



Application sets for smart EV charging from Teco a.s.

Teco offers the AC PowerFox Charging Infrastructure Solution Kit for System Integrators and Installers in its range for installations where the following issues arise with the investor:

- Connecting a charging EV station or chain of stations to the supply point without the need to increase a size of the main circuit breaker and flat fees for reserved power.
- Keep track of building and charging station consumption, manage appliances and set priorities for individual loads in the building.
- Integrate a charging station into the payment system in the building (parking).
- To create a basis for unified control when expanding with additional energy components (PVP, battery storage, heating, cooling, DHW...) and intelligent building management (shielding, lighting, socket control, security system...)

The uniqueness of this solution in the EV charging market, created by Teco in cooperation with Axomer and PRE, is based on the implementation of the Foxtrot control system into the EV charging infrastructure, thus linking the building or site management with the charging station management. The result is a logical connection of the EV charging control with the management and monitoring of the premises or building consumption. The Foxtrot control system is also ready for the expansion of the energy system (PVP, battery storage), where the energy management is performed by just one central control system with a unified user interface (benefits in expansion, service) for heating and cooling, recuperation, lighting, shielding, socket control, access system, water management, multimedia management, hotel and conference room management, security and video surveillance...).

Main features of the PowerFox AC Charging Kit:

The PowerFox Application kit allows an implementation company to build an AC charging station. There are two kinds of the Application kit:

- **AS PowerFox M** (master) is an application set equipped with a Foxtrot controller with basic charging programs.
- **AS PowerFox S** (slave) is an application set controlled by either AS PowerFox M or an external Foxtrot (e.g. in a building).

By combining AS PowerFox M and PowerFox S, a multiple charging station or a chain of centrally controlled charging stations can be built.

The Application kit may further include an RFID reader, a control display with an RFID reader, and an indicative electricity meter with an option to install it inside (pulse) or outside (RS485) a charging station.

The basic charging programs included in the application kit (in the Mosaic library) can be extended by Application profiles (paid versions of charging programs) or customized programs for charging and integration with building management.

Charge smartly!



AS PowerFox includes:

- Teco products and power products for charge control and measurement.
- Basic charging programs.
- Optional RFID reader and control display with RFID reader (R, D series).
- Recommended wiring diagram.



Possible variants of application sets:

Type	Order Number	Description							
			Power modul	C-EV modul	Supply modul	RFID reader	Display	Power meter	Central unit Foxtrot*
Application set		AS PowerFox M	✓	✓	✓			✓	✓
Application set		AS PowerFox MR	✓	✓	✓	✓		✓	✓
Application set		AS PowerFox MD	✓	✓	✓	✓	✓	✓	✓
Application set		AS Power Fox S	✓	✓	✓			✓	
Application set		AS PowerFox SR	✓	✓	✓	✓		✓	
Application set		AS PowerFox SD	✓	✓	✓	✓	✓	✓	

Available accessories for AC PowerFox that can be ordered separately:

- Type of EV connection (cable or socket, connector type).
- Control module for locking socket.
- Payment terminal.
- Electricity meter for overall consumption measurement in the building.
- Foxtrot control unit (external).
- Application profiles for charging or custom programs.
- Cabinets (wall box, column, switchboard).

With a suitable combination of PowerFox application kit and accessories, it is possible to assemble an AC charging station in the wall box, double wall box, charging column, double column or cabinet design with the following basic features:

Maximum charging power: 22 kW,

Maximum charging current: 32A,

Supply voltage: 230V, 400V.

