

THE TOYOTA PROACE ELECTRIC

- Toyota's first battery electric panel van
- 50 and 75kWh lithium-ion battery options, with driving range of up to 205 miles*, covered by eight-year/100,000-mile warranty
- Zero emission performance with no sacrifice of the practicality and reliability businesses and customers require
- New model further strengthens the performance and appeal of the Toyota Professional range of light commercial vehicles

INTRODUCTION

The Proace Electric is a zero emission, battery electric medium-duty panel van that adds a powerful new dimension to the Toyota Professional range of light commercial vehicles, alongside the compact Proace City Electric.

The new model signals the company's commitment to applying different electrification technologies to meet different mobility requirements. With a generous driving range of up to 205 miles*, Proace Electric gives customers access to the growing number of low and zero emission zones. For business users working in urban areas, the extent of the driving range means daily recharging may not be necessary, minimising their vehicle's downtime.

A NEW AND GROWING MARKET FOR LIGHT COMMERCIAL BEVs

- Toyota makes an early entry into the developing market for battery electric LCVs
- New model gives customers access to the increasing number of low and zero emission urban centres
- Matching best-in-class power, performance and charging speeds

At present, alternative fuel vehicles (AFVs, including battery electric vehicles) account for only a small fraction of new LCV sales in the UK, but a number of factors are accelerating

demand for practical alternatives to vans with conventional internal combustion engines. Low and zero emission zones are coming into force to reduce local pollution and improve air quality in urban centres, at the same time as rapid growth in e-commerce is generating more day-to-day delivery traffic.

Consumers are actively seeking cleaner forms of transport and large corporations are making electrified vehicles a requirement within their fleet tender processes. Customer interest is also increasing, as manufacturers bring more models to market and they become more visible on city streets.

Toyota is taking an early initiative with the introduction of Proace Electric. The new model not only rivals the best power, performance and charging requirements within its BEV segment, it goes further by delivering just the same quality and load-carrying practicality as its diesel-powered equivalent.

Key customer concerns have been addressed, including driving range (up to 205 miles*), charging times (fast charging to 80 per cent in less than one hour with a 100kW fast charger) and battery quality (eight-year/100,000-mile battery warranty as standard). This makes Proace Electric a smart choice for customers who need to access low/zero emission zones, giving them the opportunity to develop new, cost-efficient business models that deliver environmental performance while maintaining service levels.

Proace Electric was introduced to initial European markets – Norway, Netherlands and Switzerland – in the fourth quarter of 2020. From the first quarter of 2021 it is being launched in the United Kingdom, Denmark, Finland, France, Germany, Italy, Spain and Sweden.

ALL-ELECTRIC POWERTRAIN

- Choice of two lithium-ion batteries to suit customer requirements – 50kWh and 75kWh capacities
- Respective zero emission driving ranges of up to 142 and 205 miles*, comfortably beyond the daily average of target customers, avoiding the need for daily recharging
- Fast charging (to 80 per cent charge) in less than an hour
- Battery quality and durability reflected in standard eight-year/100,000-mile battery warranty

Choice of two battery pack options

Proace Electric can be specified with either of two lithium-ion battery packs, to suit different customer driving requirements. These power a front-mounted electric motor which drives the front wheels, giving smooth, quiet performance with zero emissions.

The smaller of the two is an 18-module 50kWh battery which weighs 383kg and gives a best-in-class driving range of up to 142 miles*. This will be ideal for customers making regular short urban journeys or organisations working across a large campus or industrial park.

The larger, 27-module unit has a 75kWh capacity and weighs 534kg. It gives the electric Proace models the ability to cover up to 205 miles* on a full charge, giving owners peace of mind when they have to make longer trips, or have a busy schedule between recharging opportunities.

Toyota researched the needs of its target customers in Europe (including UK van drivers) and found the majority typically covered only around 28 miles in a working day. The generous driving range provided by both battery options means that for most owners, the new Proace Electric will not require daily recharging, reducing the vehicle's down time.

The driving range can be affected by a number of external factors, including the weather and temperature, the road type and quality, the driver's driving style and the payload being carried.

Responsive performance

Proace Electric has three driving modes, Eco, Normal and Power, selected using a centre console-mounted switch.

When driving in "Power" mode, maximum power output from both batteries is 134bhp/100kW with peak torque of 260Nm delivered from start-up. Top speed is electronically limited to 80mph and 0-62mph acceleration can be accomplished in 12.1 seconds with the 50kW battery, 13.3 seconds with the 75kW unit. In Eco mode output is reduced to 81bhp/60kW with 190Nm of torque, while in Normal mode the electric system produces 108bhp/80kW with 210Nm.

Simple, secure and convenient charging options

Speed and ease of charging are important considerations for customers who need to minimise the amount of time their vehicle is off the road. Toyota has provided charging options for the Proace Electric, to suit different customer needs.

All models come with a 7.4kW single-phase onboard charger and a 6m Type 2 cable for connection to a home charging socket, plus a 7m Type 2 cable for connection to a 32A wallbox system. As an option, a faster 11kW tri-phased onboard charger can be specified. The connection socket in the front left wing is compatible with public/third party fast-charging charge points.

