

# Haier

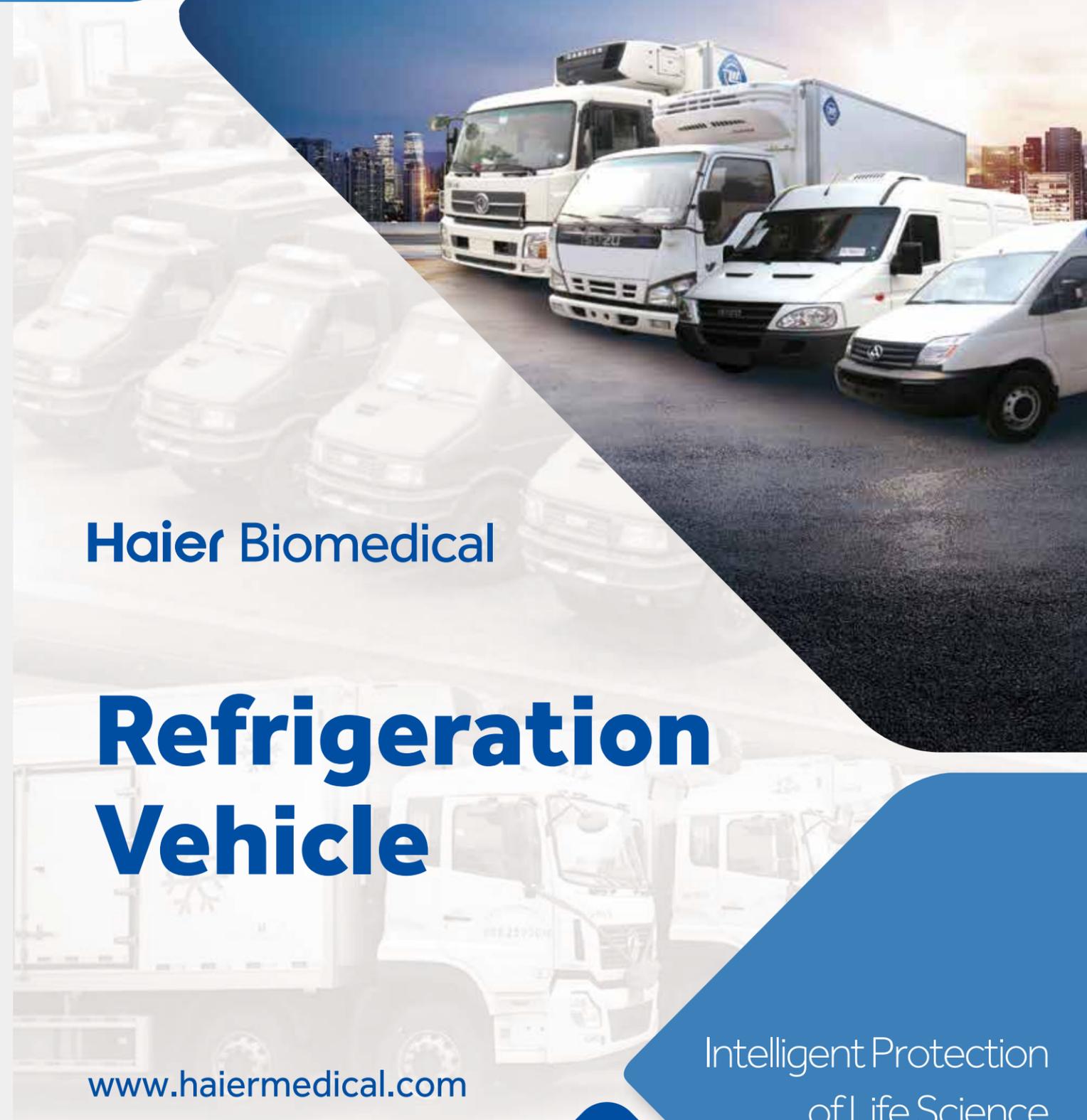
## Mobile Cold Chain

### Haier



## Haier Biomedical

# Refrigeration Vehicle



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Note: If a slight difference occurs between pictures and actual products, please refer to actual products. Our company reserves the right of final interpretation of this brochure, please contact us for any further information if required.