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Attachment

- I. Examples of an AC charging station made from the PowerFox application kit and accessories:



Walbox

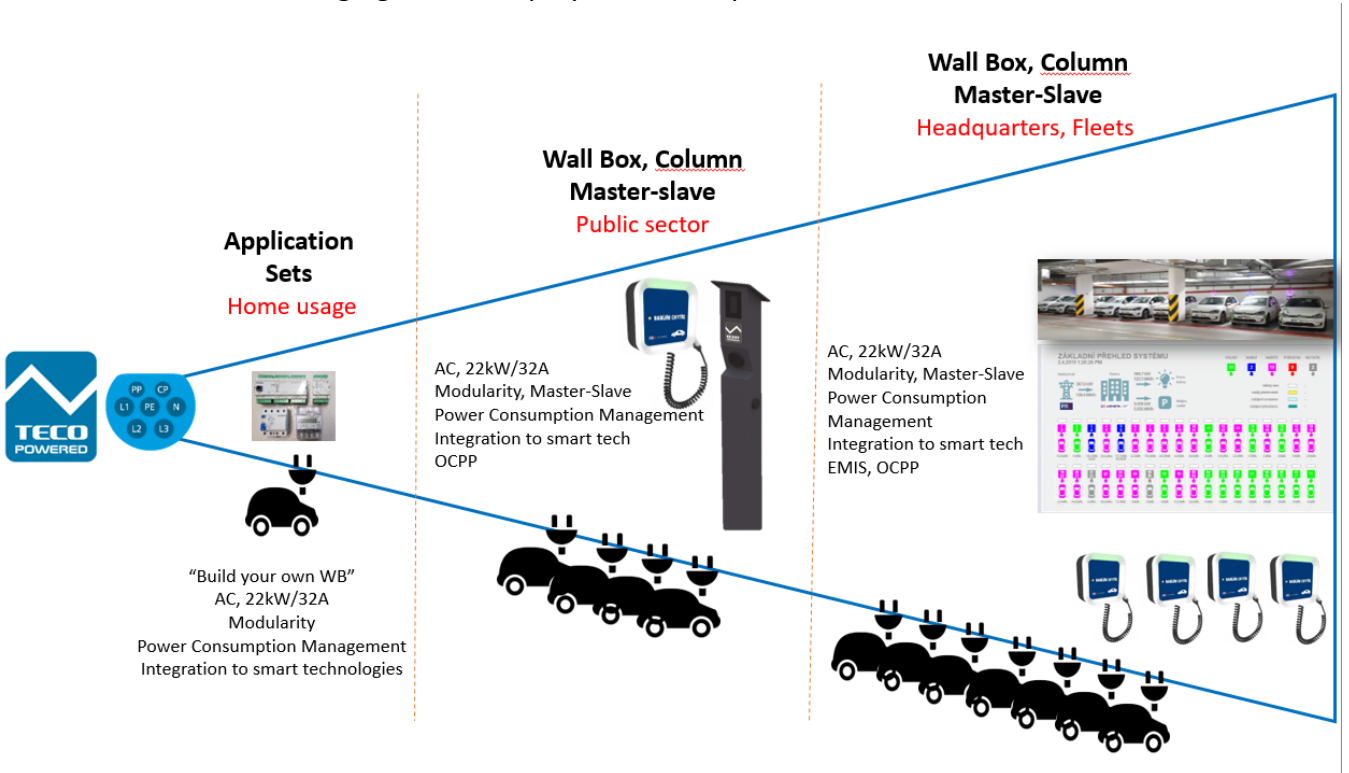


Switchboar



Column

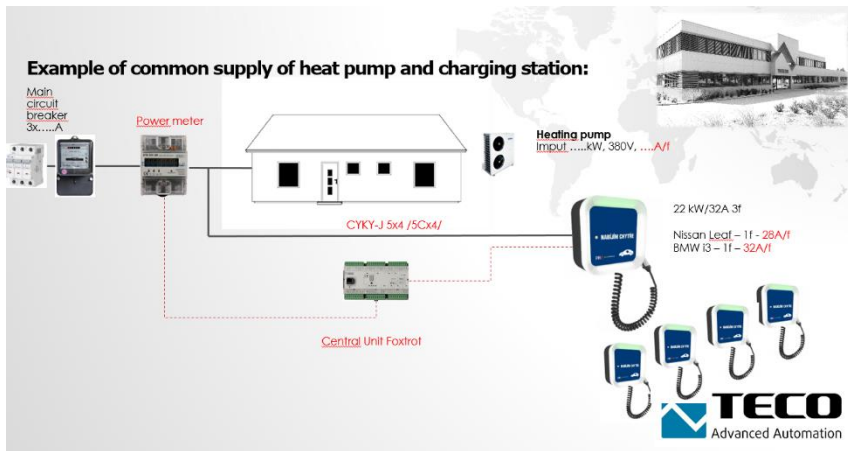
- II. PowerFox charging station deployment examples:



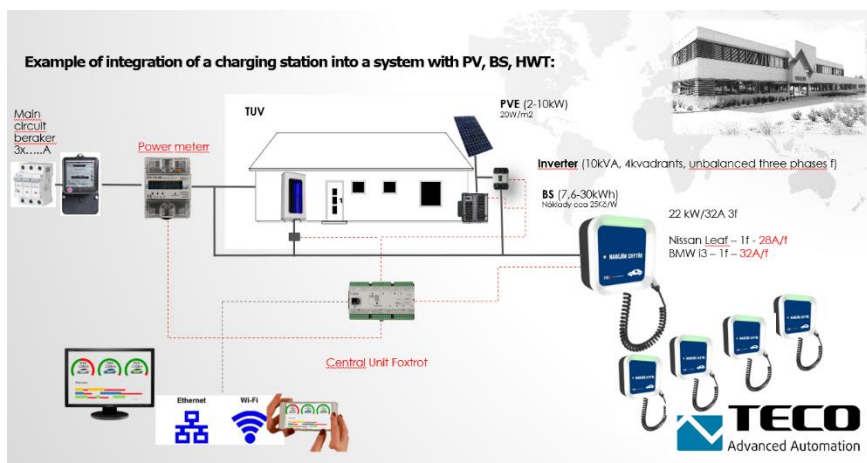
Charge smartly!



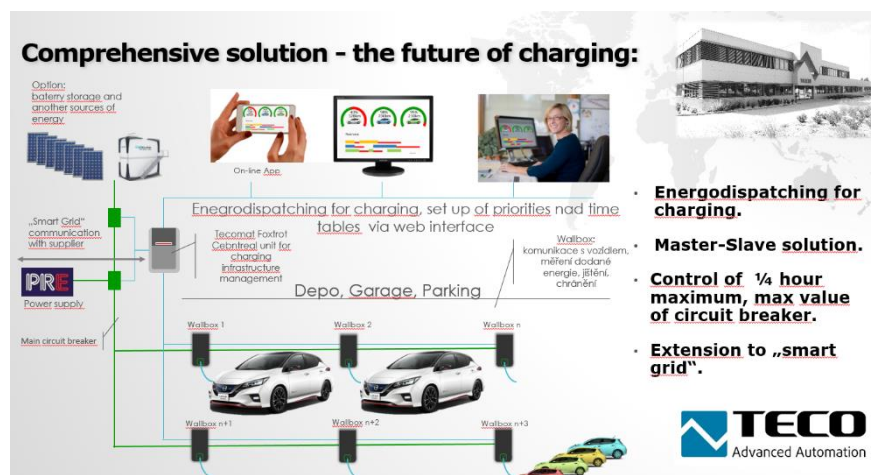
a) Example of common supply of heat pump and charging station



b) Example of integration of a charging station into a system with PV, BS, DHW:

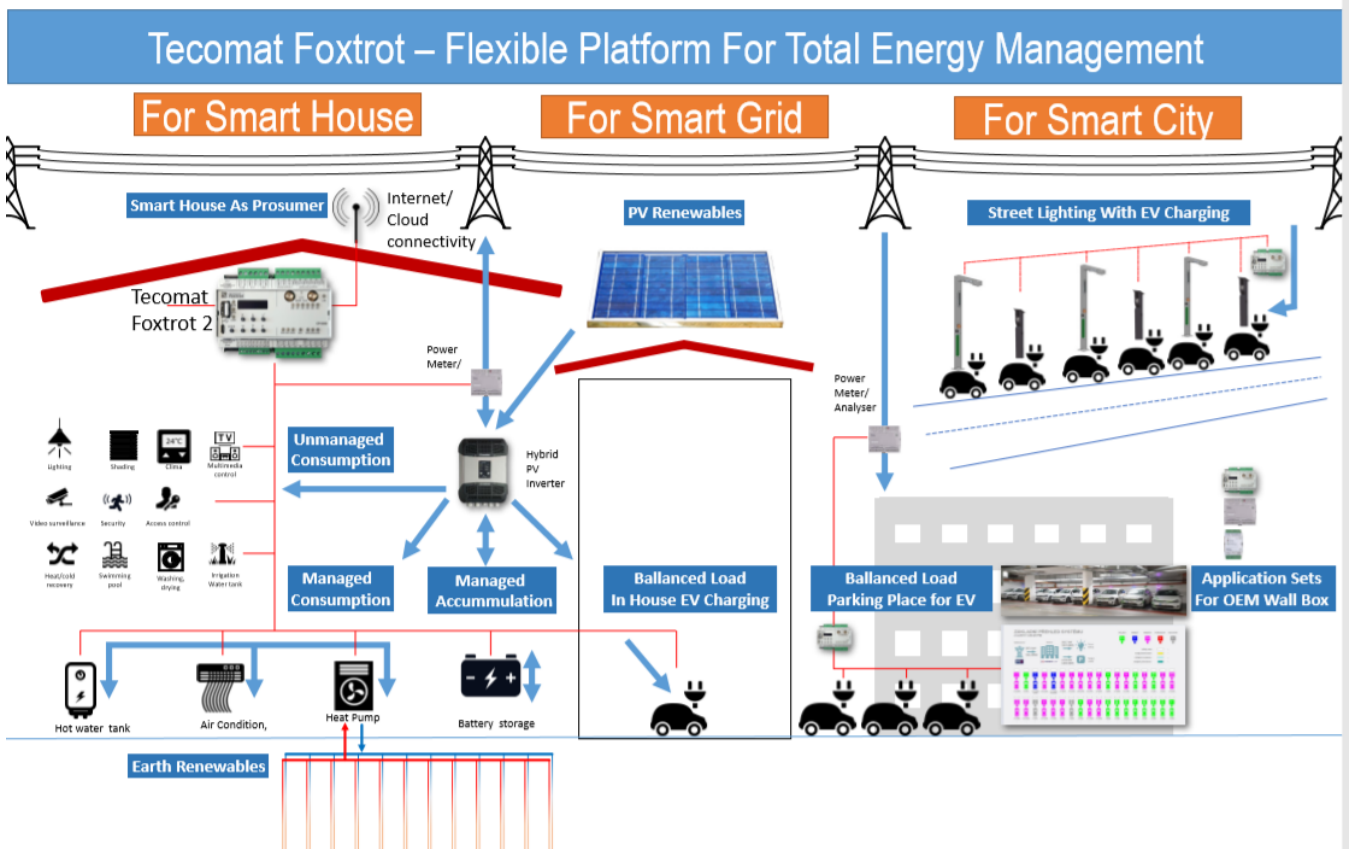


c) Example of charging system for public garages, depots and companies:





III. Example of Foxtrot control unit usage for building automation:



The deployment of the Foxtrot control system in PowerFox charging stations is a step towards the gradual integration of technology control using a one centralized Tecomat Foxtrot system that monitors and controls technology in the home or business, such as:

- Heating and cooling
- Recuperation
- Lighting
- Shielding
- Access system
- Water management (accumulation, irrigation, pool management)
- Multimedia management
- Hotel and conference room management
- Security and video surveillance
- EV charging