

The base for your electromobility

ULF – Universal charging station foundation





Electromobility

Growing significance

The importance of electromobility is growing worldwide, as it defines a sustainable approch within the transportation. The increasing demand for electric vehicles is driven by the increasing environmental awareness, resource conservation, cost savings and new innovations. It not only promotes sustainability through lower emissions and the use of renewable energies, but also improves the quality of life in populated areas.

A decisive step for the future of electromobility is the expansion of the charging infrastructure. The availability of charging stations defines an important role in the use of electric vehicles. A nationwide network of fast-charging and standard charging stations enables users to charge their vehicles conveniently. The expansion of the charging infrastructure not only contributes to the achievement of sustainability goals, but also makes your building stand out with advantages for consumers.

Our solutions

We offer various solutions for setting up a charging infrastructure that meets your needs.

While our ULF foundation solution is speeding up expansion in public and semi-public areas, our comprehensive ETGAR system makes it possible to supply outdoor areas with electricity.



services outlets meets all building sealing requirements – such as gas and water tightness as well as radon

protection.

for buildings with

basement



Ready for electromobility!

Benefits of our solution

- complete system for distributing electric power supply to the properties entire grounds from the building connection room
- retrofitting the empty conduit system is possible at any time without digging
- can be individually expanded, combined and extended thanks to the modular structure





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Connection point

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The universal charging station foundation is suitable for quickly and easily setting up a charging infrastructure at parking spaces. Its low weight makes installation and assembly particularly easy. It can be combined and expanded with the ETGAR system or other empty pipe solutions.

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Preparation connection point

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Even while planning the building and its parking spaces, the universal charging station foundation can be installed ready for connection. This means that subsequent civil engineering work can be avoided and the installation of a charging station can be carried out at any time without complications.

Commercial and public spaces

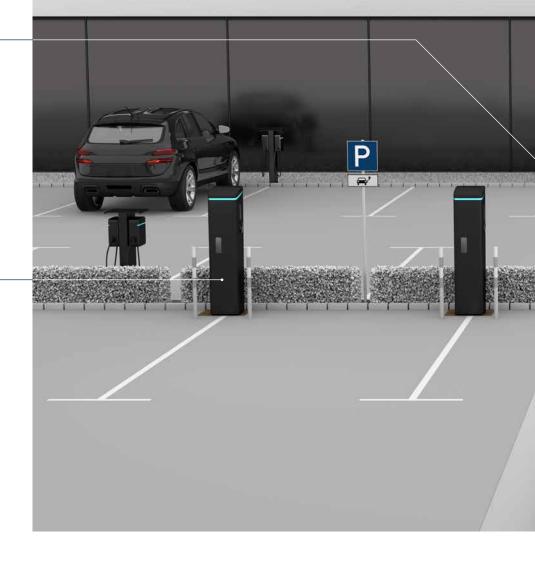
Intelligent charging infrastructure for powering vehicles in the commercial and public spaces:

Commercial space

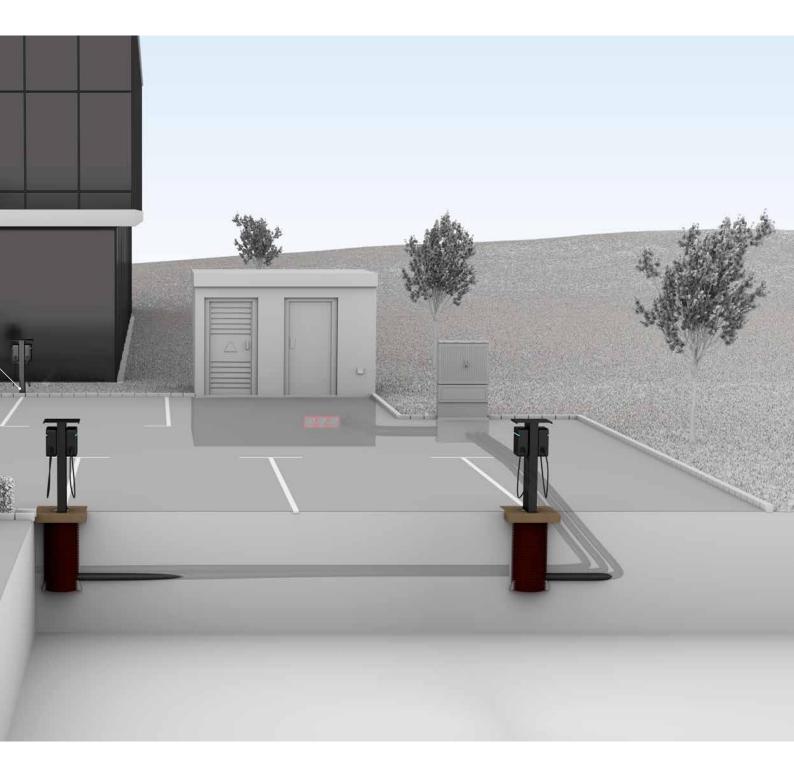
- companies
- hotels
- gastronomy
- housing industry

