

# DAF LF AND CF ELECTRIC

ZERO-EMISSION TRANSPORT SOLUTIONS



**LF CF**

**DAF**



# Ready for the future

More and more European municipalities are announcing that in the future, inner-city areas will only be accessible to zero-emission vehicles — making fully electric trucks an important proposition. Fully electric solutions also offer the transport sector an opportunity to play its part in helping to meet the challenges of global warming and local air quality.

## Sustainable future

For this reason, DAF is investigating and trialling a number of options as we move towards a sustainable future.

Fuel cells and hydrogen combustion engines are among the promising technologies for long-haul transport.

New generations of synthetic fuels could also play an important role.

## Charging at a home depot

For distribution in inner city areas, electric trucks are the ideal solution. At night, these trucks return to their home base, where their batteries can be fully recharged. Modern batteries support a geographical range that's usually more than sufficient for a day of standard use.

Electric trucks are also ideal for shuttle transport – moving goods continuously between fixed locations. Batteries can be charged while the trailer or body is loaded and unloaded, adding to your transport efficiency.

## Reduced CO<sub>2</sub> footprint

When using green energy, electric trucks can also reduce your transport operations' CO<sub>2</sub> footprint, as well as help you achieve your sustainability goals. In addition, electric powertrains are very quiet, which is ideal for evening or night-time deliveries.



## Proven technology

It's important to remember that the technology behind electric powertrains has been thoroughly tested. DAF has been supplying fully electric trucks for several years now, acquiring many hundreds of thousands of kilometres of practical experience. The excellent quality and reliability for which DAF is famous, are also features of our electric vehicles.

## It's all in the numbers

It's true that electric trucks are still more expensive than their diesel counterparts, but it's worth investigating what local and national government incentive schemes may be available to you. It's also important to work out how you can benefit from lower energy costs.

No matter how you look at it, an electric truck will ultimately give you unlimited access to environmental zones, both now and in the future. Quiet, zero-emission trucks demonstrate your company's commitment to the environment. What's more, they're good for your business and good for the world in which we live.



# DAF supplies a complete solution

DAF is a leading provider of electric trucks. We were one of the first European truck manufacturers to successfully bring a fully electric truck onto the market. But at DAF, electric driving is about much more than just finding the right truck for a specific application. Electric driving also encompasses efficient charging systems, robust electric motors, electric PTO options and more. It all starts with an extensive consultation process. One of our electric vehicle specialists will use advanced route simulation programs to show you what using an electric truck will actually look like in your daily business: for your routes, your journey planning and for your fleet management.

## Charging systems

DAF is on hand to help you select the right charging systems for your batteries. We work in close collaboration with leading suppliers and there's a wide choice of charging stations and capacities. We also develop customised training to help your drivers get the most out of your electric truck. This is just another example of how DAF does more than simply supply the best trucks.

## Energy recovery

All-electric DAF trucks use state-of-the-art technology. Robust, reliable electric motors provide plenty of smooth traction, precise control and performance from start-off and act as generators during deceleration in order to recover energy, maximising vehicle range as a result.

## LF and CF Electric

DAF offers a customised truck for every application. The LF is ideal for multi-drop and local distribution within urban centres and surrounding areas. The CF tractor unit is designed for larger volumes – such as supplying supermarkets – and high-frequency shuttle transportation. The three-axle CF rigid truck with steered trailing rear axle is the perfect choice for higher loads and maximum manoeuvrability, e.g. for refuse collection vehicles and distribution trucks.

## Unique LFP batteries

DAF uses lithium iron phosphate (LFP) batteries. In the interests of sustainability, these latest-generation batteries contain no cobalt or magnesium. They're also designed with the longest lifespan and highest safety in mind. In addition, we provide a six-year warranty on the batteries. A sure sign of our confidence in the product!

## Smart e-PTO

DAF can supply both the LF Electric and the CF Electric with an e-PTO to power auxiliary equipment and bodywork as required. This eliminates the need for a separate power source and allows you to use electrically powered refrigeration and waste collection equipment – making your truck completely CO<sub>2</sub> emission-free from front to back.



# DAF LF Electric:

## The ideal zero-emission distribution truck

With easy cab access, unparalleled manoeuvrability and a low kerb weight for a high payload, a DAF LF is ideal for distribution or vocational applications. The LF Electric offers all these qualities as well as zero emissions and almost silent driving. It's easy to see why the DAF LF is so successful. It ensures optimum comfort and practicality for drivers who need to get in and out of the truck frequently or be able to deal with freight documents easily. Designed specifically for urban applications, it has a spacious yet compact cab and offers superb driveability along with a good driving position.

### **Mains-voltage compatible**

The LF Electric has a combined charging system. It features onboard charging, which means it can be connected to a 3-phase electrical supply for overnight charging — ideal for when the vehicle returns to its home base at the end of the day. The batteries can be charged from 20% to 80% in 6.5 hours and from 0% to 100% in 12 hours.

### **280-kilometre range**

The 19-tonne LF Electric has a 260 kW (370 kW peak power) electric motor that's powered by a 282 kWh (252 kWh effective) battery pack. The result is outstanding performance, and even more importantly: a range of up to 280 kilometres. That's unique in this class!

### **Genuinely quick charging**

Quick charging is also available. This functionality requires the installation of a DC charger (650 V DC, 150 kW) at your premises, making it possible to charge the batteries from 20% to 80% in just one hour and from 0% to 80% in only two hours. This will maximise the operating time of your LF Electric.

