

THE NEW EBUSCO 2.2

MADE TO
MOVE PEOPLE



EBUSCO®

WE ALL SHARE
ONE DESTINATION:
OUR FUTURE





FOR US IT IS ALL ABOUT A BETTER LIVING ENVIRONMENT

A better and healthy living environment, in which people can live together with nothing to worry about. Breathe clean air. Enjoy the silence or have conversations without any disruption. That's the main objective of EBUSCO®. A goal that is getting closer and closer, thanks to the development and production of 100% electrically powered public transport buses. The future is electric, there is no doubt about that.

SMART MOBILITY, RESILIENT CITIES

The biggest challenge for now and in the future, is to achieve a sustainable and healthy environment. With continuing urbanization and the end of the fossil fuel era, innovation is key. Together, we must continuously look for smart solutions to speed up the energy transition. Intelligent ideas are required to bring promising concepts for smart mobility and resilient cities to life

EBUSCO®, join our mission.

ZERO EMISSION IS NOT A DREAM. IT IS A CHOICE.

EBUSCO®'s work is all about people. It is our goal to contribute to a better living environment by enabling reliable, sustainable, emission-free and affordable public transport. The diesel age is over, especially when it comes to public transport in cities. Nobody doubts this anymore. EBUSCO® puts an end to all other doubts regarding electrically driven buses. Our buses meet the needs of operators, municipalities, urban planners, drivers, mechanics but most importantly our passengers. You don't have to think long about the unique advantages of EBUSCO®. They speak for themselves, without any doubt.



NO DOUBT, ZERO EMISSION.

Zero emission is no longer a dream for the future. Fully electrically powered buses from EBUSCO® make reduced emissions a conscious choice.



NO DOUBT, NO NOISE.

The city is full of noises. Pleasant, but also annoying and dominant. EBUSCO® electric buses give priority to silence.



NO DOUBT, 300 KM RANGE.

With a range of at least 300 kilometers, the EBUSCO® bus runs from early morning to late evening. There is no need for additional charging.



NO DOUBT, 90 PAX.

EBUSCO® does not make any concessions in terms of quality and capacity. Our electric buses transport 90 people without problems.





INTEGRAL QUALITY






Ever since we started, it was our goal to make the transition from diesel to all-electric public transportation as easy as possible. Only then we are successful in our mission to create value for the city. For us this meant, and still means, our clients and stakeholders should have full confidence in the functional and technical capabilities of our buses. In terms of performance and comfort, the comparison of conventional versus our all-electric buses should be easy.

EBUSCO® has always applied high-quality Dutch technology for propulsion and battery technology. Engineering, development, innovation and sales are done in-house; innovation is an important driving force in the company's development. EBUSCO® values the position our living environment has in people's lives. We therefore do not allow ourselves any compromises on technical and functional aspects.

READY FOR EXTREME CONDITIONS

The sophisticated design and leading battery technology of EBUSCO® guarantee optimal performance. Even under extreme conditions.

TECHNICAL AND FUNCTIONAL ASPECTS

- 
BATTERY
 362 KWH (475 KWH OPTION) / 8 YEAR WARRANTY / 300 KM RANGE (400 KM LONG RANGE OPTION)
- 
POWERTRAIN
 270 KW PEAK POWER / UP TO 18% SLOPE IN MOUNTAINS / FAST ACCELERATION
- 
CONSTRUCTION
 LIGHT WEIGHT STAINLESS STEEL BODY AND CHASSIS (EN 1.4001) / CAPACITY FOR 90 PASSENGERS
- 
SAFETY
 FIRST EUROPEAN HOMOLOGATION / RELIABLE IN COLD CONDITIONS
- 
COMFORT
 SILENT TRANSPORTATION / NO BATTERIES IN INTERIOR / NATURAL LIGHT



CHARGING SOLUTIONS

The efficient and effective operation of your service is a key focus of EBUSCO®. The extensive range of the EBUSCO® 2.2 provides you with the availability you need throughout the day, whilst optimising your charging time and equipment in the best possible way.

DEPOT CHARGING

By far the most cost effective and efficient solution is depot charging. EBUSCO®'s unique system of the two-plug charging approach makes your bus available at the times you need it, whilst protecting your precious battery. It also greatly reduces your investment in charging infrastructure.

With Phoenix, our supplier of depot charging equipment, we have developed a unique and robust solution, which complies with all European standards. EBUSCO® believes that standardising charging equipment is crucial for the fast and effective transition to electric vehicles. Phoenix was one of the founding fathers of the so-called CCS communication protocol in Europe.

OPPORTUNITY CHARGING

The EBUSCO® 2.2 is available with optional charging strips for a pantograph. The overhead pantograph is activated through a button on the dashboard, enabling opportunity charging to be carried out at a bus stop en route.





