



EV FACT SHEET

Kona Electric

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2021 Kona electric. Image: Hyundai

INTRODUCTION

The Kona electric is described as a small 'crossover' SUV. In electric guise it is front-wheel drive only, unlike the petrol version which has an AWD option.

Reviewers have been effusive in their praise for the Kona electric and have called it a 'game changer' for the acceptance of EVs by the general public as a competitively priced, well-appointed true alternative to internal combustion engine vehicles.

Worldwide sales of the Kona electric began in late 2018 with Australian deliveries beginning in March 2019.

Model updates:

- 2020: 200mm touchscreen widened to 250mm.
- 2021:
 - minor model update - main change being a different (smoother) nose treatment resulting in a 25mm increase in overall length;
 - Addition of 39kWh, 100kW motor 'Standard Range' version. (Note: this version has been available overseas since the release of the Kona in 2018).

DRIVING RANGE

Australian test standards are currently in a state of flux, with the Green Vehicle Guide¹ showing some vehicle driving ranges using either the old (and highly over optimistic) European NEDC test cycle figure or the newer European WLTP test cycle figure. Worse still, for recent additions to the Australian market the GVG often gives no data is given at all! Around town, the WLTP figure is the best guide to range or, if doing outer suburban to regional driving – use the US EPA figure.

DRIVING RANGE (continued)

Version	National testing system range estimates (km)		
	NEDC (Aust)	WLTP (Euro)	US EPA
Std range (39kWh)	N/A	305	N/A
Long range (64kWh)	557	449	415

Table 1: Driving range estimates for the Hyundai Kona electric
Using the US EPA range, a 64kWh Kona electric would be capable of a return trip from the Melbourne GPO to Port Welshpool (near Wilsons Promontory) – provided neither the heating or air conditioning were heavily used. For this sort of trip, a 1 to 2 hr 15A charge at a caravan outlet in Port Welshpool (giving 24km charged/hr) or a 10 to 15 min DC fast-charge (few yet available on this route) would be recommended.

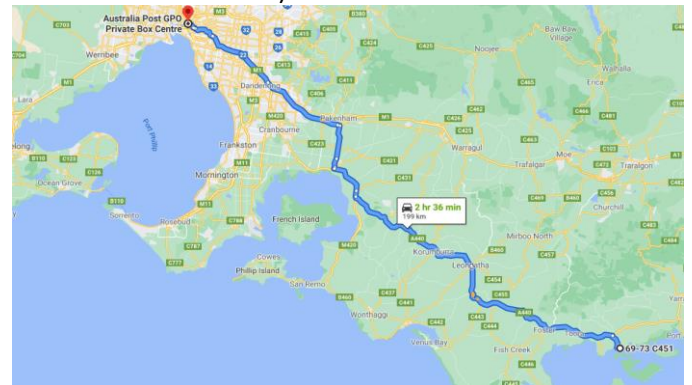


Image: Google maps

CHARGING SPEEDS/REQUIREMENTS

Charging port

The Kona electric 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. <https://www.greenvehicleguide.gov.au>
2. The Kona electric 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 Kona electric is fitted with a type 2 AC socket as part of the CCS2 AC/DC charge plug system.

Charging rates:

Single phase: maximum of 7.4kW (32A)

Three phase: 7.4kW (Single phase rate only).

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 Kona electric with the Long-Range (64kWh) battery 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 phase Home EVSE)	16 or 32 A (3 phase public AC EVSE)	DC Fast charge (50kW)	DC Fast charge (100kW)
28h	19h	9.5h	16A: 19h 32A: 9.5h	75m	54m

Table 2: Charging times for the Hyundai Kona electric with LR battery

DC fast charging:

The Kona electric uses the CCS2 DC fast-charge connector and can charge at up to 77kW DC. This 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 Kona electric, a 7.4kW single 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 1 above.

The Kona electric also comes with a Mode 2 portable EVSE for plugging into a 10A power point. Charging a Long Range Kona electric with this EVSE will take around 28hrs for a 0 – 100% charge.

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: 332 L
- Rear seat folded, loading space to roof: 1,114 L

Dimensions:

- Overall length: 4,205 mm
- Overall width (mirrors folded/mirrors out): 1,800/2,070 mm
- Overall height: 1,570 mm

Battery:

- Standard range: 39kWh
- Long range: 64kWh

Energy consumption:

- 131 Wh/km (European WLTP test cycle)

Kerb weight:

- Standard range: 1,535kg
- Long range: 1,685 kg

Charging:

- 1 phase AC: 7.4kW max. (45km charged/hr)
- DC: 77kW max. (470km charged/hr)

Charge port location:

- Front, left of centre.

Drive configuration:

- Front wheel drive.

Performance:

Variant	Max. Power (kW)	0 to 100km/h (Sec)
Standard range	100	9.9
Long-range	150	7.9

IMPORTANT NOTE:

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