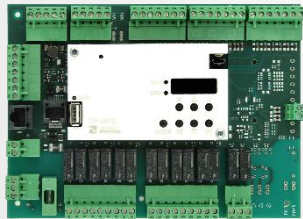




Open Platform Customizable Control System Tecomat Foxtrot for Heat Pumps and HVAC units

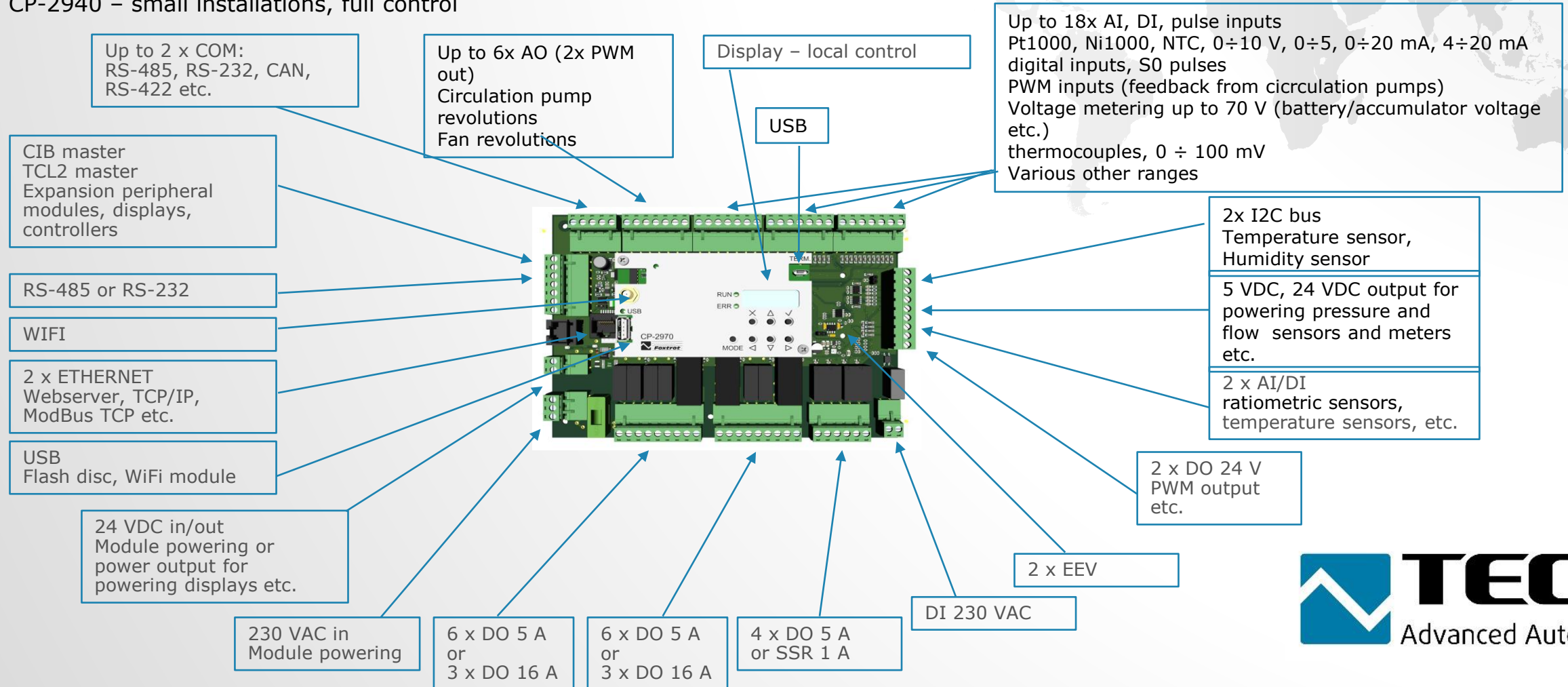


1. Control system for indoor and outdoor unit of Heat Pump and HVAC unit

Full control is created by one homogenous control system in two versions according to the extent of applications:

