EV FACT SHEET

Renault Kangoo E-Tech

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Renault Kangoo E-Tech. Renault

INTRODUCTION

The Renault Kangoo E-Tech is the electric version of Renault's popular Kangoo light delivery van. It is initially being offered here only in short wheel-base (SWB) form, although Renault hope to bring the long wheel-base electric version to Australia at a later date.

In SWB form, it has a 523 kg/3.3 cubic metre load capacity, 286 km (WLTP) driving range plus a very respectable 1500kg braked trailer tow rating. Renault have been producing an EV version of the Kangoo since 2012 and in the process have won many European vehicle awards – the latest being the 2024 'Best Small Electric Van' at the *What Car?* UK Van and Commercial Awards.

This latest version also includes the usual suite of active safety features – although some additional ones (such as front and side parking sensors, driver attention alert and traffic sign recognition) need to be optioned. In addition, unlike earlier Kangoo EVs, this new version has up to 22 kW three phase AC charging as well as 80 kW DC charging. DC charging is however an additional cost option.

DRIVING RANGE

Currently, the official Australian ADR 81/02 test cycle is based on the outdated (and highly over-optimistic) European NEDC test cycle. However few manufacturers now quote this figure for their new releases. Instead they give the more achievable ranges found using the newer European WLTP test cycle.

Therefore, to avoid disappointment - always check which test cycle has been used when assessing an EV for your needs. As a guide, NEDC is generally 30% too high, WLTP a good estimate if doing mostly urban and outer suburban driving and US EPA the better guide if doing mostly outer suburban to regional driving. (Currently, only WLTP figures are available for the Kangoo E-Tech).

DRIVING RANGE (continued)

National testing system range estimates in kilometres		
NEDC (Aust)	WLTP (Euro)	US EPA
NA	286	NA[1]

Table 1: test cycle range estimates for the Kangoo E-Tech.

FLEET EV TRANSITION TIPS:

Key to increasing the efficient use of an electric LCV is recharging whilst loading and unloading at delivery points as well as during down-times at its home base. Installing the maximum AC charger size at the home base may be useful, as well as placing that charger adjacent to the loading area.

Note: Planning for a business EV transition where more than one LCV is used will include the need to review the business location's power supply situation as well as an overall EV fleet use-case charging needs assessment.

Knowing, finding and using three phase outlets and DC fast-chargers is important for longer trips where you intend to take a Kangoo E-Tech on a single trip exceeding around 230 km. To navigate this new aspect of EV fleet management, fleet managers will need to provide information and training to drivers on higher power portable chargers (if supplied), DC charging and how to use the Apps from the major fast-charge providers. (These include Chargefox, Evie, BP Pulse and Ampol's AmpCharge, as well as the open source Plugshare[2]).

CHARGING SPEEDS/REQUIREMENTS

Charging port

The Renault Kangoo E-Tech is fitted with a CCS2 socket allowing it to charge via Type 2 AC chargers[3] as well as via CCS2 DC fast-chargers.

CCS2 charging plug and socket

Notes:

1. Renault do not sell in the US.
2. https://www.plugshare.com/
3. The Kangoo E-Tech can be charged at any AC EVSE, however an adaptor will be needed to use the (extremely few) remaining older EVSEs fitted with Type 1 (J1772) plugs.

CHARGING SPEEDS/REQUIREMENTS (CONTINUED)

AC charging:

Like all new EVs sold in Australia, the Renault Kangoo E-Tech is fitted with a type 2 AC socket as part of the CCS2 AC/DC charge plug system.

Charging rates:

Single phase: maximum of 7.2 kW (32A)
Three phase: maximum of 22 kW (16A per phase)

Charging speeds and times vary on the capacity of the EVSE (Electric Vehicle Supply Equipment) it is connected to and the chosen battery size. Approximate charging times for the Kangoo E-Tech are shown in table 2 below.

AC: 0 – 100% time				DC: 0 – 80% time	
10 A (power point)	15 A 1 phase (Caravan outlet)	32 A (1 phase)	16 or 32 A (3 phase)	DC Fast charge 50kW	DC Fast charge 80+kW
19h	13.5h	6.75h	4.5h: 16A 2.25h: 32A	2.1h	80m

Table 2: Approximate charging times for the Renault Kangoo E-Tech

DC fast charging:

DC fast-charging is an optional extra in the Kangoo E-Tech. If included, it can charge at up to 80 kW DC.

V2X capability:

The Kangoo does not include any V2X capabilities.

Notes:

V2X is the generic term covering the options of getting 230V AC power from the battery and supplying it as:

- V2L: vehicle to load (230V power available from outlet in car)
- V2H: vehicle to home (supply home via a special connection)
- V2G: vehicle to grid (supply home or grid via spec. connection)

HOME CHARGING CONSIDERATIONS

General

To get the shortest AC charging time for a Kangoo E-Tech, a 22 kW (32A) three phase AC EVSE would be needed. However, depending on your existing power supply and/or charging needs, a lower rated EVSE may only be practicable, or needed. (See notes below). Lower capacity EVSEs will increase charging times, as shown in table 2 above.

Note: the Kangoo E-Tech does NOT come with a Mode 2 portable EVSE for use with a 10A power point. These are however easily bought from aftermarket EVSE retailers. Prices for portable EVSEs start from $400 for a 2 kW unit to around $2000 for a fully flexible 1.6 kW to 22 kW unit with adaptors. If using a 2 kW portable charger with a standard power point, the Kangoo would take approximately 22 hrs for a 0 – 100% charge.

Important notes for any EVSE installation:

1. High charging rates are generally not needed for overnight charging.
2. Homes do not normally have three phase AC connected, although many businesses do.
3. Switchboard and/or electrical supply upgrades may be needed if your home or business is more than 20 years old. For more information on this item - read EV Information articles at *EVchoice.com.au* or see:
   (a) Renew magazine edition 143. (EVSE wiring)
   (b) Renew magazine edition 156. (EVSE buyer's guide)

SPECIFICATIONS

Seating capacity: 2

Dimensions and weights:

Dimensions/weights/volumes	SWB	LWB
Length (mm)	4488	4910
Width (mm) – mirrors in	1859	1859
Width (mm) – mirrors out	2159	2159
Height (mm)	1830	1830
Wheel base (mm)	2716	3100
Ground clearance (mm)	162	162
Turning circle (m)	11.31	11.75
Cargo area length (mm)	1806	2230
Cargo area width (mm)	1570	1570
Cargo area height (mm)	1215	1215
Width at wheel arches (mm)	1248	1248
Rear door opening width (mm)	1196	1196
Rear door opening height (mm)	1115	1115
Side door opening width (mm)	Not spec.	Not spec.
Side door opening height (mm)	Not spec.	Not spec.
Gross vehicle mass (kg)	2230	2490
Payload (kg)	523	668
Tare weight (kg)	1707	1822
Cargo volume (m^3)	3.3	4.2
Spare wheel?	No	No

Battery: 45 kWh usable (48 kWh gross)

Charging:

- 1 phase AC: 7.2 kW (maximum)
- 3 phase AC: 22 kW (maximum)
- DC (where fitted): 80 kW (maximum)

Charge port location: Centre front (under Renault badge)

Vehicle to Load connection: (position and power): NA

Energy consumption: (WLTP):

- 17.5 kWh/100km

Drive configuration:

- Front wheel drive

Towing:

- 750 kg unbraked/1500 kg braked.

Performance:

- Maximum power: 90 kW
- Maximum torque: 245 Nm
- Maximum speed: 135 km/h
- 0 – 100 km/h: 12.6 sec

IMPORTANT NOTES: