

DEHN

DEHN protects.

Intelligent charging systems for e-mobility
by Hardy Barth GmbH

Customer

HARDY BARTH
emobilität

Hardy Barth GmbH

Project overview

Industry

Electric mobility

Application

Surge protection
for wall boxes

Hardware

DEHNcord 3P



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The success story of Hardy Barth began in 1997. While studying to become a master craftsman, the young entrepreneur founded "Elektrohandel Hardy Barth" as a sideline. Three years later, the company was renamed "EDV- und Elektrotechnik Hardy Barth" and became a full-time business. The company mainly specialises in EDP, electricity and energy. Hardy Barth is particularly committed to the important future topic of electromobility in the energy sector.

The cPμ1 wall box from Hardy Barth, for example, is a compact and powerful micro charging station for the private sector. Its outstanding features are simple installation, an output of 3.7 to 13.8 kW and Smart Grid Ready. Operating states can also be seen on the LED display. The wall box is intelligent and allows dynamic real-time load management as well as the control of charging processes.

The larger model cPH1, on the other hand, is a universal charging station for both private and semi-public use. It has an output of 11 kW to 44 kW.

Drawing on years of experience, Hardy Barth offers intelligent charging solutions for every application.

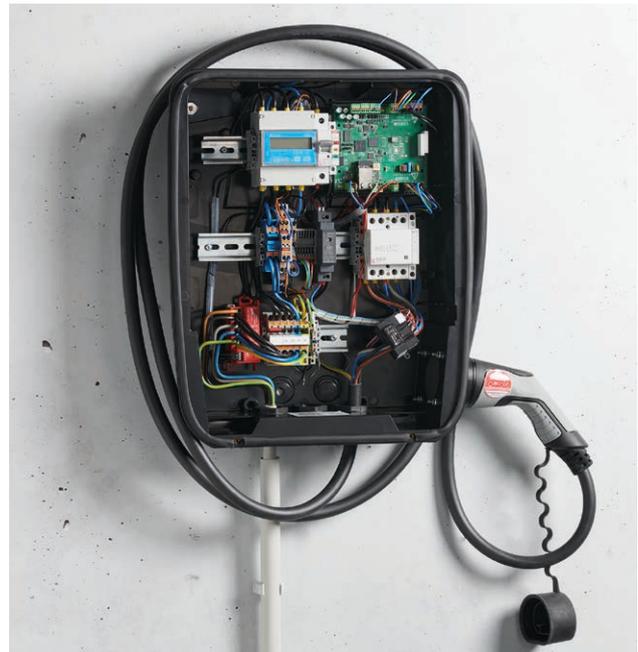
Challenge

Modern mobility demands that electric vehicles are always available and charging equipment functions perfectly. Lightning strikes and surges pose a serious and rapidly increasing risk. They can paralyse the entire charging system and damage the connected vehicle. Customers need the certainty of being able to charge their vehicle safely and reliably. This is why it is so important to use high-quality surge arresters. Standards such as IEC 60634-4-44 clause 443 and IEC 60364-7-722 and also the insurance industry (publication VDS 3471) prescribe the use of surge protection measures in charging systems.

The real challenge in practice is integrating surge protective devices in wall boxes where space is often very limited. In many cases, one even needs an additional enclosure. This increases the cost and ruins the overall appearance of the building.

Solution

The compact DEHNCord 3P, a type 2+type 3 surge arrester, reliably protects wall boxes in the smallest spaces. In addition to DIN rail mounting, this arrester can be mounted in a range of positions on the wall: upright, horizontally and at various angles. This is thanks to the differently positioned screw lugs. As a result, optimal use is made of even the smallest gaps. The double push-in feature is especially practical during installation for connecting the arrester either in parallel or in series.



The integrated remote signalling contact allows the status of the arrester to be directly transmitted to the control unit in the smart home or the control centre of the utility company. In addition, the visual status indicator immediately shows the status directly on the device.

Benefits of DEHNCord 3P

- Small, flexible and versatile – width of 2 standard DIN modules / height of 39.5 mm
- DIN rail or wall mounting – depending on the situation on site
- Can be universally used in TT and TN systems thanks to 3+1 configuration
- Push-in terminal: Max. cross-sectional area of 6 mm²
- Parallel or series connection – for greater flexibility
- Integrated floating remote signalling contact
- Visual mechanical status indication – easy to see from all angles
- Insulation measurement up to 500 V DC while connected – for a quick, uncomplicated e-check