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Intelligent Protection  
of Life Science

# REFRIGERATION VEHICLE

*By using data provided by the WHO, up to at least 33% of all vaccines are not usable, this is due to an inadequate cold chain. Using Haier Biomedical's refrigerated vehicles in conjunction with approved vaccine fridges by the WHO/GAVI Alliance further strengthen and ensures the safety and security of the vaccines across the complete cold chain, from manufacture to the end user.*



***A platform for sharing, an ecosystem of trust.***

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### Vehicle Specifications

- Base Vehicle: Chassis Cab with fixed refrigerated body;
- Drive: 4X4 or 4X2 Transmission: Manual;
- Fuel: Diesel;
- Air conditioning;
- Warning audible and visual signals when truck is reversing;
- Lockable doors to body (with top and bottom latches), glove box, and fuel cap;
- Seat belts fitted to all seats;
- Front air-bags fitted to both driver and passenger sides;
- A portable fire extinguisher to be securely mounted in the cab for the flammability Digital tachograph system.



- Readout of temperature in the body to be visible to the driver with an audible alarm.
- Temperature readouts to be electronically recorded for a profile and data history.
- A programmable controller that allows both auto and manual control of temperature and defrost status inside the body.
- Workshop manual, vehicle spare parts kit for three years or 100,000 km.

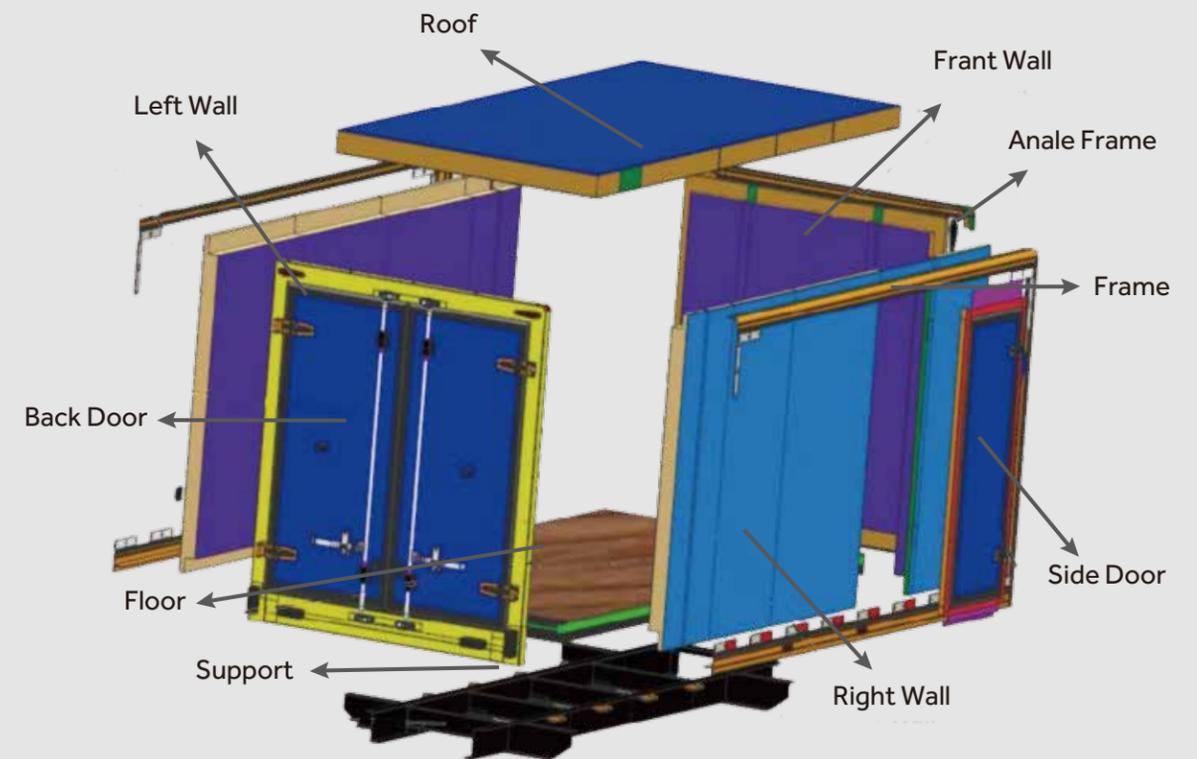
### Optional

- Cloud-based GPS/satellite vehicle tracking;
- Cloud-based internal body temperature tracking;
- Foldable stacking boxes, rolling cages or ventilated pallets;
- Transverse moveable partition with side door for access to refrigerated compartment.



