Yutong Bus Co., Ltd.
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U Series

NEW GENERATION INTELLIGENT BATTERY ELECTRIC BUS

WHO ARE WE

Leading global bus supplier, world's top-selling bus brand

- 5 major production bases
- Total factory area over 3.59 million square meters
- Daily average production capacity of up to 445 vehicles
- Maximum daily production capacity of over 375 new energy buses
- Product length ranging from 5m to 18m, covering segments such as coaches, buses, commuters, tourism coaches, school buses and special vehicles
- Global cumulative sales volume of over 170,000 units

OUR MISSION

To bring better life and drive your value

- Save 58,919 liters of fuel per year
- Reduce NO emissions by 9,290 tons per year
- Reduction of carbon emissions by more than 1,600,000 tons per year
- Reduce PM2.5 emissions by 193 tons per year

DYNAMIC AESTHETICS INTO STREET

Inheriting the family's excellent genes, the vehicle is shining and eye-catching in every way with fashionable and cutting-edge styling which comes together in perfect combination with exquisite and high-grade interiors.
The overall design has a strong technology, futuristic and premium sense, making it a bright urban mobile landscape.

High-tech curved contour

The black curve profile gives it a technological look and the styling has been recognized by the Busworld award.

Integrated design

Wide floor leather and large roof panel splicing process make the interior floor and inner roof more levelled for a convenient experience.

Full LED track-shaped headlight cluster

With a service life of up to 50,000 hours, the headlamps are durable, with functional aesthetics and practicality.

Floating design of compartment facilities

The interior armrests, seat legs, radiator and other non-floor design are not only simple and beautiful, but also add up to the sense of roominess.

High-end and exquisite interior trim

The use of facilities such as aviation ceiling, three-color ambient lighting, and large cross-section air duct with hidden design make the vehicle interior more refined and aesthetically pleasing.

ENJOY A COMFORTABLE RIDE

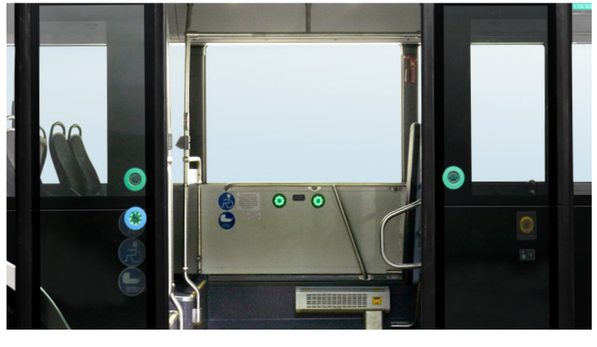
Traveling is more than just destination, but a comfortable experience throughout the entire journey.
The user-friendly design of driver-passenger partition brings joy to the driver and passengers on every journey.

Intelligent adjustable instrument panel

The driver can adjust the steering wheel height and front-rear space as needed, so as to improve the human-machine interaction experience.

Independent A/C in driving area

The A/C temperature in the driving area can be adjusted independently to ensure comfort travel.



Widened anti-pinch passenger door

The width of the passage reaches 1,200mm, which is convenient for passengers to get on and off the vehicle and improves efficiency. The passenger door is equipped with an infrared anti-pinch device, which can effectively avoid pinching passengers.

Convenient barrier-free passage

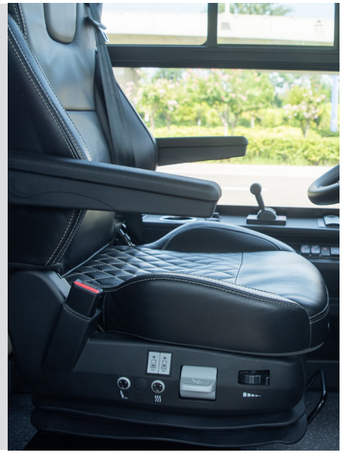
The interior passage on the front axle is 920mm wide, and the handrail width is 1,300mm. The vehicle adopts a humanized design of low-floor structure to make the barrier-free space in the vehicle larger.

