



DR50CE

ELECTRIC MINING TRUCK

Operating Weight	88,500 kg
Payload	50,000 kg
Motor Rated Power	500 kW
Battery Capacity	423 kWh



B A T T E R Y E L E C T R I C V E H I C L E

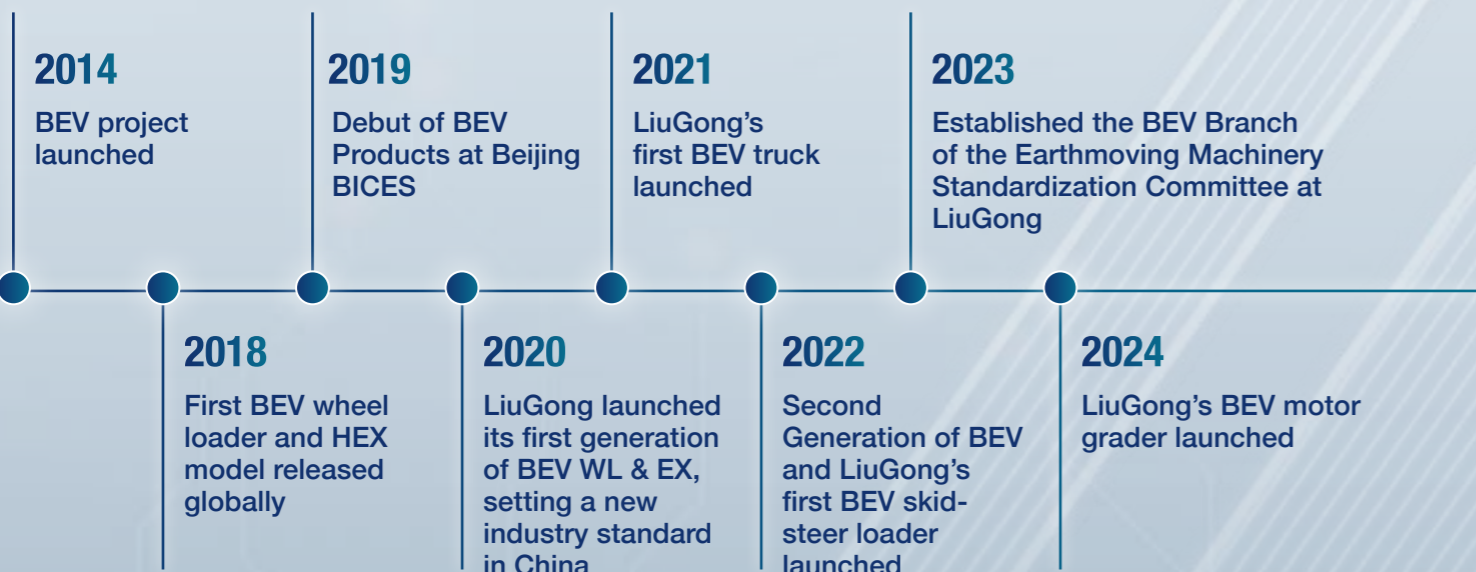
TOUGH WORLD. TOUGH EQUIPMENT.

CHINA LEADS THE WORLD IN BATTERY ELECTRIC VEHICLE TECHNOLOGY, AND WE ARE A LEADER IN CHINA

LiuGong is one of the first Chinese construction equipment manufacturers to identify the potential of battery electric vehicles in our industry.

Over the last 10 years alone, we have invested over \$14 million in R&D, including product development and testing.

OUR BEV JOURNEY



WE DELIVER A COMPLETE MINING SOLUTION

As a leader in battery-electric equipment, LiuGong is revolutionizing the industry with a comprehensive range of mining BEVs, covering large excavators, wheeled loaders, mining trucks, and more.

From surface mining to deep excavation, our advanced electric mining machines are engineered for efficiency, power, and reliability in the toughest conditions.