EBUSCO® LIVE FULL CONTROL OF YOUR FLEET

To ensure your operations with your EBUSCO® vehicles are running smoothly, EBUSCO® offers you EBUSCO® Live, an integrated and fully connected overview. EBUSCO® Live gives you a full view on your energy management, maintenance, routing, punctuality, number of passengers and estimated time of arrivals on stops. The possibilities are endless. With our API, everything can be connected to make the journey end to end 100% reliable for you and for your passengers.

SUSTAINABILITY OUR RESPONSIBILITY



The EBUSCO® 2.2 uses unique optimized LFP (Lithium Iron Phosphate) batteries, which have a very high energy density. The batteries will serve your needs very efficiently and give power to your bus for many years to come. However, there will come a time when the batteries will not be able to work optimally anymore. When that time comes there is a possibility to first reuse the batteries so they can serve a “second life” and then later recycle them resulting in almost no waste.

DESIGN & MANUFACTURING

To facilitate the reuse and recycling process, EBUSCO®'s batteries are engineered to facilitate disassembly and the segregation of the components during the recycling process. We also acknowledge the impact that the manufacturing of batteries has on the environment, therefore we scrutinize the technical development to be sure that we are always using the most sustainable technologies available.

USE: FIRST LIFE

The optimized LFP batteries have a long life cycle and high safety. LFP batteries diminish the risk of explosion or fire due to high impact, overcharging or a short circuit situation. Moreover, the batteries do not contain any critical metals such as nickel and cobalt originating from “Conflict-Affected and High-Risk Areas”.

REUSE: SECOND LIFE

The End-of-Life for a LFP battery is usually 80%, however reaching EoL does not necessarily mean that a battery will no longer function. It can still be usable and do less demanding work than powering your bus. For example, it can be used in energy storage applications and Off-Grid systems.

RECYCLING

All batteries will eventually expire. When this occurs they should and can be recycled with the philosophy “from battery to battery”. The technology of recycling batteries is available today, however it will take some time before recycled batteries are available in large scale. EBUSCO® is a front runner when it comes to recycling and fully embraces the development of the battery to battery approach.

CORPORATE SOCIAL RESPONSIBILITY

Our Corporate Social Responsibility strategy is a crucial pillar of EBUSCO®'s foundation. All Sustainable Development Goals are an integral part of our strategy and made SMART (specific, measurable, actionable and timed). EBUSCO® wants to play a leading, innovative and guiding role in the energy transition of public transport all over the world.

To realize our objectives, EBUSCO® is seriously taking care of its footprint. Our shareholders wouldn't want it any other way. Their shareholdership is aimed at the long lasting sustainability of EBUSCO® and its contribution to the energy transition in the world.

12m

18m



2-DOOR



3-DOOR



THE EBUSCO® 2.2 RANGE

EBUSCO® 2.2	12M, 2-DOOR	12M, 3-DOOR	18M, 3-DOOR
Body type	Low entry	Low floor	Low entry
Overall length	12,000 mm	12,000 mm	18,000 mm
Overall width	2,550 mm	2,550 mm	2,550 mm
Overall height*	3,375 mm	3,375 mm	3,375 mm
Wheelbase	5,850 mm	5,850 mm	5,850 mm
Wheelbase 2 nd and 3 rd axle	-	-	6,000 mm
Front overhang	2,750 mm	2,750 mm	2,750 mm
Rear overhang	3,400 mm	3,400 mm	3,400 mm
Interior height	2,400 mm	2,400 mm	2,400 mm
Unladen vehicle weight**	12,850 kg	12,850 kg	19,000 kg
Max. total weight	19,000 kg	19,000 kg	29,000 kg
Capacity (passengers)**	90	90	130
Electric drive	Asynchronous, water-cooled. High energy recovery capacity for regenerative braking (ca. 25-40%).		
Rated voltage	AC 3ϕ 400V	AC 3ϕ 400V	AC 3ϕ 400V
Peak power	270 kW	270 kW	250 kW
Max. output torque	18,000 Nm	18,000 Nm	22,000 Nm
Batteries			
Cell chemistry	LFP (inherent fireproof battery)	LFP (inherent fireproof battery)	LFP (inherent fireproof battery)
Cell capacity and voltage****	105 Ah, 3.2 V	105 Ah, 3.2 V	105 Ah, 3.2 V
Pack nominal voltage	576 Vdc / 557 Vdc***	576 Vdc / 557 Vdc***	576 Vdc
Pack capacity****	362 kWh / 475 kWh***	362 kWh / 475 kWh***	362 kWh / 544 kWh***

* Including roof skirts, air conditioning unit and roof compartment, excluding optional pantograph charging strips.
** Depending on battery capacity.
*** Optional Long Range version.
**** Subject to change.

