



Solutions for Convenience Stores
Optimisation and complete management
of small footprint stores

Control solutions for small footprint stores

A complete solution that ensures efficiency and prevents energy and food wastage across thousands of small stores.

- ✓ Energy saving
- ✓ Food quality
- ✓ Opex reduction
- ✓ Low maintenance

- C-Store analytics
- In-store optimisation
- Scalable solutions
- Full product range

This system has been designed to meet the needs of all the different players involved in the application. From the service company, to the franchiser and the retailer. For every professional operator in the

chain, the system offers specific functions that optimise working times and maximise profits, reducing the "hidden" costs of normal manual control by specialist personnel.



Energy saving

Optimisation and monitoring of system performance: specific functions to increase system efficiency and analyse trends in energy consumption.



Responsibility

The lower the energy consumption, the lower the CO₂ emissions; together with CAREL to support environmentally-sustainable energy consumption.

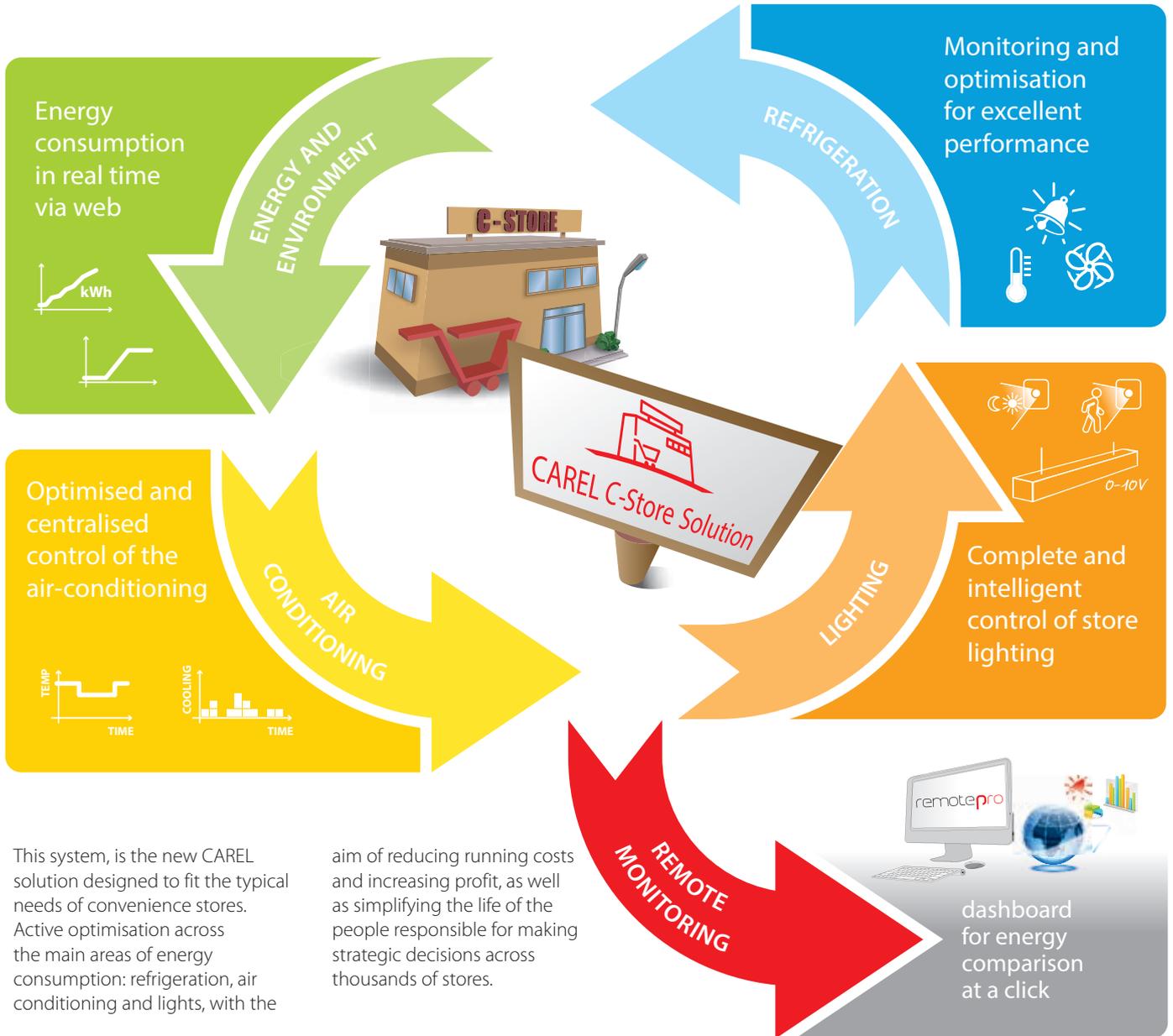


Data analysis

Not just simple data, but rather the information needed to make the right decisions.

Suitable for retrofit or new installations

value proposition based on one single system designed in order to integrate and manage all the data generated by the different areas of the store, providing valuable information in your hands in an easy and fast way.



This system, is the new CAREL solution designed to fit the typical needs of convenience stores. Active optimisation across the main areas of energy consumption: refrigeration, air conditioning and lights, with the

aim of reducing running costs and increasing profit, as well as simplifying the life of the people responsible for making strategic decisions across thousands of stores.



Flexibility

Easy installation and configuration: a solution that can offer simple solutions for many needs.



Integration

One single solution that integrates the complete management of the different areas of the store.



Professionalism

A team at your service to determine the most suitable solution for your needs.

Refrigeration, Air Conditioning, Lights and Energy

Monitoring, Optimisation, Usability and Dashboard are the keywords to best describe this solution.

Energy and Environment

Automatic power consumption readings and monitoring in order to keep energy demand under control and avoid hidden waste. Data are stored for backoffice analysis or for real time control.



Store manager dashboard

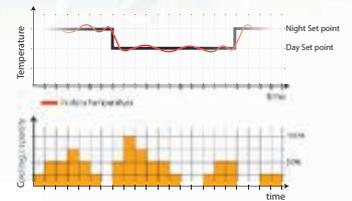
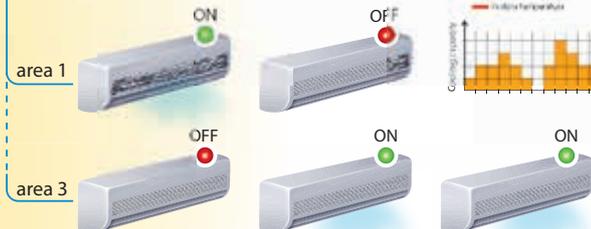


Air Conditioning

Centralised air-conditioning management using:

- Predefined control set-point based on average store temperature;
- Day and Night set point control with set point compensation based on outside temperature;
- Split unit rotation to respect work load and reduce failure;
- Smart logic in order to ensure store comfort in any conditions;
- Remote monitoring and management by simple user interface.

pChronoCS



Room temperature and humidity sensor

Outside temperature and humidity sensor

Optimisation and monitoring

pChronoCS

Compact entry-level optimisation

- Single control for all areas
- Ethernet interface for remote monitoring
- Configuration wizard
- Wireless options

Complete solution with custom electrical panel



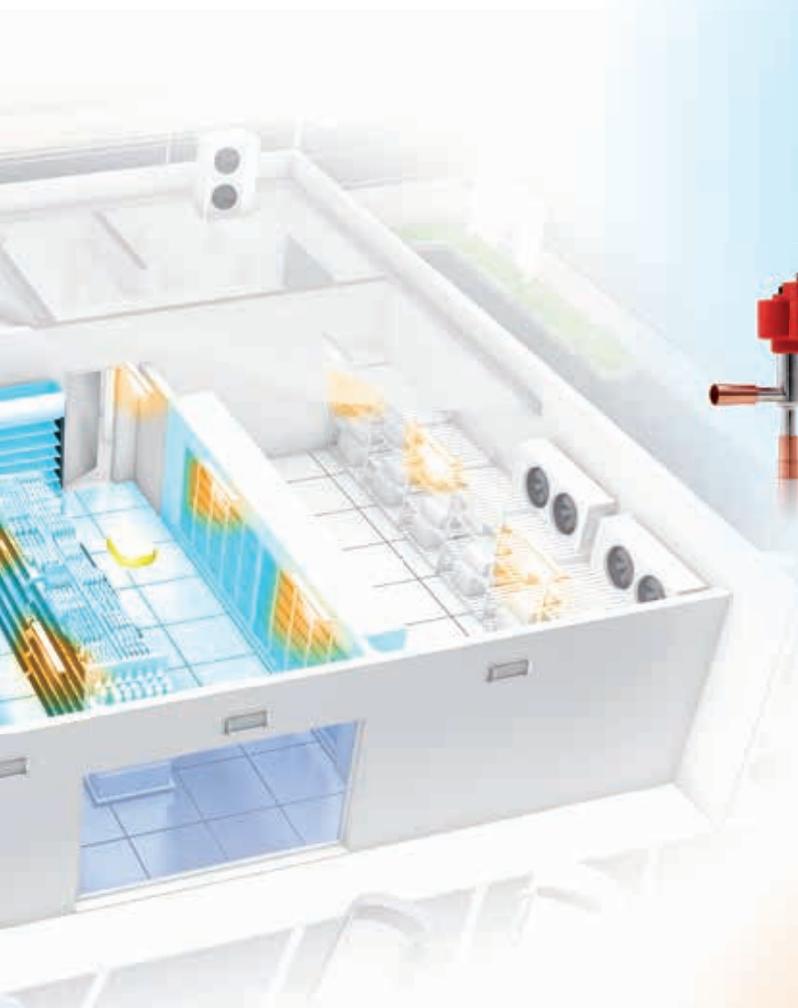
over RS485



pWpro

High-end monitoring

- Directly connect to pChronoCS over RS485
- Alarm notification
- In-store data analysis
- HACCP reports



Refrigeration

Showcase, display cabinet or cold room control in order to avoid food wastage and preserve quality.

- Temperature control;
- Defrost;
- Alarm management;
- Remote monitoring.



Lighting

- Lighting management
- Scheduler combined with calendar;
- Based on outside LUX set point;
- According to occupancy in the area/room;
- Remote monitoring and management.

pChronoCS



area 1

area 10

up to 4



Room motion and brightness sensor



Outside motion and brightness sensor



Access Point



Wireless temperature, humidity and brightness sensor

Enterprise data analysis

The data acquired become useful information for creating the right strategy, optimising monitoring across stores and maximising energy saving.

The efficiency gained can be maintained only with a centralised data analysis system that helps decision makers adopt the right actions.



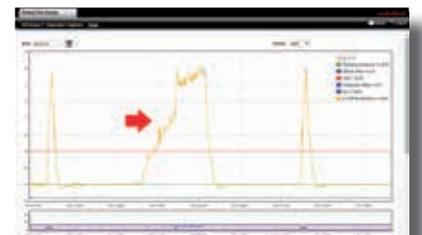
- System optimisation, energy saving and product quality are the main objectives of data centralisation:
- data copied from local to centralised system;
 - interactive graphs to make system troubleshooting faster;
 - different system access profiles;
 - custom reports and compliance with legislative requirements in force;
 - statistics on cabinet temperature behaviour;
 - documents and notes relating to the system can be shared;
 - continuous control of correct system operation via sign-of-life;
 - centralised management of units via local supervisors.



Maintenance performance



Temperature compliance



Remote maintenance and troubleshooting



Maintenance optimisation

- Avoid unnecessary costs
- Manage all stores with one single solution



Food quality

- Centralised food temperature reports
- Store data for more than one year



Analysis

- Raw data into readable information
- Identify situations that may cause cost increases.



Energy dashboard

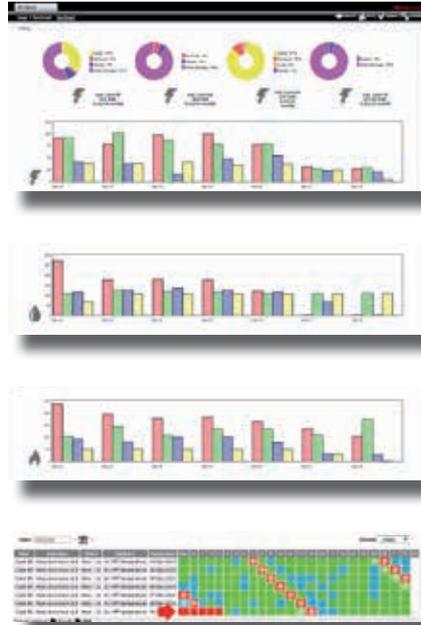
- Compare stores to highlight worst cases
- Focus investments on critical areas.

Energy consumption analysis

With RemotePRO, data on energy, lighting power and gas consumption in all configured stores are readily available. Comparisons can then be made between systems/stores, or the same store over different periods, so as to compare energy consumption statistically. RemotePRO is a tool that helps customers easily identify where to take any action needed to optimise energy consumption.



Energy management



Scheduled reports

RemotePRO can be used to generate, in PDF format, automatic and scheduled transmission of energy consumption reports via email. The reports generated, including specific HACCP reports, provide immediate feedback on abnormal or unexpected energy consumption by one or more systems. The reports can be customised and sent to the recipients based on their specific needs.



Your store at a glance

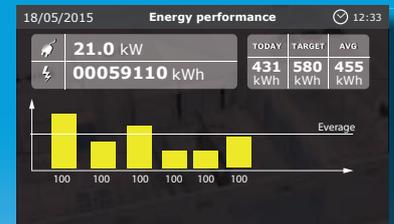
Wherever you are, with a simple Internet connection from your PC or smartphone/tablet, your store is under control at all times.



Store situation at a glance



Refrigeration cabinets under control



Detailed energy consumption data



CAREL products for convenience stores



1 pChronoCS

The brains of the system in terms of efficiency management for Air Conditioning, Lights and Energy. "Avoid driving by feel" thanks to active control of the store. Maximise energy savings.

2 Store manager dashboard

7" touchscreen user friendly interface to monitor critical system situations; data shown for up to 7 days and overview of the main defined energy consuming areas.

3 Metering

Energy meter measures consumption behaviour of the connected loads. Power consumption data are saved for complete and detailed analysis, allowing operators to identify when and where consumption occurs, any inadequate behaviour and incorrect use, faults and abnormal consumption, and evaluate the effects of the energy saving actions implemented.

4 Refrigeration controllers

A full range of products for catering refrigeration control, display cabinets, showcases and cold room. Designed based on feedback 'from the field', with an elegant and modern design.

5 Sensors

A wide range of sensors, including wireless models, for monitoring temperature, humidity, pressure, CO₂, etc. Combined motion and brightness sensors interact with pChronoCS in order to optimise the use of lighting, combining artificial lights with natural daylight.

6 RemotePRO

The enterprise software system that can centralise data from thousands of stores. It provides a built-in dashboard suite in order to ensure the sustainability of each single store in terms of performance and efficiency, helping the people in charge make strategic decisions.

7 pwpro

PlantWatchPRO now has a new design, to better respond to the needs of small-medium systems. The new hardware allows different users, such as installers, maintenance personnel and store managers, to check and optimise their air-conditioning, lights, energy and refrigeration systems in a simple and intuitive way.

Headquarters ITALY

CAREL INDUSTRIES HQs
Via dell'Industria, 11
35020 Brugine - Padova (Italy)
Tel. (+39) 0499 716611
Fax (+39) 0499 716600
carel@carel.com

Sales organization

CAREL Asia - www.carel.com
CAREL Australia - www.carel.com.au
CAREL China - www.carel-china.com
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