



# CAREL retail sistema for CO2 convenience store

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# CONVENIENCE Store

## Break down the CO<sub>2</sub> barriers:

- Handy technology
- Gained knowledge
- Match supply with demand

## Convenience Store

It's a small store that stocks a range of everyday items such as groceries, snack foods, soft drinks and newspapers. With a typical dimension around **80-120 m<sup>2</sup>** and an operational time of **24/7**

## Follow the target:

- From hypermarket to smallest stores
- No frills
- Integration

# C-Store Key Factor

## 1. Integration of

- Refrigeration
- Air Conditioning
- Lighting mng
- Energy mng

## 2. Interaction trough

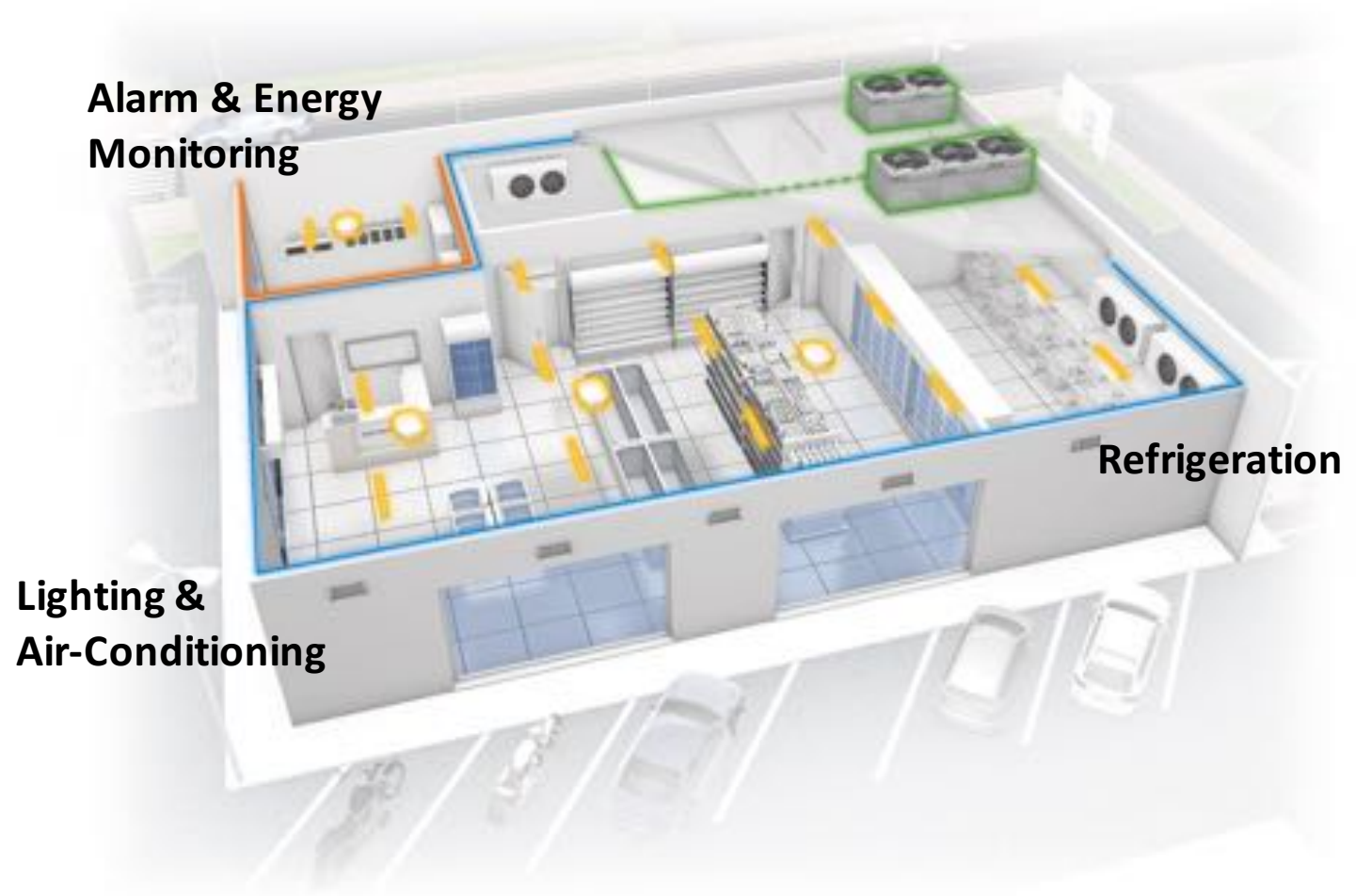
- Shared information
- Possible synergies
- Keep it simple

## 3. Optimization for

- Optimized the performance of the different areas (ref., A/C, lights, etc.)
- Reduce the energy consumptions
- Keep the comfort

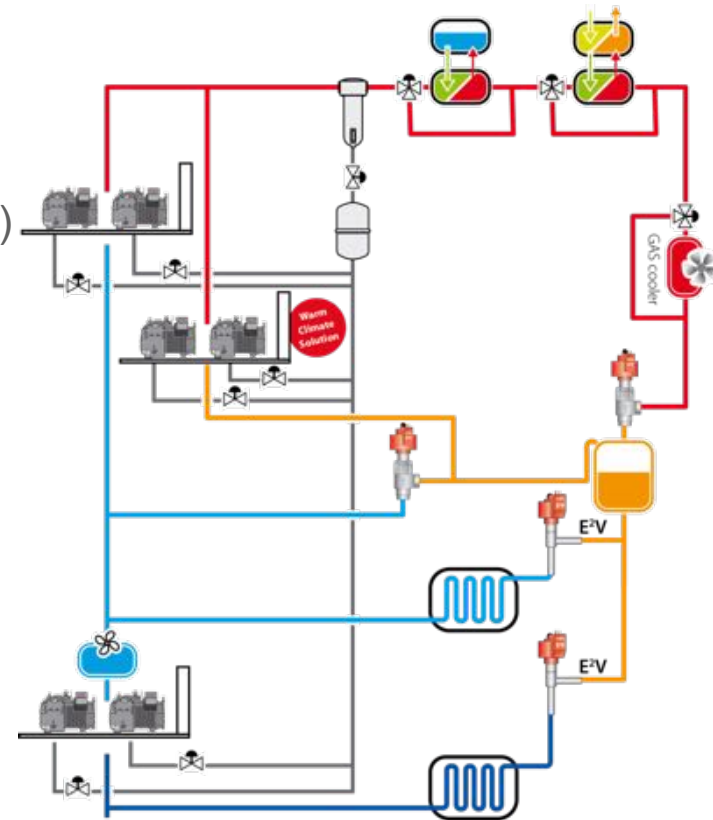


# C-Store from a CAREL point of view



# 3 suctions in 1 controller

- **Compact** solution: just **ONE** board
- High Pressure **Valves** directs management
- **Easy** setup and service
- Graphic display **built-in**
- **DSS** between the **THREE** suction lines
- **Complete** unit management (incl. protections, alarms...)



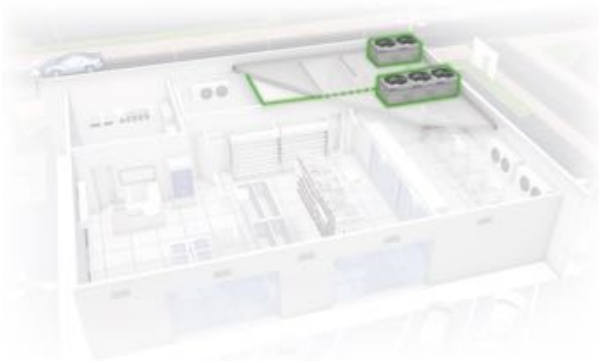
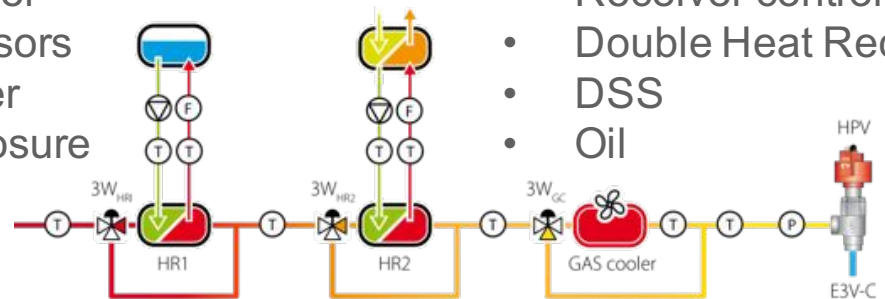
# pR300T for complete rack control



puPro

- High Pressure Valves
- Gas Cooler
- Compressors
- Intercooler
- Safety closure

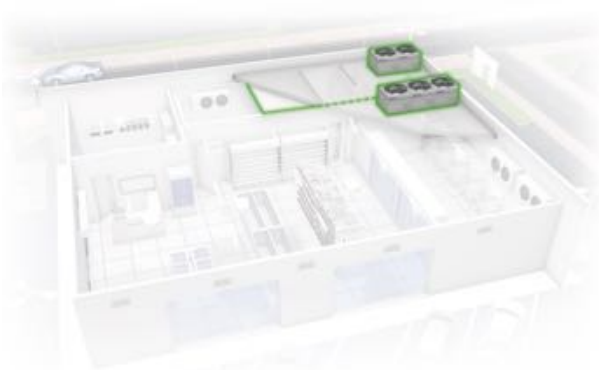
- Parallel Compression
- Receiver control
- Double Heat Recovery
- DSS
- Oil



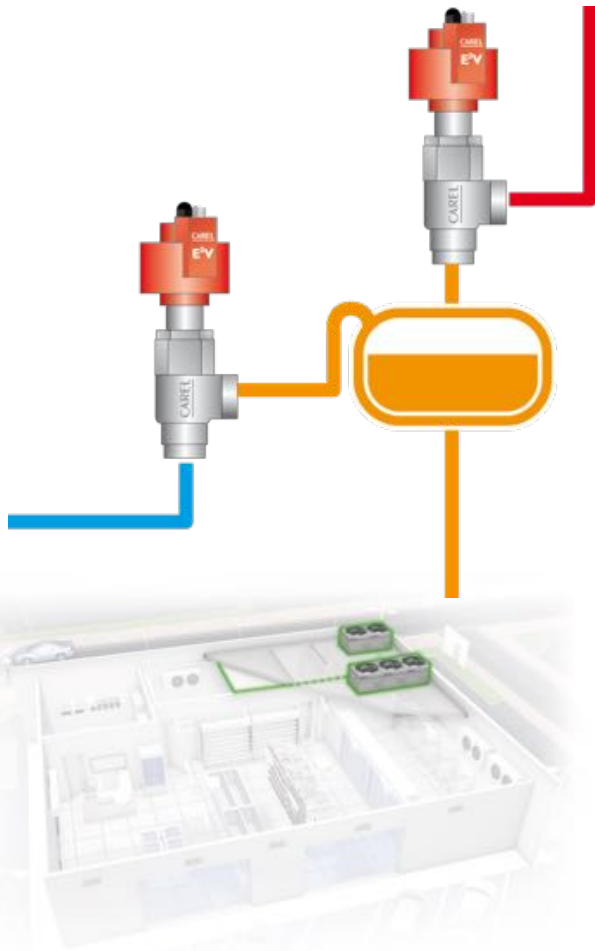
# Solution for mild climate



- **Third Suction** Line integrated for parallel compressor
- **chillBooster**: evaporative cooling system for CO2 gas cooler
- **Subcooler** integration



# E3V-C High Pressure Valve



- Proportional **Stepper** Valve
- Stainless **steel** construction
- Size equivalent to 30÷65
- **140 barg** Maximum Operating Pressure
- 90 bar Max.Op.Press. Differential
- **Demountable** design
- Built-in **filter**
- New **Patent** regulation pin
- Same functions and accessories of the ExV sistema
- Connections 5/8" (30-45) and 7/8" (55-65)
- Up to **250kW** cooling and 100 kW bypass

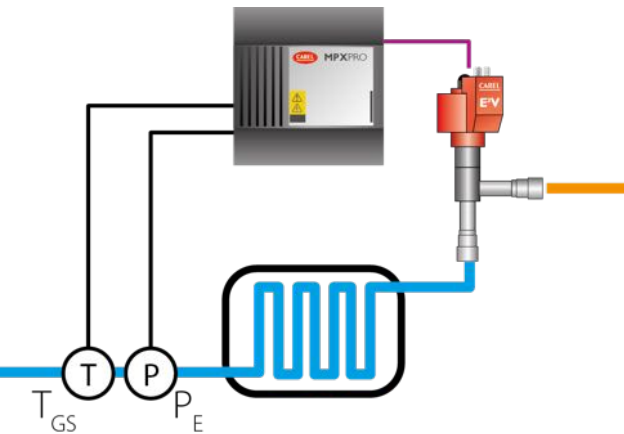




# Showcases and Valves

## MPXPRO

- **Compact** controller for the complete management of single, multiplex showcase and coldroom units
- **Built-in driver** for the ExV with Ultracap technology
- **Wizard** for fast configuration and Remote controller



## E2V

- Proportional Stepper Valve
- Dedicated to CO<sub>2</sub>
- Max Operating Pressure **140 bar (E2V-C)**
- Compact design for an easy fitting into the unit
- Suitable as **ExV** in the evaporators, also as **HPV** and **RPRV** up to 40 KW units

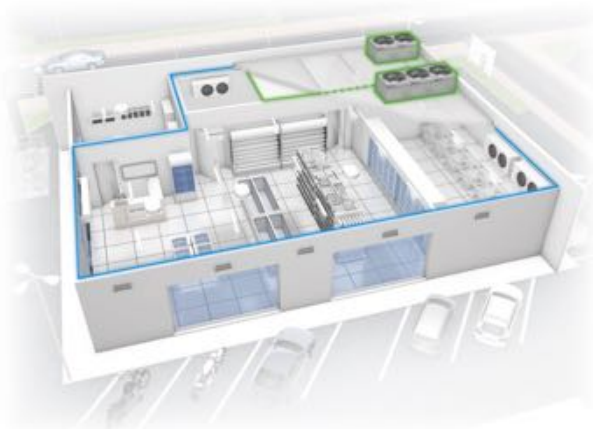


# Ultracap integrated module



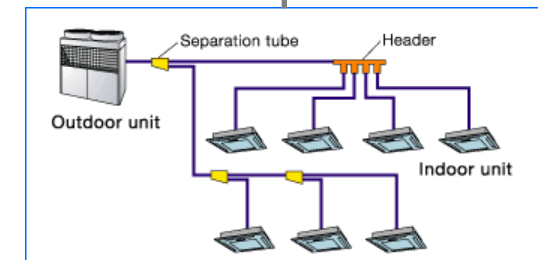
 **built-in driver**  
with Ultracap Tech.

- **Compact** Emergency Power Supply device for Electronic Valves;
- Use **EDLC** Ultracapacitor technology;
- Reliable and Green: **No battery**;
- Designed to give **10 years' trouble-free** operation without periodical checks or replacements;
- Built-in on the **pRACK** and **MPXPRO**.



# Lighting and Air-Conditioning

- Lighting control
- Air Conditioning management
- Generic loads management
- Data monitoring and alarm notification
- Remote monitoring and optimization for High-end analytics



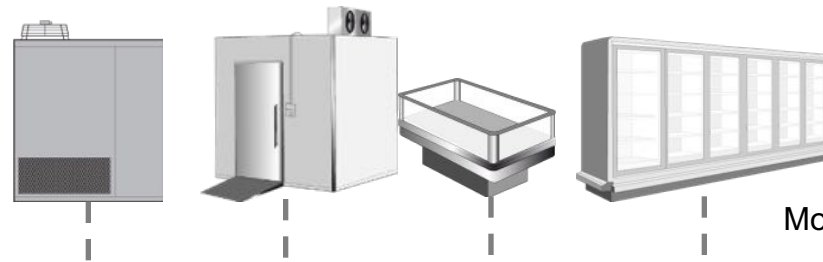
# Monitoring System

## PlantVisorPRO and PlantWatchPRO:

- Compact and simple **wall mounting** monitoring system;
- **Touch** screen 7»-15”;
- Easy and simple Graphs, reports, email sending;
- **WEB** server, accessible from PC or tablet just with an internet browser;
- System **optimization** and Energy Saving;
- Embedded Solution (Rs485, **Digital I/O included**)

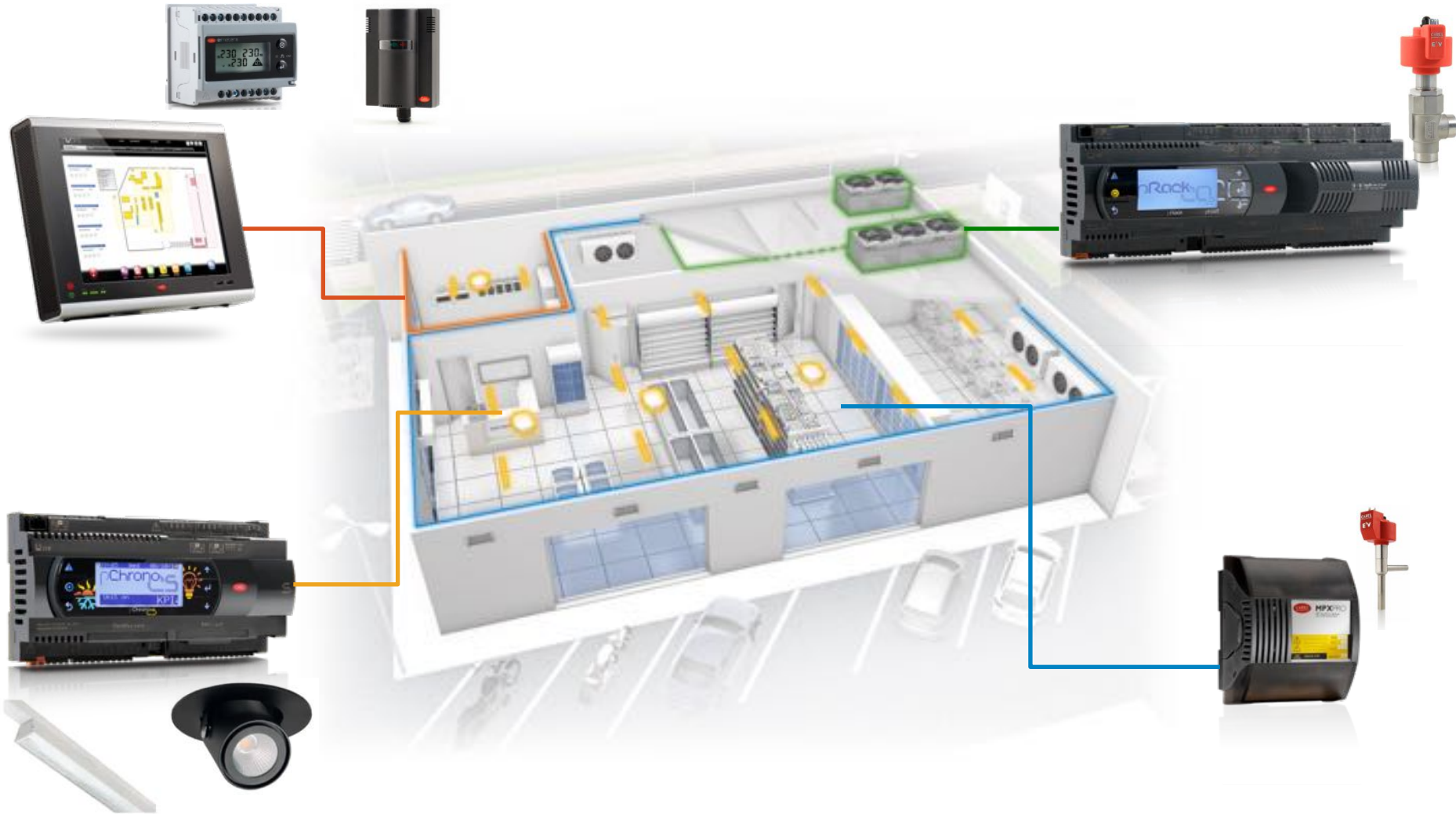


**Touch!**



Modbus/CAREL

# CAREL Total C-Store Solution



High  
Efficiency  
Solutions.

A small white icon depicting a house on the left and a factory on the right, both resting on a simple curved line representing the ground.

# CAREL

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