

# Electric vehicle charging solutions







### **About NHP**

With more than 50 years of electrical and engineering industry excellence and over 20 branches across Australia and New Zealand, it is NHP's local people and footprint that helps us understand your specific project needs, no matter how big or small.

- The power of Global Partners with a global network of suppliers, we bring the world's best products and knowledge to your doorstep.
- The power of Local in your local community, city and industry, we understand your specific project needs.
- The power of Choice Choice in product, technology, service and support, enabling customers to customise and push boundaries.
- The power of Global Partners With a global network of suppliers, we bring the world's best products and knowledge to your doorstep.

While we go to market with over 20,000 marketed lines, NHP is much more than a product supplier. Together with our extensive network of global partners, we offer choice in product, choice in technology, choice in service, choice in support and ultimately choice in how you deal with us - whether that be in person or online, where and when you need us.

#### **Employees and revenue**



\$550M AUD (2022)



NHP employs more than 800 permanent employees

#### **Major industries**



Manufacturing



Water and wastewater



Construction



Electric vehicle charging



Food and beverage



Defence



Mining



Commercial buildings



Pulp, paper and timber



Processing plants



Oil and gas

# NHP has the solution



### NHP will take the complicated and make it simple

There is no doubt, the Electric Vehicle (EV) uptake in Australia and New Zealand is increasing at a rapid rate, which has made it a challenge for manufactures of EV chargers to keep up with demand!

Installing a charger/s into your building is not as difficult or as complicated as you might think. With more than 50 years of electrical engineering experience, and as one of the pioneers in the Australian and New Zealand EV landscape, NHP has developed a range of products to make an EV upgrade to your building straight forward.

NHP partners with Delta, one of the world's largest EV

charger manufacturers, bringing high quality charging products to Australia and New Zealand. NHP has further enhanced the Delta range to provide a number of products including charging posts, isolators, RCBOs, EV readiness distribution boards and even our revolutionary Load Management System.

Our team of dedicated EV specialists and engineers will help tailor the right solution for your project.

To further support your project, NHP can also provide extended warranties and a bespoke service and maintenance package, which involves NHP's factory trained technicians checking on your installation to ensure it is operating in tip-top condition.







# 7kW 22kW

#### **Key features**

- A single and three phase compatible charger
- Available in socket and cable variants
- Smart connectivity via Ethernet/Wi-Fi/SIM card\*
- Accessible via third party charge point operators\*
- Robust and hardwearing with IP55/IK09 rating
- Easy to install



Office



Manufacturing



Government



Services



Retail



Residential

<sup>\*</sup>Delta AC Max Smart model only

# Delta AC Max – compact and powerful, to liven up business and home charging

Flexible, practical, efficient and fast, the Delta AC Max 22kW is a market leader in function and appearance. The IP55/IK09 rated AC Max is one of the most robust AC chargers on the market, ideal for indoor or outdoor applications as well as commercial and residential requirements.

The Delta AC Max is a single and three phase compatible charger in one. This means greater flexibility. Input wires can enter the charger from various points, enabling easier installation on concrete, plaster/timber walls or steel posts.

The Delta AC Max Smart also includes an inbuilt modem with Ethernet/Wi-Fi/4G SIM card slot connection types. The flexible Delta AC Max Smart is approved for use with all the major charge point operators. Connection to these cloud-based billing platform providers is delivered through the OCPP 1.6J communication protocol.



Single (up to 7kW) and three (up to 22kW) phase compatible in one charger



Available in 5M cable varieties (Type 2)



Connectivity via OCPP1.6J to connect to charge point operators and apps



Multiple upstream access points for flexible and neat installation



Demand manageable via NHP's Load Management System and other third-party load management solution providers





### Delta AC Max - purpose built

### Purpose built for commercial applications

The AC Max is a commercial grade charger, delivering strong, powerful, reliable and robust performance. The AC Max can be installed as a single unit or as multiples. For multiple installations, we also recommend that you consider NHP's Load Management System, which will reduce overall investment in infrastructure upgrades and control the amount of pressure applied on the building infrastructure.

#### The right amount

Due to the work and cost involved in establishing EV infrastructure, it is important to plan ahead in terms of how many chargers need to be installed. In some cases, one charger for a single user/customer is sufficient. However, for larger businesses and buildings, it would be worth considering the increasing ratio of EVs into the future. It is widely accepted that approximately 30% of all vehicles sold in 2030 will be electric. That, in combination of the growing numbers each year prior to and beyond 2030, will mean that a significant number of EVs in each building. To help you plan and design accordingly, please reach out to NHP's dedicated NHP EV team to assist with the appropriate requirements.

