EV FACT SHEET

Mercedes EQA

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

Mercedes EQA. Image: https://media.daimler.com

INTRODUCTION

The EQA is the second of three planned all-electric Mercedes vehicles to be made available in Australia over the 2021/22 period.

The EQA is not built on a BEV specific platform, rather it is built on the same platform used for the petrol, diesel and plug-in hybrid-powered GLA. This means that the EQA makes some compromises on interior space compared to ground-up design EV-only platforms, such as seen in its overseas competitors the VW ID.4 or Volvo XC40. (XC40 is due here in Q3 2021, however the ID.4 is unlike to be seen here until at least 2023).

Interestingly, the EQA is priced not too far above its ICE (Internal Combustion Engine) siblings – marking a significant (and pleasing) departure from the norm of large premiums over equivalent petrol car pricing where a BEV (Battery Electric Vehicle) model shares an ICE platform.

DRIVING RANGE

Australian vehicle test standards are currently in a state of flux, with the Green Vehicle Guide[1] showing some vehicle driving ranges using the old (and highly over-optimistic) European NEDC test cycle figure, whilst others are given using the newer (and more accurate) European WLTP test cycle figure.

Around town, the WLTP figure is the best guide to range or, if doing outer suburban to regional driving – US EPA. However, the EQA is not sold in the USA, so a US EPA figure is not available.

DRIVING RANGE (CONTINUED)

National testing system range estimates:		
NEDC (Aust)	**WLTP (Euro)**	**US EPA**
486km	426km	N/A

Using the WLTP range - the EQA would, at its maximum limit, make a round-trip from the Melbourne CBD to Wilsons Promontory in southern Victoria and back – provided neither the heating or air conditioning were used. For this sort of trip, a 2 hr top-up AC charge over lunch using a power point, or a 10 minute DC fast charge would be recommended. Currently (July 2021) the last outbound/first inbound DC charger on that route is Caltex (corner Heatherton and Stud roads, Dandenong), or make a detour to the DC charger at the Cape Display Centre in Cape Paterson.

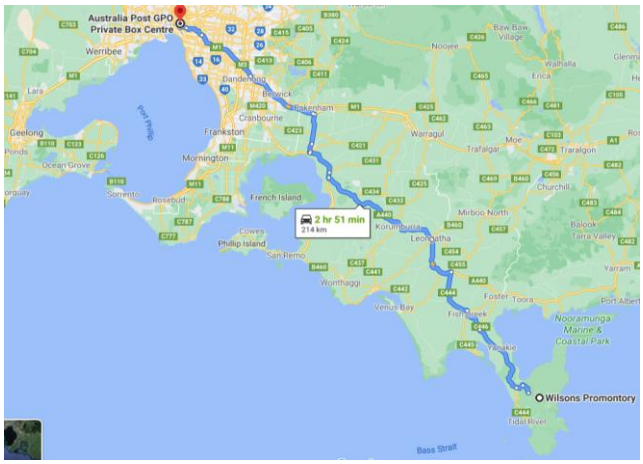

Image: Google maps

CHARGING SPEEDS/REQUIREMENTS

Charging port

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

CCS2 charging plug and socket

Notes:

1. https://www.greenvehicleguide.gov.au
2. the EQA 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:

The EQA is fitted with the 3 phase capable type 2 AC socket. Using single phase AC it can charge at up to 7.2kW, or at up to 11kW using a suitable three phase outlet.

Charging speeds and times vary on the capacity of the EVSE (Electric Vehicle Supply Equipment) it is connected to and the capacities of the vehicle. Charging times for the EQA are shown in table 1 below.

EVSE type: AC: 0 – 100%; DC: 0 – 80%				
10 A socket 1 phase (2.4kW)	15 A 1 phase (3.6 kW)	32 A 1 phase (7.2 kW)	16 A 3 phase (11 kW)	DC Fast charge* (100kW)
29h	19h	11h	7.25h	30m

Table 1: Approximate charging times for the Mercedes EQA
*** Note:** to 80% charge

DC fast charging:

The EQA uses the CCS2 DC fast-charge connector and has a 100kW maximum DC charge rate.

Note:
The CCS2 DC charge connector is fitted to all new EVs sold in Australia (except the Nissan Leaf).

HOME CHARGING CONSIDERATIONS

General

To get the shortest home charging time for an EQA, an 11kW 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 1 above.
The EQA also comes with a Mode 2 portable EVSE for plugging into a 10A power point. Charging with this EVSE will take approx. 29hrs to reach full-charge from empty.

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 - read articles in:
   (a) Renew magazine edition 143. (EVSE wiring)
   (b) Renew magazine edition 156. (EVSE buyer's guide)

SPECIFICATIONS

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

- Boot: 340 L
- Rear seat folded, loading space to roof: 1320 L

Dimensions:

- Overall length: 4463 mm
- Overall width 2020 mm
- Overall height: 1624 mm

Battery:

- 66.5kWh

Energy consumption: (WLTP)

- 177 Wh/km (WLTP)

Kerb weight:

- 2040 kg

Drive configuration:

- Front-wheel drive

Maximum power:

- 140kW

0-100 km/h time:

- 8.9 sec

IMPORTANT NOTE:

Always check all specifications with the manufacturer prior to any purchase. No responsibility accepted by AEVA or Bryce Gaton 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.