



E12

**PLUG-IN HYBRID
ELECTRIC BUS**



Solution⁺

A MORE ECO-FRIENDLY PLUG-IN HYBRID ELECTRIC CITY BUS E12

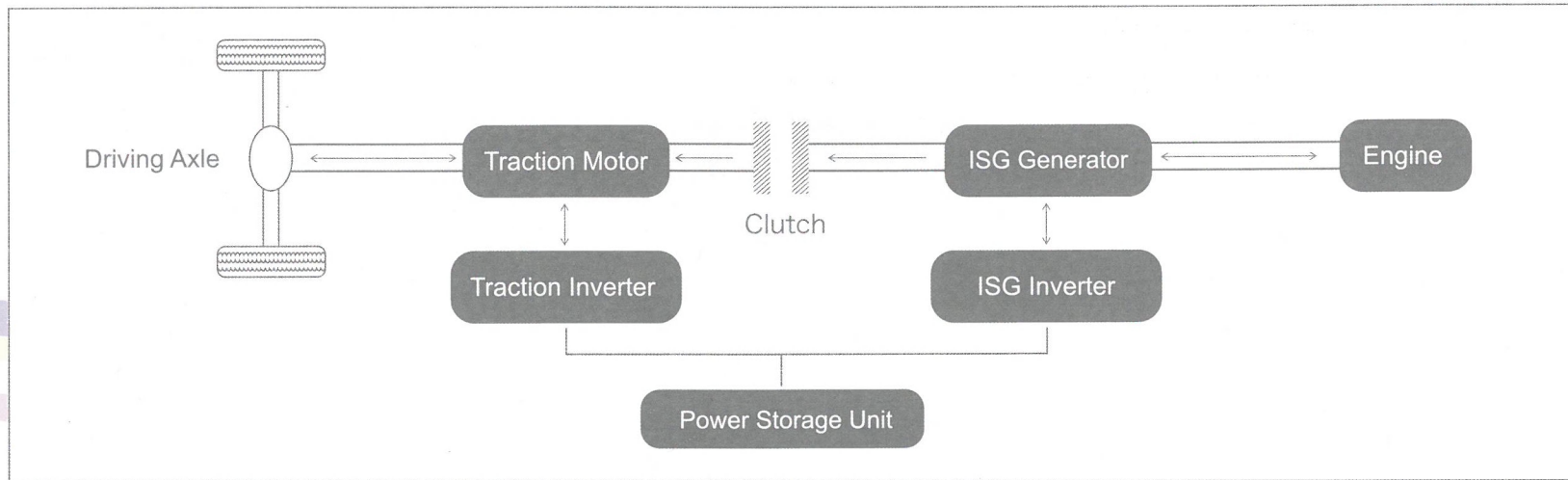


As a leading plug-in hybrid electric city bus, King Long E12 is meticulously designed in every aspect of its exterior, interior, structure and operating mode. Equipped with ECO-Chip PHEV system, stepless gear system and high torque electric engine, the E12 outstands through comparison with the like products in energy conservation, power output, durability and efficiency. The adaptability to road condition and reliability of driving are comparable with traditional city bus. King Long E12, offers you a comfortable and green trip in the city.

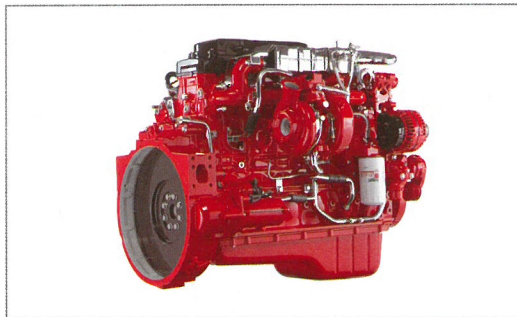
► ECO-CHIP SPLIT PLUG-IN HYBRID ELECTRIC SYSTEM, EFFECTIVE AND ENERGY-SAVING



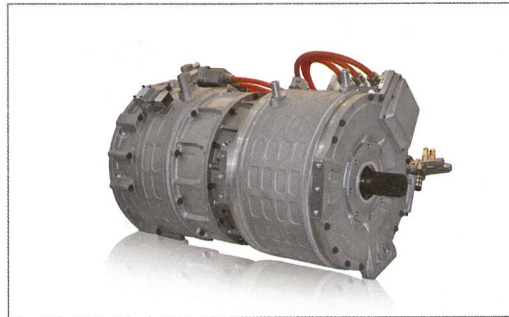
ECO-Chip, King Long's self-developed split plug-in hybrid electric system adopts dual-motor structure, which is small in size, light in weight, effective in energy conservation and emission reduction. It saves cost and provides good reliability and stability, with 0-50km/h acceleration time of 15s under extreme circumstance, which is far higher than average urban bus.