#### **Upstreaming**

In alignment with the 2023 building code, NHP has developed a custom EV Readiness Board, specially designed for EV infrastructure. The board will also integrate with the NHP Load Management System.

#### Basic or Smart charger

The AC Max is available in two configurations - Basic and Smart. The Basic charger has no inbuilt communications module - it will easily and simply deliver power from the wall to the vehicle.

The AC Max Basic includes internal DIP switches, allowing the charging rate to be controlled at the charger.

The AC Max Smart charger features an inbuilt communications module, which can connect via Ethernet, Wi-Fi and SIM card. It communicates on the OCPP1.6J communication protocol, meaning it can be controlled through charge point operators and billing service providers. The Smart charger is also designed to work with apps and solar integration.

New for 2023, Delta has just released the latest generation Delta AC Max app. The app communicates with the charger via Bluetooth and is available for both the Basic and Smart\* version.



**Delta AC Max Cable**Single and three phase, up to 22KW, Type 2, 5M cable **EIAWE22KTBE5A02** 



Delta AC Max Cable Smart Single and three phase, up to 22KW, Type 2 5M cable, smart connectivity EIAWE22KTSE5A04



NHP EV Charger Post 1300mm, steel post designed for up to two AC Max Chargers EVPE1320CPMAX

#### Delta AC Max | specifications

Specifications	AC Max	AC Max Smart	
Input / output rating	Single phase: 230V, 50-60Hz, 32A (max) Three phase: 400V, 50-60Hz,16A, 32A (max)		
Wire	Single phase: L, N, PE Three phase: L1, L2, L3, N, PE		
Stand by power	<2.6	5W	
Output power (maximum)	Single phase: 7.4kW Three phase: 22kW		
Plug type	Type 2		
Internal RCD	AC 30mA, DC 6mA		
Electric protection	Over current, over voltage, under voltage, surge protection, short circuit, ground fault, over temperature		
Upstream breaker	Single phase Three phase		
Ingress and impact protection	IP55 /	IK09	
Cooling	Natural cooling		
Cable length	5 metres or socket		
Dimensions (W x H x D)	218 x 371 x 167		
Weight	3.8kg		
Installations	Wall mount or post		
Operating and storage temperature	Operating: -30°C to +50°C Storage: -40°C to +80°C		
Humidity	<95% relative humidity, non-condensing		
Altitude	Up to 2,000m (6,500ft)		
Status indicator	LED bar, 4 colours		
Charge configuration	Maximum charging current selected by hardware DIP switch		
Security	Key lock	RFID card reader (ISO/IEC 14443)	
Communication	-	Ethernet, Wi-Fi, SIM, bluetooth	
Communication protocol	-	OCPP 1.6J, OCPP1.6J-Secured, upgradable to OCPP 2.0	
Part number (cable type)	EIAWE22KTBE5A02	EIAWE22KTSE5A04 EIAWE7KSSE5A04	







## 25 kW

#### **Key features**

- Power delivery up to 25kW
- 63A three phase connection
- Features CCS2 and CHAdeMO plug types
- Smart connectivity via Ethernet/SIM card
- Accessible via RFID or third party charge point operator
- Robust and hardwearing with IP55/IK10 rating



Office



Manufacturing



Government



Services



Retail

# Delta DC Wallbox – cost effective, fast charging for business

Durable, reliable and commercial grade, the Delta DC Wallbox 25kW is one of the best selling, low level DC chargers on the market.

The Delta DC Wallbox 25kW is popular for its easy installation, limited power consumption and reduced upgrades required to the premises. It offers outstanding value for those seeking faster charging with DC power.

Available with CCS2 and CHAdeMO plug types, the Delta DC Wallbox 25kW will suit all current electric vehicle types, as well as some plug-in hybrids. Cable lengths are available from 4 metres, which is ideal for carparks, while the optional 7 metre cable length is ideal for automotive service centers, councils, utilities and heavy commercial/mining environments.

Air-cooled, steel cased and with an IP55/IK10 rating, the Delta DC Wallbox 25kW will operate comfortably in most weather and operating conditions and will run at full capacity up to 50°C. A truly robust charger for almost any environment.

The Delta DC Wallbox 25kW features Ethernet and SIM card connectivity to allow connection to third-party cloud-based billing platforms via the OCPP 1.6J protocol.



