

Benefits of Modular Design

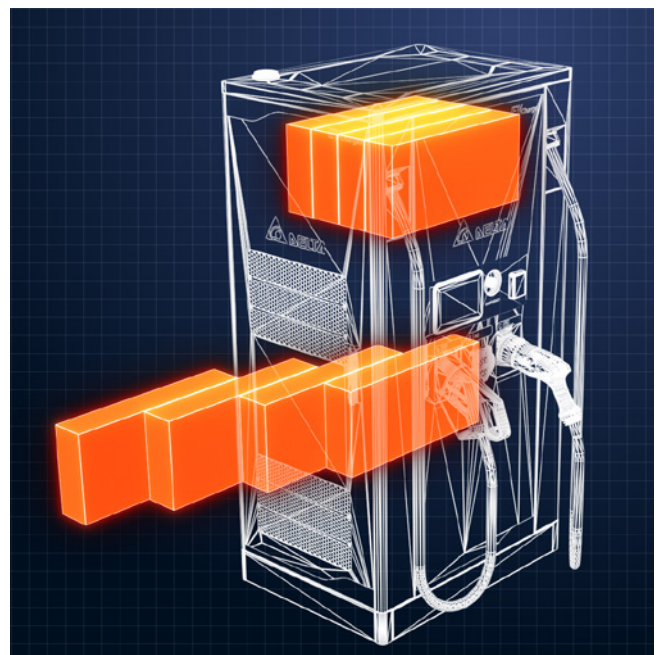
A future-proof solution for EV charging stations

For electric vehicle (EV) charging station operators, future-proofing their investment rests largely in building up the right infrastructure. The key to this is adopting a charging infrastructure with a modular design.

Despite there being over 170,000 EV charging stations in Europe and more than 20,000 in the United States, there is still a long way to go. Also, given that many technologies eventually become obsolete, there is considerable risk when investing in chargers because the capital costs are so high.

As such, the problems faced by EV charging stations are not only complex, but they're extremely expensive. This is complicated by the fact a truly viable business model is yet to be established for EV charging stations.

In this regard, major considerations for operators are maintenance efficiency, charger uptime/availability, and the initial capital cost of setting up an EV station.



• Maintenance Efficiency

Delta's series of DC chargers is a sensible choice for EV charging stations because it requires minimal maintenance for continuous operation.

Perhaps more importantly, in periodically maintenance or the rare event that servicing is required, maintenance can be performed by a single technician. With various network connectivity options, remote upgrades and maintenance are even possible over the air.

There's no need for special equipment for maintenance personnel to handle the charger's power modules, as they are extremely lightweight and easy to handle in comparison to those found in other EV chargers.



All of these factors help minimize maintenance time, ensuring that chargers are up and running as quickly as possible.

• Charger Uptime/Availability



One of the key benefits of the modular design of Delta's DC chargers is that it minimizes downtime and maximizes availability. Even if one power module fails, the charger can still be operated at a reduced power capacity. With easy maintenance, however, this shortfall can be fixed easily.

The versatile interface design of Delta's DC chargers allows for stations to be set up in a way that is most practical for the situation (e.g., island, star, or parking lot configurations). This assists in preventing queuing and ensures that EV drivers can charge their EV and be on their way with minimal fuss.

Furthermore, support for CHAdeMO, CCS1, CCS2 connectors for DC power means that Delta's DC chargers are available for any EV currently on the market.

- **Initial Capital Expenditure**

Perhaps the greatest benefit of being able to share power capacity across multiple EVs from a single charger is the reduction in startup costs.

Not only is it more economical to have to purchase only one charger for servicing multiple EVs, but there are massive savings on installation costs (e.g., connecting to transformer substations, installing cabling, purchasing construction materials, and the cost of labor). It also leaves space for charging stations to scale up in the future without having to spend more on redesigning the layout of the station.

The small footprint of the Delta DC charger not only makes installation easier, but it also frees up space and allows charging stations to be more agile in responding to market conditions and also in future upgrades.

The simple fact is that charging infrastructure need to become widely available for drivers to be more willing to adopt EVs, and these developments are critical to future growth for this emerging green industry.

The key to future-proofing such investments, however, is to adopt a modular, multi-standard design.



To learn more about how Delta's modular DC chargers are the perfect solution for overcoming the concerns of EV charging station operators, visit our minisite.

<https://www.deltaevcharging.com/product>

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