



# EV FACT SHEET

## Volvo C40 Recharge

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Volvo C40 Recharge. Image: Volvo Europe.

### INTRODUCTION

The Volvo C40 Recharge is classed in Australia as a 'medium SUV' and is built on the same platform as Volvo's XC40 Recharge and Polestar 2. As such it shares its motor, battery and many other components with both the Polestar and the XC40. However, unlike the XC40, the C40 is offered as a full battery EV (BEV) only with no ICE or hybrid variants. Whilst the European C40 Recharge is built in Belgium, the Australian versions are built in China (as are the Polestar 2 and XC40 Recharge).

At release, two version of the Volvo C40 are offered:

- front-wheel drive (FWD) with a 69 kWh battery
- all-wheel drive (AWD) with a 78 kWh battery

BEV competitors vying for buyer attention in this segment include the Tesla Model Y, Kia EV6, Hyundai Ioniq 5, Lexus UX300e and Genesis GV60.

### DRIVING RANGE

Australian test standards are currently in a state of flux, with the GVG (Green Vehicle Guide<sup>1</sup>) showing some vehicle driving ranges using either the old (and highly over-optimistic) figure derived using ADR 81/02 (based on the European NEDC test cycle) or the newer European WLTP test cycle figure. Unfortunately, it is not easy to find out which test cycle was used to give the GVG figure. For around town, the WLTP figure is the best guide to driving range or, if doing outer suburban to regional driving – use the US EPA figure.

National testing system range estimates			
Version	ADR 82/01 (Aust)	WLTP (Euro)	US EPA
FWD (69 kWh)	540	434	N/A
AWD (78kWh)	500	420	364

Table 1: Driving range estimates for the Volvo C40 Recharge

### DRIVING RANGE (continued)

Using the WLTP range – a Volvo C40 front-wheel drive should manage a return day-trip from the Melbourne GPO to Ararat in Victoria's west, provided the heater or air conditioner are not heavily used. Top-up charging options include a 1hr AC charge over lunch in Ararat's Elizabeth Park or a 10 – 15 minute DC fast charge Ballarat Central. For further charging options and locations, visit: <https://www.plugshare.com/>

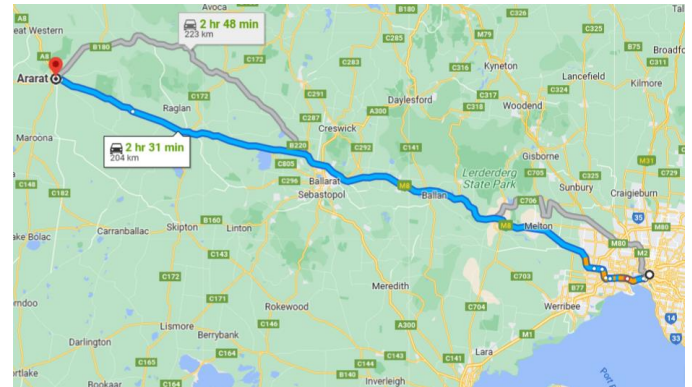


Image: Google maps

### CHARGING SPEEDS/REQUIREMENTS

#### Charging port

The Volvo C40 Recharge is fitted with a CCS2 socket allowing it to charge via Type 2 AC chargers<sup>2</sup> as well as CCS2 DC fast-chargers.



CCS2 charging plug and socket

#### Notes:

1. <https://www.greenvehicleguide.gov.au>
2. The C40 Recharge can be charged at any AC EVSE, however an adaptor will be needed to use the (very few) remaining older EVSEs fitted with Type 1 (J1772) plugs.

## CHARGING SPEEDS/REQUIREMENTS (continued)

### AC charging:

Like all new EVs sold in Australia, the C40 Recharge is fitted with a type 2 AC socket as part of the CCS2 AC/DC charge plug system.

### Charging rates:

**Single phase:** maximum of 7.4 kW (32A)

**Three phase:** maximum of 11 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. Charging times for the C40 recharge 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 ph. Home EVSE)	16 or 32 A (3 phase public AC EVSE)	DC Fast charge (50kW)	DC Fast charge (150+kW)
FWD: 34h	21.25h	10.6h	16A: 7.3h 32A: 7.3h	80m	36m
AWD:38.5h	24h	12h	16A: 8.25h 32A: 8.25h	82m	37m

Table 2: Approximate charging times for the C40 Recharge FWD and AWD

### DC fast charging:

The Volvo C40 Recharge has the CCS2 DC fast-charge connector and can charge at up to 136 kW for the front-wheel drive and 150 kW for the all-wheel drive.

Note: the CCS connector is fast becoming the majority DC fast-charge connector type in both Australia and overseas.

## HOME CHARGING CONSIDERATIONS

### General

To get the shortest home charging time for a C40 Recharge, an 11kW 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.

The C40 Recharge also comes with a Mode 2 portable EVSE for plugging into a 10A power point. Charging the FWD with this EVSE will take around 34 hrs for a 0 – 100% charge or almost 39 hrs for the AWD.

### 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.
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](http://EVchoice.com.au) or see:  
(a) Renew magazine edition 143. (EVSE wiring)  
(b) Renew magazine edition 156. (EVSE buyer's guide)

## SPECIFICATIONS

**Seating capacity:** 5

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

- Seats up: 413/489 L (to seat top/to roof)
- Seats down: 853/1205 L (to seat top/to roof)
- 'Froot' (front boot): 31 L

### Dimensions:

- Overall length: 4440 mm
- Overall width:
  - mirrors in: 1873
  - mirrors out: 2034 mm
- Overall height: 1596 mm

### Battery:

- Front-wheel drive: 69 kWh (67 usable)
- All-wheel drive: 78 kWh (75 usable)

### Charging:

- 1 phase AC: 7.4kW
- 3 phase AC: 11kW
- DC: 136kW (FWD); 150kW (AWD)

### Charge port location:

- Left side, rear quarter.

### Energy consumption: (WLTP)

- 19.4 kWh/100 km (FWD)
- 22.2 kWh/100 km (AWD)

### Kerb weight:

- FWD: 2001 kg
- AWD: 2154 kg

### Drive configurations:

- Front-wheel drive (FWD) or all-wheel drive (AWD)

### Towing:

- FWD: 750/1500 kg
- AWD: 750/1800 kg

### Performance:

Variant:	Max. Power (kW)	0 to 100km/h (Sec)
FWD	170	7.4
AWD	300	4.7

## IMPORTANT NOTES:

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