



# EV FACT SHEET

## Hyundai Ioniq 9

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Hyundai Ioniq 9. Image: Hyundai Australia.

### INTRODUCTION

The Hyundai Ioniq 9 is a 6 or 7 seater (see figure 1 below), large SUV with a long driving range of up to 600km. Regarded as Hyundai's flagship model, the Australian version is offered in the one high-spec 'Calligraphy' grade. As such it includes many premium features such as power seats in all rows and motorised rear seat folding, plus much of Hyundai's 'latest-and-greatest' driving and safety tech. It is also Hyundai's first Australian model with a digital key system that is operated using an app downloaded to your phone.

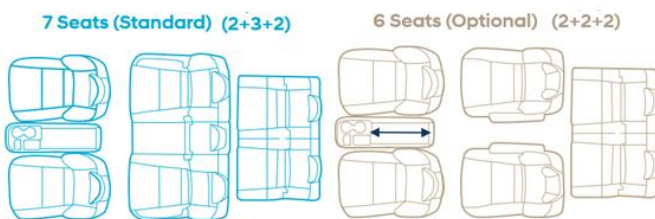


Figure 1. Ioniq 9 seating options.

### 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Currently, the official Australian ADR 81/02 test cycle is based on the outdated (and highly over-optimistic) European NEDC test cycle.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: (km) |             |        |
|---|-------------|--------|
| NEDC<br>(Aust ADR 81/02)                      | WLTP (Euro) | US EPA |
| Not rated                                     | 600         | 500    |

Table 1: Driving range estimates for the Hyundai Ioniq 9.

Using the US EPA rating, an Ioniq 9 should, at its limit, make a round-trip from the Melbourne CBD to Golden Beach (east of Sale on Victoria's south-east coast) – provided the heating or air conditioning were not heavily used. For this sort of trip, a short DC top-up charge in at one of the many DC charger sites popping up on this route would be recommended: for further charging options and availability, see: <https://www.plugshare.com/>



Example Hyundai Ioniq 9 return trip range. Image: Google maps

### CHARGING SPEEDS/REQUIREMENTS

#### Charging port

The Ioniq 9 is fitted with a CCS2 socket allowing it to charge via Type 2 AC chargers<sup>1</sup> as well as CCS2 DC fast-chargers.



#### Notes:

1. The Ioniq 9 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. In addition, it will only charge at the single-phase rate on a Type 1 EVSE.

## CHARGING SPEEDS/REQUIREMENTS (CONTINUED)

### AC charging:

Like all new EVs sold in Australia, the Ioniq 9 is fitted with a type 2 AC socket.

### Charging rates:

**Single phase:** maximum of 7.4 kW (32A)

**Three phase:** 11 kW (16A per 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 Hyundai Ioniq 9 are shown in table 2.

| AC: 0 – 100% time     |  |                                 |   | DC: 0 – 80% time            |                               |
|-----------------------|--|---------------------------------|---|-----------------------------|-------------------------------|
| 10 A<br>(power point) | 15 A<br>1 phase<br>(Caravan<br>outlet) | 32 A<br>(1 ph.<br>Home<br>EVSE) | 16 or 32 A<br>(3 phase public<br>AC EVSE) | DC Fast<br>charge<br>(50kW) | DC Fast<br>charge<br>(250+kW) |
| 48h                   | 30.5h                                  | 15.25h                          | 16A: 10.2h<br>32A: 10.2h                  | 2h                          | 27m                           |

Table 2: Approx. charging times for the Hyundai Ioniq 9

### DC fast charging

The Ioniq 9 uses the CCS2 DC fast-charge connector and can charge at up to 250 kW DC.

### V2X capability:

The Ioniq 9 offers up to 3.6kW (15A) via an adaptor plugged into the AC inlet, as well as via a 3 pin outlet in the cabin. It has also been announced in Europe that the Ioniq 9 is capable of V2H/G, however no Australian announcement has been made as to when/if this capacity will be unlocked for use here.

#### 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 car outlet)
- 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 Hyundai Ioniq 9, an 11kW 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.
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](https://www.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: two options

- 6: (2+2+2) or
- 7: (2+3+2)

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

- Boot:
  - All seats up: 338
  - All seats down: 2,419
  - 2<sup>nd</sup> row up, 3<sup>rd</sup> row down: 916
- Froot (front-boot): 52

### Dimensions:

- Overall length: 5,060 mm
- Overall height: 1,927 mm
- Ground clearance: 174 mm
- Overall width (edge of doors): 1,980 mm
- Overall width (edge of mirrors): Not provided

### Battery:

- 110.3 kWh

### Energy consumption: (WLTP)

- 20.6 kWh/100km

### Kerb weight:

- 2,590 kg

### Charging:

- 1 phase AC: 7.4 kW max.
- 3 phase AC: 11 kW max.
- DC: 250 kW max.

### Charge port location:

- Right-hand rear corner.

### Drive configuration:

- All-wheel drive (AWD)

### Towing: (unbraked/braked)

- 750/1600 kg

### Performance:

| Max. power/torque<br>(kW/Nm) | 0 to 100km/h<br>(Sec) |
|------------------------------|-----------------------|
| 314/700                      | 5.2                   |

## 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.