Inclined-support ergonomic passenger seat

The seats are well wrapped and comfortable to sit. Meanwhile, the utilization rate of interior space is improved so that passengers can enjoy a pleasant journey.

Full air suspension driver seat

The seats are ergonomically designed with ventilation, massage and swivel functions to effectively relieve sedentary fatigue.



COMPREHENSIVE SECURITY

As the leader of new energy buses, Yutong has independently developed the core technology "YEA" for new energy buses and formulated the "YESS" safety standards on fireproof, waterproof and electric shock-proof for electric buses, based on which we reach the highest protection grade rating IP68+IP6K9K and European standards are met, all guaranteeing a safe drive.

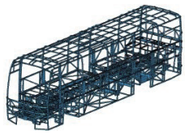
YEA 睿控 + YESS:Fireproof, Waterproof and Electric Shock-Proof
(the safety of the vehicle industy and wading areas is improved)

A Solid Fortress of Security

◆ Vehicle Protection

① Robust closed-ring structure

The robust closed-ring structure design of the vehicle enables the vehicle to disperse the impact force uniformly when it is subjected to impact or rollover, and the deformation space of the vehicle is smaller, which effectively improves the structural safety of the body in all directions.



Maximum pillar deformation during rollover is only 260 mm with the robust closed-ring structure

Maximum pillar deformation during rollover is 480 mm without the robust closed-ring structure

② Collision protection structure

The battery compartment collision protection standard has been comprehensively upgraded, which can withstand 2.7 tons of side collision and 49 tons of rear collision, meaning that the battery pack can be free from squeeze and remains functional after collision.

◆ Battery & Motor protection

① Original active battery safety device in the industry

Yutong's original active battery safety device comes with nitrogen protection, high-temperature-resistant and fireproof structure, battery liquid heating system and 24h battery system monitoring as standard, which can effectively reduce the risk of battery pack failure and enhance the safety of new energy system.

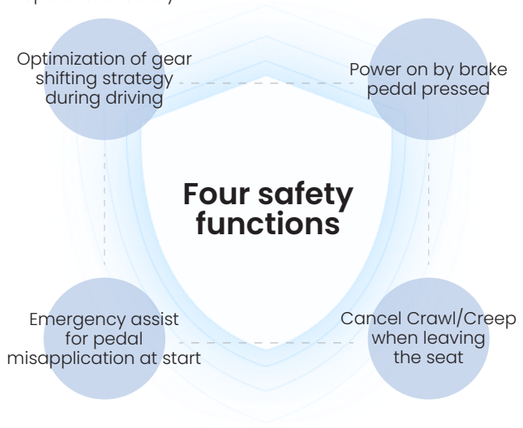
② New anti-mud and anti-condensation structure at the front end of motor

Yutong motor is equipped with an original mud protection structure, which effectively improves the adaptability of the motor to potholes, gravel, water and other road surfaces, and ensures that the motor maintains good insulation under extreme cold and humidity for the safe operation of the vehicle.

Intelligent Driving, Upgraded Security

◆ Intelligent protection

Yutong intelligent protection technology consists of four major functions, which can effectively reduce the safety risks brought about by drivers' irregular operation and ensure operational safety.



◆ Intelligent driving assistance technology

① Hill start assist (HSA)

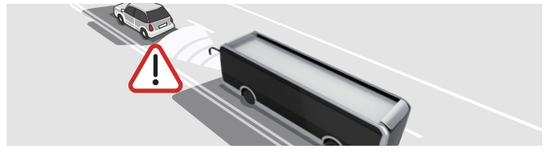
The vehicle will not slide after stopping on the slope and starting again. Depending on the gradient, the parking brake can be switched on and off to realize slope parking and smooth starting.

