# THE POWER TO MAKE LIFE BETTER





# "BYD doesn't simply produce products, we are engineering and creating for a better future."

Transportation is at the core of our everyday lives. The drive to make mobility more efficient, connected, comfortable and safe without creating emissions and pollution is what BYD is devoted to.

From energy generation and storage to its applications, BYD provides a sustainable solution in its "Electrified Public Transportation Solution".

Our vision is this: during the day, solar farms capture and store power from the sun. At night, energy storage systems deliver stored power to homes. All the while, electric vehicles are the road transport of choice, while high-speed SkyRail systems built along green routes connect the city, reducing traffic congestion.

BYD doesn't simply produce products, we are trying to create a better future because we care about the planet and are committed to preserving it for future generations.

Isbrand Ho

Managing Director, Commercial Vehicle Business,
BYD Europe





## BYD's e-Mission: To make a better future

Founded in 1995 as a pioneer in battery technology, BYD's mission is to change the world by creating a complete, clean-energy ecosystem that reduces the world's reliance on petroleum.

BYD's innovative products are leaders in multiple sectors, including battery-electric automobiles, buses, medium and heavy-duty trucks and forklifts; SkyRail monorail system; solar power generation and energy storage systems, as well as consumer electronics.

#### **ELECTRONICS**



Chips



**OEM** 



ODM



Battery

#### **NEW ENERGY**

#### **AUTO**

#### **RAIL TRANSIT**

#### 7+4 FULL MARKET EV STRATEGY



Solar panel



**Energy Storage** 



LED



**Charging Station** 





Taxi



Coach



Bus



Logistics



Sanitation



Airport



Harbor



Mining



Warehouse



Off-road Vehicles for Specialized Fields



SkyRail



SkyShuttle











# BYD Electric Bus & Truck Hungary Kft.

BYD Electric Bus & Truck Hungary Kft. was established in April 2016 in Komarom, northwest Hungary. This is BYD's very first factory in Europe and the first electric vehicle factory by China's new energy brand in Europe.

The factory was put into production with a capacity for the assembly of up to 400 vehicles per year in April 2017 and is mainly responsible for the research, development and manufacturing of electric buses and other products. The factory has independent R&D capabilities and also houses the requisite battery testing equipment. The industrial park consists of an office building, a sub-assembly workshop, a chassis workshop, a spraying and assembly worshop, a battery testing and maintenance center, a test line and a water testing room.

#### Made in Europe, for Europe

The buses manufactured in our Hungarian factory are already in service at major operators in Europe, like Nobina, VY, Keolis, DB, EMT, TMB, GTT and Transdev, among others.









# The Netherlands

## Italy









# Spain

## Norway





# Portugal



## Hungary





Belgium







# Spain

## Israel





Scan for more details



BYD eBUS K7

BYD eBUS K9UD

BYD eBUS B11

BYD eBUS B13

## **BYD eBus Family**



BYD eBUS B15

BYD eBUS B18

BYD eBUS B19









BYD-Castrosua

12-meter eBUS



## When design meets innovation

#### **Steel Body**

Optimization of the overall design with high-strength, lightweight materials and improved sealing performance.

#### **Digital Side Mirrors**

A more aerodynamic design, which reduces drag and saves more energy during daily operation. This design also helps prevent driver distraction caused by inclement weather conditions, while providing a much wider field of vision to increase a driver's situational awareness and hazard perception.

#### **Wheel Side Motor**

Consumes less energy and provide extra space in the cabin.

"Providing satisfying experiences is always our priority, not only for passengers but also for drivers. BYD's eBus now uses a new generation body structure, which boasts increased strength and stiffness for better safety and a longer service life. Moreover, it increases passenger capacity and lowers the overall operating cost.



#### **Press To Go**

With our keyless system, there is no more requirement to physically turn the key to unlock and start the vehicle.



#### **Regenerative Braking System**

Converts part of the kinetic energy into electricity and stores it in the battery, providing additional range, which is perfect for daily city operation.



#### **Pre-heating System**

With this system, BYD ebus can pre-set the cabin temperature to meet any weather condition for ultimate passenger comfort.



#### **Autohold System**

When the bus comes to a complete stop, it will automatically hold in the parking position and prevent it from moving on a slope.



