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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

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Replacing GB/T 29912-2013

**Technical requirements for lectotype of urban logistics
distribution vehicles**

城市物流配送汽车选型技术要求

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1 Scope

This document specifies the selection requirements, the main technical parameters and the technical requirements for urban logistics distribution vehicles.

This document applies to the selection of urban logistics distribution vehicles, including vehicles used for express delivery, with a maximum permissible total mass of 1 500 kg or more and less than 12 000 kg. It does not apply to the selection of vehicles carrying dangerous goods in cities.

3 Terms and definitions

3.1 Urban logistics distribution vehicles: the box trucks and closed vans used within a city to carry goods, including the collection and delivery of express items.

3.2 Truck body: a goods vehicle whose load-carrying part is a box body, separate from the cab, the top of the box being closed and not openable, except in the case of a wing-opening vehicle. See Figure 1. [SOURCE: GB/T 3730.1-2022, 6.1.4, modified]

3.3 Close van: a goods vehicle whose load-carrying part is a closed box body built into one unit with the cab, the body being of one-box or two-box construction. See Figure 2. [SOURCE: GB/T 3730.1-2022, 6.3, modified]

3.4 Load mass utilization coefficient: the ratio of the maximum permissible payload of the vehicle to its kerb mass. Note 1: the maximum permissible payload is the difference between the maximum permissible total mass and the kerb mass. Note 2: the mass of a vehicle tail lift is counted neither in the kerb mass nor in the maximum permissible total mass.

4 Selection requirements

4.1 Logistics and distribution operators should give preference to battery electric vehicles.

4.2 Logistics and distribution operators shall select the particular model sensibly, in accordance with Tables 1 to 4, taking account of the nature of the goods carried, the requirements of the transport task, the conditions on the route and the requirements of city management.

4.3 Where a logistics and distribution operator carries food or biological products, the refrigerated vehicle selected shall comply with the requirements of the relevant national authorities and the relevant standards.

5 Main technical parameters

5.1 By energy type and maximum permissible total mass, box trucks are divided into twelve series, whose main technical parameters shall conform to Tables 1 and 2: series A1 and A2, together the A series; B1 and B2, the B series; C1 and C2, the C series; D1 and D2, the D series; E1 and E2, the E series; and F1 and F2, the F series.

Table 1 gives the main technical parameters for box trucks other than battery electric vehicles, in the order maximum permissible total mass G, overall vehicle length, internal box length, width and height, minimum turning circle diameter, power to mass ratio, and load mass utilization coefficient. A1: G from 10 000 kg up to but not including 12 000 kg; length not more than 9 000 mm; box not less than 5 500 mm long, 2 050 mm wide and 2 200 mm high; turning circle not more than 21 m; power to mass ratio not less than 8.0 kW/t; coefficient not less than 1.20. B1: G above 8 000 kg and below 10 000 kg; not more than 8 000 mm; box not less than 4 400 mm, 2 050 mm and 2 100 mm; not more than 20 m; not less than 9.0 kW/t; not less than 1.10. C1: G from 4 500 kg to 8 000 kg inclusive; not more than 7 000 mm; box not less than 4 000 mm, 2 050 mm and 2 000 mm; not more than 19 m; not less than 9.5 kW/t; not less than 1.00. D1: G above 3 500 kg and below 4 500 kg; not more than 6 000 mm; box not less than 3 400 mm, 1 800 mm and 1 800 mm; not more than 14 m; not less than 14.0 kW/t; not less than 0.62. E1: G above 1 800 kg up to 3 500 kg inclusive; not more than 5 500 mm; box not less than 3 050 mm, 1 600 mm and 1 600 mm; not more than 13 m; not less than 14.0 kW/t; not less than 0.58. F1: G from 1 500 kg to 1 800 kg inclusive; not more than 4 500 mm; box not less than 2 300 mm, 1 400 mm and 1 550 mm; not more than 11 m; not less than 23.0 kW/t; not less than 0.55.

Table 2 gives the main technical parameters for battery electric box trucks, in the same order but with the load mass utilization coefficient and the driving range in place of the power to mass ratio. A2: same mass, length and box dimensions as A1, turning circle not more than 21 m, coefficient not less than 1.00, range not less than 350 km. B2: as B1, not more than 20 m, not less than 0.75, not less than 300 km. C2: as C1, not more than 19 m, not less than 0.70, not less than 250 km. D2: as D1, not more than 14 m, not less than 0.45, not less than 230 km. E2: as E1, not more than 13 m, not less than 0.45, not less than 210 km. F2: as F1, not more than 11 m, not less than 0.40, not less than 130 km. A footnote

states that the driving range of a battery electric vehicle is measured by the cycle method of GB/T 18386.1 and GB/T 18386.2.

5.2 By energy type and maximum permissible total mass, closed vans are divided into eight series, whose main technical parameters shall conform to Tables 3 and 4: series H1 and H2, together the H series; I1 and I2, the I series; J1 and J2, the J series; and K1 and K2, the K series.