WHEEL LOADERS



EXCAVATORS



MINING TRUCKS



MOTOR GRADERS

TRUST OUR EXPERTISE TO HELP YOU CHANGE

We focus on cutting real costs for mining professionals, delivering near net-zero operating costs through industry expertise and intelligent machine design.

Our integrated solutions give customers the confidence to operate efficiently, knowing their equipment is purpose-built for mining applications.

NEAR NET-ZERO OPERATING COSTS

DR50CE

SMART POWER, SUPERIOR PERFORMANCE



ZERO EMISSIONS, MAXIMUM SAVINGS

- Zero emissions with exceptional performance, making it a sustainable, cost-effective choice for modern operations.
- Ultra-quiet at 103dB, with a cabin noise level of just 74dB, making it ideal for urban and environmentally sensitive sites.
- Intelligent temperature control and energy recovery ensure peak efficiency and power reuse for optimal performance.



REGENERATE POWER, REDUCE COSTS

- Direct motor-to-axle drive removes unnecessary components, maximizing power efficiency.
- Regenerative energy recovery enables near zero-energy consumption on 6-8% gradients, dramatically cutting energy costs.
- LiuGong's intelligent VCU ensures optimized power distribution, enhancing overall efficiency.



COMFORT TO KEEP YOU MOVING

- Hydro-pneumatic suspension absorbs shocks, reducing fatigue and enhancing ride comfort.
- Air suspension seat, LCD dashboard, and central control screen provide an intuitive and effortless operation.



POWER THAT PAYS OFF

- Double motors in series deliver an impressive peak torque of 13,200N·m for the toughest jobs.
- Direct motor-to-axle drive eliminates transmission losses for instant power response, while the integrated controller regulates torque output for smoother power adjustments.
- A large-diameter lifting cylinder provides strong, high-speed lifting, increasing productivity on every job.



CONFIDENCE IN EVERY CONDITION

- Torque motor feedback braking works with front "dry" and rear "wet" brakes for superior stopping power.
- Hill Start Assist Control prevents unintended movement on inclines, while the high-strength ROPS/FOPS-certified cab enhances safety and reliability.
- 360° vision system eliminates blind spots, giving operators full visibility for safer maneuvering.

SAVING MORE THAN THE ENVIRONMENT

LOWERING YOUR TOTAL COST OF OWNERSHIP

What does adding the DR50CE to your fleet mean for you? For us, it's simple – lower overhead costs and more money in your pocket. We offer industry-first technology designed for maximum efficiency, powered by intelligent systems that set LiuGong apart.

This machine optimizes performance by reducing energy losses and maintenance costs, while its advanced regenerative system enhances sustainability, capturing energy to drive even greater savings.

SAVE ON...

- ENERGY
- MAINTENANCE
- PARTS
- OPERATING COSTS



WE'RE PIONEERING AN INTELLIGENT FUTURE

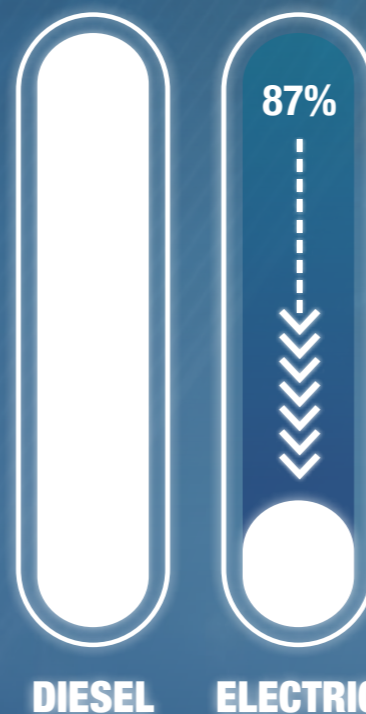
As part of LiuGong's BEV truck lineup, the DR50CE delivers exceptional cost efficiency, significantly lowering energy expenses compared to traditional diesel rigid dump trucks.