#### **Intelligent Start Battery Management**

The intelligent start battery management will always keep the vehicle ready. Once the start battery is detected in low power, the system will charge it automatically.



## BYD never stops Inspiration drives innovation

#### **Omni Cockpit**

The Omni cockpit is designed to provide drivers with an advanced, professional and ergonomic space for daily operations.

#### **Spacious Cabin**

USB port, brand new lighting system and new semi-hover seat design enhance passenger comfort even further.

#### CO<sub>2</sub> Air Condition System\*

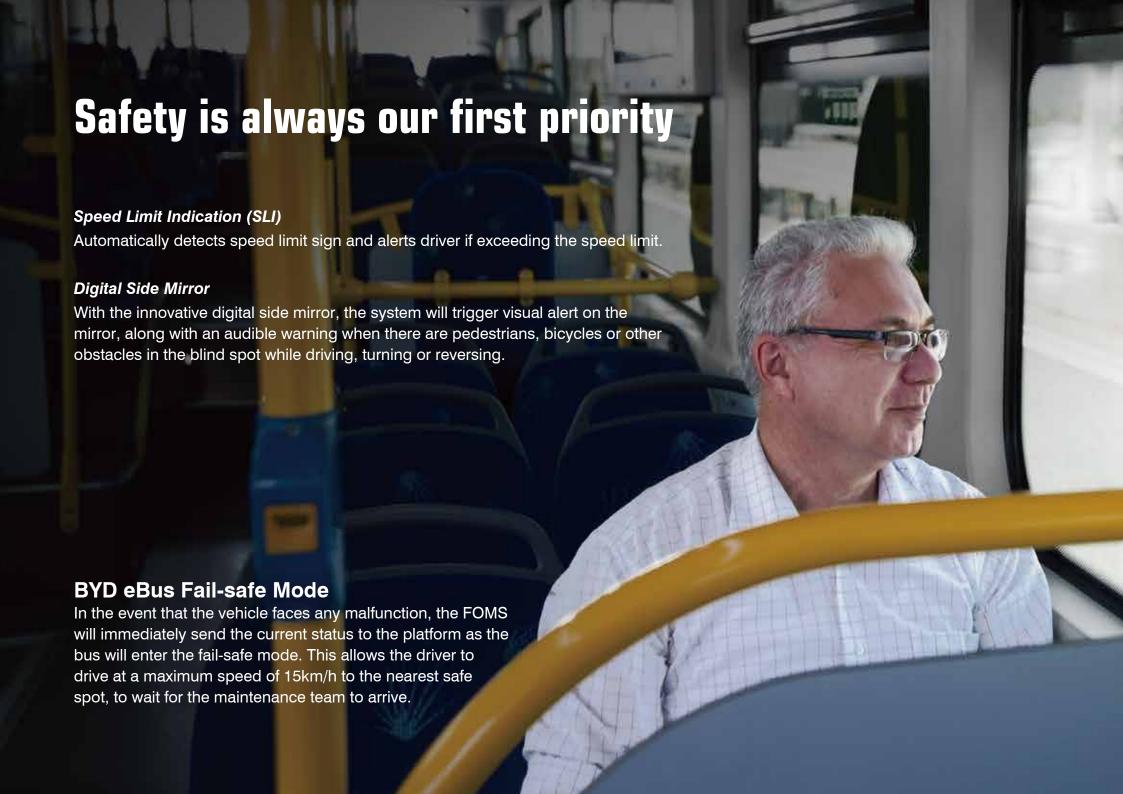
With this system, our eBus will be more eco-friendly. In addition, it increases heating ability in heat-pump-mode, while also lowering noise and vibration levels – again providing a much more enjoyable experience for our passengers. Last but not the least, safety is always our priority, and our system therefore includes our in-house developed overheating and freezing protection function. \*Note:Optional not standard.

#### **Bird's Eye View Camera**

Bird's Eye View Camera offers full control of the situation with no blind spots around the eBus, significantly increasing safety during reversing, parking in a confined space and manoeuvering in busy city streets.









#### **Drive safely with BYD**

Headway Monitoring Warning (HMW)
Pedestrian Collision Warning (PCW)
Forward Collision Warning (FCW)

Warning alert and signs will be triggered when:

- A pedestrian passes through the front detection zone.
- The vehicle is too close to the vehicle ahead.
- The vehicle is approaching low overhead structures.

