EV FACT SHEET

Ford Mustang Mach-E

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Ford Mustang Mach-E. Image: Ford

INTRODUCTION

The Ford Mustang Mach-E was Ford's first foray into the modern EV era – although Ford have plans to have introduced 'at least' five EV models to Australia (and nine in Europe) by the end of 2024.

North American production of the Mach-E began in late 2020 for 2021 deliveries – although Australians had to wait somewhat longer with Ford opening Australian order books in the second half of 2023 and deliveries beginning in December that year.

The Mach-E is classified by VFACTS as a 'Large SUV' with seating for 5 and is built on Ford's GE1 (Global Electrified 1) EV dedicated platform.

Interestingly, whilst the Mustang Mach-E is tow rated in some overseas markets for up to 1500 kg - it is not rated for towing in Australia.

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Currently, the official Australian ADR 81/02 test cycle is based on the outdated (and highly over-optimistic) European NEDC test cycle.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

	Testing system range estimates		
Variant	**NEDC (Aust)**	**WLTP (Euro)**	**EPA (USA)**
Select (RWD, 72 kWh)	Not rated	470 km	400 km
Premium (RWD, 91 kWh)	Not rated	600 km	500 km
GT (AWD, 91 kWh)	Not rated	490 km	418 km

Table 1: Driving range estimates for the Mustang Mach-E

Using the US EPA range, the Mach-E in Premium guise (RWD, 91 kWh battery) should be capable of a return trip from the Melbourne GPO to Ararat in Victoria's central west - provided neither the heating nor air conditioning were heavily used. For this sort of trip, it could be useful to do either a ½ - 1 hour top-up charge at an AC charger or a 10 to 15 min DC fast-charge at one of the DC fast-charge sites along this route. (For further charging options and availability, see: https://www.plugshare.com/).

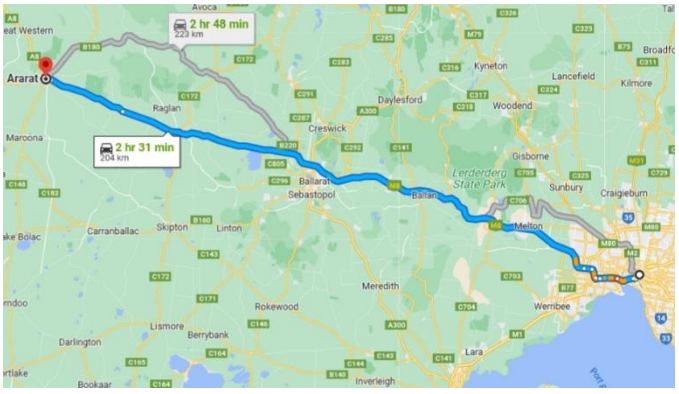

Image: Google maps

CHARGING SPEEDS/REQUIREMENTS

Charging port:

The Ford Mach-E is fitted with a CCS2 socket allowing it to charge via Type 2 AC chargers[1] as well as CCS2 DC fast-chargers.

CCS2 charging plug and socket

Notes:

1. The Mustang Mach-E 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 Ford Mach-E is fitted with the Type 2 AC socket.

Charging rates:

Single phase: maximum of 7.0 kW (32A)
Three phase: 10.5 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 Ford Mach-E are shown in table 2.

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 (150+kW)
72 kWh: 36h	24h	12h	7.4h	1.2h	36m
91 kWh: 41h	28h	14h	11h	1.5h	51m

Table 2: Approx. charging times for the Mustang Mach-E

DC fast charging

The Mustang Mach-E uses the CCS2 DC fast-charge connector and can charge at up to 150 kW DC.

V2X capability:

The Mustang Mach-E does not currently (as of December 2023) include any type of V2X functionality.

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 Mach-E, an 11kW 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 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)

- Boot - seats up: 402 L
- Boot - seat folded/to roof: 1,420 L
- Froot: 134L (front boot: under-bonnet storage)

Dimensions:

- Overall length: 4,728 mm
- Overall height: 1,634 mm (GT: 1623 mm)
- Ground clearance: 172 mm (GT: 163 mm)
- Overall width (edge of doors): 1,881 mm
- Overall width (edge of mirrors): 2,097 mm

Battery:

Variant	Battery kWh actual (usable)
Select	72 kWh usable
Premium, GT	91 kWh usable

Energy consumption: (WLTP test cycle)

- 17.8 kWh/100km (Select)
- 17.2 kWh/100km (Premium)
- 21.2 kWh/100km (GT)

Kerb weight:

Variant	Kerb weight (kg)
Select (RWD)	2,104
Premium (RWD)	2,098
GT (AWD)	2,307

Charging:

- 1 phase AC: 7.0 kW max.
- 3 phase AC: 10.5 kW max.
- DC: 150 kW max.

Charge port location:

- Front left side (in front of passenger door)

Drive configuration:

- Rear wheel drive (RWD): Select and Premium
- All-wheel drive (AWD): GT

Towing:

- Not rated for towing in Australia.

Performance:

Variant	Max. Power (kW)	0 to 100km/h (Sec)
Select (RWD)	198	7.3
Premium (RWD)	216	7.0
GT (AWD)	358	3.7

IMPORTANT NOTE