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T Series NEW GENERATION HIGH-END BATTERY ELECTRIC TOURIST COACH



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 up to 445 units
- Maximum daily production capacity of new energy buses over 375 units
- Product length ranging from 5m to 18m, covering segments such as coach, bus, commuters, tourism coaches, school
 buses and special vehicles
- Cumulative global sales volume of over 170,000 units

OUR MISSION

To bring better life and drive your value

SAVE (2) * * * * * * 58,919 LITERS of fuel per year





 REDUCE

 arbon

 rethan

 Reduce PM2.5

 emissions by

 DTONS

 193 TONS

 PER YEAR



ALL-ROUND ADVANCEMENT JOURNEY TO PERFECTION

Yutong T series New Generation High-end Battery Electric Tourist Coach



ELEGANT STYLE HIGH-LEVEL AESTHETICS

Yutong T series offers a premium travel experience redefined. Stylish appearance in combination with beautiful scenery along the journey bring endless enjoyment to the travel experience.

"DESIGN LABEL" award of Busworld

A Busworld design award winner, perfectly integrating European elegance and modern dynamic elements.

Smiling front

The warm and friendly smiling front design is unforgettable at first sight.

Streamline body

The body has a soft outline, sleek lines and gentle corners, showing elegance and charm.

Design aesthetics with practicability

The aerodynamic streamlined body shape makes it easy to control the airflow and effectively reduces wind resistance.









ULTRA-LONG DRIVING RANGE TO EASILY COPE WITH LONG TRAVEL

With ultra-long driving range, strong power and low energy consump-tion, you can go to a faraway place without worrying about the way back.

High-efficiency traction motor

The maximum efficiency reaches 97%, the maximum power is 350 kW and the maximum torque is 3200 N·m. The constant power area of the motor is wider, which effectively ensures the power performance while low electricity consumption of the vehicle, making it a desirable vehicle for operation.

High-energy-density traction battery

• Energy density >160 Wh/kg. Under the same battery capacity, it is lighter in weight, effectively improving driving range for higher economy. • Lithium iron phosphate battery has a stable material structure and a service life of 8 years (only 3~5 years for ternary batteries). Remarks: In CWTVC driving cycle, urban area: highway: expressway = 1:2:7, full load with A/C off.

High-energy 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.







UPGRADED SAFETY SIX GUARANTEES FOR ALL ASPECTS

In August 2021, Yutong battery electric bus safety standard YESS was released globally. The six guarantees form a safe fortress to give you a reassured travel.

I. VEHICLE PROTECTION



① Closed ring anti-rollover structure:

The closed-ring anti-rollover structure has passed the EU rollover test certification. It is made of 1500 MPa high-strength steel. The side H-shaped and cross-shaped anti-collision beams effectively improve the safety of the body structure in all directions when a rollover accident occurs.



3 Component protection:

Multi-pack high-efficiency liquid heating technology eliminates HV heating components from the battery box, keeping battery completely away from the "igniter".

II. BUSEYE PRO DRIVING ASSISTANCE SYSTEM

The Buseye Pro driving assistance system was innovatively developed by Yutong. It monitors the road conditions in front of the vehicle in real time, provides the driver with a full array of driving assistance information, and reminds the driver of potential collision in a timely manner through more user-friendly human-machine interaction, so that the driver can actively avoid potential traffic accidents. The system's recognition accuracy rate is as high as 99.9%, which is at the international advanced level.

Six Functions of Buseye Pro Driving Assistance System (Chart)



① Forward collision warning (FCW)
 Capable of detecting various types of vehicles

Dangerous collision warning



(4) Pedestrian collision warning (PCW)



- 2 Lane departure warning (LDW)
 Capable of detecting various types of lanes
- Capable of detecting various types of it
 Support various road types
- Adjustable alarm sensitivity



(5) Speed limit information (SLI)



2 Pack protection:

a "moat" for the battery.

at all times

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Multi-level thermal-electrical

coupling protection effectively

isolates internal and external

potential safety hazards, creating

(4) Monitoring protection:

7*24 hours uninterrupted monitor

system to protect battery safety

③ Headway monitoring warning (HMW)



(6) Intelligent high beam control

III. AUTOMATIC EMERGENCY BRAKING SYSTEM

Yutong has initiated the independent development of automatic emergency braking system 3 years ahead of other peers in the industry. The technical indicators of static, dynamic and narrow passage test exceed the requirement by ECE R131. It can monitor road conditions ahead in real time, issue collision warning, engage auxiliary braking and emergency braking in turn according to the degree of danger, and reduce the risk of collision accidents.