Public space

- cities
- municipalities
- public institutions







Integrated charging infrastructure

Companies, service providers, hotels and other semi-public facilities will demonstrate a greater need for charging stations in the future.

For the predicted upturn in electromobility, the corresponding charging infrastructure will be expanded.

With the universal charging station foundation (short ULF), Hauff-Technik has created an innovative and universal foundation for charging stations.

ULF offers a foundation solution for various types of charging stations, charging columns and for a variety of installation situations.

Universal charging station foundation

Functional principle

ULF is a universal foundation for charging stations and charging columns. Power and data cables are introduced via a conduit connection.

The charging station or pedestal is attached and connected to the foundation plate.

mounting options

screwing or dowelling possible on site

foundation slab

flexible and safe installation of charging stations

foundation pipe

allows alignment of the foundation and a flexible arrangement of the media lines

connection of further ULFs possible

empty conduit

connection option for empty conduits

concrete foundation

attachment of the ULF

charging station

power cable

data cable

electricity from the house connection/transformer station



Foundation comparison

crete screws, dowels

| | Precast foundation | ULF | Foundation concreted on-site | |
|------------------------------------|---|---|-----------------------------------|--|
| Features | | | | |
| Weight | 100 kg – 900 kg | < 40 kg | - | |
| Chemical resistance | depending on the concrete quality | acid and alkali resistance | depending on the concrete quality | |
| Surface | smooth and even | very smooth and even | depending on the processor | |
| Frost and de-icing salt resistance | only with special concrete | resistant through polymer con- crete (FX4) | only with special concrete | |
| Height adjustment | - | can be cut to length on site | - | |
| Water absorption | depending on the concrete quality | low | depending on the concrete quality | |
| Installation | | | | |
| Installation complexity | low | low | very high | |
| Formwork work | - | - | laborious/complex | |
| Laying foundation | only possible with crane/exca- vator | 1 person | 2 persons | |
| Installation time | fast | fast | time consuming | |
| Transport costs | very high | low | low | |
| Cable routing | integrated | integrated | on site | |
| Installation | | | | |
| Variety of charging station models | type-related | flexibly applicable | type-related | |
| Mounting options | threaded sleeves, tie rods, con- | threaded sleeves, tie rods, con- | concrete screws, dowels, tie | |

crete screws, dowels

rods

Universal charging station foundation

for the installation of charging columns and charging pedestals

ULF

Universal foundation solution for the installation of charging columns and charging pedestals. Fastening option on the polymer concrete slab. Connection of power and data cables using a duct connection.

Advantages



- universal foundation system for various charging stations and charging pedestals
- adaptation option for empty conduits
- replacement or exchange of the charging station possible without removing the foundation

Scope of delivery

• 1 piece of ULF with blind plate

Dimensions

- total length: 755 mm
- foundation slab: ULF300: 300 x 300 mm, ULF380: 380 x 380 mm, ULF470: 470 x 470 mm
- Height foundation slab: 80 mm
- Foundation slab opening: ULF300/380: 110 mm, ULF470: 110/150 mm

 foundation pipe (Øi): ULF300: DN200, ULF380: DN250, ULF470: DN300

Properties

• Weight: ULF300: 16 kg,

ULF380: 25 kg, ULF470 1x110: 39 kg,

ULF470 1x150: 36 kg

Material

- polymer concrete slab: polymer concrete
- foundation pipe: PVC

| Туре | Size (mm) | Foundation pipe Øi (mm) | Article code | Article number | GTIN |
|--------|-----------|----------------------------|--------------|----------------|---------------|
| ULF300 | 300 x 300 | 200 | ULF300 1x110 | 3030512350 | 4052487243452 |
| ULF380 | 380 x 380 | 250 | ULF380 1x110 | 3030490218 | 4052487242851 |
| ULF470 | 470 x 470 | 300 | ULF470 1x150 | 3030490219 | 4052487242875 |
| | 470 x 470 | 300 | ULF470 1x110 | 3030540367 | 4052487245111 |

