

# THE NEW MAN eTRUCK.

eMPOWERING YOU. ALL THE WAY.



# eMPOWERING YOU. ALL THE WAY.



With the world undergoing rapid changes, the transformation of the commercial vehicles industry and the transport sector to electromobility is happening right before us.

As a reliable partner, we enable our customers to pursue this new path with the most environmentally friendly and intelligent vehicles MAN has ever built; The new MAN eTGX and eTGS. As we embark on an electrified future, the new MAN eTrucks and suitable digital solutions make sustainable transport easy.

## THE HOLISTIC MAN APPROACH TO SWITCHING TO ELECTROMOBILITY.

### Boosting Electrification

Based on decades of electric vehicle expertise, MAN knows exactly what is necessary for the economic introduction of electric mobility in the transport sector. With 360° eMobility Consulting from MAN Transport Solutions, we guide our customers on their path to electrification.

### Next Level Truck

Featuring the latest technology, the new MAN eTruck generation effectively combines ecology with economy. In addition to an emission-free drive train, the MAN eTGX and eTGS offer excellent driving behavior and ease of operation.

### Fully Charged & Connected

Range, longevity and performance through state-of-the-art battery technology and a sustainable charging infrastructure are two critical requirements for the transition to eMobility. MAN is also creating a networked eMobility ecosystem for a seamless digital customer experience.



# ELECTRIFY YOUR FLEET WITH 360° eMOBILITY CONSULTATION FROM MAN TRANSPORT SOLUTIONS

## Support for the transition to eMobility

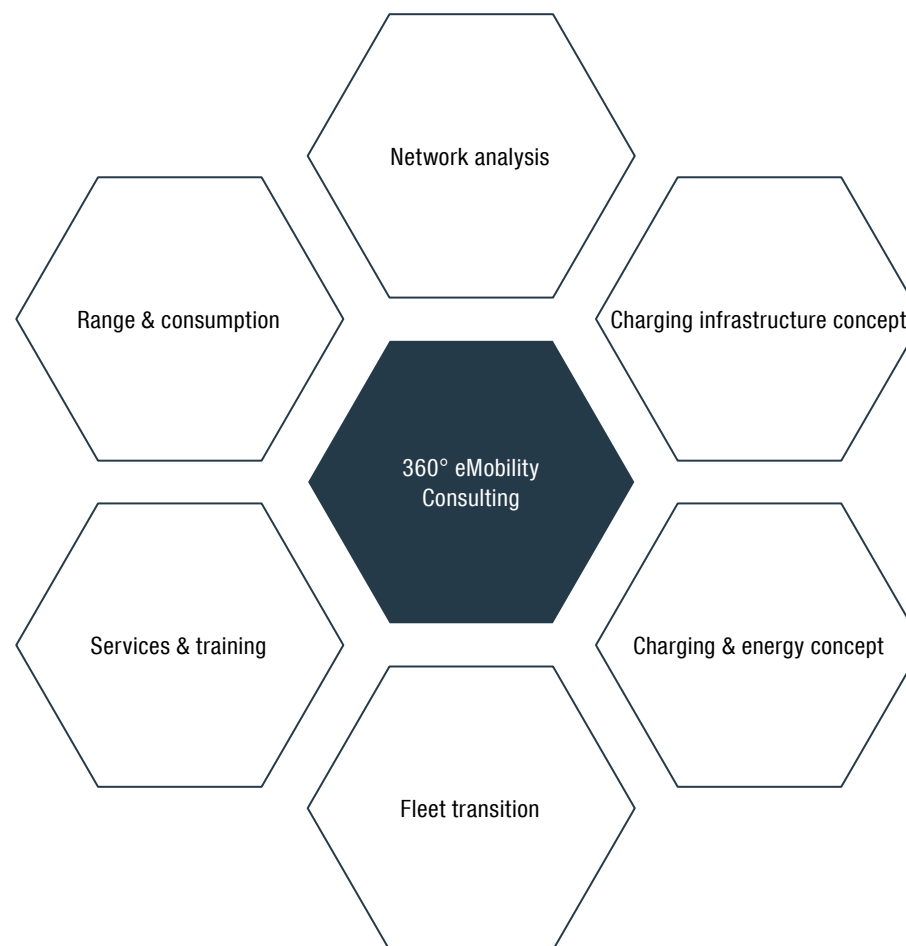
With comprehensive 360° eMobility consultation, we check whether your routes can be covered by electric vehicles and whether they can be operated economically. In this way, we help you to set and achieve your carbon reduction targets.