ELECTRIC VS. DIESEL COSTS



OPERATING COSTS



This machine isn't just about sustainability; it's a smart financial investment that helps businesses cut operational costs while maximizing efficiency.

- 87% LOWER OPERATING COSTS
- ENERGY SAVINGS ≥ 89%

THE PERFECT BALANCE BETWEEN CONSUMPTION AND REGENERATION

The LiuGong DR50CE is engineered for maximum efficiency, operating in a self-sustaining energy loop in which energy consumption and regeneration work in perfect harmony. On a 6-8% gradient, the machine actively regenerates energy as it descends, significantly reducing overall power consumption and delivering substantial cost savings.

This intelligent system leads to near-zero net energy use, optimizing operational efficiency while lowering the total cost of ownership. For mining professionals, this means fewer energy expenses, reduced downtime, and an overall boost in profitability.



OPTIMIZED COST EFFICIENCY



INTELLIGENT POWER USE



MAXIMIZED UPTIME



SUSTAINABLE & EFFICIENT

In the right application, this machine offers an outstanding payback period, making it a smart, forward-thinking investment for those focused on long-term savings and sustainability.

With cutting-edge technology designed to enhance both performance and environmental responsibility, the DR50CE is leading the change in modern mining operations.

CHARGING



USING



TOUGH WORLD

OUR MACHINES ARE BUILT TO LAST

The DR50CE isn't just energy efficient, it's built to last. Designed for maximum uptime and profitability, it delivers long-term durability while lowering maintenance costs.

Its integrated cast-welded frame, developed through computer-aided design and simulation analysis, reduces peak static stress by 20% and extends fatigue life by 50%, meaning less downtime and fewer repairs.

Tailor-made for heavy-duty mining, the fully wear-resistant truck bed offers a struck/heaped capacity of 27/35m³, maximizing payload while minimizing wear.

LESS ENERGY...
LESS WEAR...
MORE SAVINGS.



INTELLIGENT SOLUTIONS

CHARGING SOLUTIONS THAT KEEP YOU MOVING

Efficiency isn't just about energy – it's about keeping you working longer and waiting less. The DR50CE's fast, high-powered charging ensures maximum uptime and productivity.

With its 423kWh battery, operators can utilize 85% of its capacity (around 360kWh), ensuring long-lasting performance. When charging is needed, the next-generation 500A single- or dual-gun charger rapidly replenishes energy, fully charging the machine in just 1 hour and 10 minutes.

Even in the most demanding, high-energy applications, the DR50CE recharges quickly, minimizing downtime and keeping your operations running smoothly.



500A
Liquid-Cooled Charging

328kW
Max Charging Power

<1.5-Hour
Rapid Full Charge

25%
Faster Charging

SPECIFICATIONS

WEIGHTS

Description	
Gross machine weight includes lubricants, coolant, 100% fuel, all auxiliary attachments and rated load.	
Chassis Weight (kg)	30,000
Body Weight (kg)	8,500
Operation Machine Weight (kg)	38,500
Rated Load (kg)	50,000
Gross Machine Weight (kg)	88,500

SERVICE CAPACITY

Cooling System (L)	63
Hydraulic System (L)	250
Wheel gear Reduction (Total) (L)	30
Differential (L)	35
Front Suspension (each) (L)	15
Rear Suspension (each) (L)	17

TIRES

Rim Size	15.00/3.0-35
Tire Size	21.00-35/36PR(E4)

SUSPENSION SYSTEM

Description	
Front suspension: Independent. Suspension cylinders: four independent, self-constrained, nitrogen gas / oil suspension cylinders allow a great variation between the empty load and the maximum permissible load absorbing loading and road shocks.	
Rear suspension: consisting with oil gas (nitrogen) suspension cylinders, A-frame, lateral stable bar and rear axle.	
Front Suspension Stroke (mm)	305
Rear Suspension Stroke (mm)	207
Max. Swing Angle (°)	±6.5