CP-2970 – large installations, full control

CP-2940 – small installations, full control

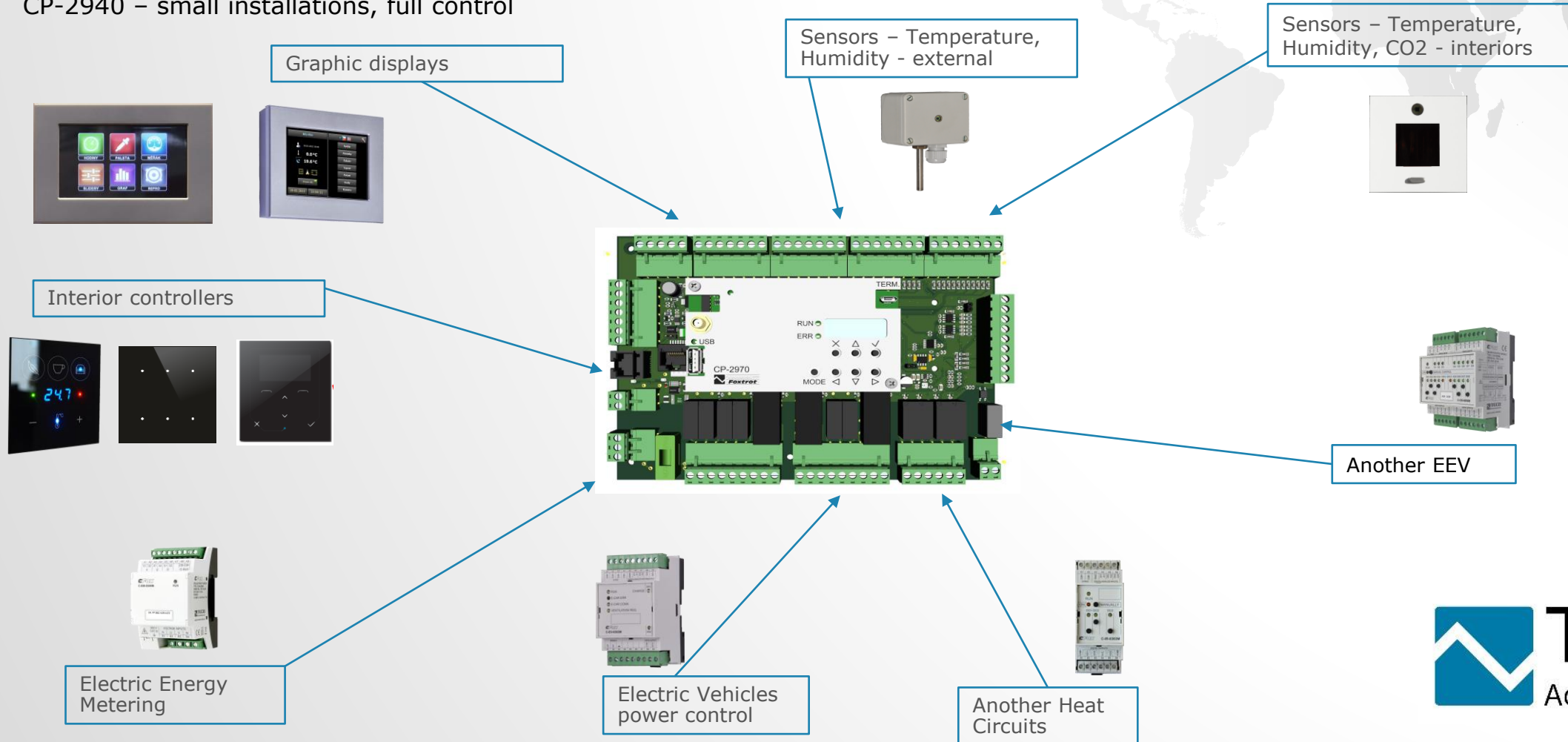


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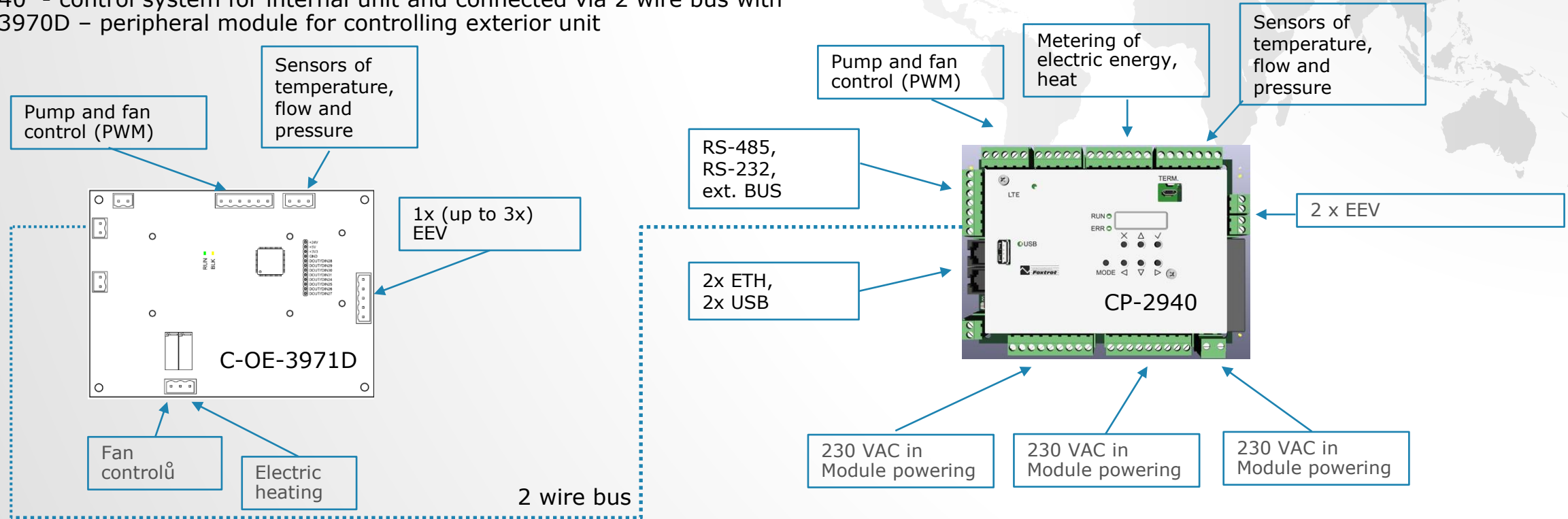
CP-2940 – small installations, full control



2. Control system with independent modules for interior and exterior units

Control system is divided into two parts – first part mounted in internal unit (central module modul CP-294x or CP-297x) and second part connected via installation bus mounted in exterior unit (C-OE-397xD).

CP-2940 - control system for internal unit and connected via 2 wire bus with C-OE-3970D – peripheral module for controlling exterior unit



Both versions of central modules (line CP-2970 and CP-2940) can be expanded with peripheral modules to expand number of inputs and outputs (for instance additional heating circuits), to add control and monitoring of different technologies (integration of photovoltaic power plant control, Electric Vehicles charging etc.) Peripheral modules are available in bus (CIB bus) and wireless (RFox2) versions.

Basic Description

Module CP-2970 is a full Foxtrot control system in building in design for final product. Module in full fitting is equipped by big number of inputs and outputs including special interfaces as the configuration of module can be optimized to final product specification. Specific fitting and equipment is designed according to customers requirements.

Module is created as „open frame“ design, it means in a standard design it is not fitted into any product cover, but is ready to fix on base board in final product by distance fitting pillars.

Features

Module CP-2970 is in the fact PLC control system (Programmable Logic Controller). It is free programmable in Mosaic development tool according to international standards EN 61131. System is based on Linux operation system, what enables to program specific tasks for control of various technologies by „package“ way.

Module enables direct connection of sensors and control of actuators:

- Temperature sensors (water, air, combustion, ...)
- Water and Air Pressure sensors
- Water Flow sensors (pulses, VFS,...)
- Humidity and CO2 sensors
- Electric Energy metering
- Heat Energy metering (calorimeter)
- Smart Grid Ready

- Circulation Pump Revolution control (pumps with EC motors)
- Valves control (water, gas)
- Servo Drive and Valves control (water, air, gas)
- Compressor Revolutions control (Copeland)
- EEV control (internal driver)
- Continuous control of electric preheating power
- Stepper motor control
- DC motor revolution control

Extra features:

- Powering voltage: 230/120 VAC or 24 VDC
- Local graphic display (graphical, OLED)
- Internal WEB server and free programmable graphic interactive web pages
- Internal Datalogger (up to 32 GB)
- Remote management including Firmware and SW upgrade
- Up to 3 serial communication channels

Expansion possibilities:

- 3-Phase electricity meter for maximal input power monitoring or control according to Photovoltaic Power Plant power, both bus and wireless connection
- Continuous control of electric heating (single phase or 3 phase design)
- Wireless temperature sensors (interior or exterior temperature)
- Expansion module for control of up to 3 EVI
- Expansion modules for more heating circuits, pool, etc.
- Integration of control according to Photovoltaic Power Plant output power, including communication with inverter
- Supplementary module for Electric Vehicles charging
- Displays and controllers in range from small controllers (Thermostats) up to Graphical touch displays



Control system Tecomat Foxtrot for Heat Pumps and HVAC units

Benefits – Why to choose Teco control systems:

- 40 years of experience in PLC control systems development
- 100 years of development and manufacturing of electrotechnical devices
- Continuous development of control systems
- Compatibility of generations in very long time period – tens of years
- Expansibility of old generation with new products, modules and features
- Stable long term delivery and technical design guarancy
- Technical and service support at least 10 years
- Repair service at elast 10 years after finishing product life cycle
- Long term price guarancy
- Stable Czech Manufacturer with history located in European Union
- 40 years / 70 countries / 40 thousands of working systems
- Customized design and manufacturing
- Extra warranty

Technical features:

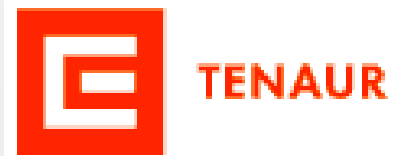
- Modular Open Frame Design Technology
- Full range of central modules and peripherals including all communications
- Stable and long term sustainable platform
- Linux based core
- Remote programming and firmware updating
- Remote online software upload
- Data export to cloud – TecoRoute service, Microsoft Azure, own cloud services possible
- Remote installed systems management
- Open system for easy third party integration
- Comprehensive library of ready to use function blocks and functions for connection of various manufacturers and platforms
- Integrated WEB server with API interface



References:

Heating Pumps, Ventilatio Units, Cooling Technology & Energy

Storage Producers



HEAT PUMPS

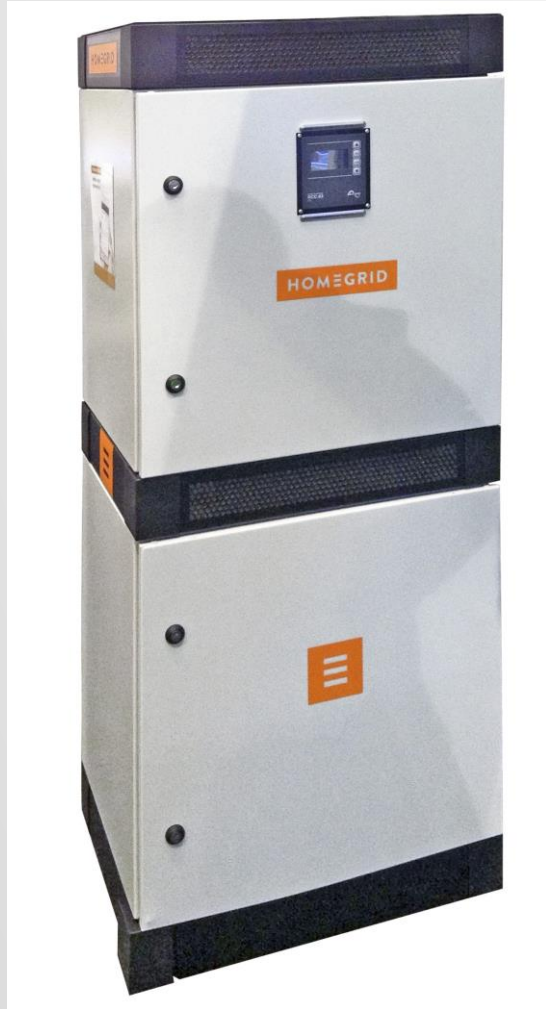


VENTILATION UNITS



COOLING TECHNOLOGY

Samples of products equipped with Foxtrot control system





www.tecomat.com

