

EV FACT SHEET

Kia Niro EV

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2022 update model shown. Image: Kia

INTRODUCTION

Kia is Korea's second largest vehicle manufacturer (second only to Kia's parent company – Hyundai). It should therefore come as no surprise then that the Kia Niro electric shares the same battery and motor as the Hyundai Kona electric – albeit with a slightly larger and heavier body than the Kona EV. The Niro electric began sales overseas in 2019, and finally arrived here in the first half of 2021. In the second half of 2022 a totally revised version arrived with a different interior, larger dimensions and restyled interior. It was also renamed as the Niro EV. This Fact Sheet covers this later version. See Second Hand Passenger cars page for the Fact Sheet covering the 2021-22 model.

Updates:

2023:

- Niro Plus PBV (Purpose Built Vehicle) version. 148 Niro Plus PBVs with a taller roof and larger cargo area were sold here as a taxi/ride-share special order.
- Late 2023: Vehicle to Load (V2L) added. Interior plug only for all but GT Line. GT line can also do exterior V2L via an adaptor plugged into the AC charge port.

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Currently, the official Australian ADR 81/02 test cycle is based on the outdated (and highly over-optimistic) European NEDC test cycle.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

National testing system range estimates						
NEDC (Aust)	NEDC (Aust) WLTP (Euro)					
Not yet rated	460km	405km				
Table 1: Driving range estimates for the Kia Niro electric						

Using the US EPA range – a typical Niro electric return range should enable a day-trip from the Melbourne GPO to Shepparton and back, provided the heater or air conditioner are not heavily used. (As shown on the map below). Top-up charging options include a 1hr top-up AC charge over lunch in Shepparton using an AC charger or a 10 – 15 minute DC fast charge at a DC fast chargers at either Avenel or Euroa. For further charging options and locations, visit: <u>https://www.plugshare.com/</u>

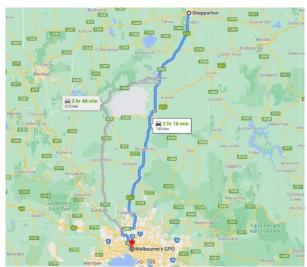


Image: Google maps

CHARGING SPEEDS/REQUIREMENTS

Charging port

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



CCS2 charging plug and socket

Notes:

- <u>https://www.greenvehicleguide.gov.au</u>
- The Niro 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 Niro EV is fitted with a type 2 AC socket.

Charging rates (2022 update Niro EV):

Single phase: maximum of 7.2kW (32A) Three phase: 11kW (16A per phase)

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 Niro electric 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 (350kW)
30h	19h	10h	7h	75m	50m

Table 2: Charging times for the Kia Niro electric (pre and post late 2022)

DC fast charging:

The Niro EV uses the CCS2 DC fast-charge connector and can charge at up to 85kW.

V2X capability:

The Kia Niro EV includes V2L capability from an internal outlet for all models. GT version also includes external V2L from the AC charge port.

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 Kia Niro EV, an 11 kW three 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.
- 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 information pages at <u>EVchoice.com.au</u> 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)

- Seats up: 475 L
- Seats down: 1392 L

Dimensions:

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- Overall length: 4420 mm
 - Overall width:
 - o 1825 mm (mirrors in)
 - Not available (mirrors out)
- Overall height: 1570 mm

Battery:

• 64.8 kWh (useable)

Charging:

- 1 phase AC: 7.2 kW max.
- 3 phase AC: 11 kW max.
- DC: 85 kW max.

Charge port location:

• Front, centre of bumper.

Energy consumption: (WLTP)

• 16.2 kWh/100 km

Kerb weight:

• 1727 kg

Drive configuration:

• Front wheel drive

Towing:

• 750 kg braked/300 kg unbraked.

Performance:

- Maximum power: 150 kW
- Maximum torque: 255 Nm
- 0 100km/hr: 7.8 sec

IMPORTANT NOTES:

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