Electronic Stability Control (ESC), Traction Control System (TCS)

These two systems ensure BYD eBuses maintain total stability in all conditions.

#### Eliminate human error

Lane Deviation Warning (LDW)

**Emergency Steering System (ESS)** 

A complex safety system that automatically brings the bus to a safe stop within 30 seconds in the event of a loss of power to the electric power steering.

### What's inside is even better

#### 6-in-1 Controller

BYD has developed the 6-in-1 controller incorporating:

- 2 electric motor control units
- 1 steering control unit
- 1 air compressor controller
- 1 DC-DC converter
- 1 power distribution unit

These six components are integrated into one single compact module for enhanced efficiency, optimised space utilisation and ease of maintenance.



#### **BYD Battery Management System**

A better way to manage your battery, all controlled with a smart device.

#### **Battery Thermal Management System (BTMS)**

BTMS is a liquid cooling system that guarantees the battery temperature stays at the optimum operational temperature. This increases the safety and reliability of the battery system and enables the vehicle to operate in extreme weather conditions.

#### **Safety Management**

Detect, analyze and execute.

#### **Real-time Monitoring Program**

Enable operators to track battery status any time, anywhere.

#### **Battery Equalization**

Extend mileage and service time.

#### **BYD Iron-Phosphate Battery**

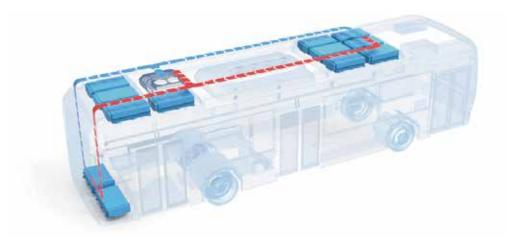
BYD is the first enterprise in the world to fully industrialize the Iron-Phosphate battery.

**Eco-friendly** 

**UL Approved** 

**Long Service Life** 

**High Stability and Performance** 



## Different ways to recharge your fleet

## BYD offers various charging solutions to meet all possible charging needs

The DC fast charging solution is available with high charging power and efficiency.



Pantogragh and inverted pantograph charging are also available.

All the charging equipmnents BYD provide are :

- easy to install
- easy to use
- easy to maintain





A110



FleetLink brings a holistic solution for public transport operators to monitor their electric bus fleets in a user-friendly way, boosts performance through better asset visibility and vehicle utilization, reduces cost by saving energy and proactive maintenance.

#### Real-time visibility of daily operations

Track vehicle status, location and route; check vehicle SOC and estimated remaining range; monitor depot and charging process.

#### Detailed data for 24/7 insights about each vehicle

Comprehensive data is provided via 5 different categories, giving insights about vehicle usage, health and performance.

#### Depot and charging overview

Provide a complete real-time overview of charger availability and monitor progress. Receive instant reminders when charging is completed, or notifications in the event of an incident occurring.

#### Insightful data analysis & Report

Develop effective fleet management strategies. Data dashboard gives a real-time overview of fleet performance, while report function displays and compares historical data between vehicles in specified time periods.

#### Vehicle & charger alarms and events notifications

Receive instant alerts and reminders to keep vehicles and chargers in peak condition.

#### Maintenance history of vehicles and chargers

A digitised schedule helps ensure vehicles and chargers receive routine maintenance

#### Collaboration and flexibility

Connected service for keeping up with the ever-changing demands.

