

## devolo at eMove360°: Powerline solutions for state-of-the-art charge management

Aachen, Germany, 04 October 2023 – As the number of electric cars in Europe increases, the topic of e-mobility in both residential and public areas is gaining more attention. The networking specialists at devolo have been hard at work on the challenges and opportunities of the ongoing expansion of charging infrastructure. At eMove360°, devolo will present customised Powerline solutions for networking AC charging points.

The topics of this press release:

- **E-mobility: Increasing demand, high installation effort**
- **Enabling smart AC charging with Powerline technology**
- **E-mobility and energy management in private households**
- **AC wall box networking with devolo Powerline for commercial charging infrastructure**
- **Wall box networking for billing and load management**
- **devolo at eMove360°**

### **E-mobility: Increasing demand, high installation effort**

In a continuation of the upward trend, the registration of electric cars on the streets of Europe will record another significant increase in 2023. The interest of the public and governments alike in alternatives to conventional combustion engines is growing steadily. Noticeably, more and more charging options are being built in company car parks, supermarkets and parking facilities. But investments are also being made in the residential areas: in charging stations for multi-dwelling units or in carports for family homes.

In order for effective charging & load management to be possible in residential, semi-public and public spaces, it is important that charging stations are networked. The data communication structure required increases the planning and installation labour and costs significantly. Routing Ethernet cables is expensive, requiring additional personnel costs and wall openings, network switches and weatherproof equipment. The Wi-Fi coverage is often insufficient and not technically designed for this application scenario. devolo sees a clear solution to this: the use of power lines via Powerline technology.

### **Enabling smart AC charging with Powerline technology**

Intelligent energy management ensures full control over charging processes and billing, easy evaluation of usage statistics, and important security and firmware updates – even via remote access as needed. But this requires that the charging infrastructure is networked. Powerline technology offers a simple and practical solution for networking AC charging points. The functioning principle is easy to explain: power lines, power rails or ribbon cables are used as long data cables for data transmission with the help of devolo Powerline products. This is possible for both single- and multi-phase installations.

## **E-mobility and energy management in private households**

Residential AC wall boxes with Wi-Fi or a LAN port can be integrated in the home network with the consumer products of the devolo Magic product series, without requiring costly drilling or the routing of Ethernet cables over long distances. For optimal residential energy management (private consumption optimisation), PV inverters, solar storage and charging stations can also be networked with each other intelligently, for example.

## **AC wall box networking with devolo Powerline for commercial charging infrastructure**

For manufacturers of AC wall boxes or operators of AC charging infrastructure in the housing industry, fleet management or parking management, devolo offers customised GRID Powerline solutions. The small Powerline modules can be integrated directly into the wall box. Manufacturers and operators benefit from a significantly reduced installation effort during roll-out and from the scalability of Powerline networking. By connecting AC charging stations to a data network, charging processes can be easily monitored and optimised and firmware updates can be loaded without any problems. Thanks to a newly developed GRID management software with remote access, network condition control as well as remote diagnosis in the event of charging point outages will soon be possible as well.

## **Wall box networking for billing and load management**

Installations with multiple charging points, such as underground car parks in multi-dwelling units, in hotels or for fleets, require intelligent load management in order to monitor and optimize charging processes. Using the devolo DINrail adapters for DIN rails, up to 100 charging points can communicate with a head-end. This enables smooth networking and control of all wall boxes, and thus effective load management.

An area-wide, stable LAN connection can be ensured even under difficult structural conditions. The devolo GRID Powerline technology enables networks with a range of up to 300 meters thanks to a multiple repeating function and adapts the network topology to the structural conditions automatically at any time.

Thanks to the scalability of the devolo solution, even the redensification of charging points is no problem. If additional charging stations are rolled out in existing projects, they can be easily integrated into an existing Powerline network. This allows the charging infrastructure to grow easily with the actual demand.

## **devolo at eMove360°**

devolo CEO Heiko Harbers sees support with Powerline solutions as a new additional focus for the company. "The future of mobility is electrical and networked. At devolo, we contribute our expertise in the area of network technology to the emerging business area of e-mobility. With our Powerline technology, we are designing the charging infrastructure of the future to be more efficient."

At eMove360° Europe 2023, from 17 to 19 October 2023 (Hall A6, Booth 626), devolo will present this and many more approaches to support charging and load management in the area of e-mobility. Media representatives and interested parties are invited to come learn about the ideas of Powerline solutions for

themselves at the trade fair in Munich. The devolo press team will be available for questions on 18 October. To request an appointment, please contact [kristina.wessling@devolo.de](mailto:kristina.wessling@devolo.de)

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This text and current product images can also be found at [www.devolo.de](http://www.devolo.de) in the media section of the devolo website.

## About devolo

devolo develops intelligent home networking solutions that send high-speed Internet into every corner of your house or flat. Our core product is devolo Magic, a technology that makes it possible to establish smart and flexible networks over existing electrical wiring. The product portfolio is rounded off with innovative mesh Wi-Fi systems and solutions for fibre-optic connections. With over 45 million Powerline adapters sold, devolo belongs to the world's market leaders. More than 900 international top-product test reviews and distinctions underscore our leadership in innovation. devolo was founded in 2002 in Aachen, Germany, and is represented in more than 10 countries.