② Acceleration slip regulation (ASR)

When the vehicle is traveling on rainy/icy roads, it effectively prevents the wheels from skidding and improves driving safety.

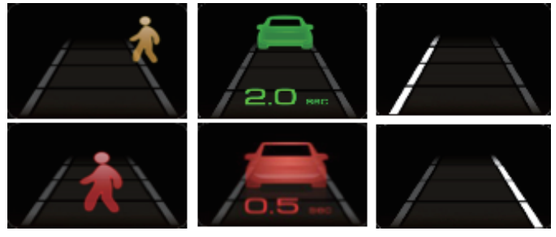
③ EBS+ESC electronic brake control system

Instead of traditional mechanical transmission, the electronic brake control system is employed to shorten the brake distance. It can avoid the rollover risk of the vehicle in case of understeering or oversteering when the vehicle is turning, ensuring that the vehicle runs according to the driver's intention, and increasing the active safety performance of the vehicle.



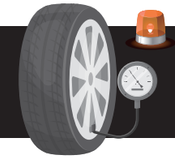
④ Forward collision warning system BusEYE Pro

The system is capable of realizing pedestrian and vehicle forward collision warning, lane departure warning, speed limit sign recognition and prompts, etc., which can remind potential collision dangers in time and enable drivers to actively avoid potential traffic accidents.



⑤ Tire pressure monitoring system

The system monitors tire pressure and temperature in real time, providing timely warning when tires show signs of danger, ensuring safe driving.



INTELLIGENT CONNECTED FOR BETTER MANAGEMENT OF YOUR FLEET

V+Manager intelligent fleet management system is able to monitor vehicle information in a more comprehensive, timely and clear manner, and can realize the informationization and intelligence of five major functional scenarios, effectively reducing operating costs and improving fleet management efficiency.

Safety management

It can identify, monitor, notify and manage various risks during vehicle operating, repair, maintenance and parking; it can set a variety of control, monitoring and alarm strategies based on the time when the vehicle enters/leaves the fence to help manage vehicle operation; at the same time, it can customize sound reminders for the user and provide suggestions and help information to defuse risks.

Energy consumption management

Energy consumption data of the vehicle as well as that of core energy-gobbling components can be viewed. In addition, it provides customers with analysis tools such as energy consumption trend and proportion analysis to help users identify high-energy-consumption scenarios and behaviors, and reduce energy consumption costs through management.

Charging management

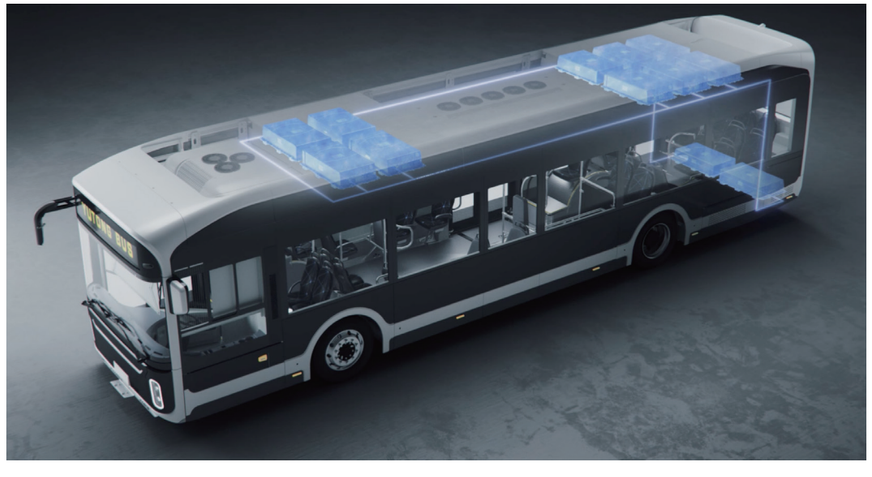
It monitors the charging pile for the vehicle, and can adjust the charging strategy based on the peak-to-valley ratio data of fleet charging, thus reducing the charging cost; for the European standard charging pile complying with the OCPP, the functions of fault management, scheduled charging, and intelligent start/stop are supported.

