



EV FACT SHEET

Polestar 2: 2024 update

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2024 update Polestar 2. Image: Polestar media

INTRODUCTION

For those who haven't heard of Polestar before – Polestar used to be a performance modifier of Volvo cars, subsequently bought out by Volvo in 2015. Relunched as an all-electric vehicle manufacturer, Polestar's headquarters are in Sweden and vehicle production occurs in parent company Geely's factories in China.

The Polestar 2 is classified by VFACTS as a 'medium passenger vehicle' and provides a more car like driving position than the now almost ubiquitous SUV. Whilst Polestar do not sell through a traditional dealer network (instead, selling at a fixed price through the Polestar website), potential buyers can go to a Polestar 'experience centre' (plus many Volvo dealers) to view Polestar vehicles and take test drives.

As a sedan, its most direct competitor would likely be the Tesla Model 3. However, given it shares the same platform and drive system as the Volvo C40 and XC40, buyers liking the Polestar 2 driving experience but wanting a more SUV body and ride might be interested in cross-shopping these.

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Currently, the official Australian ADR 81/02 test cycle is based on the outdated (and highly over-optimistic) European NEDC test cycle.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 (continued)

Variant	Testing system range estimates		
	NEDC (Aust)	WLTP (Euro)	EPA (USA)
Std range 2WD	Not rated	546 km	NA ¹
Long-range 2WD	Not rated	655 km	515 km
Long-range AWD	Not rated	593 km	444 km
Performance AWD	Not rated	568 km	398 km

Table 1: Driving range estimates for the 2024 Polestar 2

Using the US EPA range, a Polestar 2, (2WD long-range) should be capable of a return trip from the Melbourne GPO to Warnambool provided neither the heating nor air conditioning were heavily used. For this sort of trip, it could be useful to do either a ½ - 1 hour top-up charge at an AC charger or a 10 to 15 min DC fast-charge at one of the DC fast-charge sites along this route. (For further charging options and availability, see: <https://www.plugshare.com/>).

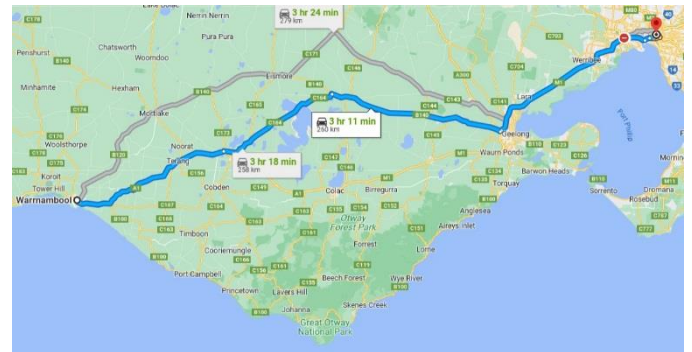


Image: Google maps

CHARGING SPEEDS/REQUIREMENTS

Charging port:

The Polestar 2 is fitted with a CCS2 socket allowing it to charge via Type 2 AC chargers² as well as CCS2 DC fast-chargers.



CCS2 charging plug and socket

Notes:

- Standard Range battery not available in the USA
- The Polestar 2 can be charged at any AC EVSE, however an adaptor will be needed to use the (few) remaining older EVSEs fitted with Type 1 (J1772) plugs.

CHARGING SPEEDS/REQUIREMENTS (CONTINUED)

AC charging:

Like all new EVs sold in Australia, the Polestar 2 is fitted with a type 2 AC socket.

Charging rates:

Single phase: maximum of 7.4 kW (32A)

Three phase: 11 kW (16A per phase)

Charging speeds vary on the capacity of the EVSE (Electric Vehicle Supply Equipment) the car is connected to. Approximate AC charging times for the Polestar 2 are shown in table 2.

10 A (power point)	AC: 0 – 100% time			DC: 0 – 80% time	
	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 (200+kW)
69 kWh: 34h	20h	10h	7h	70m	40m
82 kWh: 41h	23h	12h	8h	80m	32m

Table 2: Approx. charging times for the 2024 Polestar 2

DC fast charging

The Polestar 2 uses the CCS2 DC fast-charge connector and can charge at up to 135 kW DC with the standard range (69 kWh) battery and 205 kW DC for the long range (82 kWh) battery.

V2X capability:

The Polestar 2 does not (yet) include V2X functionality.

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

HOME CHARGING CONSIDERATIONS

General

To get the shortest home charging time for the Polestar 2, an 11kW 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 Fact Sheets at [EVchoice.com.au](https://www.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 - seats up: 405 L*
- Boot - seat folded/to roof: 1,095 L*
* including 41 L under rear floor
- Froot: 31L (front boot: under-bonnet storage)

Dimensions:

- Overall length: 4,606 mm
- Overall height: 1,479 mm
- Ground clearance: 151 mm
- Overall width (edge of doors): 1,859 mm
- Overall width (edge of mirrors): 1,985 mm

Battery:

Variant	Battery kWh actual (usable)
Standard range	69 (67)
Long-range: 2021-23	78 (75)
Long range: 2024 update	82 (79)

Energy consumption: (WLTP test cycle)

- 15.8 kWh/100km (LR, single motor)

Kerb weight:

Variant	Kerb weight (kg)
Standard range 2WD	2,019
Long-range 2WD	2,084
Long-range AWD	2,185

Charging:

- 1 phase AC: 7.4 kW max.
- 3 phase AC: 11 kW max.
- DC: 205 kW (long range), 135 (std range) max.

Charge port location:

- Rear left side

Drive configuration:

- Two wheel drive models:
 - Front wheel drive: original release
 - Rear-wheel drive: 2024 update model
- All-wheel drive (AWD)

Towing:

- 1500 kg braked/750 kg unbraked.

Performance:

Variant	Max. Power (kW)	0 to 100km/h (Sec)
Standard range 2WD	220 (170) [#]	6.2 (7.4) [#]
Long-range 2WD	220 (170) [#]	6.2 (7.4) [#]
Long-range AWD	310 (300) [#]	5.5 (4.7) [#]
LR AWD performance	350 (350) [#]	4.1 (4.2) [#]

[#] Bracketed number: previous 2021-23 version

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.