Best value DC charger on the market, delivering up to 25kW



CCS2+CHAdeMO plug combinations in with 4M and 7M cable lengths



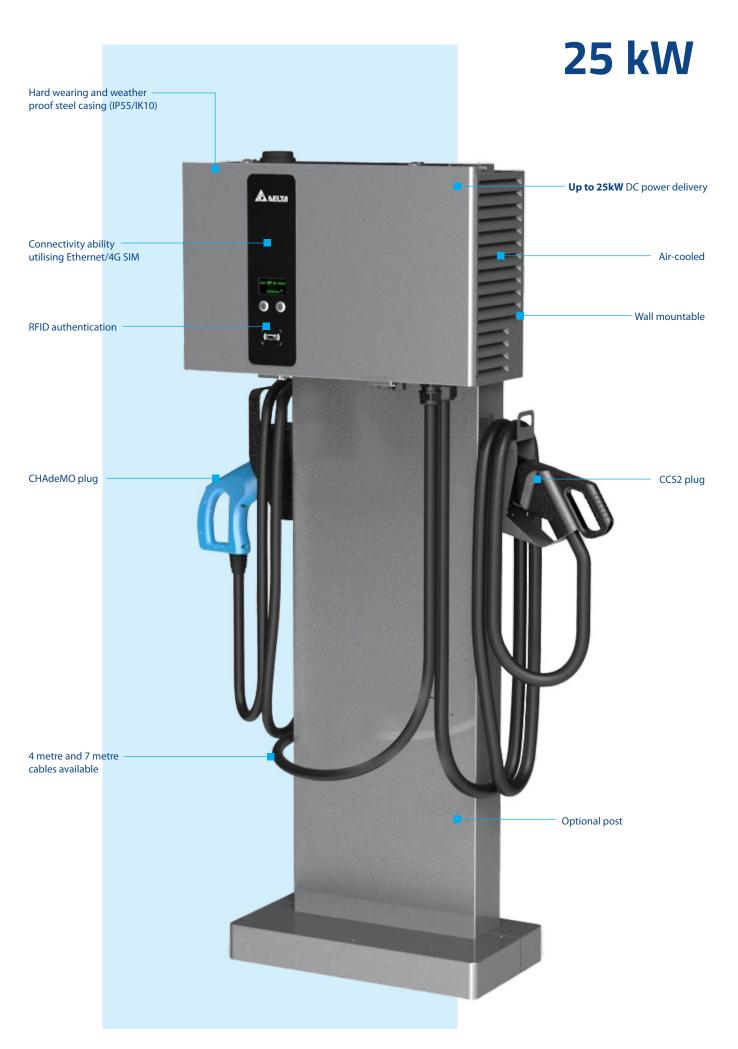
Connectivity via OCPP1.6J to connect to charge point operators and apps



Steel cased with IP55/IK10 rating for long term durability



Demand manageable with the NHP Load Management System



# Delta DC Wallbox 25kW – purpose built

### Purpose built for commercial applications

Proven in the field, the Delta DC Wallbox 25kW continues to be a favourite for those looking for a cost-effective DC charger with minimal power demands. Requiring as little as three phase, 63A, the DC Wallbox offers customers reliable charging in a compact package.

#### Wall mountable

One of the major benefits of the Delta DC Wallbox 25kW is the ability to mount it to a wall, allowing for cabling to run along the wall, rather than digging trenches. If no wall is available, the DC Wallbox 25kW is available with a purpose built steel stand in matching colour.

#### CCS2 and CHAdeMO

The DC Wallbox 25kW features both a CCS2 charging plug and CHAdeMO charging plug. Both plugs are designed for faster DC charging of electric vehicles.

The CCS2 is more commonly used by Tesla, Mercedes-Benz, BMW, BYD, Hyundai, Kia, Audi, Cupra, Polestar, SEA and more. The CHAdeMO plug standard is traditionally utilised by Nissan and Mitsubishi.





DC Wallbox 25kW CCS2 + CHAdeMO 4 metre cables EVDE25D4DUM



DC Wallbox 25kW CCS2 + CHAdeMO 7 metre cables EVDE25D7DUM



#### **Smart charger**



The DC Wallbox 25kW features an in-built communications module, which can connect via Ethernet and SIM card. It communicates on the OCPP1.6J communication protocol, meaning it can be controlled through charge point operators and billing service providers such as Everty, Chargefox, Evie, EV UP, GET Electric etc.