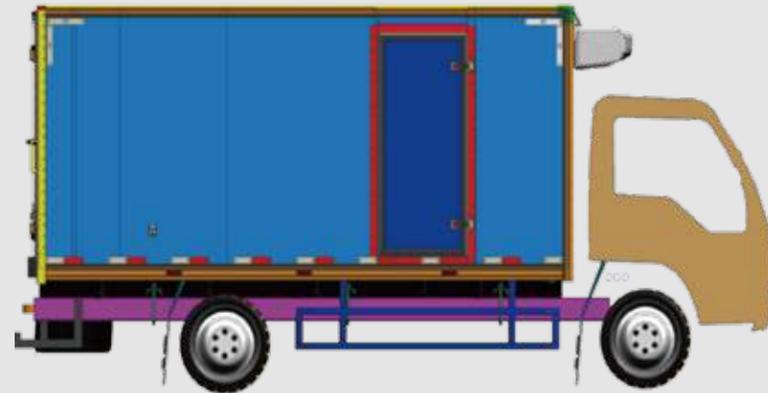
### Refrigerated Vehicle Body Specifications

- All walls and roof panels, frames and chassis anti-corrosive treated.
- Box body with two doors at the rear for full width opening.
- Emergency exit is possible from the inside of the refrigerated compartment.
- The body is insulated to 0.4W/m2/°C.
- Refrigerated body to have four drains with U bend for release of water – one in each corner of the body.
- Interior has lighting to cater for loading and unloading.
- Reinforced non-slip level flooring with no obstructions.
- Gross body volume to be specified (anticipated volume of load plus 15% for air circulation - volume of load X 1.33T).



### Refrigeration Unit Specifications

- In cold climates, heating capacity is standard.
- Single phase 220V-240V motor compressor able to maintain a temperature of 2°C to 8°C (±2°C) in an ambient temperature of 43°C.
- Generator for refrigeration unit to use a separate fuel tank from the vehicle's engine fuel tank.
- With provision to pump fuel from the engine tank to refrigeration tank. Minimum fuel capacity to be 24 hours on full vaccine load.
- Two sensors to be fitted to test the warmest and coldest temperature.
- 220V-240V electric standby for refrigeration unit. An automatic selector switch to be provided to select power options between emergency generator power and 220-240V mains power supply.
- Auto defrost.



### Remote Temperature Recording and Cloud Platform

- The external temperature sensor measures the temperature, records and stores the measured temperature values automatically, and transmits them to the cloud platform through GPRS, safe and secure remote platform monitoring.
- Real-time monitoring is used for warehousing and distribution of vaccine, blood, reagents and biological products. The application solutions include refrigerated trucks, cold rooms, refrigerated cabinets, refrigerators and freezers.
- Supports national health officers to monitor all the equipment and samples condition centrally and receive data and other required information in real-time.
- It has a GPS location function to track the route.
- WHO/PQS qualified portal: <http://ucoole.haierbiomedical.com>



### Temperature and Remote Monitoring



Case Study

Sri Lanka: Vaccine and Blood Logistics



Shunfeng: Pharmacy and Food Logistics



ShangHai HongYu: Biological Supply Chain



China Military: Vaccine and Blood Logistics - 4X4



China Post: Pharmacy and Food Logistics



China Red Cross: Blood Logistics



Case Study

Algeria: Ambulance 4X4



UN: Ambulance 4X4



Sri Lanka: Vaccine and Blood Logistics



Case Study

Chile: Blood Logistics



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# Milestones & Awards