### **High payload**

The LF Electric is available as a rigid truck with a 5.30 m or 5.85 m wheelbase; it has a GVW of 19 tonnes and a body and payload allowance of 11.7 tonnes, which is sufficient for most distribution applications.





# DAF CF Electric:

## For higher volumes and weights

The DAF CF is renowned as an all-round vehicle, and the CF Electric is every bit as versatile. It's available as a two-axle tractor unit and as a three-axle rigid truck. Do you need to supply round-the-clock deliveries to city supermarkets? Provide refuse collection in a residential area? Or offer a regular shuttle service between two production facilities? The CF Electric is the ideal solution.

At the heart of the vehicle is a 210 kW (240 kW peak power) electric motor that draws electrical power from a 350 kWh (315 kWh effective) battery pack. The high torque available from standstill is impressive and creates a unique driving experience.

### 200-kilometre range

As a transport operator, the maximum range of your truck is vital. With the CF Electric, it's an impressive 200 kilometres. With smart journey planning and interim battery charging during loading and unloading, you can easily have your CF Electric in operation 24/7. Many other transport operators have already purchased a CF Electric and are easily clocking up 500 kilometres or more per day. And if you want to run the batteries down completely, you can bring them back up to full charge in just 75 minutes with a quick charger (250 kW/400 A).

### Energy regeneration

When braking, the electric motor works as a generator producing energy for storage in the batteries whilst slowing the vehicle. The CF Electric has three levels of regenerative braking controlled by a steering column stalk, similar to an interarder on a diesel truck. This contributes to a higher vehicle range and reduces brake wear.

### Two and three-axle configurations

DAF supplies the CF Electric as a two-axle tractor unit (GCW: 37 tonnes) that's ideally suited for emission-free, almost silent supermarket deliveries. The three-axle rigid truck (GVW: up to 29 tonnes) has a steered trailing rear axle for maximum manoeuvrability and is the ideal base for a refuse collection vehicle or distribution truck.

What's more, the CF Electric also offers the same features that the diesel CF is known for: maximum efficiency thanks to proven reliability and a high load capacity, plus optimum driver comfort.



# Charging

## Charging stations for all electric vehicles

PACCAR Parts is introducing electric vehicle charging stations to support the global launch of electric vehicles. These chargers are designed to work flawlessly with DAF electric trucks under all conditions, and also charge other electric commercial vehicles.

Customers can purchase the chargers from DAF dealers and TRP store locations worldwide, choosing from multiple DC fast chargers rated up to 1000 V DC.

PACCAR Parts offers a tailored approach to charging solutions that include best-fit options with charging levels from 20 kW up to 360 kW charging power. Mobile chargers are available to provide maximum flexibility.

The 50 kW model supports the daily operations of an individual truck in medium and heavy-duty fleets.

Designed for convenient quick charging of all electric vehicles, the 120 kW and 180 kW chargers are for fleets operating on multiple routes or even multiple shifts. The 180 kW unit has enough power to charge most trucks in less than four hours.

From 120 kW upwards, most chargers are able to charge up to multiple vehicles in parallel. For EV fleet operators, the 350 kW charger is an ultra-fast power cabinet that can charge one vehicle at full rated power or share power between two vehicles simultaneously. The 180 kW charger can even split the power over three dispensers.

The complete range of electric vehicle charging stations is backed by a two-year warranty. Most chargers include RFID or PIN authentication. And all have a cellular connection with a two-year cellular service plan. Two year full service is included with the chargers.

# Specifications



TECHNICAL DATA - DAF LF	
Chassis	Rigid truck 4x2, GVW 19 tonnes
Wheelbase	5.30 m and 5.85 m
Chassis weight	7,300 kg
Payload	11,700 kg
Electric motor	Dana, permanent magnet
Power	260 kW (nominal) / 370 kW (peak)
Torque	1,970 Nm
Battery capacity	282 kWh (254 kWh effective)
Range of fully charged vehicle	Up to 280 km / 175 miles

TECHNICAL DATA - DAF CF	
Chassis	Tractor unit 4x2, GCW 37 tonnes
Wheelbase	3.8 m
Tractor unit weight	9,000 kg
Chassis	Rigid truck 6x2, GVW 29 tonnes
Wheelbase	3.8 m, 4.0 m, 4.2 m, 4.6 m and 4.8 m
Weight of rigid truck	10,160 kg
Electric motor	VDL 210 kW nominal / 240 kW (peak)
Torque	2,000 Nm
Battery capacity	350 kWh (315 kWh effective)
Range of fully charged vehicle	Up to 220 km / 137 miles for tractor unit and 250 km / 155 miles for rigid truck
Quick battery charging	75 minutes (at 250 kW)



# DAF Services

## DAF MultiSupport

This extensive range of repair and maintenance contracts leads to predictable costs as well as maximum peace of mind. Whichever contract you choose, they all offer the highest quality of service and support for your vehicles.

## DAF International Truck Service (ITS)

Fast, professional help is available 24/7 on the road, throughout Europe. Call +31 40 21 43000 to speak directly to an ITS operator.

## PACCAR Parts

Besides original DAF and PACCAR engine parts, PACCAR supplies over 60,000 universal TRP Truck & Trailer parts for all makes of trucks and trailers, throughout Europe.

## DAF Driver Academy

DAF Driver Training helps drivers to improve their performance in terms of safe and efficient driving.

## DAF Dealer Network

A DAF dealer is never far away. Throughout Europe, our customers can count on around 1,000 DAF dealers and sales & service points for tailored advice and impeccable service.

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