**Integrated Electric Standby for Refrigerated Trucks**

**Introduction of [Integrated Electric Standby Refrigeration system](https://www.guchenthermo.com/products/integrated-electric-standby-truck-refrigeration-units/f-series-truck-refrigeration-system.html)**

At present, the refrigeration system of most refrigerated vehicles relies on the vehicle engine to drive the [transport refrigeration compressor](https://www.guchen.com/transport-refrigeration-parts/qp-compressor-for-refrigerated-trucks-vans.html) to work, so as to achieve the purpose of refrigeration and food preservation. The compressor can only work when the vehicle is running. Once the engine is turned off, the refrigeration unit stops working. The electric standby system on the refrigerated truck is the second cooling power source activated when the engine of the chassis is not working or malfunctions. It can be used as a back-up refrigeration solution to solve some emergencies, and the refrigerated truck can also be used as a temporary cold storage.

Simply speaking, the [vehicle powered refrigeration unit](https://www.guchenthermo.com/products/truck-refrigeration-units/catalog.html) generally relies on the engine to drive the compressor of the refrigeration unit. After the engine is stopped, the refrigeration unit will stop working. If an integrated electric standby is installed, it can be directly powered after the engine is stopped. The [truck refrigeration unit](https://www.guchenthermo.com/products/truck-refrigeration-units/catalog.html) can still work afterwards, providing the preset refrigeration and fresh-keeping temperature for the truck compartment, so as to keep our goods fresh. The integrated electric standby system is more suitable for long-distance transportation, generally for refrigerated trucks over 7 meters.

**Integrated Electric Standby System Composition**

The electric standby system is composed of a motor, an independent compressor, an external power cord, and refrigerant pipeline, etc. It is independent of the original truck refrigeration compressor unit, but shares the same condensing system. Separate compressor for refrigeration, no need to start the vehicle. After the standby unit is installed, when the refrigerated vehicle engine stops working, through the electric standby system of the external power supply, the compressor can also be used when the vehicle is temporarily parked, broken down or repaired. Keeping the temperature in the compartment, and our goods fresh.

**Working principle**: Use the external power cord to rotate the motor, drive the independent compressor to work, and provide the circulating refrigerant for the refrigeration unit to work, without the chassis engine running.

**Installation location**: Generally, it is installed next to the beam of the refrigerated truck. It is also installed inside the box of a refrigerated truck, with a small side door open next to it.

**Application**: There are usually two models that are more suitable to be equipped with [electric standby systems](https://www.guchen.com/truck-refrigeration-units/tr-450s-electric-standby-system-for-sale.html). One is a refrigerated truck used to transport temperature-sensitive cargoes to avoid abnormal cooling caused by the sudden condition of the vehicle's engine during transportation; the other is for refrigerated vans, short-distance cargo transportation. If you need to rest during transportation or during unloading, the integrated standby system comes into play. It can make the refrigerated van continue to supply the power required by the refrigerated truck unit through the backup compressor when the engine is stopped. The goods can be kept in a good condition in a constant temperature environment, and it can play a very good role in some goods with higher temperature requirements.

# 一体备电系统的介绍

目前大多数冷藏车的制冷系统是依靠车辆的发动机带动制冷机的压缩机工作，从而达到制冷和保鲜的目的。这是在车辆运行的情况下压缩机才能工作，一旦发动机熄火则制冷机停止工作。冷藏车上的备电系统是在底盘的发动机不工作或故障时启用的第二个制冷动力源，它可以作为临时的制冷方案解决一些突发情况，也可以把冷藏车当作临时的冷库使用。

简单的讲就是非独立制冷机组一般依靠发动机带动制冷机组的压缩机工作，发动机停止以后制冷机组一并停止工作，如加装了一体配电系统，则可在发动机停止后联接外接电源后直接供电给机组，制冷机组依然可以后续工作，为厢体提供预设的制冷保鲜温度，为我们的货物正常保鲜。一体备电系统更适合长途运输，一般7米以上的冷藏车比较适用。。

**一体备电系统组成**

备电系统由电动机、独立压缩机、外拉电源线、制冷剂管线等组成，与原车制冷机组的压缩机互相独立，但共用一个冷凝系统。单独的压缩机制冷，无需车辆启动，在加装了配电系统以后，在冷藏车发动机停止工作时，通过外接电源的备电系统，在车辆临时停车、出故障或维修时，压缩机也能保持车厢内温度，为我们的货物正常保鲜。

**工作原理：**使用外接电源线供电动机旋转，带动独立的压缩机工作，提供循环的冷媒让制冷机组工作，不需要底盘发动机运转。

**安装位置：**一般安装于冷藏车的大梁旁边下挂式安装。也有安装于冷藏车的箱体内部，在旁边开小侧门。

**适用车型**：通常有两种车型比较适于加装备电系统，一是用于运输temperature-sensitive cargoes的冷藏卡车，避免因运输途中车辆发动机突发状况导致无法正常制冷；二是用于冷藏面包车上，短距离货物运输。运输的途中需要休息或者货物到后没有及时卸下，这时候备用电源开始发挥作用，它能使refrigerated van在发动机停止运行的状态下通过备电压缩机继续供应冷藏车机组工作所需要的动力，使货物能够在一个恒温环境中保持好状态，对一些对温度要求较高的货物，都能够起到很好的作用。