



EV CHARGING INFRASTRUCTURE SOLUTIONS



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DID YOU KNOW?

A 7kw AC charger will charge 35-40km per hour and a 11-22kw AC charger will charge 60- 120km's per hour"

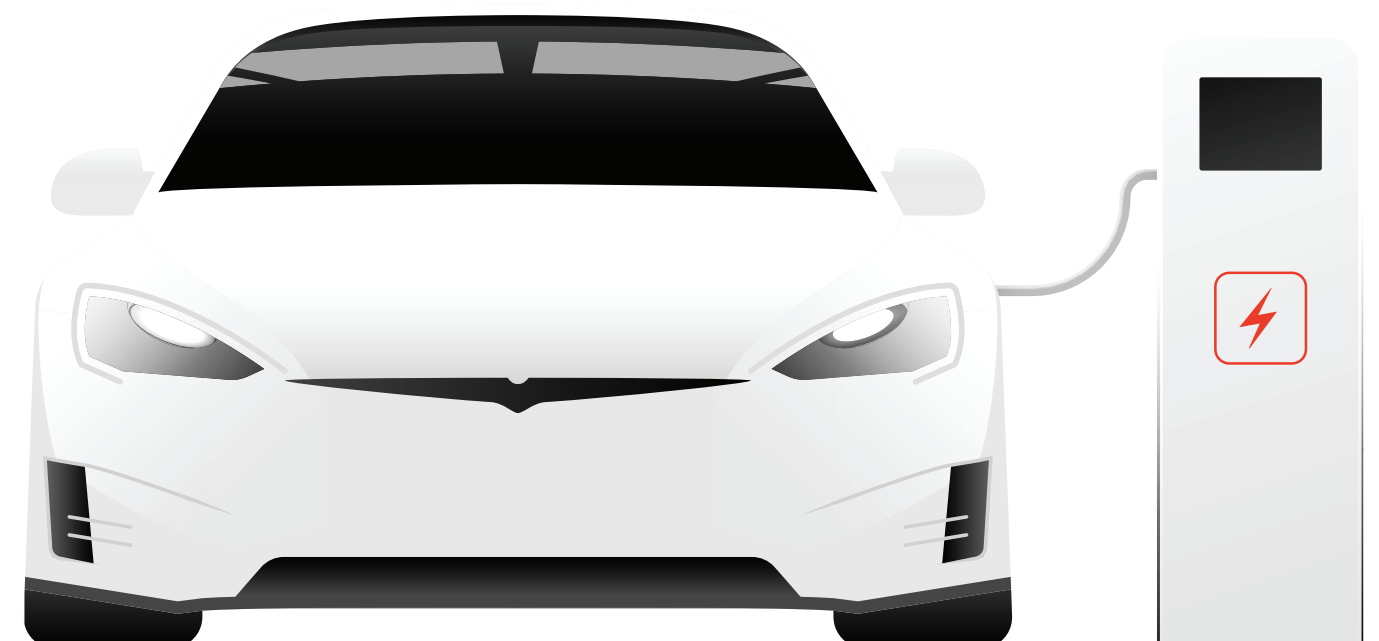
It is important to note that the charge rates when AC charging depend on the vehicles on board converter and the state of charge.

CHARGING AHEAD INTO THE ELECTRIC FUTURE

Whether you're retrofitting existing buildings or starting from scratch, our innovative solutions ensure you comply with the latest regulations to stay ahead of the EV revolution.