Intelligent control

It realizes real-time control or reservation control of vehicle air conditioning through the cloud, and supports batch control and periodic control; charging pile power can be selected as a priority if the vehicle is in charging state and the charging pile supports this.

Intelligent dispatching

By adding dispatching host, camera and other hardware equipment, it interfaces with the network platform to realize all-round control of video monitoring, intelligent scheduling, intelligent dispatching, passenger flow counting, report analysis, etc., and improve operational efficiency.



EFFICIENT AND ENERGY-SAVING, TO EASE RANGE ANXIETY

A new generation of lithium iron phosphate batteries, high-efficiency motors and integrated control unit are fitted, while the control strategy is optimized to reduce the weight and energy consumption of the vehicle, achieving low energy consumption and long range. The driving range of U12 standard product under SORT2 driving cycle can reach 600 km (the power consumption under SORT2 standard driving cycle is 0.693).

High-energy-density battery

A new generation of high-energy-density battery is adopted, and the weight of the battery is reduced by more than 12% under the same battery capacity conditions using high-specific-energy cells, composite top cover, integrated design of the pack with cooling plate, and CPT technology.

High-efficiency motor

Cost-effective silicon steel materials are used, and modulation control technology is introduced, resulting in a motor system efficiency up to 97.4%.

Highly integrated controller

The integrated configuration accommodates HV power distribution for electric defroster, electric heating, and electric air conditioning, effectively reducing system weight.

Intelligent electric air compressor

The vehicle control unit intelligently controls the start and stop of the air compressor according to the vehicle's demand for air volume, thus effectively reducing energy consumption.

Innovative IES_c intelligent energy saving technology

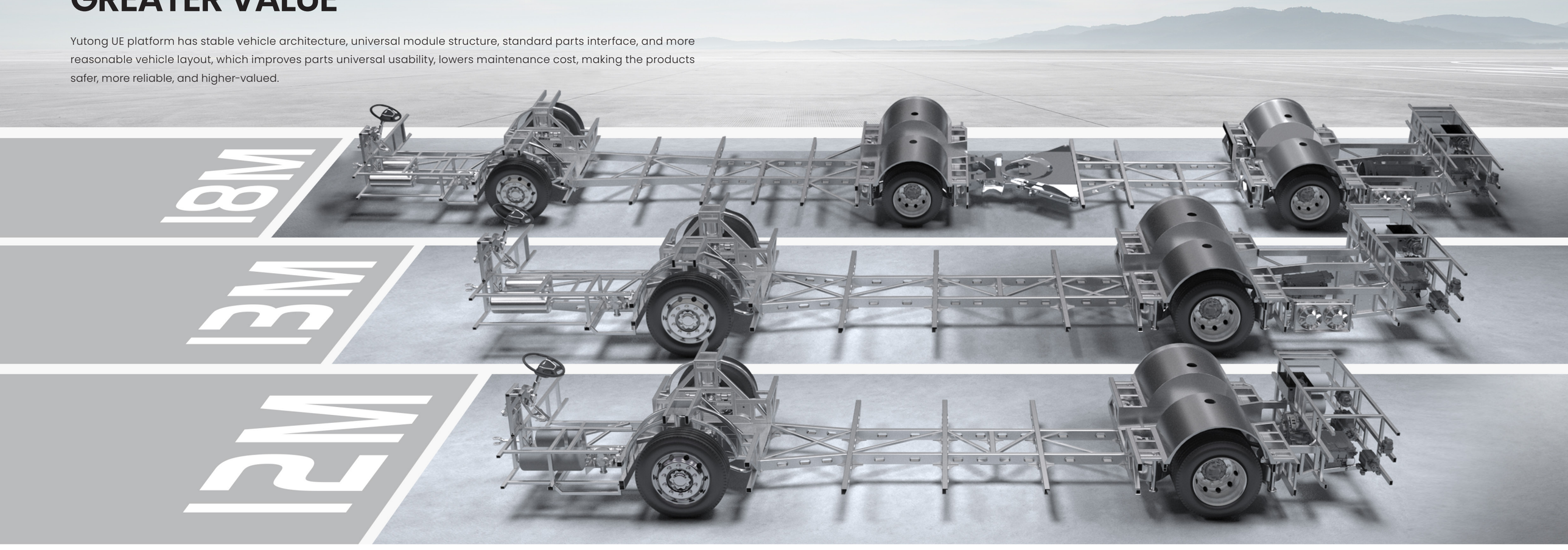
When the vehicle is in coasting mode, it can determine the relative speed and distance from obstacles, etc., and actively intervene to increase torque, enhance coasting energy recovery, and improve vehicle economy.

