High Power DC Charging System

Uniquely designed to meet electric vehicle charging needs. Now. In the future. Always.
A scalable and flexible high power charging solution

The Veefil-PK system is ready to serve the electric vehicles (EVs) of today and tomorrow with a modular and flexible 175kW solution, scalable up to 350kW.

UNIQUE ADVANTAGES

The system’s unique advantages include small footprint, modularity, scalability, flexibility and high efficiency. Additionally, the system offers;

+ Aesthetically pleasing design
+ Reduced energy cost (high efficiency)
+ Reduced cost of installation (small footprint)
+ Easy upgrades (add user units individually or in groups)
+ Effortless charging experience
+ Minimal maintenance
+ Maximum uptime
+ Environmentally safe (water based liquid cooling)
+ Increased longevity (IP65 enclosure)
The Veefil-PK 350 kW high power charging system can add 350 km of range to an electric vehicle in 10 minutes.

**DRIVERS CAN CHARGE QUICKLY AT CONVENIENT LOCATIONS**

The Veefil-PK is ideally suited to traditional fuel stations, motorway rest stops and convenience stores.

A PK system with several user units will replicate the traditional fuel station experience.

Because the EV charging experience is hands-free, drivers can leave their vehicles while charging and utilise the time at adjacent amenities.

This hands-free experience allows for the overall fueling station visit to take a similar amount of time as a traditional fuel station experience.
Small footprint

The small footprint of the Veefil-PK makes it ideal for any location, especially where real estate is at a premium.

- Fits easily into existing sites with limited real estate
- Lower real estate cost and total cost of ownership
- Maximise revenue opportunity from existing underutilised space

PK system, Brohltal-Ost, Germany. Image used with permission of IONITY.

*Product images for illustration purposes only. All measurements in mm.*
Modular layout
Scalable technology

The modular layout of the Veefil-PK system makes it flexible and the technology scalable to suit the needs of the owner now and in the future.

USER UNITS
The user units have a slim design and small footprint. The small footprint allows the system to fit easily into existing sites.

Two user units can operate on one power unit, and the system is scalable by adding more power units as demand grows with increased site utilisation or advances in vehicle technology.

POWER UNITS
Each power unit powers up to two user units. These power units can be placed independently from each other and up to 100m from the user units.

CONTROL UNITS
The control unit is the central control system for site power and load management. It contains the communication unit that connects with your chosen provider’s back end via the cloud.

High efficiency
Tritium’s architecture reduces electricity losses.

+ The system is designed to minimise energy loss
+ High voltage transfer management via a DC bus
+ Our products deliver very efficient removal of heat from the system, reducing energy losses
+ Proven liquid cooling inside the user unit ensures the longevity of the power electronics and leads to high levels of efficiency
+ Reduced cable size
Customise

The Veefil-PK offers the ultimate flexibility with the opportunity to;

+ Add your own branding
+ Customise the HMI screen
+ Integrate with your preferred charging management software (OCPP)
+ Arrange the system components to suit your unique site
+ Offer both CHAdeMo and CCS
+ Offer a single or dual cable option
+ Dynamic site power management

AMPLIFY YOUR BRAND

Communicate your brand and amplify the impact of your chargers with eye-catching graphics.

The front decals of the Veefil-PK user units can be customised and utilised as a branding opportunity, adding your own company logos, colors and messages.
The power unit can be up to 100m away from the user unit.
With Dynamic Site Power Management in the Veefil-PK System, the site owner has control over the entire site’s power usage. They can specify the power sharing algorithms to suit their unique business model and meet a variety of driver and charging needs.

Choose your model; distribute power on a first-come-first-served basis, offer equal load distribution or prioritised sharing e.g. premium, regular bays at the same site.

**UNIQUE BENEFITS**

- Never exceed available site capacity
- Adapt power management behaviour according to changing needs (e.g. based on time of day, weekends, holidays)
- Attract a wider range of drivers and vehicles
**DYNAMIC SITE POWER MANAGEMENT IN PRACTICE**

The following example illustrates how Dynamic Site Power Management might work for our fictional customer, *Metro Central Charging Park*. *Metro Central Charging Park* has an equal load sharing algorithm and the following site configuration:

<table>
<thead>
<tr>
<th>Total available grid capacity at site</th>
<th>700kW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of user units and parking bays</td>
<td>4</td>
</tr>
<tr>
<td>Power rating of user unit</td>
<td>350kW</td>
</tr>
<tr>
<td>Power rating of power unit</td>
<td>350kW</td>
</tr>
</tbody>
</table>

**SCENARIO 1 – Two EVs are plugged in.**

*Power Sharing Algorithm: Equal load share.*

In this example, if two vehicles capable of receiving a 350kW charge come to the site and plug in at the same time, each vehicle will receive a full 350kW charge. This represents an equal load sharing scenario.

**SCENARIO 2 – Four EVs are plugged in.**

*Power Sharing Algorithm: Equal load share.*

If four vehicles capable of receiving a 350kW charge come to the site and plug in at the same time, each vehicle will receive an equal share of the total site capacity – in this case, 175kW.

*Metro Central Charge Park* could choose other power sharing algorithm, such as:

- **Prioritized power sharing**: Premium and regular bays offering 1 x 350kW, 1 x 150kW and 2 x 100kW.
- **A first-come-first-served power sharing**: A 350kW charge to the first car to plug in then equal power sharing to any other vehicles that subsequently plug in.
You will have access to bespoke Tritium designed systems with the ability to monitor charging assets in real time. These services are delivered through myTritium.

**myTritium**

myTritium is our help-desk portal where you can:

- Log service requests for product & charger issues
- Monitor service request progress
- Access to Tritium community resources
- Enables asset management
- Provides warranty management

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**DEVICE CONTROL CENTER**

Tritium’s Device Control Center (DCC) allows you to:

- Monitor your charger network
- See your network utilisation
- See networked user statistics

**SERVICE AND SUPPORT**

Tritium offers world-class service and support through a unified 24/7 multi-channel global support network.

This includes remote updates, remote monitoring and remote diagnostics with a 24/7 support option. Support engineers are also available to assist customers from our offices in Europe, Australia and the USA.
Veefil-PK systems in Europe

‘We chose to partner with Tritium because they have a world-leading technology and have shown they can develop and deliver their products quickly.’

Michael Hajesch
CEO IONITY
Established in 2001, and backed by government and private investors, Tritium is a leader in the development and manufacture of electric vehicle charging infrastructure.

Tritium has a flexible, responsive, and dedicated approach to developing electric vehicle charging networks around the world.

Tritium is a growing global presence with installations in over 20 countries around the world and offices in three continents.

Tritium offers energy freedom through flexible, scalable technology solutions that enable electric vehicle charging for everyone, everywhere it is needed.