

EV FACT SHEET

Mini Cooper SE Electric



Image: BMW

INTRODUCTION

Whilst the first trials of what was then called the Mini E happened in 2009 when about 500 test cars built for a proposed full production run in 2013 – it has taken a while for Mini to finally arrive with their first full production version of an electric Mini – now called the ‘Mini Cooper SE’.

The current vehicle was first previewed in 2017 and has been rolling out for worldwide sales through 2020, with Australian sales beginning in the second half of 2020. However, for 2020 only 100 have been allocated to Australia – which were sold out before deliveries began!

It is described as a ‘fun city-car’ rather than a ‘country cruiser’ due to the limited range offered by its 29kWh battery, however it does have fast-charge DC to facilitate longer day-trips beyond the range of a single charge.

The electric Cooper SE differs from the standard Cooper with different suspension tuning, a stability-control system designed to deal with the special characteristics of an electric motor and four driving modes. The driving modes include a Green+ mode designed for maximum efficiency that disables or limits features such as climate control. The SE is also the first BMW Group electric car with adjustable regenerative braking, and one of its modes offers one-pedal driving in which the car can be stopped solely by the regen.

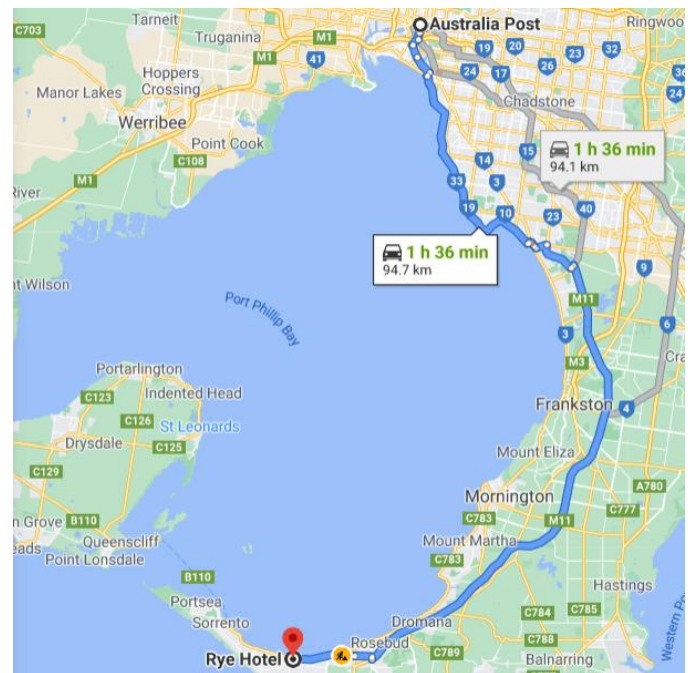
DRIVING RANGE

The Mini electric has a quoted range of 233 km under the new European WLTP test cycle#. Real world driving range however is likely closer to 200 km.

For instance the Mini would, at its limit, make a round-trip from the Melbourne CBD to the Rye Hotel on the Mornington Peninsula and back – provided neither the heating or air conditioning were used. For this sort of trip, an 11kW AC top-up charge over lunch at the Rye Hotel (Tesla 22kW AC) or a pleasant detour to the St Andrews Beach Brewery charger (Porsche 11kW AC) would be recommended. Alternatively, a 5 to 10 min top-up charge using a DC fast charger would be useful on such trips of this length in Victoria – however there are no DC fast chargers yet available on the described route.

Note:

WLTP range figures are not yet mandated in Australia.



Mini electric Melbourne GPO return trip range

Image: Google maps

CHARGING SPEEDS/REQUIREMENTS

Charging port

The Mini electric is fitted with a CCS2 socket allowing it to charge using standard AC wall sockets or fixed chargers (EVSEs), as well as CCS2 DC fast-chargers.



CCS2 charging plug and socket

Note: the Mini electric can be charged at any AC EVSE, however an adaptor will be needed to use older EVSEs fitted with Type 1 plugs.

AC charging:

The Mini electric is fitted with the 3 phase type 2 AC socket, and can charge at up to 7.2kW single phase and up to 11kW on three phase capable AC EVSEs.

General charging note:

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

EVSE type:				
10 A socket (2.4kW)	16 A 1 phase (3.6 kW)	32 A 1 phase (7.2 kW)	16 A 3 phase (11 kW)	Fast charge DC (to 80%)
14hrs	9hrs	5hrs	3.25hrs	36 min

Table 1: Charging times for the Mini Electric

DC fast charging

The Mini electric uses the CCS2 fast-charge connector and has a maximum 50kW charging rate when connected to a DC charger. (Note: the CCS2 DC connector is becoming the majority type of DC fast-charge connector in both Australia and overseas).

HOME CHARGING CONSIDERATIONS

General

To get the shortest home charging time for a Mini electric, an 11kW AC EVSE would be needed. However, this is a three phase unit and most homes do not have three phase power connected. Therefore the fastest charging rate that can be achieved in most homes is 7.2kW. (See Table 1).

Note:

Depending on your existing power supply and/or charging needs, it may only be necessary (or practicable) to fit a lower rated EVSE. (See notes re

HOME CHARGING CONSIDERATIONS (CONTINUED)

home EVSE installations at the end of this section). Lower capacity EVSEs will increase charging times, as shown in table 1.

The Mini Electric also comes with a Mode 2 EVSE ('portable charger') for plugging into a standard power point.

Important note for any home EVSE installation:

Switchboard and/or electrical supply upgrades may be needed if your home is more than 20 years old.

See articles in:

- (a) EV News, (AEVA newsletter) issue 231, or
- (b) ReNew magazine, edition 143.

SPECIFICATIONS

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

- Boot under parcel shelf: 211

Dimensions:

- Overall length 3845 mm
- Overall width: 1727 mm
- Overall height: 1432 mm

Battery:

- 29 kWh useable, Lithium-ion (Total battery = 32.6)

Energy consumption:

- 15 kWh/100km (approx.)

Kerb weight:

- 1,365 kg

Maximum power:

- 135kW

0-100 km/h time:

- 7.3 sec

WHERE TO BUY

At the time of writing, not all Mini dealers stock the Mini electric, so check with your local Mini dealer.

Note:

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