RETARDING

Description	
Electrical retarding function for assisting speed control of the entire machine during heavy load downhill operation.	
Gear	Max. Travel speed
F1 (km/h)	25
F2 (km/h)	20
F3 (km/h)	15
F4 (km/h)	10

REAR AXLE

Description	
Heavy duty rear axle, with full floating shaft, stage one spiral bevel gear main reducer and planetary gear wheel reducer. High-strength casting welds structure.	
Final Drive Reduction Ratio	3.414
Wheel Gear Reduction Ratio	5.8
Total Reduction Ratio	19.8

BODY

Description	
Body type: Flat floor. Using high strength wear resistant steel plate. Features with large capacity, high strength, wear and impact resistance, etc.	
Bottom Plate Thickness (mm)	16
Front & Side Plate Thickness (mm)	10/10
Struck Capacity (SAE) (m³)	27
Heaped Capacity (2:1)(SAE) (m³)	35

DRIVE MOTOR

Motor Model	TZ530XS-HL001
Type	Permanent magnet synchronous motor
Rated Power (kW)	500 @ 1050 rpm
Max Torque (N-m)	13200@ 600 rpm
Cooling Mode	Water Cooling
Maximum Traction (kN)	304

LIFTING SYSTEM

Description	
Four position six way spool valve controls the functions of lifting, holding, floating and lowering. Two two-stage double-acting lifting cylinders are located at both sides of the frame, ensuring stable lifting performance.	
Lifting Time (second)	12
Lowering Time (second)	9

STEERING SYSTEM

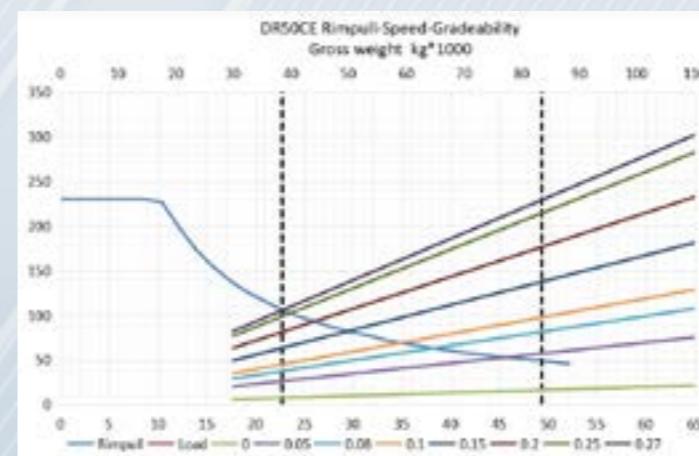
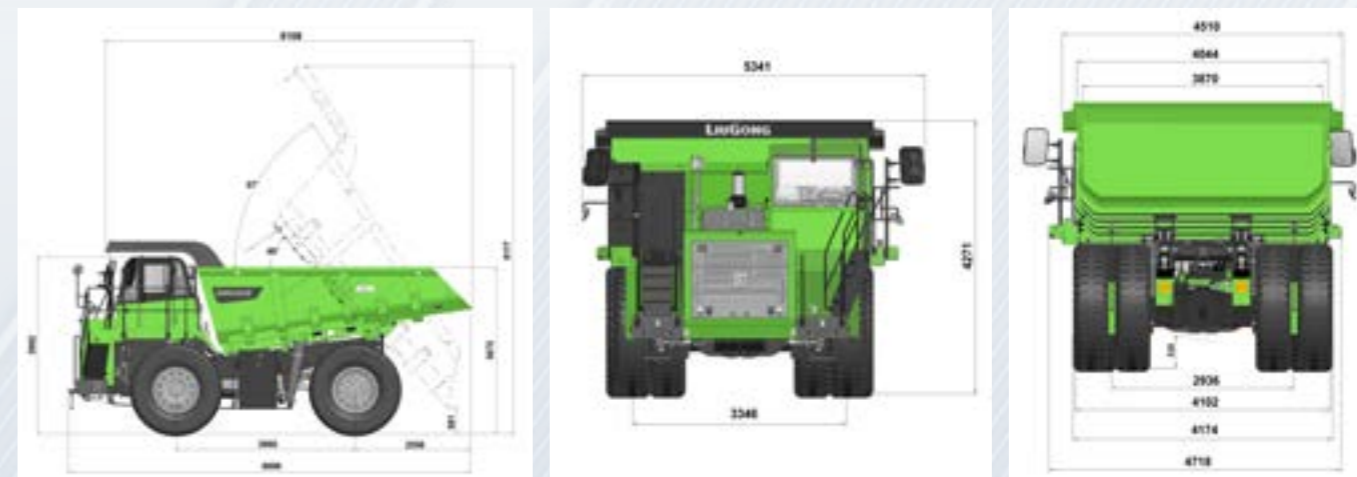
Description	
Dual-trapezoid steering mechanism is driven by two steering cylinders. Readiness of an emergency steering pump system is provided allowing at least two emergency steering cycles from left to right. Steering performance conforms to ISO 5010, SAE J1473 standard.	
Max. Steering Angle (°)	38

