



**COPELAND**

## The New Cool

# How the Copeland XC Pro System Controller Increases Safety and Efficiency in CO<sub>2</sub> Refrigeration



With its groundbreaking scroll compressors that use dynamic vapor injection technology (DVI), Copeland is reinventing CO<sub>2</sub> refrigeration. The combination of DVI and the natural refrigerant CO<sub>2</sub> not only leads to significant energy efficiency and provides sustainability benefits; it also brings tangible operational advantages. Thanks to the simplified system architecture managed by a suite of advanced electronics, retailers can focus on their day-to-day business – and can rest assured

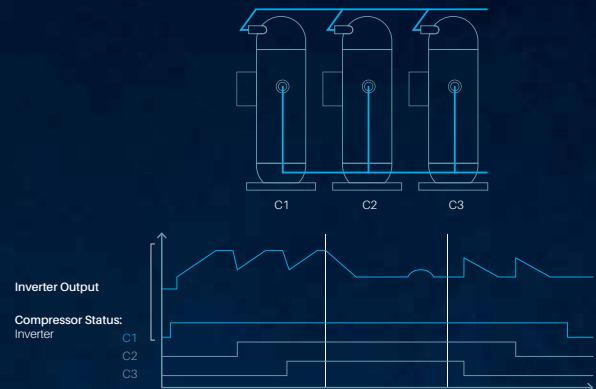
that maximum reliability and peace of mind is taken care of by the XC Pro controller.

Optimized for trouble-free operation, the XC Pro controller ensures that the CO<sub>2</sub> refrigeration system is always running safely and economically by continuously monitoring and adjusting the operational parameters of the system components. The XC Pro is applied in both Copeland CO<sub>2</sub> scroll solutions for booster systems and refrigeration units.

# Key Operational Challenges Overcome with the XC Pro System Controller

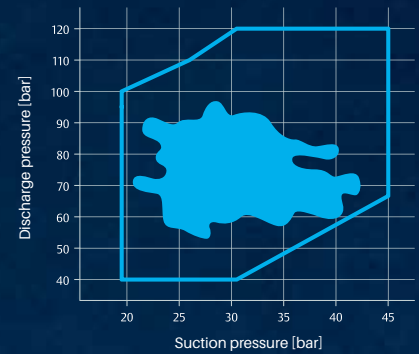
## Cooling demand variations mastered

The XC Pro's dynamic compressor envelope management guarantees safe operation at all cooling loads and ambient conditions. It ensures long-term system integrity by allowing for dynamic envelope modifications. This enables the compressors to be used throughout their entire operating ranges without limiting system performance.



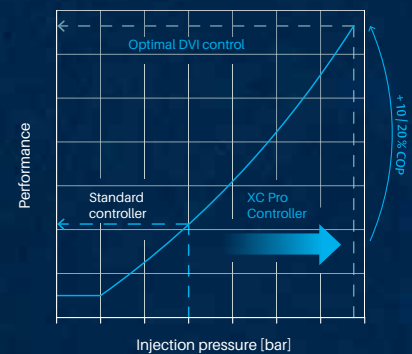
## Safe operation ensured

Within the system architecture designed for robustness and reliability, the XC Pro controller ensures that critical components always operate within their safety ranges. For example, both the dynamic control of flash tank pressure and the synchronized bypass valve control contribute substantially to safe and reliable operation. Even in the event of a power failure, a backup battery and ability to restart in safe mode allow the refrigeration system to be put back into operation quickly and safely.



## Maximum efficiency assured

By ensuring the highest system performance, the XC Pro controller also provides for particularly efficient use of energy in all ambient conditions. It exploits the potential offered by the simplified system architecture without parallel compression and expands it through the option of heat recovery, providing the ability to supply the energy required for commercial or domestic hot water heating.