Recharging time will vary according to power supply criteria in different markets, but a fast charging 100kW DC system will deliver an 80 per cent charge in around 32 minutes for the 50kW battery and 48 minutes for the 75kW battery.

Battery warranty

Further customer peace of mind about the quality and durability of the battery is provided by an eight-year/100,000-mile manufacturer's warranty. In some markets, there is the option to extend this warranty further, linked to an annual battery health check as part of the scheduled servicing programme.

PROACE ELECTRIC: UNCOMPROMISED PRACTICALITY

- Toyota's first battery electric van provides a standard one tonne payload and towing capacity with the 75kW battery; payload increases to 1,266kg with the 50kW battery
- Available as a panel van in medium body length – the established best-selling format in the diesel Proace range
- EV-specific equipment specifications include e-toggle shift switch, drive mode selector, electronic parking brake, seven-inch display and smartphone integration (Apple CarPlay/Android Auto)

The new Proace Electric is launched in a single version in the UK, a panel van with a medium body length. This is in line with the market requirement, this style and size of van being established as the most popular within Toyota's Proace diesel van range.

With the battery located entirely beneath the vehicle floor, there is no impact on Proace's load capacity, in any version. Moreover, this design adds to the vehicle's stability and rigidity, contributing to stable and responsive performance. Similarly, payload and towing capacity are at best-in-class levels.

The Medium version is 4,959mm long and has a 3,275mm wheelbase. Fitted as standard the ingenious Smart Cargo system, the van has an overall load length extending to 3,674mm and a load capacity of 5.8m³. The sliding side door openings are wide enough for standard-size Euro pallets to be loaded.

Proace Electric equals the best models in its class with a one tonne payload. This increases to 1.266 tonnes on vans fitted with the lighter, 50kWh battery.

Towing capacity is also at a best-in-class level at one tonne (braked trailer, with up to 50 per cent payload inside the van). These capabilities reinforce the status of Proace Electric as a eminently practical choice for customers.

Equipment features

The new Proace Electric is available in a single model grade, Icon, providing a strong combination of practicality, safety and comfort features found in the conventionally powered range, together with a number of items specific to its all-electric status.

The specification includes manual air conditioning, automatic wipers and headlights, cruise control, electronic parking brake, rear parking sensors, power-adjustable heated, retracting door mirrors, a seven-inch touchscreen with display audio, colour multi-information display, DAB reception, Bluetooth, smartphone integration with Apple CarPlay and Android Auto, eCall and USB ports. The driver's seat has an arm rest and is height-adjustable and has adjustable lumbar support. The load area has two lights and a 12V power outlet, with a further power socket in the cabin.

EV-specific instrumentation

The driver's instrument binnacle has been adapted to include dials and meters specific to the vehicle's battery and electric motor performance. The arrangement includes an EV system indicator divided into Charge, Eco and Power sections, and an electricity consumption

indicator, showing the draw on battery power from the cabin air conditioning system.

In the centre of the display a 3.5-inch colour multi-information display provides additional EV functions, including a real-time indication of energy flow, the level of battery charge and the remaining driving range.

E-toggle and Drive Mode Selector

In place of a gear shift, the driver uses an e-toggle control on the centre console to engage Park and select Drive, Neutral and Reverse. There is also a “B” switch to activate additional regenerative braking each time the driver takes their foot off the accelerator pedal.

Different drive modes can be selected using a switch alongside the e-toggle. This lets the driver choose between Eco, Normal and Power modes to suit their preference and the driving conditions. In each mode, the level of power and torque is adjusted, detailed in the powertrain chapter above.

Electronic parking brake

The Proace Electric has an electronic parking brake as standard, operated using a switch mounted between the front seats.

Charging point cover

The charging point is located on the vehicle’s front left wing, covered by a hinged flap. It features an indicator to the right of the socket that illuminates to show the charging status.

When no cable is attached, no light shows. With the cable plugged in, a white light indicates stand-by mode; flashing green shows charging in progress; and constant green indicates charging is complete. A blue light illuminates when a programmable charging function has been selected and a red light warns of an error or that the nozzle is still locked in place.

For convenience, the driver can use their remote key to disconnect the nozzle from the charging socket. The red indicator light will go out when the nozzle is unlocked; the cable must be removed within 30 seconds, after which the nozzle will re-lock.