Braking energy recovery technology

The vehicle drives the traction motor, which converts kinetic energy into electric energy and charges the traction battery via an integrated control unit to realize braking energy recovery.

TECHNOLOGY PLATFORM FOR GREATER VALUE

Yutong UE platform has stable vehicle architecture, universal module structure, standard parts interface, and more reasonable vehicle layout, which improves parts universal usability, lowers maintenance cost, making the products safer, more reliable, and higher-valued.



U series:

U12 L*W*H 12,170*2,550*3,190mm

U13 L*W*H 12,970*2,550*3,390mm

U18 L*W*H 18,720*2,550*3,190mm

Strength of the vehicle skeleton has been further improved

Professional closed ring skeleton structure design is adopted, and the strength of the whole skeleton is improved by about 5% compared with the previous generation.

Lighter weight and energy consumption reduction improved

Compared with the previous generation, the vehicle weight is reduced by 100~400kg, and the energy consumption of the vehicle is reduced by 3%.

Better accessory versatility

Parts type is reduced by 40%, and accessories are more versatile and readily available, resulting in lower maintenance costs.

Super anti-electromagnetic interference capability

The anti-electromagnetic interference capability reaches CLASS 5, which ensures the reliable operation of on-board electronic equipment.

Battery, motor and electric control with protection rating of IP68 & IP6K9K

The protection rating of battery, motor and electric control is raised to IP68 & IP6K9K to enhance the adaptability to extreme rainy weather, reduce the frequency of maintenance, and save operation cost; the waterproof performance can be ensured despite being submerged under 1-meter depth water for 24 hours. Besides, the system is also able to withstand high-pressure, steam-jet cleaning.

CONVENIENT MAINTENANCE, WORRY-FREE OPERATION

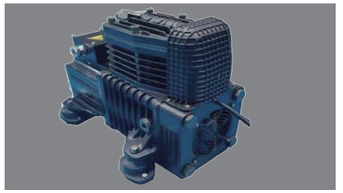
Yutong deeply considers the actual needs of customer operation and takes the thoughtful parts design scheme to make the maintenance of vehicles in daily operation easier, more convenient and worry-free.

Front/side wall block design

The left/right lamp frame and middle skin of the front wall can be turned over, and the lower skin of the side wall can be removed separately for easy maintenance and replacement.

Compartment door with a large opening angle

The opening angle of the compartment is greater than 160°, which improves the convenience of vehicle inspection and maintenance.