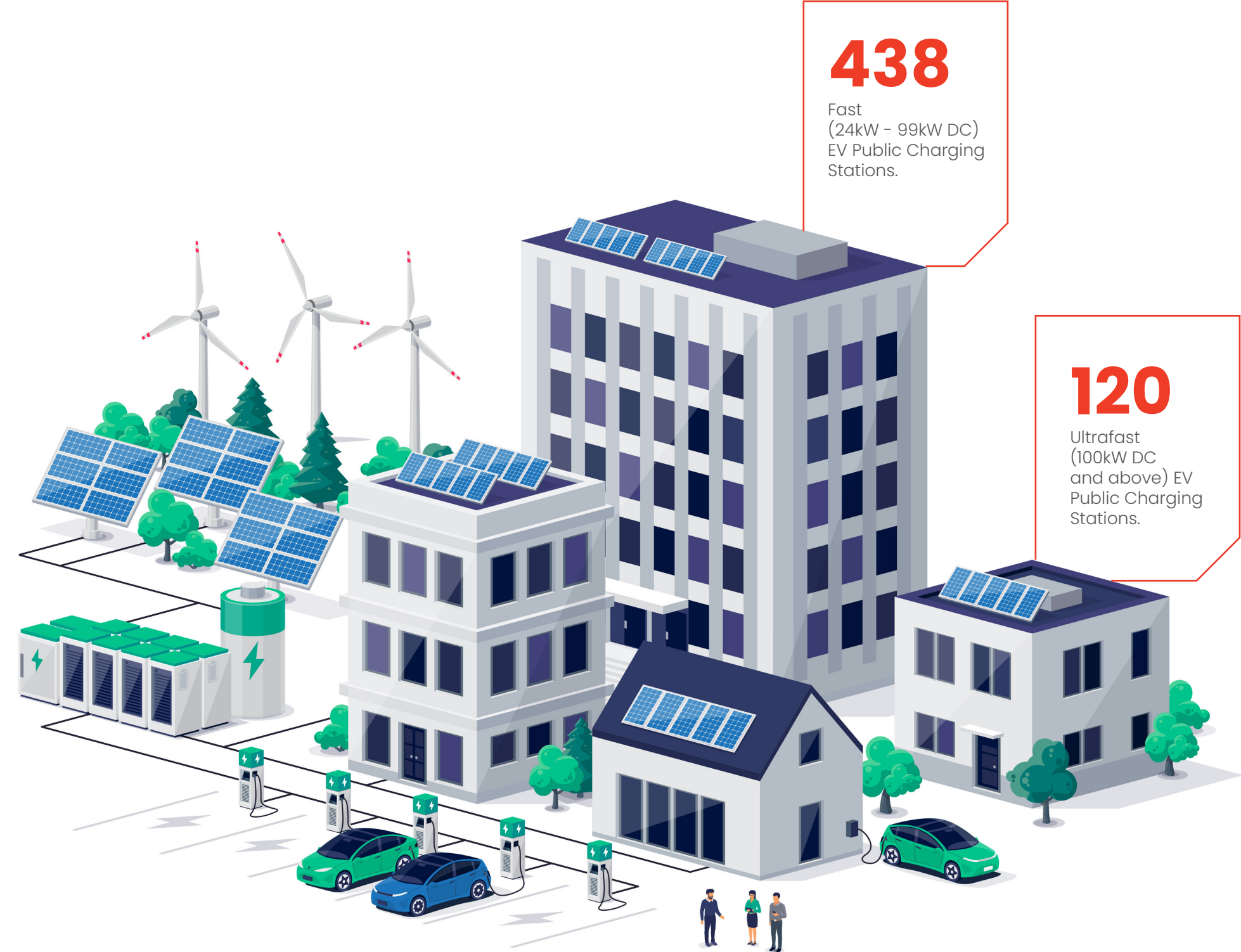
Our electric vehicle integrated infrastructure solutions cater to brownfield and greenfield projects, such as residential buildings, commercial offices and shopping centres, offering innovative and compliant charging.

From the power grid to the EV charger, our comprehensive range of infrastructure solutions encompasses power distribution, metering, load management, and more, aimed at ensuring seamless operations.



OVER 26 MILLION EV CARS GLOBALLY

Over the last 12 months the state of the electric vehicle market across Australia has expanded, with a 120% increase in the 6 months from January to June 2023 for EV sales in comparison to the entire number of EV's sold in 2022.



