



# EV FACT SHEET

## BMW i7

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BMW i7. Image: BMW Group

### INTRODUCTION

The BMW i7 is the electric version of BMW’s flagship 7 series large sedan - classed by VFACTS as an Upper Large Sedan. Despite BMW having been building EVs since 2014 (and currently offer full-electric versions of several other BMW models) it is the first fully-electric 7 series vehicle. The 7 series BMW has been BMW’s flagship model since 1977 - and as such sees the first introduction of innovative features that later filter down to other models. For instance, the original (1977) 7 series was BMW’s first model to feature an on-board computer. This generation is no exception, with many new features being introduced. Including automatic doors all round, an 8k 31 inch (79 cm) fold-down theatre screen in the rear and (believe it or not!) Swarovski crystals incorporated into the front lights, with the crystals designed to reflect light in a multitude of facets even when they are off.

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Currently, the official Australian ADR 81/02 test cycle is based on the outdated (and highly over-optimistic) European NEDC test cycle.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

National testing system range estimates		
ADR 01/02 (Aust)	WLTP (Euro)	US EPA
TBC	625	510

Table 1: Comparison of test system range estimates for the i7.

### DRIVING RANGE (continued)

Using the US EPA driving range, the BMW i7 should manage a return trip from the Melbourne GPO to Port Campbell (on Victoria’s south coast), provided the heater or air conditioner are not heavily used. For this sort of trip, a 10 to 15 min DC fast-charge at Colac or the (soon to come – see Plugshare.com for updates) site at Waurn Ponds. If taking the coastal route, there are also DC fast-chargers at Jan Juc (RACV Torquay resort) and Ocean Grove.

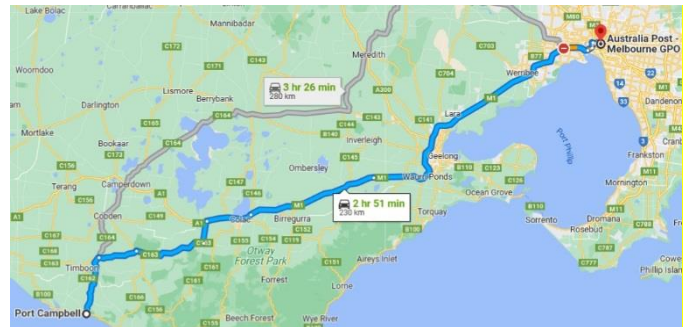


Image: Google maps.

For further charging options and locations (both DC and AC), visit: <https://www.plugshare.com/>

### CHARGING SPEEDS/REQUIREMENTS

#### Charging port

The i7 is fitted with a CCS2 socket allowing it to charge via Type 2 AC chargers<sup>1</sup> as well as via CCS2 DC fast-chargers.



CCS2 charging plug and socket

#### Notes:

- The i7 can be charged at any AC EVSE, however an adaptor will be needed to use the (very few) remaining older EVSEs fitted with Type 1 (J1772) plugs.

## CHARGING SPEEDS/REQUIREMENTS (CONTINUED)

### AC charging:

Like all new EVs sold in Australia, the BMW i7 is fitted with a type 2 AC charging socket.

### Charging rates:

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

**Three phase:** maximum of 11 kW (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. Approximate charging times for the eT60 are shown in table 2 below.

(a) 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 (200kW+)
60h	30h	14.5h	10h	1.7h	30m

Table 2: Approximate charging times for the BMW i7.

### DC fast charging:

The i7 uses the CCS2 DC fast-charge connector and can charge at up to 195 kW.

### V2X capability:

No V2X capabilities.

#### 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 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 BMW i7, an 11kW, three 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 2 above.

The i7 also comes with a Mode 2 portable EVSE for use with a 10A power point that charges at 1.8kW, plus an adaptor to use the charger with 32A three phase outlets to charge at 11kW. Charging the i7 with this EVSE on a standard 10A outlet will take around 60 hrs for a 0 – 100% charge, whilst on a 16 or 32A three phase outlet it will take only around 10 hrs.

### Important notes for any 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 or business is more than 20 years old. For more information on this item - read EV Information articles at [EVchoice.com.au](http://EVchoice.com.au) or see:  
(a) Renew magazine edition 143. (EVSE wiring)  
(b) Renew magazine edition 156. (EVSE buyer's guide)

## SPECIFICATIONS

**Seating capacity:** 5

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

- Boot - seats up: 500 L
- Boot - seat folded/to roof: N/A

**'Froot' (under bonnet 'front boot'):**

- No froot

**Dimensions:**

- Overall length: 5391 mm
- Overall width: 1950/2192 mm (mirrors in/out)
- Overall height: 1544 mm

**Battery:**

- 106 kWh (102 useable)

**Charging:**

- 1 phase AC: 7.4 kW (maximum)
- 3 phase AC: 11kW (maximum)
- DC: 195 kW (maximum)

**Charge port location:**

- right-hand rear (above wheel arch)

**Vehicle to Load connection point/s:**

- NA

**Energy consumption: (WLTP):**

- 18.5 kW/100km

**Kerb weight:**

- 2640 kg

**Drive configuration:**

- all wheel drive

**Towing:**

- 750 kg/2000 kg (Braked/unbraked)

**Performance:**

- Maximum power: 400 kW
- 0 – 100km/hr: 4.7 s.

### IMPORTANT NOTES:

**Always check for the latest vehicle specifications with the manufacturer prior to any purchase. No responsibility accepted by AEVA or Bryce Gaton (EV Choice) 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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