DC Wallbox 25kW Charger Post EVPEBKT02

#### Delta DC Wallbox 25kW | specifications

Specifications	DC Wallbox 25kW
Input / output rating	380-415 Vac; 50 / 60 Hz; three-phase: L1, L2, L3, N, PE; 50A max 230 Vac; 50 / 60 Hz; three-phase: L1, L2, L3, PE; 90A max
Efficiency	94% at nominal output power
Stand by power	<20W
Output power (maximum)	25kW
Plug type CCS2	IEC CCS DC Level 2, 50-500 Vdc, 60A max., 25kW max
Plug type CHAdeMO	CHAdeMO, 50-500 Vdc, 60A max., 25 kW max.
Electric protection	Over current, under voltage, over voltage, surge protection, short circuit, over temperature, ground fault
Upstream breaker	Single phase Three phase
Ingress and impact protection	IP55 / IK10
Cooling	Forced air cooling
Cable length	4 Metres and 7 metres
Dimensions (W x H x D)	680 x 430 x 230
Weight	53kg
Installations	Wall mount or post
Operating and storage temperature	Operating: -30°C to +50°C   Storage: -40°C to +85°C
Humidity	<95% relative humidity, non-condensing
Altitude	Up to 2,000m (6,500ft)
Status indicator	LED bar, 4 colours
Charge configuration	Electronic setting
Security	ISO/IEC 14443 Type A/B RFID
Communication	Ethernet, SIM
Communication protocol	OCPP 1.6J
Part number CCS2+CHAdeMO 4M	EVDE25D4DUM
Part number CCS2 4M	EVDE25E4DUM
Part number CCS2+CHAdeMO 7M	EVDE25D7DUM







## 50 kW

#### **Key highlights**

- Power delivery up to 50kW
- Charge up to two vehicle simultaneously
- Features dual CCS2 plug types
- Smart connectivity via Ethernet/Wi-Fi/4G SIM card
- Compact design
- Accessible via RFID or third party charge point operator software
- Robust and hardwearing with IP55/IK10 rating
- Wall and floor mountable



Office



Manufacturing



Government



Services



Retail



Service stations

# Delta DC Wallbox – compact, rapid charging

The all new Delta DC Wallbox 50kW will be a game changer in the EV charging space! The thinnest charger on the market at only 260mm deep, the DC Wallbox 50kW delivers fast charging without large real estate demands.

The DC Wallbox 50kW features dual CCS2 plugs which can charge one vehicle at 50kW, or simultaneously charge two vehicles at 25kW each.

Air-cooled, steel cased and with an IP55/IK10 rating, the Delta DC Wallbox 50kW is capable in almost any weather and operating conditions and will run at maximum capacity up to 50°C.

The Delta DC Wallbox 50kW also features Ethernet, Wi-Fi and 4G SIM card connectivity to allow connection to third-party cloud based billing platforms via OCPP 1.6J.



Ultra compact fast charging at 50kW



CCS2+CCS2 plug combinations in 4M



Connectivity via OCPP1.6J to connect to charge point operators and apps

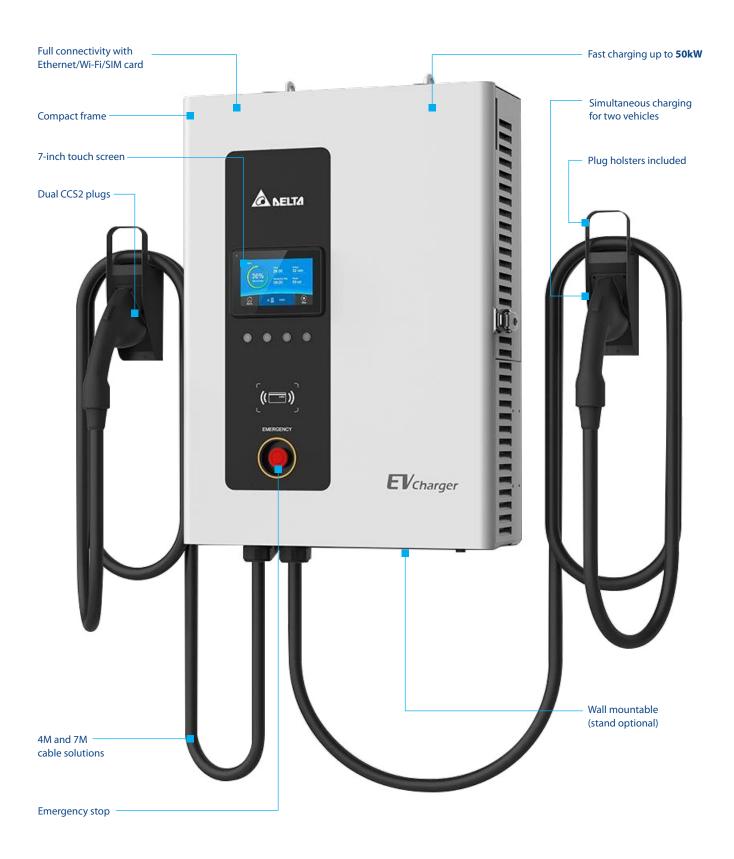


Steel case with IP55/IK10 rating for long term durability



Demand manageable with the NHP Load Management System

### **50 kW**



### **Delta DC Wallbox 50kW**

#### Purpose built for fast charging

The all new DC Wallbox 50kW by Delta is ideal for your fast charging application where space, speed and value are priority. With its compact dimensions, the easy to install, operate and maintain DC Wallbox 50kW delivers reliability and simplicity through the use of air-cooling.