The universal charging station base is compatible with charging stations and wallbox steles from different manufacturers. www.hauff-technik.com

Accessories

| Figure | Item | Article code | Packing unit | Article number | GTIN |
|--------|--|-------------------|--------------|----------------|---------------|
| | Hole saw for the universal charging station foundation | LS 76 SET | 1 | 3030505139 | 4052487245418 |
| | | LS 114 SET | 1 | 3030505140 | 4052487245425 |
| | Concrete screw for the universal charging station foundation | BTS 6x60 A2K SW13 | 1 | 3030515187 | 4052487245456 |
| 11 | | BTS 6x60 A4 SW13 | 1 | 3030504407 | 4052487245449 |
| | ULF Closing cover for permanently closing the opening in the foundation plate of the universal charging station foundation | ULF VD110 | 1 | 3030563712 | 4052487248235 |
| | | ULF VD150 | 1 | 3030563708 | 4052487248242 |
| | ETGAR connection sleeve for ETGAR foundation box | ETGAR ANS 4x5-25 | 1 | 3030449206 | 4052487239899 |







The universal charging column foundation is compatible with the charging columns and wallbox pedestals of various manufacturers.

Find the solution that suits you on our website!

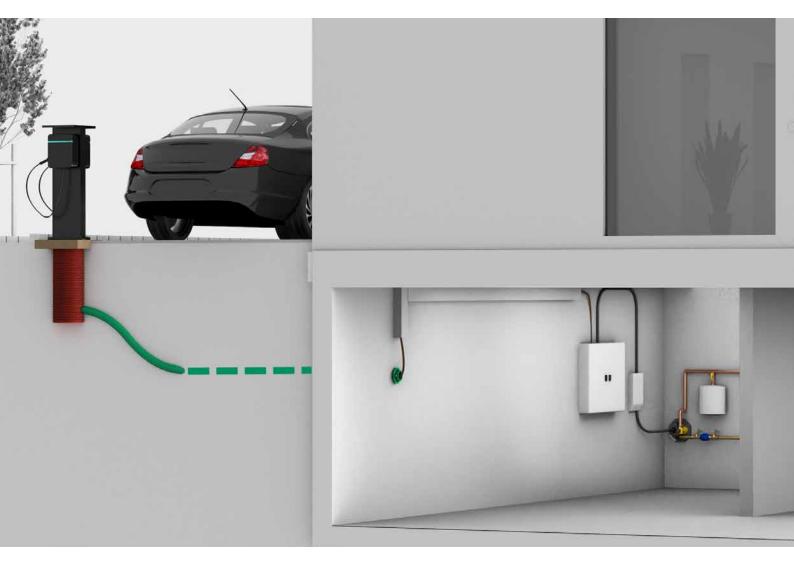


Electromobility in the private sphere

With our solutions you can also create a basis for e-mobility in your private space.

The complete ETGAR system is suitable for distributing electricity easily and reliably across the entire property. The electricity is routed out of the building via the building services outlet to precisely where it is needed using an empty conduit system.

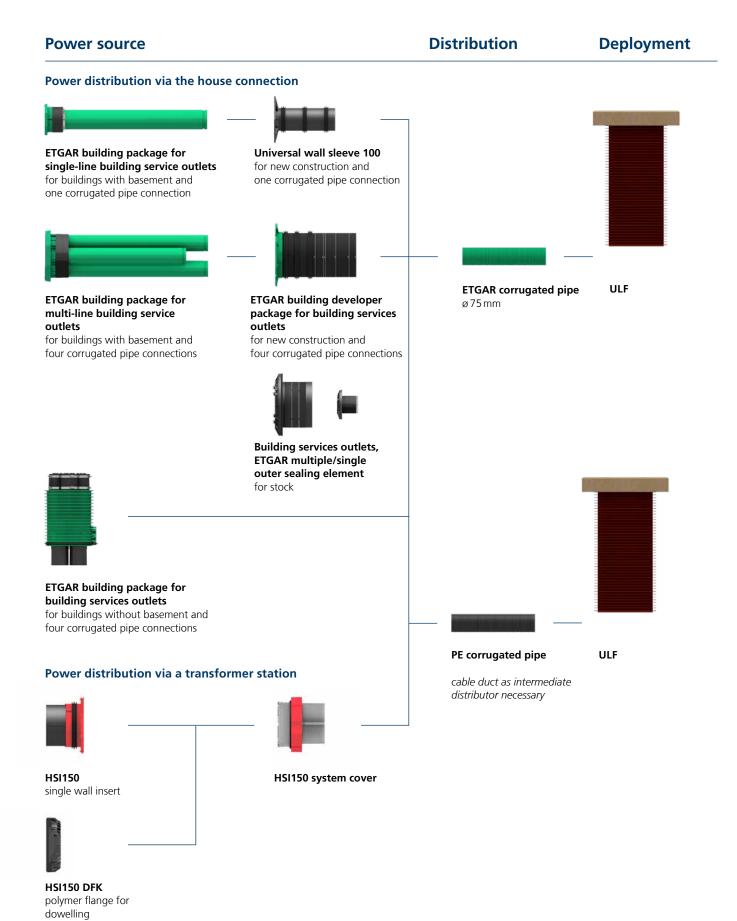
The Universal charging station foundation ULF serves as a ready-to-connect foundation system with which the empty conduits are connected.