SUPPLIERS

- ALCOA
- CAMIRA FABRICS
- CONTINENTAL
- DOGA
- GERFLOR
- HAPPICH
- HEAVAC
- HELLA
- ISRI
- KESSELSGRANGER
- KIEL
- KNORR-BREMSE
- MEKRA
- MICHELIN
- MOBITEC
- PHOENIX
- STER
- SVENSSON
- VENTURA
- WABCO
- ZF



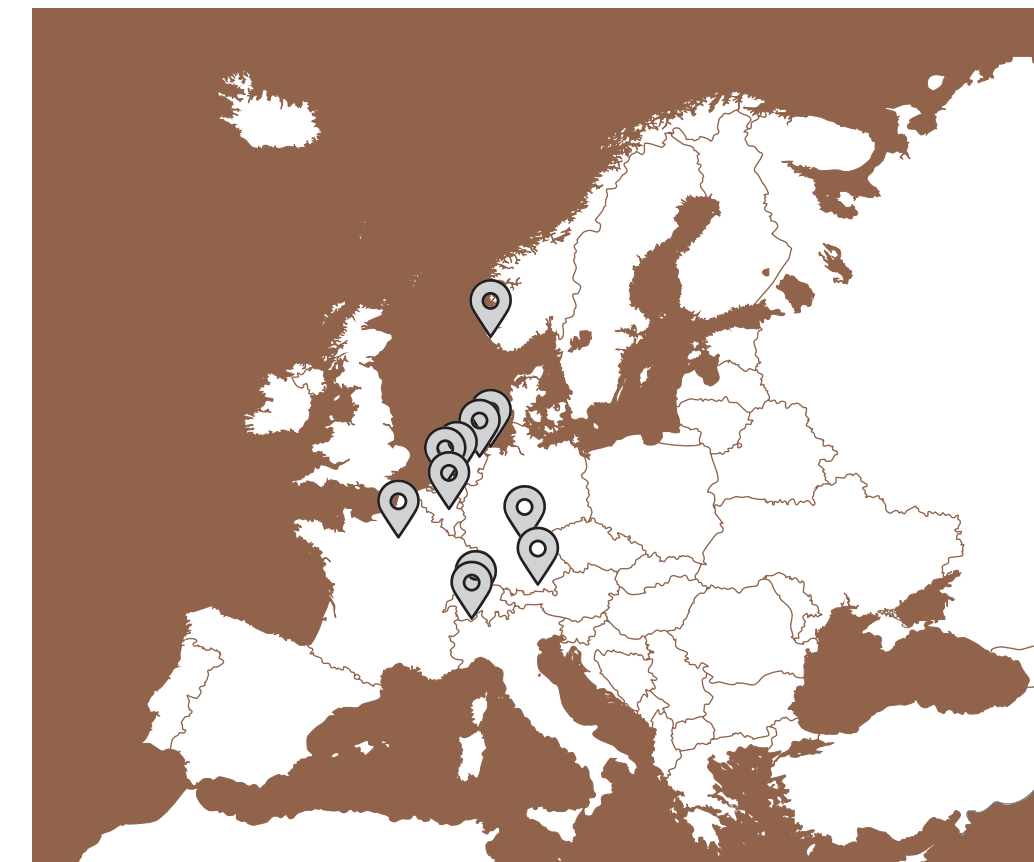
PROVEN TECHNOLOGY

By choosing our buses, you opt for uncompromising electric public transport. From early morning to evening, every EBUSCO® bus can run full-fledged services, on every route. This offers you ultimate flexibility to use your resources and people in the best possible way.

The powerful battery also has advantages for the city. Additional charging stations are not needed and routes can be changed whenever necessary, for instance during events. The extremely low energy consumption ensures that your drivers can drive to the depot with sufficient residual charge after their service is completed, without any worries.

CASE STUDIES ACROSS EUROPE

EBUSCO® brings the crucial energy transition a step closer to reality. It will also ensure that you can really get to grips with the EU's emission targets for public, freight and passenger transport in urban environments. We are already tackling these important challenges with the deployment of our electrically powered public transport buses. We do this together with leading cities such as Paris, Munich, Utrecht and 12 other cities. When is it your city's turn?



“WE INVITE YOU TO DISCOVER OUR BUSES. LET'S CREATE VALUE FOR YOUR CITY TOGETHER.”

Peter Bijvelds, CEO EBUSCO

Since 2010, we have made it our mission to deliver all-electric buses that make a valuable contribution to the energy transition. As developer and manufacturer we apply high-quality Dutch engineering and technologies. In terms of marketing and sales, Europe is our market. Our buses comply with European legislation and regulations and are equipped with the monitoring systems required by European license holders. EBUSCO® was the first European manufacturer to receive a European type-approval for electric buses.



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All illustrations and specifications are based upon current information available as per June 2019.

EBUSCO® reserves the right to change the technical characteristics and specification of its products without notice.

EBUSCO® makes all efforts to provide accurate information; however there is no guarantee of accuracy.

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