BREAK SYSTEM

Description	
Travel Brake: Front brake adopts disc brake system, while the rear brake utilizes oil-cooled braking system. The dual-circuit braking system enhances safety and reliability. An auxiliary valve has been added to the braking circuit to ensure quick response and safe operation of the vehicle. Parking Brake Actuation: Mechanical engagement, hydraulic release. Braking performance complies with ISO 3450 and SAE J1473 standards.	
Braking Functions	Travel Brake / Parking Brake / Emergency Brake / Electric Brake
System Working Pressure (MPa)	20.3
Parking Ramp (cm²)	15%

WEIGHT DISTRIBUTION

Payload	Front axle	Rear axle
Empty Load (%)	52	48
Full Load (%)	34	66



STANDARD & OPTIONAL

HYDRAULIC BRAKING SYSTEM	STANDARD	OPTIONAL
Visual oil level gauge of hydraulic oil tank		
Hydraulic oil tanks (steering and braking, lifting and braking heat dissipation)		
Refueling Filter		
Steering high pressure filter clogged alarm switch		
Oil Tank Drain Unit		
oil tank hoisting device		
quantitative non-confluence system		
Lifting pump		
Four-position lift valve		
Electric pilot valve		
Balance valve		
Two-stage lifting cylinder		
Lifting limit valve		
Steering gear pump		

Brake gear pump
Coaxial flow amplification steering gear
Steering gear with LS function (load sensitive)
Emergency steering pump
Double-acting steering cylinder
Double-acting lifting cylinder
Service brake accumulator
Parking brake accumulator
Electronic dual circuit foot brake valve
Braking (parking, driving, emergency)
Brake lamp pressure switch
Brake system low pressure alarm switch
Brake high-pressure oil filter
Rear axle wet brake
Front axle disc brake



STANDARD & OPTIONAL

CHASSIS SYSTEM	STANDARD	OPTIONAL
Box girder structure casting welding frame		
Four-column platform support frame		
Front towing hook		
Rear drag pin		
Dump body limit wear plate		
Safety support		
Electronic weighing system		

DUMP BODY SYSTEM	STANDARD	OPTIONAL
Flat-bottom wear-resistant Dump body		
Wear-resistant and anti-stick liner		
Rubber cushion and adjusting shim		
Lifting limit switch		
Dump body proximity switch		
Dump body Rotating Pin Installation Assembly		
Stonehanger		
Dump body safety pin		
Lifting lugs		

