Case Studies

Amperfied Dynamic DC – Fast Charging with Maximum Availability

Meeting the Demand for High-Availability DC Fast Charging

Amperfied GmbH, a subsidiary of Heidelberger Druckmaschinen AG (HEIDELBERG), entered the DC fast charging market with a clear ambition: to provide modular, scalable systems that deliver maximum availability for charging parks, logistics depots, and commercial fleets.

With **Amperfied Dynamic DC**, launched at the Power2Drive 2025, the company addressed one of the core challenges in commercial fast charging: ensuring **high throughput and availability** in environments where uptime directly impacts revenue and operational continuity.

The Modular Concept: Central Power, Dynamic Distribution

Amperfied's Dynamic DC solution is built around a **central power unit** that distributes available charging power dynamically across up to six dispensers (up to 12 charge points). This design minimizes unused capacity and optimizes utilization compared to more rigid standalone chargers.

- **Flexible configurations** allow either maximum points (12 x 240 kW / 300 A), maximum individual power (8 x 480 kW / 500 A), or a mix of both.
- **Slim dispenser design** saves space in tight parking areas.
- **Intuitive 15.6" touchscreen** ensures user-friendly operation.
- **CCS2 connectors** guarantee compatibility from cars to heavy-duty vehicles.

Powered by EVerest and Pionix Engineering

At the heart of the Amperfied Dynamic DC lies **software intelligence**. Amperfied chose **EVerest (LF Energy)** as the foundation for communication and control, supported by **stabilized modules contributed by Pionix** (formerly BaseCamp).

This combination ensures:

- Broad protocol compatibility (OCPP 2.0.1, ISO 15118, CCS2).
- Continuous open-source development and long-term reliability.
- Application-specific UI and extensions tailored to operator needs.
- Built-in predictive maintenance and monitoring functions.

By relying on EVerest, Amperfied benefits from a **future-proof, community-driven software stack** while leveraging Pionix expertise for stabilization, integration, and security.

Business Value: Availability as a Service

Amperfied introduced an **availability-based operating hours model**:

- Operators pay only when they can actively sell energy.
- Amperfied takes responsibility for ensuring that the infrastructure remains operational.
- This alignment minimizes financial risk for operators and reduces initial capital expenditure.

In addition, Amperfied's **comprehensive service package** maximizes uptime by combining predictive maintenance with responsive support via Heidelberg's established logistics network.

Market Impact

- **Growing Demand:** With the rapid rise of fast charging and logistics fleet electrification, modular DC systems are essential for cost and space efficiency.
- **Differentiation:** Amperfied Dynamic DC combines **innovative hardware design with open-source based, stabilized software** to stand out in the HPC market.
- **Scalability:** As commercial charging grows, Amperfied's approach offers operators flexibility, resilience, and reduced total cost of ownership.

Looking Ahead

Amperfied aims to become one of Europe's leading providers of commercial fast charging solutions. With Dynamic DC, the company is already preparing for the next stage: integrating **advanced diagnostics**, **remote monitoring**, and **bidirectional charging** to support both passenger cars and heavy-duty vehicles.

The Pionix Advantage in the Amperfied Case

This project highlights the strengths of the Pionix/EVerest partnership:

- **Modular open-source foundation** ensures flexibility.
- **Predictive diagnostics** reduce downtime and costs.
- **Availability models** align operator and provider interests.
- **Engineering support from Pionix** accelerates development and certification.