## Consultation provided to several hundreds of customers by the Europe-wide network of eMobility experts

The expertise of our eMobility experts is valued by customers throughout Europe, whom we support, with comprehensive strategies for the electrification of their fleet.

## Charging infrastructure and energy supply

We work with you to plan the design of your charging infrastructure and develop an optimal energy supply strategy for your business.



Our 360° consulting for the eMOBILITY ecosystem

### 1. Range calculation and consumption

- Analysis of the currently driven routes
- Definition of the key factors that influence the range (charging, topography, auxiliary consumers, weather conditions)
- Simulation of possible ranges for different scenarios

### 2. Network analysis / Route planning

- Simulation of your route planning with electric vehicles and, if necessary, adaptation of vehicle routes
- Composition of the optimal fleet mix of classic and electric vehicles for your company
- Analysis of potential carbon saved by converting to eMobility
- Cost-effectiveness analysis

### 3. Charging Infrastructure concept

- Simulation of various charging schedules for your fleet:
  - Definition of the charging infrastructure needs
  - Development of a tailor-made charging strategy
- Concepts for installing the charging infrastructure in the depot
- Set-up scenarios for public charging

### 4. Charging and energy concept

- Definition of the expected energy consumption based on route planning – Creating and checking concepts for safe energy supply, e.g. avoiding load peaks
- Definition of an energy strategy that considers potential for optimisation with respect to electricity use and company requirements as a concept for your electricity supplier.

### 5. Fleet conversion

- Development of a long-term plan for the complete conversion of the fleet to electric vehicles
- Determination of the electricity demand and development requirements for charging infrastructure for the early planning of major construction measures and application for extended power connections from the supplier
- Structuring of cost-effectiveness calculations and investment plans to correspond to long-term support programmes.

### 6. Services and training

- Consultancy with respect to the adaptation of workshop equipment and processes
- Concepts for safety training and courses for the safe handling of high-voltage systems
- Support with the definition of technology and driving training courses for your employees.

# eREADYCHECK

## READY TO CHECK WHICH MAN eTRUCK IS RIGHT FOR YOU?

Our MAN eReadyCheck supports you in this process and uses selectable parameters to show you which MAN electric vehicles are exactly the right fit for you.

To the MAN eReadyCheck:



# THE NEW MAN eTGX AND eTGS ARE HERE.



With the smartest and most environmentally friendly vehicles it has ever built, MAN is simplifying your path to electrification. Besides an emission-free driveline and daily ranges of up to 800 kilometres\*, the new MAN eTruck generation offers excellent handling with simple operation. In addition, MAN gives you a future-proof and intelligently networked eMobility ecosystem of the future that provides you with the best possible support in your daily work through digital solutions.

\*Including intermediate charging (Megawatt Charging) of 45mins with a battery capacity of 480 kWh allows for daily ranges of up to 800 km.

## WHY SHOULD YOU CHOOSE A MAN eTRUCK?

### Ideal Application fit

The MAN eTruck offers you one of the shortest semi-trailer tractor wheelbase at 3,750 mm, with up to 480 kWh battery capacity and high fifth-wheel-load. You can combine your eTruck with ISO trailers or special trailers, while complying with the 16.50m train length. MAN also offers chassis wheelbases that range from 3,750 mm to 5,950 mm. Power take-offs are also available in the new MAN eTruck.

### Extremely low ultra semi-trailer tractor for volume transport

For your high-capacity transport requirements, MAN offers a low design ultra semi-trailer tractor for volume transport with a minimal height of 953 mm. Ideal for semi-trailers with an internal height of 3,000 mm and an internal volume of up to 100 m<sup>3</sup>, and also for just-in-time/just-in-sequence delivery in the automotive sector.

### Flexible modular battery system

Choose from kits with configurable 3 to 6 battery packs (4 to 6 for semi-trailer tractors). You also profit from an application-specific configuration with more payload/fifth-wheel load at lower acquisition cost or longer range. Frame clearances, e.g. for hydraulic supporting legs for front crane applications have been taken into account and bodybuilders have been involved in the development process at an early stage.