Offering over 96% energy efficiency, the DC Wallbox 50kW will deliver cost effective operation for your EV charging needs.

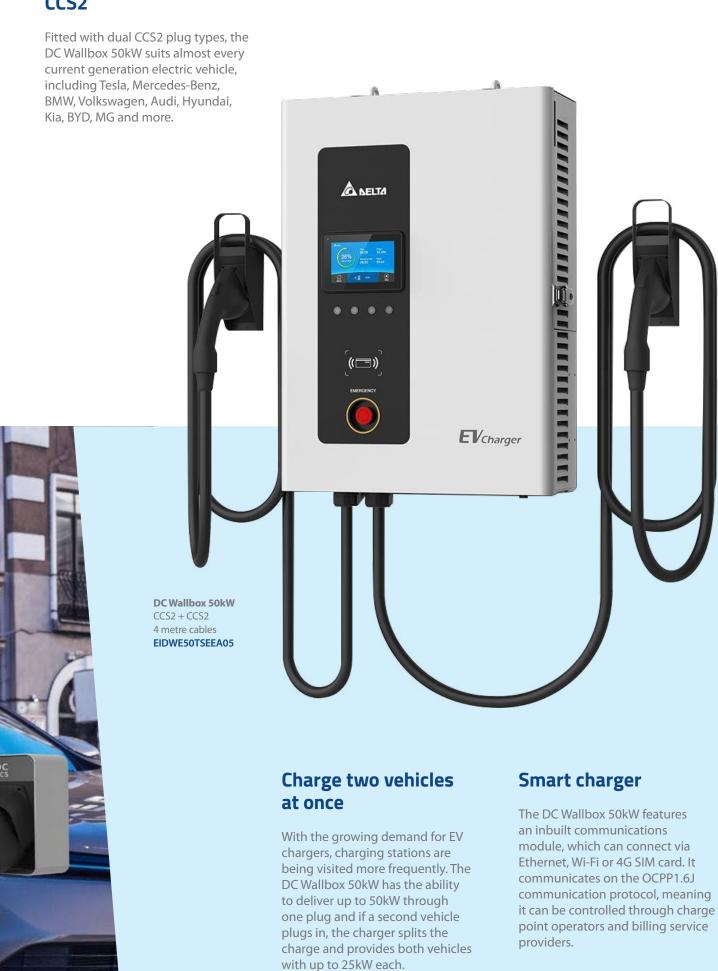
#### Wall mountable

One of the major benefits of the DC Wallbox 50kW is the ability to mount to a wall, allowing for cabling to run along the wall, rather than digging trenches.

If no wall is available, the DC Wallbox 50kW is available with a purpose-built steel pedestal.