Maintenance-free electric air compressor

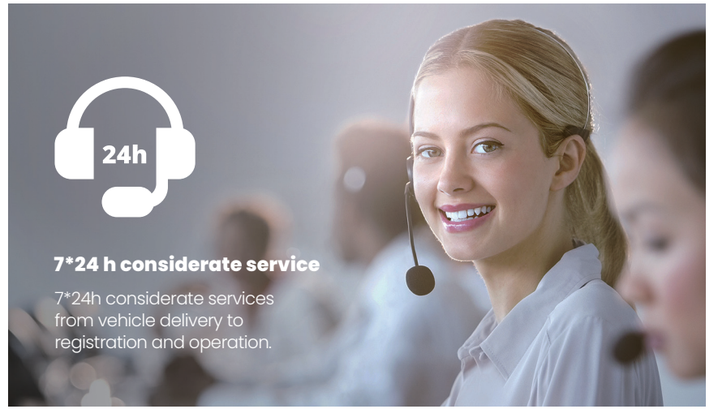
An oil-free pump head structure is adopted, which requires no filling and replacement of lubricating oil to save maintenance costs.

QUALITY SERVICE ALL THE WAY

Yutong has been constantly improving the service model and enhancing service capabilities, in order to create an integrated professional service platform, provide customers with a more convenient and efficient quality service so as to meet diversified service needs.

Dedicated NEV service team

The butler-style considerate service team provides one-stop service all the way to address your concerns and repairs.



7*24 h considerate service

7*24h considerate services from vehicle delivery to registration and operation.

Training while servicing

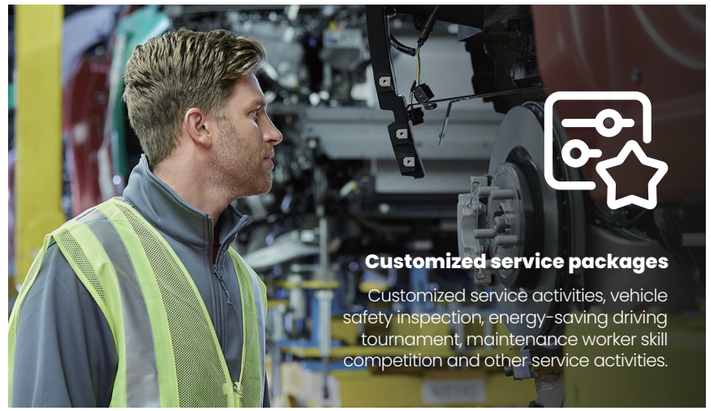
Yutong provides free targeted training for drivers, management and other personnel of customers as per their roles, and provides training support during the full life cycle of vehicles.

Nearby service outlet for rapid response

We have service outlets near customer companies or major operation routes to ensure a quick response.

Active intervention of backstage monitoring

Our own safety monitor system monitors vehicle operations in real time and we can intervene immediately when problems are detected.



Customized service packages

Customized service activities, vehicle safety inspection, energy-saving driving tournament, maintenance worker skill competition and other service activities.

GLOBAL SERVICE CASES

QATAR Service provider of customized public mobility solutions

During the 2022 Qatar World Cup, Yutong specially designed a comprehensive solution of battery electric products for Qatar, including "main line buses + branch line micro-mobility shuttle + long driving range for passenger transportation". It helped our customer address a variety of needs from important guest reception, main line transportation and last-mile travel in the city and ensured the safe and efficient operation of the vehicles during the top football event in Qatar.

Service Assurance Achievements for Qatar World Cup

Professional services:
126 Yutong service support personnel

24h operation:
1500 Yutong buses provide all-weather transportation services (including 888 battery electric buses)

Great mileage:
A total of more than 2.6 million passengers were transported, and the total mileage exceeded 3 million kilometers

Low-carbon and environmental protection:
Carbon emission reduction over 3.3 million kilograms

NORWAY A battery electric bus without fear of extreme cold

The comprehensive performance of Yutong's battery electric products has surpassed that of similar products of well-known brands in Europe, with excellent performance in driving range in actual operation, winter driving range degradation, etc., and power consumption per kilometer as low as 1.0 kW·h, which has gained market recognition and a good product reputation. At present, a total of 224 Yutong battery electric vehicles have been operated in Norway, creating a better experience of green mobility services for Norway and helping to achieve carbon reduction goals.