### Commercial vehicle specific batteries – Made in Germany

MAN offers its own cell chemistry, specifically optimized for commercial vehicle applications. You also benefit from a high level of technical maturity due to corporate know-how of cars/buses/trucks.

### Charging with MAN – it couldn't get easier

Charge your MAN eTruck in nearly no time at all. This is possible with the highest Combined Charging System (CCS) charging capacity of 375 kW with a short charging time. Even faster charging is possible with the Megawatt Charging System (MCS) with up to 750 kW power. In addition, there are four possible loading positions on the vehicle for easy handling.



### All-round carefree package

We offer comprehensive consulting services to ease your journey into eMobility. Our extensive experience with hundreds of successfully completed projects has got your back. All digital services available for MAN eTrucks are included as a standard offering, even the MAN eManager. In addition, the high-quality and flexible MAN eMobility service products provide planning security i.e. powertrain warranty three years, service contracts incl. tyre service, or a purchase guarantee as stand-alone offer.

# THE NEW MAN eTGX

The eTruck for long haulage.



## ELECTRIFYING LONG-HAUL TRANSPORT.

With a daily range of up to 800 kilometres\*, the new MAN eTGX competes with conventional semi-trailer tractors when it comes to long haul. Regardless of whether it is a semi-trailer tractor or a chassis variant with body, the new Megawatt Charging System gives the electric truck a charging capacity of up to 750 kW. What's more, 45 minutes of recharging – the length of a typical break time – is enough fully charge the battery, making it ideal for long-distance travel. And after the work is done, the driver can relax in the cab's comfortable rest area.

## HIGHLIGHTS OF THE MAN eTGX

- A variety of cabs (GX, GM, GN) with a comfortable rest area
- Daily ranges of up to 800 km
- Choice between 3 and 6 battery packs

\*Including intermediate charging (Megawatt Charging) of 45mins with a battery capacity of 480 kWh allows for daily ranges of up to 800 km.



## TECHNICAL SPECIFICATIONS OF THE NEW MAN eTGX

|   | 4x2 Semi-trailer Tractor | 4x2 Chassis     | 6x2 Chassis     |
|---|--------------------------|-----------------|-----------------|
| Range                                     | 260 – 400 km             | 195 – 400 km    | 195 – 400 km    |
| Battery packs                             | 4 – 6                    | 3 – 6           | 3 – 6           |
| Battery capacity                          | 320 – 480 kWh            | 240 – 480 kWh   | 240 – 480 kWh   |
| Gross vehicle weight / gross train weight | - / Up to 44 t           | Up to 20 / 44 t | Up to 28 / 44 t |



# THE NEW MAN eTGS

The eTruck for heavy-duty distribution transport.



## STRONG, VERSATILE, QUIET.

Be it in regional distribution transport, for robust special applications or as an emergency vehicle for heavy loads: the new MAN eTGS is ready to extend its versatility according to your daily challenges. It can be used for a wide range of applications: from a (refrigerated) box to a heel tipper, as a semi-trailer tractor or chassis. Thanks to the smooth power delivery, the ample torque from a standstill and the precise handling, the MAN eTGS offers an exceptional driving experience. And with its usable battery capacity of 480 kWh, it easily covers most industry-specific range requirements, all while remaining climate-conscious and quiet. This makes concerns about range a thing of the past.

## HIGHLIGHTS OF THE MAN eTGS

- A comfortable driving experience and precise handling
- Tailored MAN Digital Services included
- Flexible pre-fitting for body mounting ex works

## TECHNICAL SPECIFICATIONS OF THE NEW MAN eTGS

|  | 4x2 Semi-trailer Tractor | 4x2 Chassis     | 6x2 Chassis     |
|--|--------------------------|-----------------|-----------------|
| Range  | 260 - 400 km             | 195 - 600 km    | 195 - 600 km    |
| Battery packs                                | 4 - 6                    | 3 - 6           | 3 - 6           |
| Battery capacity                             | 320 - 480 kWh            | 240 - 480 kWh   | 240 - 480 kWh   |
| Gross vehicle weight /<br>gross train weight | - / Up to 44 t           | Up to 20 / 44 t | Up to 28 / 44 t |







