

EV FACT SHEET

Hyundai Ioniq electric

Aust. Delivered 2018 - 2022

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2019 update Ioniq electric. Image: HMC

INTRODUCTION

The Ioniq electric was part of a three model Ioniq range build on a shared ICE platform. As such there were also PHEV and HEV versions. Later Ioniqs are built on the electric-only E-GMP platform. **Note:** only the BEV version is covered in this Fact Sheet.

Worldwide sales of the BEV and HEV began in 2016, with the PHEV released in late 2017. Australian deliveries of the three vehicle range began in Jan. 2019.

Australian model updates:

Late 2019:

- Increase in BEV battery size to 38kWh;
- Minor cosmetic changes to the exterior most noticeably a 'dimpled' nose treatment;
- Minor interior changes, in particular an increase in the touchscreen size from 200 to 250mm.

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Currently, the official Australian ADR 81/02 test cycle is based on the outdated (and highly over-optimistic) European NEDC test cycle.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						
Version NEDC (Aust)		WLTP (Euro)	US EPA			
28 kWh	280 km	Not rated	200 km			
38 kWh	373 km	311 km	273 km			

By all reports, both Ioniq battery sizes appear to be holding up well as they age. Therefore the above ranges will generally still apply. Any vehicle that reports significantly less range when fully charged should be further inspected. (See Battery Data heading below).

Note: As of the time of writing (2014), for average mileage vehicles, there should be at least two years remaining on the battery warranty.

BUYING SECOND-HAND

1. Portable EVSE

The Ioniq electric was sold with a portable Mode 2 charger. Check this EVSE is both supplied with the car and is working.

2. Battery data

Over time, all EV batteries lose a small amount of capacity. This is generally 0.5% to 1% per year, with most manufacturers guaranteeing their batteries for around 8 years/160,000km and 70% SoH. (California has recently mandated for new cars, this is to change to 10 years/240,000km and 70% - moving to 80% by 2030. This is soon to be adopted in the EU and therefore likely to flow on to Australia).

If you want to delve deeper into the battery data available from a Hyundai Ioniq, for the technically minded there is the option of using an aftermarket App. A quick search of the web and Ioniq forums should enable you to find a suitable one. Such Apps need to be used with compatible OBDII devices that plug into the diagnostics port of the Ioniq.

3. General assessment of a second-hand EV

For more information on how to assess the condition of a second-hand EV see Jan – Mar 2022 Renew magazine (edition 158) for article on 'How to make a pre-purchase assessment of a second-hand EV' or go to:

https://evchoice.com.au/ev-information.html

CHARGING SPEEDS/REQUIREMENTS (CONTINUED)

AC charging:

The Hyundai Ioniq electric is fitted with a type 2 AC socket as part of the CCS2 AC/DC charge plug system.

Charging rates:

Single phase:

- 28kWh battery: maximum of 6.6 kW

- 38 kWh battery: maximum of 7.2 kW

Three phase: As per above. (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 lonig 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 ph. Home EVSE)	16 or 32 A (3 phase public AC EVSE)	DC Fast charge (50kW)	DC Fast charge (100+kW)
28 kWh: 14h	8.5h	4.5h	12h (16A) 6h (32A)	31m	22m
38 kWh: 19h	11h	5.5h	11h (16A) 5.5h (32A)	42m	42m

Table 2: Charging times for the Hyundai Ioniq (28 and 38 kWh batteries)

DC fast charging:

The Ioniq electric uses the CCS2 DC fast-charge connector. The 28 kWh version charges at up to 69 kW DC and the 38 kWh version at up to 44 kW.

V2X capability:

The Ioniq electric did not include any V2X capability. 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 Ioniq electric, a 7 kW single 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 = $10 \times 10 \times 10 \text{ cm}$)

Boot: 350 L

Rear seat folded, loading space to roof: 1,410 L

Dimensions:

Overall length: 4,470 mm
Overall width: 1,820 mm
Overall height: 1,450 mm

Battery:

2018 to late 2019: 30.5 kWh (28 kWh usable)
Late 2019 to 2022: 40.4 kWh (38 kWh usable)

Energy consumption: WLTP

• 13 kW/100 km (38 kWh battery)

Kerb weight:

• 1,420 kg (28 kWh)

1,602 (38 kWh)

Charging:

AC:

• 28kWh battery: maximum of 6.6 kW

38 kWh battery: maximum of 7.2 kW

DC:

28kWh battery: maximum of 69 kW

• 38 kWh battery: maximum of 44 kW

Charge port location:

• Left side, rear.

Drive configuration:

• Front wheel drive.

Towing:

Not rated for towing.

Performance:

	Max. Power	0 to 100km/h
Variant	(kW)	(Sec)
28 kWh	88	9.9
38 kWh	100	9.7

IMPORTANT NOTE

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

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