Introduction to Functions of Automatic Emergency Braking System (Chart)



(1) Forward collision warning

• For potentially static and dynamic dangerous collision targets in front of the vehicle, the system can identify them 4 seconds in advance and give a warning.

IV. ANTI-MALOPERATION FOR ACCELERATOR PEDAL (AMAP) SYSTEM

If the accelerator pedal is depressed to the bottom quickly when starting, the vehicle will issue a reminder and trigger protection. The vehicle automatically limits speed to fully protect the driver's safety.



V. ELECTRONIC STABILITY PROGRAM

The ESP system can avoid the risk of vehicle rollover when steering is insufficient to ensure the safety of the driver and passengers in an all-round way.





(2) Automatic emergency braking function

 \bullet For a static vehicle ahead with potential collision danger, collision can be avoided if the subject vehicle speed is ≤ 40 km/h;

 \bullet For a moving vehicle ahead with potential collision danger, collision can be avoided if the relative speed of the subject vehicle to the vehicle ahead is \le 70 km/h.

VI. FRONT WALL COLLISION ENERGY-ABSORBING STRUCTURE

The transmission path of collision force is disseminated through the rear-end collision protection structure and energy-absorbing structure to ensure the safety of the driver and passengers to the greatest extent.







Safety management





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.



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 AND CONNECTED TECHNOLOGY VEHICLE CONDITIONS AT YOUR FINGERTIP

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.





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.

COMFORTABLE DRIVING ENJOY A SMOOTH JOURNEY WITH EASE

Yutong uses the self-developed ergonomic design template and verification template to ensure that the driver has good seating and operation space. At the same time, highly comfortable driver seat and passenger seat are provided to make the trip easy, pleasant and fatigue-free.

Ergonomic driving area

• The driving area features an upgraded wrap-around instrument panel design with an easier-to-use button layout.

 Near-field sensing engine start/stop system, intelligent wiper, intelligent lights, etc. are equipped to bring you passenger car-like maneuver and control experience, making driving more convenient.

•The driving area is spacious and the pneumatic control enables steering column angle and telescopic adjustments for comfortable steering wheel maneuver.



Full air suspension driver seat

• The seat can be adjusted by 360° to meet the needs of drivers with different sizes for driving space and sitting posture.

• Optional eight-point air bag massage, seat ventilation, seat heating and other functions make driving more comfortable.



Ergonomic passenger seat

• The new generation seats are tailored for European passengers, with a seat pitch of 785 mm or more, featuring four-way adjustable headrests and an integrated button on the armrest for a more comfortable ride.

• A USB port is provided for the passenger to charge digital devices, which is a more considerate way to make the trip more comfortable.



Highly stable airbag suspension system

Imported airbag suspension system is introduced, with low-noise gears, free of maintenance, allowing smoother driving more comfortable travelling experience.





TECHNOLOGY PLATFORM EMPOWERS HIGHER VALUE

Yutong T series 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.

T series:





T13E^{L*W*H} 13175*2600*3700mm



T15E14950*2550*3900mm



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.



Better accessory versatility

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



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.



Lightweight level and consumption reduction level are further improved

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



Super anti-electromagnetic interference capability

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

ECONOMIC AND ENERGY-SAVING EFFICIENT AND IMPROVED OPERATIONAL EFFICIENCY

Yutong has always adhered to the concept of green and sustainable development, utilizing advanced technology to meet the operational needs of economic vehicles while actively contributing to energy saving and emission reduction with excellent performance to keep us at the forefront of green mobility.

Based on a 350-day year, and a daily operating trip of 250km, 100 vehicles would realize cumulative savings of EUR 24.78 million over eight years.

Vehicle Type	12m diesel coach	T12E	Total saving
Fuel consumption per 100 kilometers	32L	105kWh	
Average annual mileage (km)	250 km * 350 days = 87,500 km		
Fuel price	1.5 euro/L	0.126 euro/kWh	
Converted fuel cost (EUR/km)	0.48	0.096	0.354
Fuel cost for 1 year (EUR 10,000)	4.2	1.10	3.09
Fuel cost for 8 years (EUR 10,000)	33.6	8.82	24.78
Fuel cost for 100 vehicles (EUR 10,000)	3,360	882	2,478

Note: The diesel vehicle operating data is for a typical 12-meter vehicle in the market, the average power consumption of T12E is calculated under comprehensive driving cycles, and the operation mileage is compared according to the average operating data in the market.