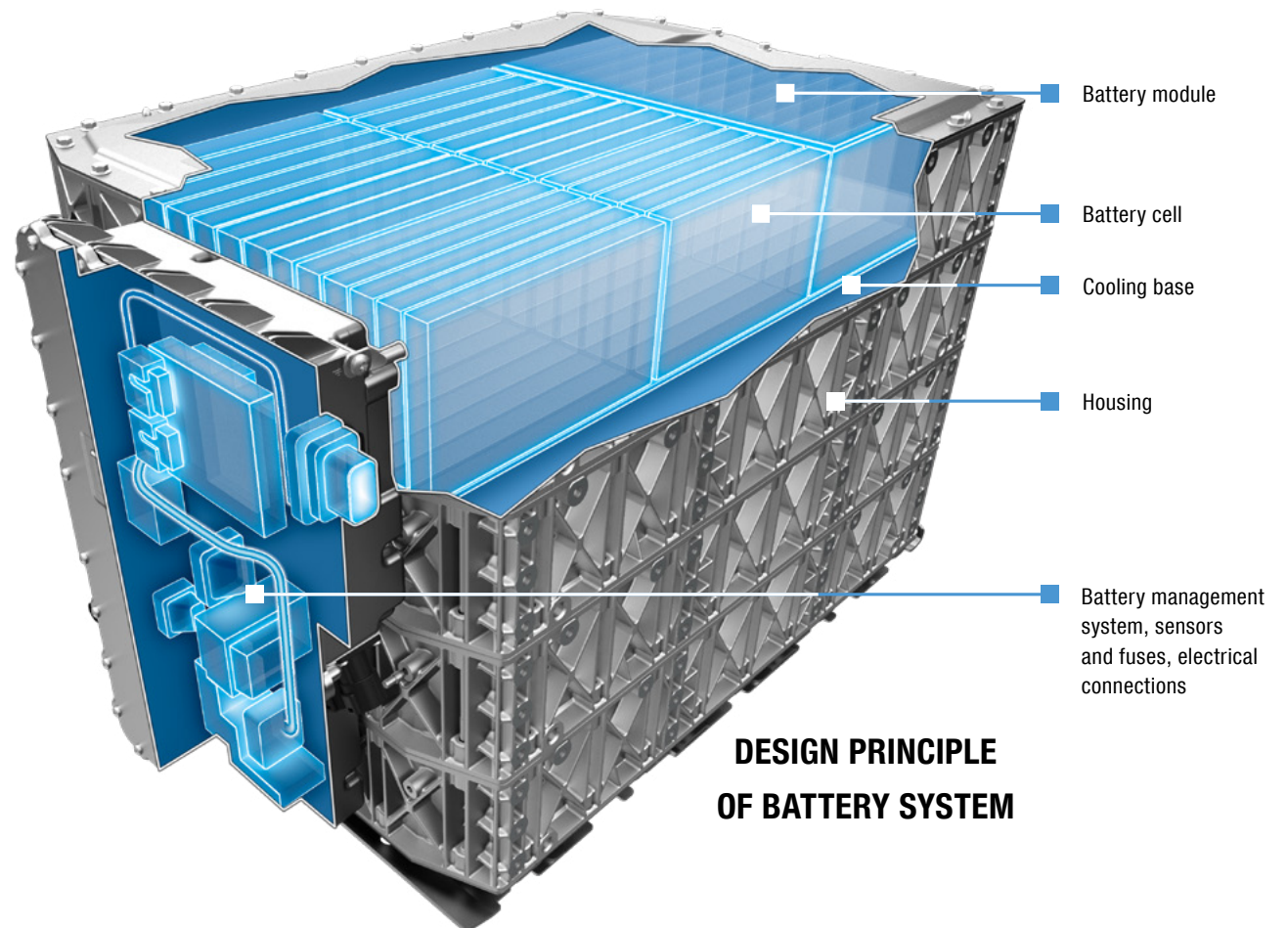
THE FUTURE  
STARTS NOW  
100% ELECTRIC

MAN

# THE HEART OF THE MAN eTRUCKS – THE BATTERY

The use of an emission-free truck driveline relies heavily on the battery. For this reason, the new MAN eTrucks are equipped with batteries that have been specially designed at the MAN site in Nuremberg, Germany. This means that the know-how of one of the most important technical components of the MAN eTrucks remains in-house.