*Source: State of the Market, Electric Vehicle Council, July 2023

ELECTRIC VEHICLE CHARGERS

Elevate your driving experience with our future-ready EV charging solutions. Designed for efficiency, reliability, and convenience, ABB's AC and DC chargers are the perfect match for the electric vehicles of today and tomorrow.

TERRA AC WALLBOX

While the electrical grid supplies power as Alternating Current (AC), electric vehicle batteries solely store Direct Current (DC). AC charging plays a pivotal role by utilising the 'onboard converter,' a smart technology within your EV. This converter seamlessly transforms incoming AC supply into the necessary DC power for your vehicle's battery, ensuring an efficient energy transfer.

ABB's Terra AC wallbox charger is designed to fulfil your EV charging requirements. These chargers offer varying configurations, ranging from Single Phase 7.4kW to Three Phase 22kW, ensuring compatibility with different power supplies.

Destination charging convenience

AC chargers excel in destination charging scenarios offering a cost-effective and convenient solution to replenish your EV's battery while parked at work or shopping centres.

Customised connectivity

ABB's Terra AC wallbox features Wi-Fi, Ethernet, and Bluetooth connectivity, with the added option for 4G capabilities. This robust connectivity empowers you to remotely monitor and manage your charging process, guaranteeing your EV is always prepared for your next journey.



TERRA DC WALLBOX

ABB's Terra DC wallbox, marking another stride in innovation. Starting with an impressive 24kW power capacity, this charger is crafted to cater to even the most demanding charging requirements.



Versatile compatibility

Engineered with CCS2 and CHAdeMO connection heads, the Terra DC wallbox guarantees compatibility with a diverse range of electric vehicles, ensuring seamless connectivity.

Internal power conversion

Unlike traditional AC charging setups, where the onboard converter handles power conversion, DC chargers take a different route. These chargers perform power conversion internally, directly delivering DC power to your EV's battery. This bypasses the onboard converter, resulting in rapid charging times that surpass conventional AC methods.

Ideal for time-critical scenarios

DC charging excels in scenarios where time is a critical factor and charging demands are substantial. It emerges as the optimal solution for travellers, busy professionals, and anyone needing swift charging turnarounds while on the move.

DID YOU KNOW?

Recent changes to the National Construction Code (NCC), has mandated all new buildings are to be EV-ready. A positive step forward for the EV Infrastructure roll-out nationwide.

DISTRIBUTION BOARD FOR EV CHARGING

Elevate your commercial building's efficiency with our all-in-one electric vehicle charging distribution board. This specialised electrical panel is carefully designed to optimise power distribution to multiple EV charging stations within your facility. Embrace the escalating demand for EV charging while ensuring impeccable load management and uncompromising safety measures.



Power Capacity

Designed to handle a high-power capacity to supply electricity to multiple EV charging stations simultaneously.



Space Efficiency

Designed to optimise space usage while considering the potential need for future additions. It is installed conveniently to provide easy access for maintenance and service.



Smart Metering and Monitoring

Incorporates smart metering and space for monitoring systems for outgoing circuits. When used together, facility managers can track electricity consumption, monitor charging station usage, and optimise charging schedules.



Compliance

Complies with relevant electrical codes, safety standards, and regulations for EV charging infrastructure.



Safety Measures

Remote shutdowns to isolate the charging by pressing the emergency stop button, signal from Fire Indication Panel (FIP), or load shedding signals.

Earth fault protection, overload protection, and overcurrent (short-circuit) protection devices for are available.

UPSTREAM PROTECTION

LOW-VOLTAGE SWITCHGEAR

When it comes to powering up your electric vehicle infrastructure, ABB's low-voltage moulded case circuit breakers (LV MCCBs) takes the spotlight. Whether you are Building from the ground up or feeding your supply from existing switchboards, the ABB MCCB range is a robust and reliable choice. These Devices are designed to protect the downstream EV DB or our compact Busduct distribution system making them a crucial component for multi-tenant car parks.