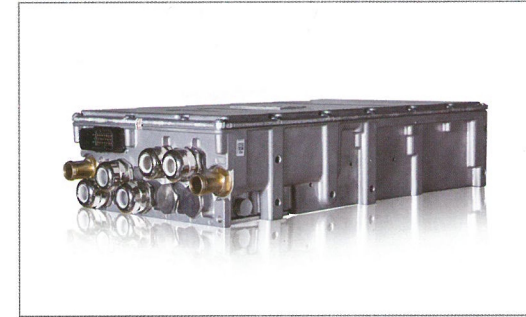
E12 Powertrain Assembly



Cummins engine, proving durable and strong momentum.



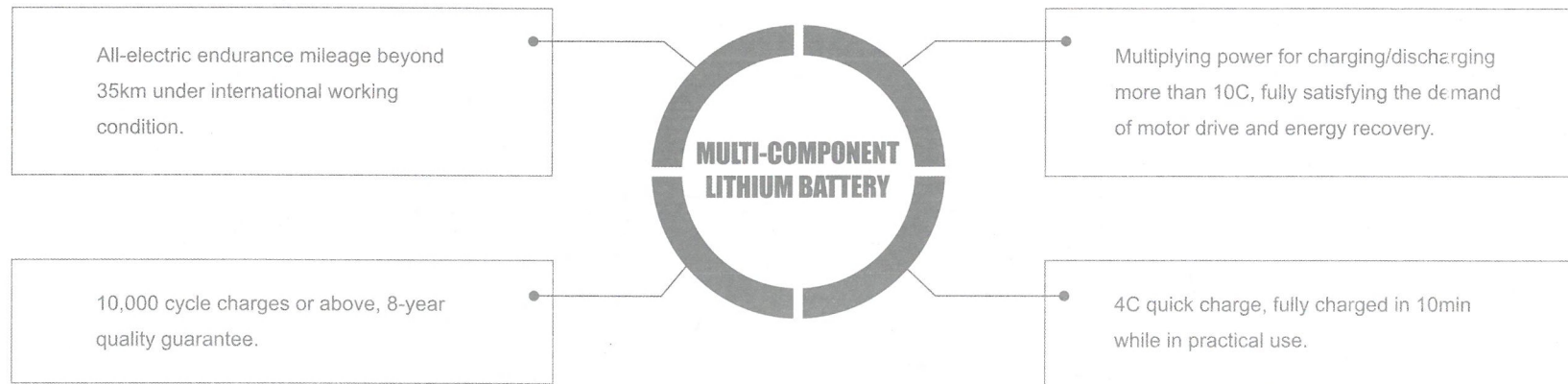
ISG motor & TM motor is dual-motor coaxial combination, multiplying efficiency.



German made controller, with small size, great power and high efficiency, achieving precise drive control and effective energy conservation.

► MULTI-COMPONENT LITHIUM BATTERY

Supported by multi-component lithium battery, King Long E12 plug-in hybrid bus is characterized by long endurance mileage, long service life, and great multiplying power for charging/discharging and quick charge rate.



► THE ADVANTAGE OF ECO-CHIP PLUG-IN HYBRID ELECTRIC SYSTEM

ECO-Chip can not only reduce the wear rate of the engine, but also raise the power output. Even in non-plug-in mode, it can achieve a fuel saving rate of 40%.

- Battery charger allows DC quick charge, fully charged in 10min, further reduces energy consumption.
- King Long's ICS cooling system allows reasonable control on water temperature and provides suitable environment for operation of electric drive system.
- Vehicle controller detects the driver's intention smartly and apply the optimum strategy according to the real-time working condition of road, helps improve the effect of energy saving.
- Maintenance-free electromagnetic clutch is non-wear connection, greatly improves the harshness and reliability and free from maintenance in lifetime.

Three-door and low-floor design, convenient for passenger to get on and off



EXTERIOR

King Long E12 is meticulously designed to achieve the harmony of function and aesthetics. With overhead battery allocation, centralized engine room adoption and ICS radiator fan design, the E12 works soundly to be a flowing scenery.



Fashionable and beautiful

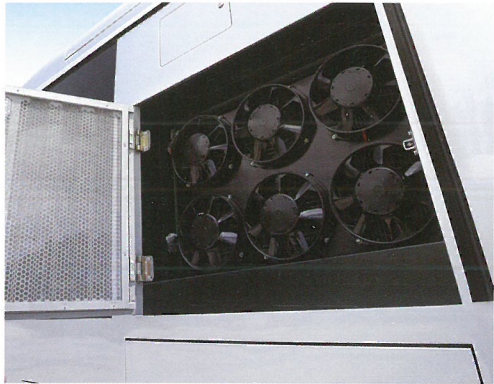


Unsymmetrical design of the rear windshield helps dissipate heat from engine.