Depending on the intended use of the electric truck, various capacities of up to 480 kWh can be selected. This ensures daily ranges of up to 800 kilometres, provided intermediate charging times are observed. Thanks to the new megawatt charging at up to 750 kW, it will only take 45 min to recharge the battery packs, depending on the battery configuration.



## MAINTENANCE AND REPAIR

The battery-specific maintenance intervals depend heavily on the application profile of the new MAN eTrucks. They are therefore calculated and determined on a vehicle-by-vehicle basis. Continuous analysis of battery data helps with this. MAN ServiceCare bundles this data into a maintenance plan, which the MAN service centre proactively discusses with you.

The average use of new MAN eTrucks can be less maintenance-intensive and wear-intensive than that of diesel vehicles – this depends very much on the individual application.

## REPAIRING, INSTEAD OF REPLACING

The high-voltage battery packs significantly contribute to the acquisition costs of electric trucks. For economic and ecological reasons, it goes without saying that in the case of the most common faults, the battery is repaired in an economically sensible way and not completely replaced. Typical fault patterns, diagnostic software and suitable repair methods are currently being developed for use in service branches in time for the start of production of the electric truck. Another step towards a more sustainable future.

## QUICK REMOVAL

The fastening of the high-voltage battery packs developed by MAN enables the battery packs to be quickly removed to the side, usually a time-consuming process. In addition to disconnecting the cable periphery, all you have to do is loosen the locking screws and move the battery pack out to the side – saving a lot of time.



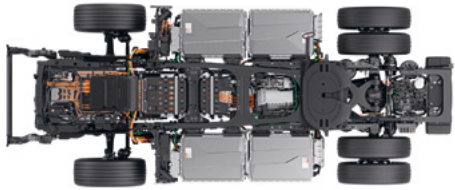
# RANGE – BATTERY OVERVIEW

| Battery packs in the MAN eTruck | Usable battery capacity | Max. range of solo vehicle distribution transport (0.8 kWh/km) | Max. range of long-distance train combination (1.2 kWh/km) | Payload MAN eTruck* | Recommended use of the MAN eTruck   |
|---------------------------------|-------------------------|--|--|---------------------|---|
| <b>Chassis variants</b>         |                         |  |  |                     |   |
| 6 Battery packs                 | 480 kWh                 | 600 km   | 400 km   | 16.3 t              | Max. range for long-haul transport  |
| 5 Battery packs                 | 400 kWh                 | 500 km   | 325 km   | 17.1 t              | Size of range for long-haul transport   |
| 4 Battery packs                 | 320 kWh                 | 400 km   | 260 km   | 18.0 t              | Typical daily mileage in distribution transport                                 |
| 3 Battery packs                 | 240 kWh                 | 300 km   | 195 km   | 18.8 t              | Highest payload in distribution transport with limited range                    |
| <b>Tractor-trailer variants</b> |                         |  |  |                     |   |
| 6 Battery packs                 | 480 kWh                 | -  | 400 km   | 9.5 t               | Max. range for long-haul transport  |
| 5 Battery packs                 | 400 kWh                 | -  | 325 km   | 10.3 t              | Compromise between payload and range in long-distance or distribution transport |
| 4 Battery packs                 | 320 kWh                 | -  | 260 km   | 11.2 t              | Typical daily mileage in distribution transport                                 |

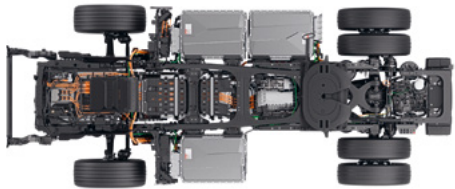
\*Approx. up to, for MAN eTGX semi-trailer tractor, 4x2, BL with GX cab; or MAN eTGX chassis, 6x2-, BL, with GX cab



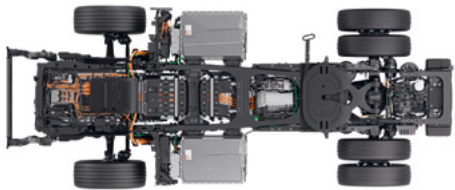
## Installation positions of battery packs, semi-trailer tractor