Single building services outlet for connecting an electronic device.



Electromobility system overview





Building services outlets for buildings without a basement

| Figure | Item | Article code | Pa- cking unit | Article number | GTIN |
|--------|---|------------------|----------------------|----------------|---------------|
| | ETGAR building package for building services outlets for buildings without a basement | HAB ETGAR BHP | 1 | 3030404422 | 4052487231626 |
| | House design ETGAR MIS for buildings without a basement | HA ETGAR MIS100S | 1 | 3030576095 | 4052487247238 |

Scope of delivery see: www.hauff-technik.com

Building services outlets for buildings with a basement



| Figure | Item | Article code | Pa- cking unit | Article number | GTIN |
|--|---|---------------------|----------------------|----------------|---------------|
| ©:: | ETGAR building package for multi-line building service outlets for buildings with a basement | HAW-M ETGAR BHP | 1 | 3030458211 | 4052487239936 |
| | ETGAR wall sleeve for building services outlet for ETGAR BHP | HAW-M ETGAR FR | 1 | 3030458206 | 4052487239912 |
| | Multiple house design ETGAR external sealing element for multiple house design ETGAR builder-owner package | HAW-M ETGAR AD | 1 | 3030490272 | 4052487241939 |
| 000 | ETGAR building package for single-line building service outlets for buildings with a basement | HAW-E ETGAR BHP | 1 | 3030458216 | 4052487239967 |
| | ETGAR building package for single-line building service outlets with module 8 for buil- dings with a basement | HAW-E ETGAR BHP SET | 1 | 3030588673 | 4052487247474 |
| | Universal wall sleeve for any type of wall | UFR100/200 | 1 | 3030300244 | 4052487216098 |
| Srone of delivery ser-youw hauff-ter-thisk | ETGAR exterior sealing element for single-line building service outlet for ETGAR building package for single-line building service outlet | HAW-E ETGAR AD | 1 | 3030491405 | 4052487242028 |

Scope of delivery see: www.hauff-technik.com



Distribution on the property or to the parking spaces

| Figure | Item | Article code | Pa- cking unit | Article number | GTIN |
|-----------|---|----------------------------|----------------------|----------------|---------------|
| | PE corrugated pipe for ETGAR | HAB ETGAR WR75 GR30000 | 1 | 3030401995 | 4052487231374 |
| | ВНР | | 6 | | 4052487231671 |
| | ETGAR extension set for ET- | HAD ETC AD VII C | 1 | 3030404455 | 4052487231657 |
| 60 60 | GAR BHP | HAB ETGAR VLS | 6 | | 4052487231640 |
| | Sleeve caps for ETGAR founda- | ETCAD ANG 4F 2F | 1 | 3030449206 | 4052487239899 |
| | tion box | ETGAR ANS 4x5-25 | 10 | | 4052487239905 |
| | Extension sleeve for ETGAR building services outlet | ETGAR MA70-84/70-84 | 1 | 3030403633 | 4052487232302 |
| | | | 12 | | 4052487231886 |
| | ETGAR foundation box for | ETGAR FB - | 1 | 3030454134 | 4052487239851 |
| ETGAR BHP | ETGAR BHP | | 32 | | 4052487239868 |
| | ETGAR foundation box set for ETGAR BHP | ETGAR FB SET ¹⁾ | 1 | - 3030482075 | 4052487242202 |
| | | | 4 | | 4052487241908 |
| | ETGAR carrier plate for ETGAR foundation box | ETGAR FB TPL | 1 | - 3030454138 | 4052487239875 |
| | | | 32 | | 4052487239882 |

Scope of delivery see: www.hauff-technik.com.



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