COVERING SYSTEM	STANDARD	OPTIONAL
Platform		
Escalator		
Guardrail assembly		
Hood assembly		
Cooling coolant filler		
Hydraulic oil tank filler		
Hydraulic oil tank breather		
Maintenance Bin		
Mudguard		
Platform fire extinguisher		
Pedal Assembly		
Mirror Assembly		

POWER TRANSMISSION SYSTEM	STANDARD	OPTIONAL
Traction motor (motor direct drive)		
motor damping		
drive shaft		
double trapezoidal steering mechanism		
Adjustable steering rod		
Independent front axle		
Front axle king pin mounting assembly		
Rear drive axle with A- frame and tie rods		
Tubeless bias tire		
Tubeless radial tire		
Tire pressure monitoring system		
Rim		
Fixing and protection of valve stem		
Rim pressing plate and bolt and nut		

CAB	STANDARD	OPTIONAL
Fully enclosed FOPS/ROPS cab		
5mm tempered glass		
Ashtray/Cigarette lighter		
Coat hook		
adjustable direction string		
Three steering wheels		
Driver's safety belt		
Front sunshade		
Cup holder		
Driver's seat: air suspension seat		
Coach Seat		
2kg fire extinguisher		
Recorder		
safety hammer		
Door sliding window		
Door lock		
Door push-pull armrest		
Rest Foot		

DUMP BODY ASSEMBLY	STANDARD	OPTIONAL
Removable battery mounting bracket		
Rubber cushion		
Battery box		
Appearance sealing plate		

MAIN COOLING SYSTEM	STANDARD	OPTIONAL
Radiator protection net		
water radiator		
Lifting device of radiator		
Auxiline water tank (automatic rehydration and monitoring)		
Ease of discharge of coolant		
Water tank damping (vertical and horizontal)		
Electronic fan (temperature control)		
Electronic water pump		
Reverse rotation of cooling fan		
Motor water dispersion circuit (motor required for hydraulic pump)		
Wet brake heat dissipation		
Water temperature monitoring		

CHASSIS SYSTEM	STANDARD	OPTIONAL
Chiller (battery cooling)		
Battery independent heat dissipation circuit		
Auxiline water tank (automatic rehydration and monitoring)		
Ease of discharge of coolant		
Water temperature monitoring		

AUTOMATIC LUBRICATION SYSTEM	STANDARD	OPTIONAL
automatic centralized lubrication		

BRAKING SYSTEM	STANDARD	OPTIONAL
Full hydraulic front dry rear wet disc brake		
Parking brake		
Accumulator		
Electronically controlled dual-circuit foot brake pedal		
Brake light switch		
Creep solenoid valve		
Parking brake alarm pressure switch		
Filling valve		

AIR CONDITIONING SYSTEM	STANDARD	OPTIONAL
Heating		
Refrigeration		
Defrosting		

ELECTRICAL SYSTEM	STANDARD	OPTIONAL
Reversing alarm		
Reversing indication		
Brake indication		
Position indication		
Steering/Danger Signal Indication		
Whistle alarm		
Front lighting		
Side lighting		
Reversing lighting		
Front fog lighting		
Distant lighting		
Proximity Lighting		
Stair Lighting		
Service platform lighting		
Lighting in cab		
Emergency braking function		
Front glass scraping function		
Cigarette lighting function		
12V power supply		
Radio function		
Fault alarm and status display		
Digital Power Distribution-High Power Controller		
Electricity 423kWh		
Double gun charging 500A		
Single gun charging 500A		
Timing battery heating		
VCU program remote flash		
Driving recorder		
360°view camera		
Dump body lifting limit		
Dump body drop in place indication		
Proportional control of cooling fan and water pump		
Cooling fan reverse control		
Traction control		
Braking energy recovery		
electric retarder control		
Limp speed limit		
Lock Control		

BATTERY ELECTRIC VEHICLE



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Specifications and designs are subject to change without notice. Machines shown may include optional equipment. LiuGong standard and optional equipment may vary from region to region. Please consult your LiuGong dealer for information specific to your area.