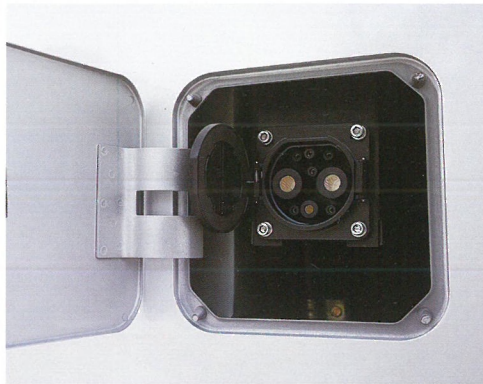
FEATURES

Simple and well-organized arrangement inside the cabin,
easy to inspect and repair

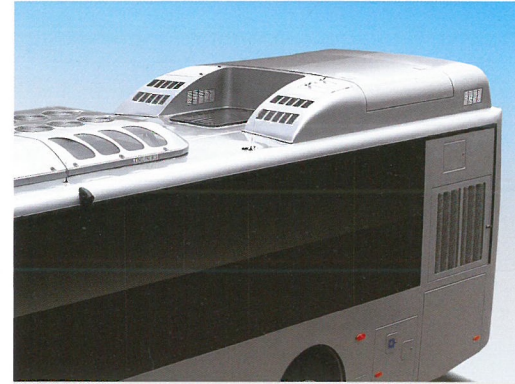




ICS radiator fan with 6 fans for quick heat dissipation.



Safety protection charging port.



Put the battery on roof to enhance safety.



Top-view system offers more driving safety.



Automatic lifting/lowering foot-step is optional set up in middle door, easy for disabled to get on and off.

INTERIOR

Through optimization of configuration and design, King Long E12 increases the effective standing area; the electric drive system significantly reduces dependence on fuel engine and noise in the bus, creating a more spacious and comfortable environment for passengers.



LCD TV equipped to satisfy the needs for entertainment during the journey.



Back cushion gives disabled passengers a safe journey.



Sunroof in the front and the rear roof give passengers more daylighting.

DRIVING AREA

With ingeniously designed cabin, King Long E12 allows more ease for manipulation, reducing the driver's fatigue after long hours of driving and reassuring the comfort and safety of the passengers.



King Long multi-functional steering wheel is integrated with buttons of electric appliances, makes it easier for the driver to control.



Driver's air duct is in upper front of the driver's seat, for more comfortable driving.



Ergonomically designed drivers' seat to reduce driver's fatigue.

TECHNICAL SPECIFICATIONS

MODEL	E12
DIMENSIONS	
Length x width x height (mm)	11980 x 2550 x 3400
Wheelbase (mm)	6000
Front overhang/Rear overhang (mm)	2670/3310
Minimum ground clearance (mm)	140
CAPACITY	
Seating arrangement	30+1, LOW FLOOR
Fuel tank capacity (L)	250
ENGINE	
Brand	Cummins
Model	ISB6.7E6280H
Emission standard	E6
Rated power (Kw/rpm)	209/2100
Rated torque (N-m/rpm)	1100/1100
Displacement (L)	6.7
TRANSMISSION & CLUTCH	
Transmission	WITH ISG SYSTEM
Clutch	WITH ISG
RETARDER	
Retarder	N/A
AXLES	
Front	ZF RL85A
Rear	AV 132/90

SUSPENSION	
Suspension system	ZF air suspension, 6 air bags
ECAS	WABCO
STEERING	
Steering system	ZF 8098
BRAKE SYSTEM	
ABS	EBS3
Brake	Front & Rear disc
DOOR & WINDOW	
Doors	Front single out-swing, middle double out-swing, with anti-pinch function
Side windows	Double glass tinted, with 2 sliding windows each side
SEATS	
Driver	Air suspension, with E-mark with 3 point seat belts
Passenger	FAINSA PUNT 7.0
AIR CONDITIONER	
Type	KING LONG A/C top mounted, dependent with roof-heating, with KING LONG front box
HEATER	
Type	Webasto heater, wet convector on sides
MIRROR	
Type	Electric powered rear view mirror with defrost function, with E-mark
INFORMATION DISPLAY	
Type	Chinese Tongda TD
OTHER STANDARD EQUIPMENTS	
VDO tachograph, VDO CAN system, MP3 player, Happich stop reminding ring, Aluminum alloy air duct, Wheelchair ramp manual operated	

Xiamen King Long United Automotive Industry Co., Ltd.



Busbuilder of the Year 2010



TS16949:2009



Exempted from Export Inspection



VCA Certification



Russian GOST R Certification



Australian ADR Certification



GCC Certification



National Technology Center

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