6 battery packs

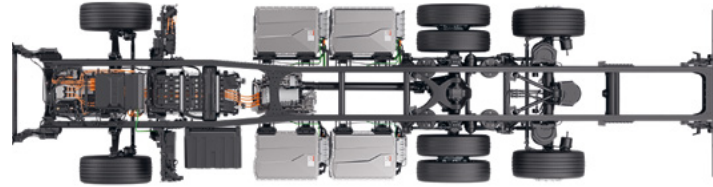


5 battery packs

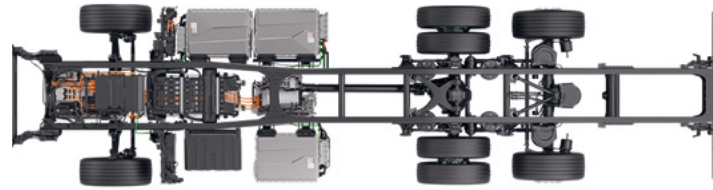


4 battery packs

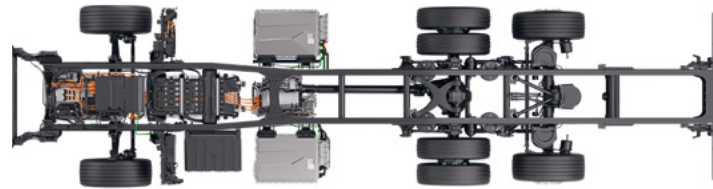
## Installation positions of battery packs, chassis



6 battery packs



5 battery packs



4 battery packs



3 battery packs

# CHARGING eTRUCKS

## ON-SITE AND THROUGHOUT EUROPE

There are two scenarios when it comes to charging an eTruck: private charging infrastructure at the company's location and public charging. In both cases, MAN, together with premium partners ABB, Heliox and SBRS, provide charging solutions throughout Europe that are tailored to the specific system.

The Combined Charging System (CCS) charges up to 375 kW, while the Megawatt Charging System (MCS), provides charging at up to 750 kW.

If the eTruck is parked overnight on company's premises, the vehicle can easily be fully charged. For cases where the electric truck is traveling long distances and has to resort to public charging points, there is a useful tool: MAN SmartRoute simplifies route planning for the new MAN eTruck – and at the same time increases confidence in the electric range.



| Charging Power           | Approximate charging time in min,<br>depending on battery configuration | System                  |
|--------------------------|---|-------------------------|
| 200 A (150 kW)           | 115 – 230 Min   | Combined Charging (CCS) |
| 500 A (375 kW)           | 45 – 90 Min   | Combined Charging (CCS) |
| 670 A (approx. 500 kW)   | 35 – 70 Min   | Megawatt Charging (MCS) |
| 835 A (approx. 625 kW)   | 28 – 55 Min   | Megawatt Charging (MCS) |
| 1,000 A (approx. 750 kW) | 22 – 45 Min   | Megawatt Charging (MCS) |

## YOUR PATH TO AN OPTIMAL CHARGING SOLUTION FROM MAN - IN FOUR EASY STEPS

### Step 1: Demand analysis via MAN 360° eMobility Consulting

When you purchase an electric commercial vehicle, we calculate the required electricity demand and provide an initial estimate of the required number of charging points. Your MAN contact person will work closely with you on the requirements, obtain a quote and suggest a suitable MAN premium partner. At the same time, we will check on the availability of subsidies.

### Step 2: Find the right offer for you

In close cooperation with our approved MAN premium partners, we develop a suitable charging infrastructure solution for you and your electric fleet. This may also include comparison quotes that give you maximum freedom of choice.

### Step 3: Commissioning your desired charging solution

Our MAN premium charging Infrastructure partners will present the solution to you and discuss the details with you. You can then decide which solution you would like to have implemented by our partner.

### Step 4: Installation and maintenance by the MAN premium charging infrastructure partner

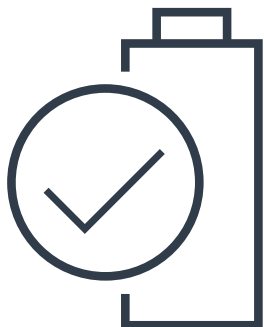
Once the contract has been successfully awarded, the installation and commissioning of the charging infrastructure will be carried out by our partner at your premises. There is no easier way to get into e-mobility.