Table 3 gives the main technical parameters for closed vans other than battery electric vehicles, in the same order as Table 1. H1: G above 4 500 kg up to 6 000 kg inclusive; length not more than 7 000 mm; box not less than 4 500 mm, 1 750 mm and 1 850 mm; turning circle not more than 14.0 m; power to mass ratio not less than 15.0 kW/t; coefficient not less than 1.00. I1: G above 3 500 kg up to 4 500 kg inclusive; not more than 6 000 mm; box not less than 2 900 mm, 1 700 mm and 1 600 mm; not more than 13.5 m; not less than 20.0 kW/t; not less than 0.62. J1: G above 1 800 kg up to 3 500 kg inclusive; not more than 5 500 mm; box not less than 2 100 mm, 1 500 mm and 1 300 mm; not more than 13.0 m; not less than 23.0 kW/t; not less than 0.60. K1: G from 1 500 kg to 1 800 kg inclusive; not more than 4 500 mm; box not less than 1 800 mm, 1 400 mm and 1 200 mm; not more than 11.0 m; not less than 25.0 kW/t; not less than 0.58.

Table 4 gives the main technical parameters for battery electric closed vans. H2: as H1, turning circle not more than 14.0 m, coefficient not less than 0.75, range not less than 300 km. I2: as I1, not more than 13.5 m, not less than 0.55, not less than 260 km. J2: as J1, not more than 13.0 m, not less than 0.50, not less than 220 km. K2: as K1, not more than 11.0 m, not less than 0.45, not less than 130 km. The same footnote on the measurement of driving range applies.

5.3 For refrigerated and insulated vehicles the internal box dimensions may be reduced by 160 mm relative to the box truck or closed van of the same series.

5.4 For refrigerated and insulated vehicles in series D1, E1, F1, I1, J1 and K1 the load mass utilization coefficient shall not be less than 0.4. For those in series D2, E2, F2, I2, J2 and K2 it should not be less than 0.35. For refrigerated and insulated vehicles in the other series the limit on the load mass utilization coefficient is reduced by 10 % relative to the box truck or closed van of the same series.

6 Technical requirements

6.1 Basic requirements. 6.1.1 The vehicle shall comply with GB 1589, GB 7258 and other relevant provisions. 6.1.2 The vehicle shall be fitted with a satellite positioning on-board terminal complying with JT/T 794. 6.1.3 The vehicle shall be fitted with radial tyres. 6.1.4 The vehicle shall be fitted with power steering. 6.1.5 The vehicle shall be fitted with a reversing warning sound device complying with GB/T 44038, and with a camera or radar system that helps the driver to reverse. 6.1.6 Vehicles in the A and B series shall be fitted

with a right-turn audible warning device whose performance complies with GB/T 38694.

6.1.7 The vehicle shall be fitted with an anti-lock braking device and with a signal device that warns when it fails; the performance of the anti-lock braking device shall comply with GB/T 13594. 6.1.8 Box trucks and closed vans shall comply with QC/T 453, and the strength and stiffness of the box body of a box truck shall comply with JT/T 389. 6.1.9 Refrigerated vehicles shall comply with GB 29753 and GB/T 40475 and shall be fitted with a running temperature recorder as required by JT/T 1325 and GB 29753. 6.1.10 The charging interface of an electric vehicle shall comply with GB/T 20234, all parts.

6.2 Requirements on appearance and equipment. 6.2.1 All steered wheels shall be fitted with disc brakes. 6.2.2 All service brakes shall have automatic brake clearance adjustment. When the brake lining needs replacing, an acoustic or optical warning device shall warn the driver, and the warning device shall comply with GB 12676. 6.2.3 The vehicle shall have a rear door meeting the following requirements: vehicles in the A and B series should have double doors, with a clear width inside the door frame of not less than 1 500 mm; vehicles in the A, B, C, H and I series should have an additional side door on the right, the clear width inside the door frame being not less than 1 300 mm for a double door and not less than 900 mm for a single door on A, B and C series vehicles, and not less than 1 100 mm on H and I series vehicles; and all doors shall have a locking device. 6.2.4 Vehicles in the A, B and C series shall be fitted with an air deflector on the cab roof; box trucks used for refrigerated transport should have a cab roof deflector as an option. 6.2.5 Where the body of a box truck is of curtain-side construction, the curtains on both sides shall slide freely without sticking, and the curtain locking device shall turn freely and lock reliably. 6.2.6 A closed van shall have a rigid, sealed partition between the cab and the load compartment; if an observation window is fitted, a strong and reliable guard shall be fitted on the load compartment side. An access door may be provided between the cab and the load compartment. The strength of the partition, the guard and the access door shall comply with GB/T 43405. No window shall be fitted in the load compartment of a closed van. 6.2.7 The load compartment should be fitted with a ventilation device. 6.2.8 The vehicle should be fitted with a tail lift or another device that makes loading and unloading easier; a tail lift shall comply with QC/T 699, and its selection and installation shall comply with GB/T 37706. 6.2.9 A refrigerated vehicle should be fitted with a cold air deflector, and its rear and side doors should be fitted with air curtain devices. 6.2.10 The vehicle should be fitted with a blind spot detection system, whose performance shall comply with GB/T 39265. 6.2.11 Vehicles in the A and B series should have rear air suspension. 6.2.12 Vehicles in the A, B, C and H series should be fitted with electronic stability control, whose performance shall comply with Annex A of JT/T 1094-2016. 6.2.13 Vehicles in the A, B, C and H series should be fitted with an advanced emergency braking system, whose performance shall comply with JT/T 1242. 6.2.14 All steered wheels of vehicles in the A, B, C and H series should be fitted with a blowout emergency safety device, marked in a visible place in the cab; the performance requirements and test methods for the device shall comply with Annex A of