#### CCS2

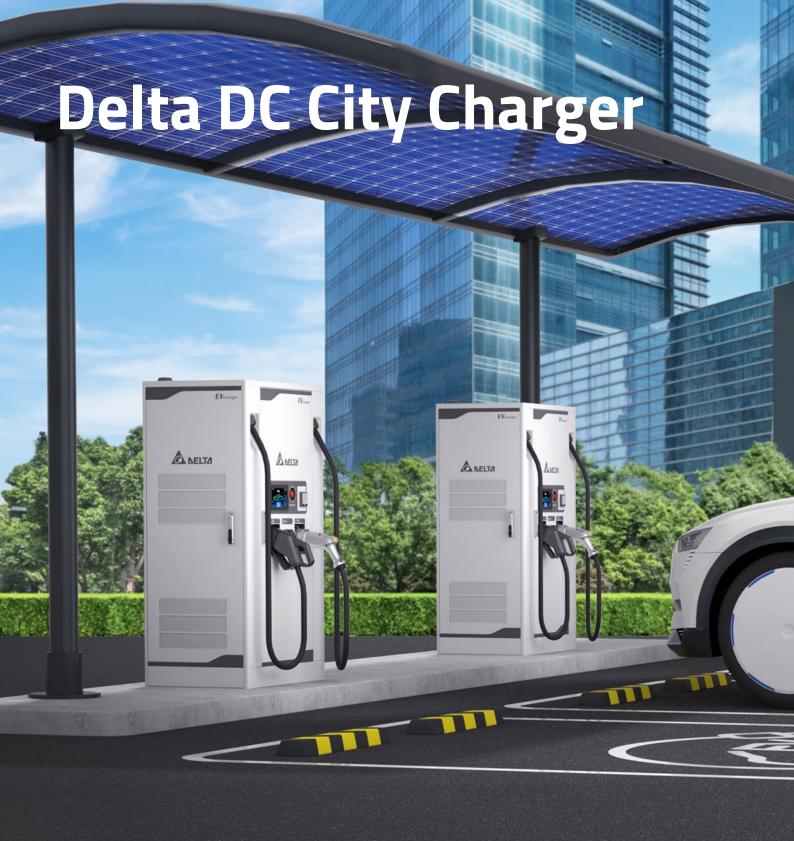


#### Delta DC Wallbox 50kW | specifications

Specifications	DC Wallbox 50kW
Input / output rating	380-415 Vac, 3-phase, L1, L2, L3, N, PE, 50/60Hz
Efficiency	96% at nominal output power
Output power (maximum)	50kW
Plug type CCS2	DC output voltage 150-1000VDC, DC output current 125A
Electric protection	Over current, under voltage, over voltage, surge protection, short circuit, over temperature, ground fault
Ingress and impact protection	IP55 / IK10
Cooling	Forced air cooling
Cable length	4 metres and 7 metres (optional)
Dimensions (W x H x D)	650 x 900 x 250
Weight	102kg excluding charging connectors
Installations	Wall mount or pedastal
Operating and storage temperature	Operating: -30°C to +50°C   Storage: -40°C to +85°C
Humidity	<95% relative humidity, non-condensing
Altitude	Up to 4,000m
Control panel	7-inch touch screen
Charge configuration	Electronic setting
Security	ISO / IEC 14443 A / B RFID
Communication	Ethernet, Wi-Fi, 4G SIM
Communication protocol	OCPP 1.6J
Part number CCS2+CCS2 4M	EIDWE50TSEEA05

<sup>\*</sup>Specification is preliminary







## 50 kW 100 kW 200 kW

#### **Key features**

- Power delivery of 50kW, 100kW and 200KW
- Charge up to two vehicles simultaneously
- Various plug standards combinations available
- Smart connectivity via Ethernet or SIM card
- Compact design
- Accessible via RFID or third party charge point operator
- Robust and hardwearing with IP55/IK10 rating
- Air-cooled up to 50°C, derated up to 60°C



Office



Manufacturing



Government



Services



Retail



**Service stations** 

# Delta DC City Charger – when reliability matters

Publicly accessible infrastructure needs to be durable, reliable and fit for purpose. The Delta DC City Charger is designed to deliver.

Built inside a solid steel IP55/IK10 frame, the DC City Charger will deliver longevity and robustness. Available in three variants (50kW, 100kW and 200kW), the City Charger will deliver rapid and ultra-rapid performance.

Don't let the City Charger name fool you, this DC Charger is designed for Australia and New Zealand's varying environments and weather conditions. Cooling is delivered through air-cooling, which is more reliable and easy to maintain. NHP has kept the power on in homes, stadiums, hospitals, factories and many other industries for over 50 years. We understand the importance of reliability and up-time. NHP offers a wide range of service and maintenance products and extended warranties to give you peace of mind.

The Delta DC City Charger features Ethernet, Wi-Fi and SIM card connectivity to allow connection to third-party cloud-based billing platforms via OCPP 1.6J.