UNITED KINGDOM The choice for a high-end, comfortable mobility experience

As the birthplace of the global automotive industry, the United Kingdom has stringent requirements for automotive product performance and attaches great importance to a humanized mobility experience. Yutong has developed high-end bus E-series and high-end tourist bus T-series to meet the high-standard product needs of the European market, and has gained the trust of more than 200 touring coach operators in the UK by virtue of the products' high comfort, quietness, ergonomics, and luxury styling. Over 100 towns and cities have chosen Yutong's battery electric buses because of the energy-saving and environmentally friendly nature of our new energy buses. By 2022, Yutong has sold more than 900 vehicles in the United Kingdom, with a growth rate of 51.4% over 2021.

FRANCE Recognition of the top five operators

Yutong has become the largest Chinese bus brand in France, with a cumulative sales volume of more than 700 units. In 2019, Provence launched the first battery electric intercity vehicle line in Europe, and Yutong ICe12 undertook the service of this line. Yutong's original battery electric intercity vehicle solves the problem of long-distance public transport electrification between small towns in France. Over the years of cooperation, Yutong has been recognized by global operators such as RATP, TRANSTEV and keolis.

MEXICO Leading dual-powered trolley bus and 18m battery electric BRT bus

A total of 301 Yutong dual-power trolley buses have been sold in Mexico, with a 100% share in the trolley bus field, setting a benchmark for the promotion of dual-powered trolley buses in Latin America and even around the globe. The dual-power system of "traction battery + power grid line" meets the demand for green mobility transition in the old city area of Mexico City, and is more energy-efficient than fuel buses of the same vehicle length, saving more than 30% of fuel costs. With the help of isolator DCDC system, our trolley bus is even safer than similar products.
In addition, 18m battery electric BRT main line buses tailored by Yutong for Mexico City significantly improve the efficiency and experience of public mobility for Mexican residents, helping Mexico open a new chapter of green, fast travel.

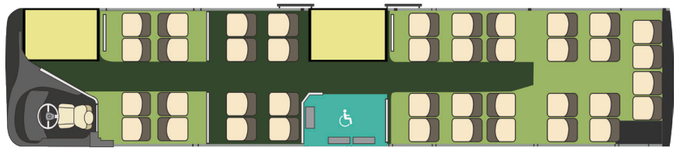
KAZAKHSTAN Excellent products and advanced technology output

Yutong has entered the Kazakhstan market for more than 16 years, with a large and medium-sized bus parc of 3388 units, making it the largest bus brand in the country. The batch launch of Yutong's new energy buses, especially BEVs, accelerates the local green transportation upgrade.

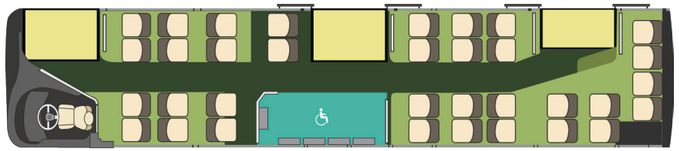
In 2021, the KD plant jointly built by Yutong and Kazakhstan Technology Company was formally put into production, whereby Yutong's bus technology, supply chain service capability, business model and standards were introduced to the country to assist the development of the local automotive industry.

In 2023, Yutong conducted a BEV extreme challenge in the region. The test vehicle, a battery electric bus operating for 3 years with 350 kilometers of rated driving range, was still able to run 320 km in the -27°C extreme environment, offering an excellent driving range performance.

