




DC Wallbox Selection Guide


A compact DC electric vehicle charger
with up to a 25kW output

ELECTRIC VEHICLE INFRASTRUCTURE



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Why should you pick the Delta DC Wallbox?

The Delta DC Wallbox is a 25kW DC electric vehicle charger. It provides DC charging at an affordable price and is great for commercial, fleet and multi residential uses. It is also very well suited as a mid-point between slow AC charging and 50+ kW charging, which is significantly more expensive.



Compact size



Easy installation



25kW output



Delivers up to 150km of additional range per hour plugged in

What connection type should you choose?

There are two DC plug types that car manufacturers have standardised in the Australian and New Zealand markets.

Where the charger is intended to be used by a wide range of vehicles, we recommend purchasing a CCS2 and CHAdeMO unit.

CHAdeMO

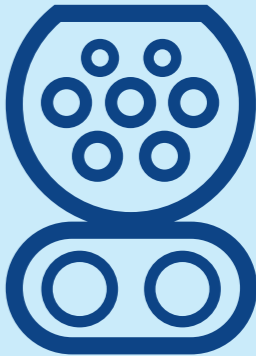
CHAdeMO is a Japanese charging standard, currently used by Nissan and Mitsubishi, which is used via an adapter with older generation Teslas.



CHAdeMO (Japan)

CCS2

CCS2 is a combination of a Type 2 AC plug and 2 DC pins, used for current generation Teslas and all other car manufacturers except Nissan and Mitsubishi.



CCS2 (Europe)

Can you monetise the usage of a DC Wallbox?

If monetisation is required, we recommend using third-party billing solution providers with expertise in the electric vehicle space.

There are currently multiple companies in the Australian and New Zealand markets that provide subscription-based monetisation and authentication programs.

Another method of monetisation is to recoup the costs indirectly, such as by incorporating the cost of power into the cost of parking, or (in the context of a shopping centre or apartment complex) passing the cost through to residents via strata fees. In the context of a regional local council, deploying a DC Wallbox will typically create more opportunities for electric vehicle drivers to stop and use goods and services from local businesses.

Part number

Model code	Plug type	Communication enabled
EVDE25D4DUM	CHAdeMO and CCS2 4M Cables	Ethernet + Cellular
EVDE25D7DUM	CHAdeMO and CCS2 7M Cables	Ethernet + Cellular
EVDE25E4DUM	CCS2 Only 4M Cable	Ethernet + Cellular

*4G modem retrofit kit available.

Do you need an isolator upstream of your Delta DC Wallbox?

For safe installation and maintenance practices, NHP recommends an isolator to be installed upstream.



Recommended part number:
ISO463PGS

Do I need to mount my DC Wallbox on a wall?

The DC Wallbox can be combined with an optional freestanding post if wall-mounting locations are not available at the installation site.

Recommended part number:
EVPEBKT02



What are the upstream requirements?

NHP recommends installation of a 3 pole 50A C Curve MCB with 30mA RCD protection installed upstream of the DC Wallbox.



Recommended C Curve MCB: DTCB6350C



Recommended RCCB: DSRCD46330A

What if charging at 150km of additional range per hour plugged in isn't enough?

If charging at 25kW to gain an additional 150km of range per hour isn't enough, there are larger DC chargers available.

The Delta City Charger, at power levels of 50-100kW, is the next step up.

These units are capable of delivering up to 150km of range to a typical electric vehicle in as little as 15 minutes.

Please consult NHP for help with Delta Quick Charger part selection and pricing.

What are the differences between a DC Wallbox and a 3-phase AC charger?

The Delta DC Wallbox provides DC current to directly charge the batteries in electric vehicles, as opposed to AC chargers, which utilise a rectifier in the vehicle to turn AC from the supply into DC to charge the battery.

In most cases, the rectifier in the vehicle is limited to 7kW, using a single phase of AC power. This means that for most vehicles, a three phase AC charger with capacity of 22kW can only actually deliver 7kW to the vehicle.

Some manufacturers have elected to put rectifiers in their vehicles capable of converting AC to DC at 11kW, 16kW or 22kW when connected to a three phase AC charger, while also being able to convert single phase AC to DC at 7kW.

When connected to an AC charger, the charging rate in these vehicles will depend on the rectifier size and type. Please consult our selection guide for the AC Max product range for more information on equipment designed to take advantage of this feature in the vehicles.

Where the ability to recharge any electric vehicle at a faster rate than 7kW is important, a DC charger such as the DC Wallbox is a better choice than a three phase AC charger. This will be particularly applicable in use cases like shared charging equipment in apartment complexes, and commercial premises where AC charging can't meet the expectations of the drivers using the charging equipment.





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