# All-elements testing system ensures excellent bus quality

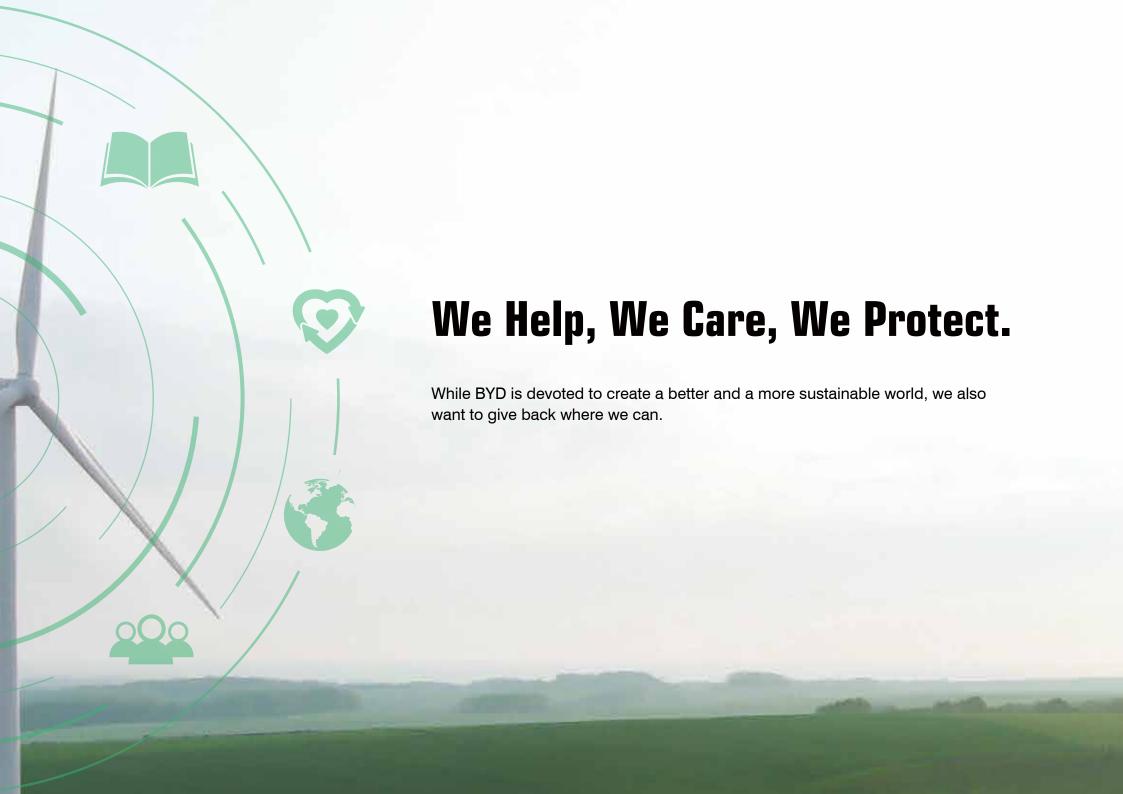
The BYD Test Centre is equipped with more than 70 professional labs and more than 3,000 testing items, for the whole vehicle, system and components, drive system, vehicle material, safety, EMC and NVH, to ensure the safety and reliability of the eBus. The test centre can meet the needs of multinational certification in the America, Europe, Asia Pacific and other regions. BYD was awarded the "2013 Crash Test Facility of the Year" by Automotive Testing Technology International, marking a major miletone for BYD Auto.

#### Safety, NVH and EMC Test

BYD's EMC and NVH laboratories are state-of-the-art, meeting national and international standards. Tested in these BYD labs, the BYD eBus has already proved that, by virtue of its intelligent engineering, it delivers an outstanding performance in noise, vibration and harshness. As a result, the BYD eBus is safe, quiet and comfortable.







#### **BYD Charity Foundation-Dream Action**

Dedicated to assisting disadvantaged students in achieving their academic goals. In 2018, the scheme was revamped to form three major sectors: funding for disadvantaged students, improvement of teaching facilities and scholarships.

#### **BYD Volunteers Association**

With the motto of "walking with love and warming everyone with action", BYD volunteers took part in charity activities to help the poor, care for the weak and support disaster relief fund wherever there is a need.

#### **Green Operation and Production**

Our EV batteries are recycled after their service and can be used in different fields at the remaining capacity, which at the end can still be decomposed to eco-friendly parts. And now BYD is on track to open a lithium-ion battery recycling plant in Shanghai.

#### **Employee Responsibility**

We value our employees. Without their hard work and passion, it would have been impossible to achieve such incredible growth in such a short time. That's why we provide a talent management scheme called "DRAGON PROJECT" to create channels for management and professional development. Employees also have the opportunity to attend a number of enriching training courses provided by BYD during their spare time.



reached a record high" faster than ever before" increased pollution and stress" Those are the issues that we are facing us right now. BYD is dedicated to creating a better future for generations to come. Join us to solve the challenges faced by our environment and help to find tomorrow's sustainable solutions.

**BYD** eBuses. Driving for a better tomorrow

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