Empower the city with battery electric power, make the future colorful with green technology, and promote the harmonious development of man and nature.

Vehicle Type	Fuel/Gas/Electricity Consumption per 100 km	CO2Emissions per 100 km	PM Emissions per 100 km	NOx Emissions per 100 km	8-year CO2 Emissions	8-year PM Emissions	8-year NOx Emissions
12m conventional diesel road vehicle	32L	85.76kg	13.12kg	4.8kg	600t	91.8t	33.6t
Battery electric passenger vehicle	105kWh	0	0	0	0	0	0
Social benefits of a single BEV	Emission reduction (CO2): 75 t/year Equivalent to tree planting: 543 trees/year Emission reduction (CO2): 7500t/year Equivalent to tree planting: 54,300 trees/year						
Social benefits of 100 BEVs							

Remarks: 1 L diesel produces 2.68 kg CO₂, 0.15 kg NOx and 0.41 g pm; one tree absorbs 138 kg CO₂ per year.

T 12E







PROFESSIONAL SERVICES WORRY-FREE AFTER-SALES **SERVICE TO INCREASE VALUE**

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

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



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.





Active intervention of backstage monitoring

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









Nearby service outlet for rapid response



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



126 Yutong service support

Professional services:

personnel





1500 Yutong buses provide all-weather transportation services (including 888 battery electric buses) exceeded 3 million kilometers

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



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 Yutona 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.

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T12E SEAT LAYOUT

T13E SEAT LAYOUT



NUMBER OF SEAT: 49+1+1

L*W*H(mm)	12,245*2,550*3,710
Compartment interior height(mm)	2,012
Min. turning diameter (m)	≤18.5
Approach angle/departure angle	7.5°/7.5°
Battery capacity (kWh)	422, liquid-cooling, 350 kWh also available as an option
Luggage compartment volume (m³)	4.5
Max. number of passengers	53
Motor rated power (kW)	215
Tire	295/80R22.5
Axle	Front disc and rear disc (front ZF and rear ZF)
Suspension	Airbag suspension, ECAS, with kneeling
A/C	A/C with both cooling and heating function (cooling capacity 34,000Kcal/h, heating capacity 32,000Kcal/h)



NUMBER OF SEAT: 48+1

SPECIFICATION	
L*W*H(mm)	13,175*2,600*3,700
Compartment interior height(mm)	1,950
Min. turning diameter (m)	≤21
Approach angle/departure angle	8.5°/8.5°
Battery capacity (kWh)	350,liquid-cooling
Luggage compartment volume (m³)	2.7
Max. number of passengers	49
Motor rated power (kW)	250
Tire	295/80R22.5
Axle	Front disc and rear disc (independent front ZF and rear ZF)
Suspension	Airbag suspension, ECAS, with kneeling
A/C	A/C with both cooling and heating function (cooling capacity 38,000Kcal/h, heating capacity 36,000Kcal/h)

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T14E **SEAT LAYOUT**



NUMBER OF SEAT: 53+1+1



NUMBER OF SEAT: 57+1+1

SPECIFICATION L*W*H(mm) 13970*2550*3900 Compartment interior height(mm) 2030 Min. turning diameter (m) ≤21 Approach angle/departure angle 9°/9° Battery capacity (kWh) 563, liquid cooling, optional 422, liquid cooling Luggage compartment volume (m³) 8 Max. number of passengers 59 Motor rated power (kW) 250/500 Tire 295/80R22.5 Axle Three-axle disc type (front ZF, rear ZF, third axle ZF) Suspension Air spring suspension, ECAS, with kneeling Low-temperature heat pump A/C A/C (Cooling capacity 32000Kcal/h, heating capacity 30000Kcal/h)

T15E SEAT LAYOUT

NUMBER OF SEAT: 59+1+1

SPECIFICATION	
L*W*H(mm)	14,950*2,550*3,900
Compartment interior height(mm)	2,030
Min. turning diameter (m)	≤21
Approach angle/departure angle	8.2°/8.5°
Battery capacity (kWh)	630, liquid-cooling, 563 kWh also available as an option
Luggage compartment volume (m³)	8.5
Max. number of passengers	63
Motor rated power (kW)	250
Tire	295/80R22.5
Axle	Three-axle disc type (front ZF, rear ZF, third axle ZF)
Suspension	Airbag suspension, ECAS, with kneeling
A/C	Low-temperature heat pump A/C (cooling capacity 32,000Kcal/h, heating capacity 30,000Kcal/h)