U12



40+1 Seat layout
two-door

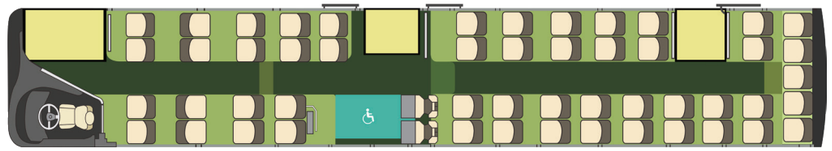


34+1 Seat layout
three-door

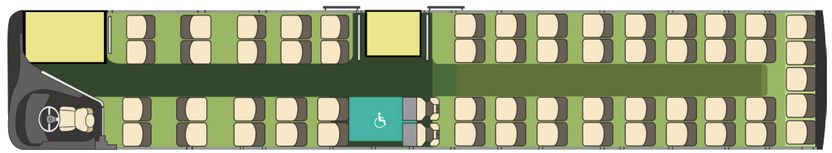
U13

44+1 Seat layout
two-door

U15

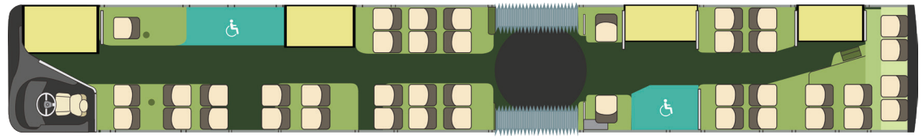


51+1 Seat layout
three-door

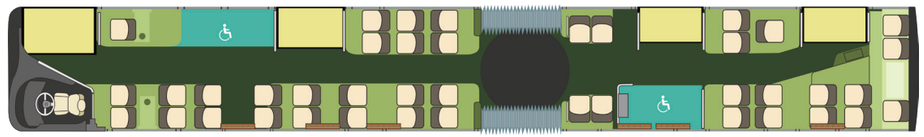


57+1 Seat layout
two-door

U18



41+1 Seat layout
four-door



41+1 Seat layout
four-door

SPECIFICATION	U12	U13
L*W*H(mm)	12,170*2,550*3,190	12,970*2,550*3,390
Compartment interior height (mm)	2,300	2,200
Min. turning diameter(m)	18.5	22
Approach angle/departure angle	7°/7°	7°/7°
Floor type	Low floor, low entrance	Low entrance
Wheelchair area	1	1
Passenger door	2-2-2	2-2
Max. seats	34	44
Max. number of passengers	75	72
Battery capacity (kWh)	422.87、350.07 available as an option	422.87
Motor rated power (kW)	150	150
Tire	275/70R22.5	305/70R22.5
Axle	Front disc/rear disc (front ZF and rear ZF)	Front disc/rear disc (front ZF and rear ZF)
Suspension	Front 2 rear 4 airbag suspension, lifting function (with kneeling)	Front 2 rear 4 airbag suspension, lifting function (with kneeling)
A/C	A/C with cooling and heating function (cooling capacity:32,000.0 kcal/h heating capacity:30,000.0kcal/h)	A/C with cooling and heating function (cooling capacity:34,000.0 kcal/h heating capacity:32,000.0kcal/h)

SPECIFICATION	U15	U18
L*W*H(mm)	14,790*2,550*3,390	18,720*2,550*3,190
Compartment interior height (mm)	2,200	2,295
Min. turning diameter(m)	22	21.5
Approach angle/departure angle	7°/7°	7°/7°
Floor type	Low entrance	Low floor
Wheelchair area	1	2
Passenger door	2-2	2-2-2-2
Max. seats	57	41
Max. number of passengers	90	120
Battery capacity (kWh)	563.83	563.83
Motor rated power (kW)	250	120*2
Tire	275/70R22.5	275/70R22.5
Axle	Three-axle disc type (front ZF, rear ZF, third axle ZF)	Three-axle disc type (front ZF, rear ZF, third axle ZF)
Suspension	Front 2 middle 4 rear 2 airbag suspensions, lifting function (with kneeling)	Front 2 middle4 rear4 airbag suspensions, lifting function (with kneeling)
A/C	A/C with cooling and heating function (cooling capacity:36,000.0 kcal/h heating capacity:36,000.0kcal/h)	A/C with cooling and heating function (cooling capacity:60,000 kcal/h heating capacity:56,000Kcal/h)