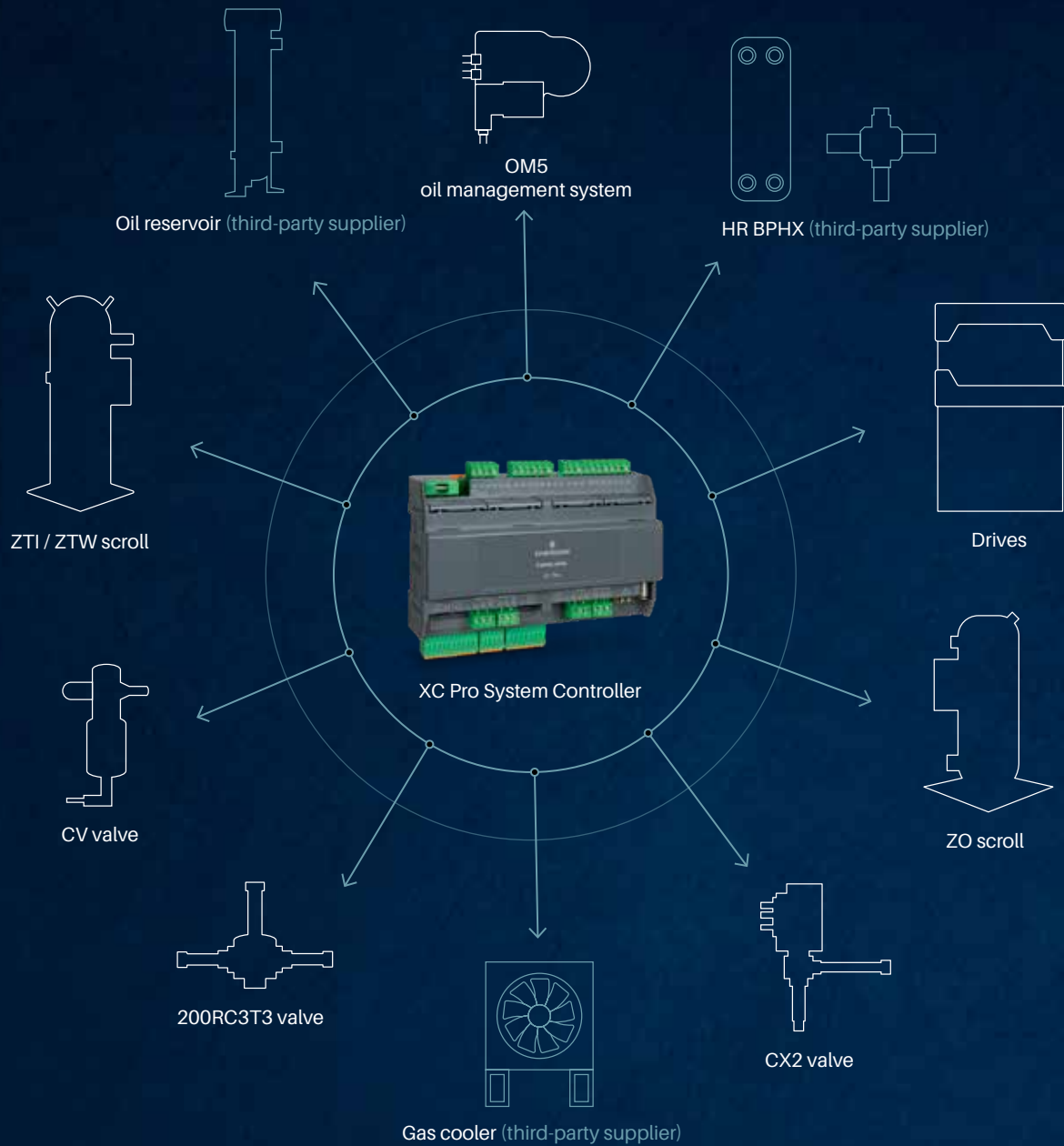
## Usability vastly improved

The XC Pro controller is complemented by an intuitive user interface. Its clear and concise information display not only provides a quick and easy-to-understand status overview, but also facilitates both maintenance tasks and troubleshooting operations, resulting in less effort for installers and reduced costs for retailers.



# Copeland XC Pro System Controller

## For Optimized CO<sub>2</sub> Scroll Performance and Reliable System Operation



For more details, see [copeland.com/TheNewCool](https://copeland.com/TheNewCool)

**Copeland Climate Technologies Limited**

Unit 17, Theale Lakes Business Park - Reading, Berkshire RG7 4GB

Tel: +44 1189 83 80 00 - Fax: +44 1189 83 80 01 - Email: [uk.sales@copeland.com](mailto:uk.sales@copeland.com) - Internet: [copeland.com/en-gb](https://copeland.com/en-gb)

The Copeland logo is a trademark and service mark of Copeland LP or one of its affiliates. Copeland Europe GmbH shall not be liable for errors in the stated capacities, dimensions, etc., as well as typographic errors. Products, specifications, assumptions, designs and technical data contained in this document are subject to modification by us without prior notice. Illustrations are not binding.

©2023 Copeland LP. All rights reserved.