Rapid and ultra-rapid charging from 100kW to 200kW



CCS2+CCS2 plug and CCS2+CHAdeMO plug combinations



Connectivity via OCPP1.6J to connect to charge point operators and apps



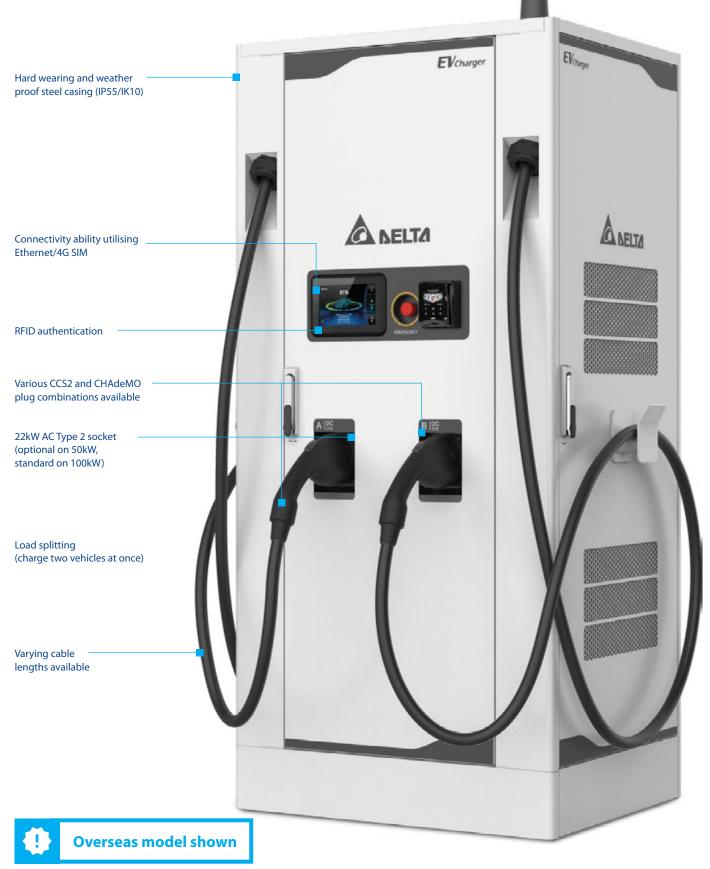
Steel case with IP55/IK10 rating for long term durability



Demand manageable with Load Management Systems



50 kW 100 kW 200 kW



# Delta DC City Charger – when reliability matters

#### Purpose built for rapid charging

Delivering over 94% efficiency, the high-powered DC City Charger delivers exceptional power and reliability. Built with regular, high use environments in mind, the DC City Charger offers dynamic load distribution, allowing simultaneous charging.

Constructed out of steel (rather than plastic or aluminum) the DC City Charger is designed for a wide array of urban and rural environments.



#### CCS2 and CHAdeMO

Customisation is key - the DC City Charger is available in a wide range of plug and cable length varieties and can be ordered in the following plug combinations:

#### 50kW / 100kW

CCS2 + CCS2

CCS2 + CHAdeMO

CCS2 + CHAdeMO + Type 2 AC

#### 200kW

CCS2 + CCS2

#### Charge two (or three) vehicles at once

With the growing demand for EV chargers, charging stations are being visited more frequently. The DC City Charger has the ability to deliver maximum power through one plug, or dynamically load split the power to the vehicle which needs more charge and scale back the vehicle which has a higher state of charge.

The City Charger also has the unique third AC port, which can allow for a third vehicle to be charged. The AC port is rated at a maximum of 22kW and delivers on-top power over and above the DC 100kW/200kW rating.



Please speak to NHP about your specific requirements. We'll be happy to help!

#### Delta DC City Charger | specifications

Specifications	DC City Charger 50kW	DC City Charger 100kW	DC City Charger 200kW	
Input / output rating	380-415 vac, 3-phase, L1, L2, L3, N, PE, 50/60Hz	380-415 vac, 3-phase, L1, L2, L3, N, PE, 50/60Hz	380 - 415 Vac, 3-Phase, L1, L2, L3, PE, 50 / 60Hz	
Efficiency	94%	94%	≥ 96%	
Output power (maximum)	50kW + 22kW	100kW + 22kW	200kW	
Plug type	CCS2, 50-1000Vdc, 125A (max) CHAdeMO, 50- 1000Vdc, 125A (max), Type 2 socket, 400V, 32A (max)	CCS2, 50-1000Vdc, 200A (max) CHAdeMO, 50-1000Vdc, 200A (max), Type 2 socket, 400V, 32A (max)	CCS2, 150-950Vdc, 400A	
Electric protection	Over current, under voltage, over voltage, surge protection, short circuit, over temperature, ground fault	Over current, under voltage, over voltage, surge protection, short circuit, over temperature, ground fault	Over current, under voltage, over voltage, surge protection, short circuit, over temperature, ground fault	
Ingress and impact protection	IP55 / IK10	IP55 / IK10	IP55 / IK10	
Cooling	Forced air cooling	Forced air cooling	Forced air cooling	
Cable length	4m and 7.5m (optional)	4m (standard) 6m / 7.5m (optional)	4m (standard) 7m (optional)	
Dimensions (W x H x D)	800 x 1500 x 590mm	800 x 1500 x 590mm	850 × 1800 × 680mm	
Weight	290kg excluding charging connectors	350kg excluding charging connectors	420kg excluding charging connectors	
Installations	Ground mount	Ground mount	Ground mounted	
Operating and storage temperature	Operating: -30°C to +50°C (derate to +60°C) Storage: -40°C to +80°C	Operating: -30°C to +50°C (derate to +60°C) Storage: -40°C to +80°C	Operating from -30°C to +40°C (de-rating from +40°C to +50°C) Storage: -40°C to + 80°C	
Humidity	<95% relative humidity, non-condensing	<95% relative humidity, non-condensing	< 95% relative humidity, non-condensing	
Altitude	Up to 2,000m	Up to 2,000m	Up to 2000m	
Control panel	7 inch touch screen	7 inch touch screen	7 inch touch LCD panel	
Charge configuration	Electronic setting	Electronic setting	Electronic setting - simultaneous charging and configurable dynamic load distribution (dual outputs)	
Security	ISO / IEC 14443 A / RFID	ISO / IEC 14443 A / RFID	ISO / IEC 14443 A / RFID	
Communication	Ethernet, Wi-Fi, 4G SIM	Ethernet, Wi-Fi, 4G SIM	Ethernet, 4G SIM, WLAN, RFID	
Communication protocol	OCPP 1.6J (upgradable to 2.0)	OCPP 1.6J (upgradable to 2.0)	OCPP 1.6 (upgradable to 2.0)	
Part number				
CCS2 + CHAdeMO 4M	EVHE503EJCA05	-	-	
CCS2 + CCS2 4M	EVHE503EECA05	EVHE104EFCA05	EIDSE200TSEEA01	
CCS2 + CHAdeMO + AC 4M	EVHE503EMCA05	EVHE104ENCA05	-	