# SUSTAINABLE TRAVEL WITH MAN DIGITALSERVICES

The future of the transport industry is electric – and, of course, digital. That's why many of the digital services available for conventional trucks can also be used with the new MAN eTrucks. In addition, MAN offers other digital solutions specifically tailored to its electric trucks: MAN eManager and MAN SmartRoute.

## MAN eManager

MAN eManager enables comprehensive charging management as well as vehicle and battery monitoring for the entire MAN electric truck fleet. Short ranges or charging failures are transmitted directly to the fleet management. Battery temperatures are monitored and if there is a risk of overheating, the fleet manager is warned in case of emergency. The charging of the vehicle is intelligently controlled. The vehicle's pre-air conditioning is integrated into the charging process, thus saving energy while driving.



The **MAN eManager** is available in two versions:

### MAN eManager S

- Efficient control of the charging process of a single MAN eTruck or the entire fleet
- Timer mode: Set when the electric truck should be fully charged – the MAN eManager takes care of the rest
- Real-time overview of the progress of the charging process, the possible range with the current battery status and the time of full charge

### MAN eManager M

- Includes all functions of the MAN eManager S
- Transmission of battery-relevant key figures on temperature, voltage as well as charging and discharging
- Display of the remaining battery capacity in kWh in all state of charge
- Overview of the status of the entire MAN eTruck fleet, including information on the driving condition





### MAN SmartRoute

MAN SmartRoute – for fleet managers and drivers – simplifies route planning for your new MAN eTruck fleet and assists with optimum planning of intermediate charging along the route so that the tours can be completed successfully.

The following parameters are taken into account:

- Battery charge status and remaining range
- Traffic (e.g. traffic jams, accidents, roadworks)
- Infrastructure (e.g. charging stations, service areas)
- Topography (e.g. mountains)
- Weather
- Commercial vehicle restrictions (e.g. load)
- Driving job (e.g. route, customer stops)
- Time requirements (e.g. travel times, unloading times)
- Driving times and rest periods

# TRANSFORMATION OF THE MAN SERVICE NETWORK FOR eMOBILITY.

For both conventional trucks and the new MAN eTGX & eTGS, an efficient service network is crucial. To ensure that the new eTrucks have as little downtime as possible, MAN is updating its function and service structure with regard to the topic of eReadiness. The transformation follows an ambitious plan: by the start of production of the eTrucks in 2025, 70% of all MAN-owned service operations in Europe will be e-ready. And from 2028, MAN plans to have 100% e-readiness.

## **MAN ServiceCare**

With the predictive, digital maintenance and repair management MAN ServiceCare, you can always keep an eye on the maintenance status of your electric commercial vehicle. In order to reduce workshop visits and downtimes, maintenance and vehicle data are transferred from your MAN electric fleet to MAN ServiceCare. Depending on the individual requirements, you can choose between the following service packages: MAN ServiceCare S and MAN ServiceCare M.

## **MAN Mobile24**

Proactive precautions, quick action, acting instead of reacting – these are the principles of MAN Mobile24. We'll help you get to your destination. You can reach us around the clock – 365 days a year – free of charge by calling 00800Mobile24 / 00800 66245324.

MAN Mobile24 is MAN's very own "roadside assistance service" and includes Europe-wide vehicle support.

## **MAN Service Contracts**

With MAN service contract, there is no need to worry about unexpected repair costs or breakdowns of your electric commercial vehicle. Our service contracts help you keep your expenses calculable with a comprehensive service package. Throughout Europe, our experts in the MAN service centers handle MAN electric trucks with professional care. This means that you can devote your full concentration to your core business.

## **MAN Genuine Parts**

MAN Genuine Parts guarantees that you are driving with the best MAN quality. The parts are manufactured in accordance with MAN guidelines and inspected carefully to ensure that they comply with our strict quality standards. They also guarantee maximum reliability and economy. In addition, they come with a two-year warranty that is valid worldwide for MAN service and parts.

## **MAN Uptime Guarantee**

Wherever you go with your MAN electric truck, the MAN uptime guarantee, MAN ensures the reliable operational readiness of every eTruck fleet. The MAN uptime guarantee for electric trucks assure your mobility in more than 30 European countries.



For more information and to get in touch with us, please scan the below QR code.



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