/steel springs

**Drive type**
single-stage/hypoid

**Axle weight**
680 kg

**A** = overall width 2422–2520 mm

**B** = track width 1802–1928 mm

**C** = spring track 923/930 mm

**Ring Gear Diameter**
440 mm

*varies depending on configuration

- Fabricated axle housing
- Recommended for category city buses and coaches
Service benefits at a glance.

**Application engineering consultancy service**

Our experts will help you to select the right powertrain components and additional equipment to create an engineered solution that suits your bus application-specific requirements, no matter how tough the conditions are.

**Customer training**

Uniquely tailored training courses can be held in Germany and other countries around the world to ensure that you receive the necessary expert knowledge in regards to installing, operating and maintaining your powertrain in accordance with our high standards.

**Spare parts supply**

We will ensure spare parts remain available for many years after your initial investment. The quality level and reliability of our spare parts meet the same high standards that are set with our aggregate systems. This promise means lasting protection of your capital investment in our powertrain solutions.

**Service network**

Our global network of highly qualified service centers can assist in the maintenance of our most advanced systems.

One-stop shop.

Our perfectly matched powertrain delivers you the best possible performance and fuel savings, while maintaining low overall operating costs. The perfect combination of engine systems, transmissions and axles yields in the greatest possible efficiency and the best quality made by Mercedes-Benz Powertrain. We tailor Mercedes-Benz Powertrain component configurations to the needs of our customers for sales in the on-highway segment.

If you have technical questions, would like additional information or wish to request installation drawings, please do not hesitate to contact our sales team:

**Sales External Customers**

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