



EV FACT SHEET

Renault Zoe ZE40

Australian delivered: 2017-20

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Image: Renault

INTRODUCTION

Available in Europe since 2013 (initially with a 22kWh battery) the Zoe was updated in late 2016 with a larger (41 kWh) battery. This model became available in Australia in late 2017. Classified by VFACTS as a 'small car', the ZE22, and later ZE40 Zoe was the best-selling EV in Europe in 2015, 2016 and 2020 and was voted the **'WhatCar? best electric car'** of the year for 2017.

In Australia, the ZE40 Zoe was originally offered in two trim levels (Life and Intens), however the higher spec Intens version appears to have been the only one that ever arrived. The ZE40 Zoe was discontinued in Europe in 2019 and replaced with the ZE50. The ZE50 updates included DC charging and a larger battery (52 kWh). Sadly, rather than bring in the new version, Renault ceased importing them at the end of the production of the ZE40, citing poor sales and lack of federal government support for EVs.

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Currently, the official Australian ADR 81/02 test cycle is based on the outdated (and highly over-optimistic) European NEDC test cycle.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 give this figure for their new releases. Instead they generally quote 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 rough 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.

DRIVING RANGE

National testing system range estimates in km		
NEDC (Aust)	WLTP (Euro)	US EPA
400 km	317 km	NA ¹

Table 1: Driving range estimates for the Renault ZE40 Zoe

Note 1: No EPA range. Renault do not sell vehicles in Nth. America

The Zoe driving range was rated from new at 317 km (WLTP), however owners of them generally report driving range numbers slightly lower than this at 250 to 300 km.

By all reports, the Zoe ZE40 battery appears to be holding up well as it ages. Therefore the above range estimates will generally still apply. Any vehicle that reports significantly less range when fully charged should be further inspected. (See Battery Data heading below).

BUYING SECOND-HAND

1. Portable EVSE

The Renault Zoe electric did not come with a portable (Mode 2) charger. In fact, Renault warned against regularly charging it using a 10A power point. (See note under Home Charging Considerations on next page).

2. Battery data

Over time, all EV batteries lose a small amount of capacity. This is generally 0.5% to 1% per year, with most manufacturers guaranteeing their batteries for around 8 years/160,000km* and 70% SoH. (California has recently mandated for new cars, this is to change to 10 years/240,000km and 70% - moving to 80% by 2030. This is soon to be adopted in the EU and therefore likely to flow on to Australia).

If you want to delve deeper into the battery data available from a ZE40, for the technically minded there is the option of using aftermarket Apps such as CAN ZE. A quick search of the web and Zoe forums should enable you to find a suitable one. Such Apps need to be used with compatible OBDII devices that plug into the diagnostics port of the vehicle.

* Note: Renault only offered a 5 year/70% battery warranty on both the Zoe ZE40 and Kangoo ZE, meaning (as of the time of writing) it will have expired for all but the last batch of 2019 ZE40 Zoes imported to Australia.

3. General assessment of a second-hand EV

For more information on how to assess the condition of a second-hand EV see Jan – Mar 2022 Renew magazine (edition 158) for article on 'How to make a pre-purchase assessment of a second-hand EV' or go to:

<https://evchoice.com.au/ev-information.html>

CHARGING SPEEDS/REQUIREMENTS

AC charging:

The Renault ZE40 is fitted with a type 2 AC socket.

Charging rates:

Single phase: maximum of 7.4 kW (32A)

Three phase: maximum of 22 kW (32A 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. Charging times for the ZE40 Zoe are shown in table 2 below.

EVSE type:				
10 A socket (2.4kW)	16 A 1 phase (3.6 kW)	32 A 1 phase (7.2 kW)	32 A 3 phase (22 kW)	Fast charge DC
20hrs	14–16hrs	7–8hrs	2h 40 min	N/A

Table 2: Approximate charging times for the ZE40 Zoe

DC fast charging:

The Renault ZE40 Zoe does not support DC charging.

V2X capability:

The ZE40 Zoe did not include any V2X capability.

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 special connection)
- V2G: vehicle to grid (supply home or grid via spec. connection)

HOME CHARGING CONSIDERATIONS

General

To take good advantage of the efficiencies of the Zoe's inbuilt 'Chameleon' charger, it would be best to install a minimum 32A (7 kW) capable mode 3 EVSE.

Important note:

Renault have released the following warning against charging the Zoe primarily with a low power portable EVSE plugged into a 10A outlet:

"Renault advises customers not to use a portable charger as the primary charging option as it may detrimentally affect the battery resulting in costly repairs".

To get the shortest home charging time for a ZE40 Zoe, a 22 kW three phase AC charger would be needed. However, depending on your existing power supply and/or charging needs, it may only be practicable to fit a lower rated EVSE. (See notes below). Lower capacity EVSEs will increase charging times, as shown in table 2.

Important notes for any home EVSE installation:

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

SPECIFICATIONS

Seating: 5

Boot volumes in litres (1 litre = 10 x 10 x 10 cm)

- Boot: 338 L
- Rear seat folded, loading space to roof: 1,225 L

Dimensions:

- Overall length 4,084 mm
- Overall width (edge of doors): 1,730 mm
- Overall width (edge of mirrors): 1,945 mm
- Overall height: 1,562 mm

Battery:

- 44 kWh (41 kWh usable)

Energy consumption: WLTP

- 16 kW/100 km

Kerb weight:

- 1,480 kg

Charging:

AC:

- Single phase: 7.4 kW
- Three phase: 22 kW

DC:

- NA

Charge port location:

- Front. Centre. (Under Renault badge).

Drive configuration:

- Front wheel drive.

Towing:

- Not rated for towing.

Performance:

- Maximum power: 65kW
- 0-100 km/h time: 13.5 sec

IMPORTANT NOTE

Always check all specifications with the manufacturer prior to any purchase. No responsibility accepted by AEVA or Bryce Gatton (EVChoice) for errors factual or due to reproduction in this Fact Sheet. Whilst all efforts are made to ensure the accuracy of the material in this Fact Sheet, manufacturers regularly make changes (often unannounced) to their model ranges and specifications.

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