** According to WLTP standard. Driving range is influenced by several factors such as: product weight, weather and temperature, road type and quality, payload and driving style.*

TOYOTA PROACE ELECTRIC TECHNICAL SPECIFICATIONS

DRIVETRAIN		
Electric motor		
Type		Permanent magnet, synchronous motor
Max. voltage		300 (50kWh battery) 450 (75kWh battery)
Max. power (bhp/DIN hp/Kw)	Power	134/136/100
	Normal	108/110/80
	Eco	81/82/60
Max. torque (Nm)	Power	260
	Normal	210
	Eco	190
Battery		
Type		Lithium-ion
Nominal voltage		394
Total capacity (kWh)		5075
Number of modules		1827
Weight (kg)		383534
Battery charging		
Charging time	230V	7.5hr
	Quick charge	32min
Connector type	AC input (normal use)	Type 2
	DC input (quick charge)	CHAdemo
Maximum AC charge rate (kWh)		11
TRANSMISSION		
Type		Automatic
Driven wheels		Front
Differential gear ratio		0.366
PERFORMANCE		
0-62mph (sec)*		12.1 (50kW battery, power mode) 13.3 (75 kW battery, power mode)
Max. speed (mph)*		80 (electronically limited)
Driving range (miles, WLTP)		205 (75kWh battery) 142 (50kWh battery)
BRAKES		
Front type/diameter (mm)		Ventilated discs/304
Rear		Solid discs/294
STEERING		
Type		Rack and pinion
Turning circle	Tyre (m)	6.2
	Body (m)	6.45
SUSPENSION		
Front		MacPherson strut-type with coil springs and anti-roll bar
Rear		Trailing arms with coil springs and anti-roll bars

EXTERIOR DIMENSIONS		
Overall length (mm)		4,959
Overall width (mm)		1,920
Overall height (mm)		1,890
Wheelbase (mm)		3,275
Front track (mm)		1,627
Rear track (mm)		1,600
Front overhang (mm)		881
Rear overhang (mm)		803
LOAD AREA DIMENSIONS		
Floor load length (mm)		2,512
Floor load length with Smart Cargo (mm)		3,674
Mid-height load length (mm)		2,185
Max. load height (mm)		1,397
Max. load width between sides (mm)		1,628
Max. load width between wheel arches (mm)		1,258
Sliding side door max. opening height (mm)		1,241
Sliding side door max. opening width (mm)		935
Rear door height (mm)		1,220
Rear door width (mm)		1,282
Load area volume (m ³)		5.3
Load area volume with Smart Cargo (m ³)		5.8
WEIGHTS	50kWh battery	75kWh battery
Gross vehicle weight (kg)	3,100	3,025
Kerb weight min-max (kg)	1,874-2,050	2,025-2,201
Max. payload (kg)	1,226	1,000
Towing capacity – braked (kg)	1,000	1,000

TOYOTA PROACE ELECTRIC EQUIPMENT SPECIFICATIONS

SAFETY	DESIGN
ABS with Brake Assist and Emergency Brake Distribution	✓
Vehicle Stability Control	✓
Hill-start Assist Control	✓
Driver and double passenger front airbags	✓
Front passenger airbag off switch	✓
Tyre pressure warning system	✓
Headlights with Automatic High Beam	✓
Adjustable speed limiter	✓
eCall	✓
SECURITY	
Locking fuel filler cap	✓
Deadlocks	✓
Remote central locking	✓
Intrusion alarm with glass breaking and motion sensors	✓
STORAGE	
Cabin cupholders	✓
Open dashboard upper storage space	✓
Glovebox with light	✓
Lights in load area x2	✓
MULTIMEDIA & INFORMATION	
4-speaker audio system with RDS stereo DAB tuner	✓
Bluetooth	✓
USB port	✓
3.5in colour TFT multi-information display	✓
Pro Touch multimedia system with 7in display	✓
WiFi connectivity	✓
Smartphone connectivity (Apple CarPlay/Android Auto)	✓
COMFORT & CONVENIENCE	
Air conditioning	✓
Power windows with auto up/down	✓
Automatic headlights	✓
Automatic wipers	✓
Power steering	✓
Cruise control with speed limiter	✓
12V power socket s in cabin and load area	✓
Rear parking sensors	✓
Driver and passenger personal lights	✓
Rear window wipers	✓
Home charging cable – 6m	✓
Wallbox cable	✓
13-pin trailer connection	✓
Tow bar system	Opt

INSTRUMENTS AND CONTROLS	
Battery capacity indicator	✓
On-board charger – 7kW	✓
On-board charger – 11kW	Opt
Drive mode selector	✓
Eco driving indicator	✓
Analogue speedometer	✓
Additional digital speedometer in multi-information display	✓
Electronic parking brake	✓
e-toggle shift system	✓
SEATING	
Height-adjustable driver's seat	✓
Driver's seat adjustable lumbar support	✓
Front passenger bench (seats two)	✓
Driver's arm rest	✓
Dark grey cloth/PVC upholstery	✓
Plastic cabin floor lining	✓
Robber floor mats	Opt
EXTERIOR	
Daytime running lights	✓
Twin rear panel doors – 180° opening	✓
Right and left sliding panel doors	✓
Power heated, retracting door mirrors	✓
Acoustic windscreen	✓
Black bumpers and door mirrors	✓
Black side protection mouldings	✓
Cornering lights	✓
16in steel wheels with wheel caps	✓
Temporary spare wheel	✓
LOAD COMPARTMENT	
Steel bulkhead with window and grille	✓
Smart Cargo system	✓
Light in load compartment (x2)	✓
12V power outlet in load compartment	✓
Cargo area lining and anti-slip flooring	Opt

ENDS

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