



EV FACT SHEET

BYD Seal

Created and written by:
Bryce Gatton
Contact:
Bryce@EVChoice.com.au



2023 BYD Seal. Image: BYD

INTRODUCTION

The BYD Dolphin is the third passenger car offering to be brought to Australia from Chinese manufacturer, BYD. The order books were opened in late 2023 with first deliveries expected to begin Jan/Feb 2024. Built on the same dedicated electric car platform as its stablemate the Atto 3 SUV (e-platform 3.0), the Seal is the largest possible size to still fit into the VFACTS 'Medium Passenger Motor Vehicle' category.

Like all other BYD vehicles, the Seal can only be purchased online (as do Polestar and Tesla). Also like Tesla and Polestar, BYD 'experience centres' for viewing and test-drives are either open or being built in most state/territory capitals (See [BYD website](#) for locations). Servicing and warranty work is done through BYD service centres as well as the independent mycar network.

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Currently, the official Australian ADR 81/02 test cycle is based on the outdated (and highly over-optimistic) European NEDC test cycle.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

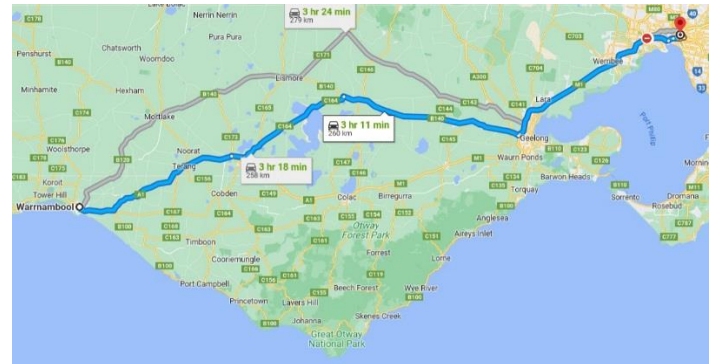
Note: Sadly, BYD are one of the few manufacturers who still prominently display NEDC range figures on their website, however their vehicle brochures do list the WLTP numbers alongside NEDC.

DRIVING RANGE (continued)

Version	National testing system range estimates:		
	NEDC (Aust)	WLTP (Euro)	US EPA
Dynamic: 61 kWh	510	460	NA ¹
Premium: 82 kWh	650	570	NA ¹
Perf.: 82 kWh	580	520	NA ¹

Table 1: Driving range estimates for the BYD Seal.

Using the WLTP rating (with a slight discount for extended highway use) a BYD Seal Premium (fitted with the 82.56 kWh battery) would, at its limit, make a round-trip from the Melbourne CBD to Warnambool on Victoria's south coast – provided the heating or air conditioning were not heavily used. For this sort of trip, a short DC top-up charge in Warnambool itself or at one of the DC charger options that are appearing along the route would be recommended. (For further charging options and availability, see: <https://www.plugshare.com/>).



Example BYD Seal return trip range. Image: Google maps

CHARGING SPEEDS/REQUIREMENTS

Charging port

The BYD Seal 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:

1. The BYD Seal is not sold in the USA.
2. The BYD Seal 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 BYD Seal is fitted with a type 2 AC socket.

Charging rates:

Single phase: maximum of 7 kW (32A)

Three phase: NA: 7kW maximum on one 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 BYD Seal are shown in table 2.

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)
61.4 kWh: 31h	17h	9h	16A: 17h	1h	30m
82.5 kWh: 42h	23h	12h	16A: 12h	60m	30m

Table 2: Approx. charging times for the two battery sizes

DC fast charging

The BYD Seal uses the CCS2 DC fast-charge connector and can charge at up to 110 kW DC with the smaller (61.44 kWh) battery and 150 kW DC for the larger (82.56 kWh) battery.

V2X capability:

The BYD Seal offers V2L functionality through a plug-in adaptor for the AC charge socket.

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 BYD Seal, a 7 kW single 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 Fact Sheets 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 under parcel shelf: 400
- Rear seat folded: Not provided
- Froot (Front Boot): 50

Dimensions:

- Overall length: 4,800 mm
- Overall height: 1,460 mm
- Ground clearance: 120 mm
- Overall width (edge of doors): 1,875 mm
- Overall width (edge of mirrors): 2,150 mm

Battery:

- Dynamic: 64 kWh (61.44 kWh usable)
- Premium: 84 kWh (82.56 usable)
- Performance: 84 kWh (82.56 usable)

Energy consumption: (WLTP)

- 16.6 kWh/100 km (Premium)
- 18.2 kWh/100 km (Performance)

Kerb weight:

- 1,922 kg (Dynamic)
- 2,055 kg (Premium)
- 2.185 kg (Performance)

Charging:

- 1 phase AC: 7kW max.
- DC: 110/150 kW max (61 kWh/83 kWh).

Charge port location:

- Right-hand rear. In front of tail-light.

Drive configuration:

- Rear-wheel drive: Dynamic and Premium
- AWD: Performance

Towing:

- Not rated for towing
(Currently under review by BYD)

Performance:

Variant:	Max. Power (kW)	0 to 100km/h (Sec)
Dynamic: 2WD	150	7.5
Premium: 2WD	230	5.9
Performance: AWD	390	3.8

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.