# Software integration

#### **Charge point operators**

Charge point operators - also known as CPOs - are the digital interface between the EV charger and the driver. The CPO software allows the driver to control the charger by obtaining access and starting and stopping the charging session.

From a business/asset owner's perspective, CPOs also allow you to bill the driver for the use of the EV charging asset. This billing function usually enables offsetting of the price of electricity and/or ROI for the EV charging asset itself. Some business may choose to install lower cost AC charging solutions and offer the service for free to encourage customers to visit the business and possibly stay longer.

#### **Charge point operator integration**

NHP and Delta Electronics work closely with all main charge point operators to ensure seamless integration between their digital platforms and the chargers. Our chargers are tested with many of the market's leading charge point operators. If you are a Charge Point Operator and would like to discuss integration with Delta EV chargers, please contact the NHP team.

#### App control at home

The Delta AC Max is also integrated with app solutions such as ChargeHQ for greater control over your charger when integrated with solar.





# NHP load management solutions

EV chargers can easily add significant load to a building electricity supply. Most buildings were only developed to power the apartment or the buildings original designed purpose, plus some buffer. EV chargers can easily exceed that buffer, causing significant load on the buildings power supply, which can result in an outage.

NHP's load management solution is designed to counter overloading the building's capacity by dynamically controlling the draw from the EV chargers.

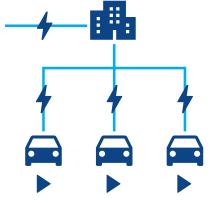
The NHP load management solution features CT clamps, which are connected to the building's mains supply and provide the system with live data on the building current power demands.

The proprietary NHP algorithm then analyses the reading, determines if the building is under load and issues adjusted instructions to the EV chargers to scale back or ramp up charging speeds.

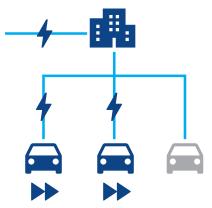
The NHP Load Management System also monitors the number of EV chargers currently in use and based on the building available supply, will control the chargers accordingly. The NHP Load Management System works in batches of up to 24 independent chargers at one time.

The NHP Load Management System is a one off purchase and does not come with ongoing subscriptions or ongoing running costs. This makes the product a great cost effective solution to manage your EV charging needs.

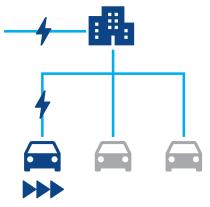




Maximum vehicles charging, reduced charge speed



Reduced vehicles charging, medium charge speed



Minimal vehicles charging, fastest charge speed

# Warranty, service and maintenance

As electric vehicles move from niche to mainstream including commercial vehicles, the reliability of the network is paramount.

EV infrastructure must ensure close to 100% uptime. This requires a reliable and national network of service technicians who understand chargers inside and out.

NHP's fleet of mobile technicians are located nationally and are ready for deployment to site. NHP offers bespoke service packages which can support in maintaining your infrastructure, whether part of a regular service plan or ad hoc maintenance. NHP carries a wide variety of parts incountry, ready for dispatch.

From a warranty perspective, all Delta EV chargers come with a two year factory backed warranty. NHP can support your organisation with extended warranties for up to 10 years.

To learn more about the value NHP can bring to your charging infrastructure, get in touch today!



## **Notes**

#### **Electric Vehicles Chargers**

#### Australia



#### **New Zealand**





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#### **NHP Electrical Engineering Products**

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