In individual EV setups, such as in residential applications, ABB presents an innovative solution that places safety at the forefront. Introducing the 3 Pole RCBO carefully designed to ensure unparalleled safety.



FLEXIBLE POWER DISTRIBUTION

POWERDUCT COMPACT BUSWAY SYSTEMS

The Powerduct compact busway systems redefine the approach to distributing power to electric vehicle (EV) charging infrastructure within new and established structures. Positioned overhead, these systems offer safety, efficiency, and ease of installation, providing a seamless and intelligent power distribution method. With the capacity to effortlessly supply multiple EV charging stations throughout your facility, Powerduct busway systems elevate the convenience and effectiveness of charging solutions.



Simplified Installation and Relocation

Installing Powerduct busway makes adding and relocating simple and more cost effective than traditional cabling methods due to its lightweight and modular design.



Tailored options for diverse needs

IPD's range of Powerduct Compact busway systems are available in 100A, 160A and 250A options, with either copper or aluminium internal conductors spaced in the air within a protective housing.



Versatile accessories for every configuration

A wide range of accessories such as 90° elbows, offsets, and tee pieces are available to suit the unique requirements of each installation. Customised angled pieces are available on request.



Secure power tap with plug-in boxes

Plug-in boxes allow for safe tapping of power from the main busway run and contain switchgear to individually isolate and protect each EV charger.

RELIABLE POWER SUPPLIES

PULS range of power supplies to the dependable backbone of electric vehicle (EV) charging systems in commercial structures. With precision engineering, these components take on a pivotal role, offering unwavering reliability. They ensure a consistent, efficient supply of electrical energy to all charging system components, resulting in seamless and secure charging operations.



High efficiency

Known for high energy efficiency, minimising energy losses during power conversion. This efficiency helps reduce the EV charging infrastructure's overall energy consumption and operating costs.



Reliability and durability

Built to withstand harsh conditions and demanding usage in commercial settings. They offer high levels of reliability, ensuring consistent performance over extended periods.



Robust design

Engineered robustly, providing protection against electrical fluctuations, short circuits, and overloads. This enhances the safety of the charging system and protects connected devices from potential damage.



Compact size

Compact and space saving design allows easy integration into the limited spaces available in commercial buildings.



Low heat dissipation

Minimises heat dissipation, which reduces the need for extensive cooling systems and contributes to a more environmentally friendly charging infrastructure.

kWh MULTI-FUNCTION METERS

NMI APPROVED METERING

Unlock unparalleled insights into electricity usage for electric vehicle (EV) charging across Australia with our NMI (National Meter Identifier) approved kWh Multi-function meters. Seamlessly track consumption with the highest precision for your charging stations and streamline operations to drive the overall efficiency of your infrastructure.



Accurate billing

With NMI metering, the building's management can accurately measure the electricity usage of each EV charging station. This data is crucial for billing individual users, tenants, or customers using the charging services.



Transparent reporting

NMI metering provides transparent reporting of electricity consumption, enabling facility managers to analyse usage patterns, peak charging times, and overall energy consumption related to EV charging.



Regulatory compliance

NMI metering ensures the commercial building meets regulatory requirements for accurate and transparent electricity billing. This compliance is essential for maintaining transparency and fairness in charging costs.

DYNAMIC LOAD MANAGEMENT

Dynamic Load Management (DLM) technology enables more efficient charging by intelligently distributing power among multiple EVs. This system seamlessly integrates with new or existing building automation setups. It not only allows simultaneous and managed charging of multiple EVs but also ensures optimal utilisation of available power, minimising the need for expensive installation upgrades. Additionally, users can track energy consumption.

Charge more vehicles at one time.

The DLM optimises energy consumption to meet power demands. You can operate 4-10 times more charging points compared to the traditional setup without overloading the electrical infrastructure. Conversely, the DLM system helps manage electrical loads more efficiently – utilising the unused available power to ramp EV charging loads up and down dynamically.

