

Innovative control solutions for Industrial Refrigeration

Digitalization, climate change, and urbanization are reshaping industrial refrigeration—demanding smarter, more efficient, and future-ready systems.

Discover how Danfoss' Cool Ctrl portfolio of components and services delivers industry-leading electronic regulation and control solutions to power the reliable, efficient, and safe systems of tomorrow.

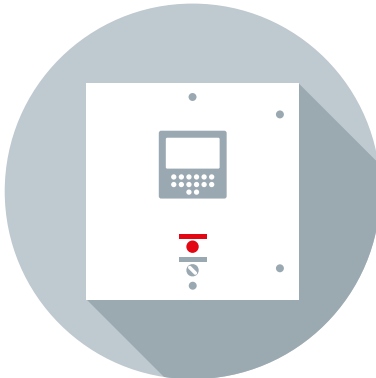
> **START HERE**

coolctrl.danfoss.us

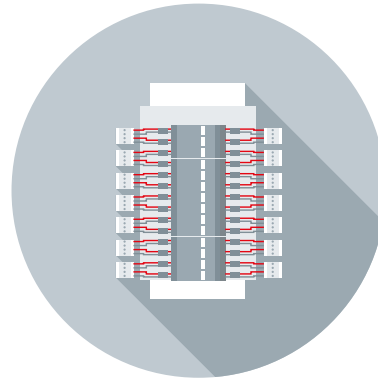


Index

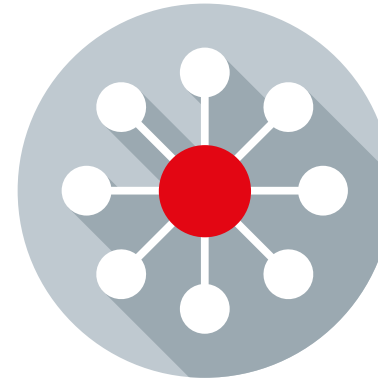
Navigate through this eBook by
clicking on the different tabs and menu icons.



About us



Our products



Solutions overview



Contact us



About us



Our products



Solutions overview



Contact us

The largest **Industrial Refrigeration** specialists in North America

The Danfoss Cool Ctrl team is headquartered in Waynesboro, PA, led by experts who have worked in custom-designed regulation and control automation solutions for the industrial refrigeration industry since 2003. Our research and development, engineering, and manufacturing operations are conducted in a cutting-edge facility, ensuring the highest standards of innovation and quality.

Together, we are driven by a combined 250 years of deep application knowledge and experience across all refrigeration components. And our comprehensive expertise enables us to develop, implement, and support your unique refrigeration control system—to your unique standards.

Systems

NH₃

Ammonia

CO₂

Carbon Dioxide

Hydro-carbons

CFCs and HCFCs



Services

- Custom products and software
- Onsite commissioning
- Remote plant assistance
- Digital support tools

Portfolio

- Power products
- Programmable Logic Controller products (PLC)
- Embedded Microprocessor Controller products (EMC)



About us



Our products



Solutions overview



Contact us

We offer **industry-leading expertise and tailored solutions**



One-on-one expert consultancy from concept to installation

Our industrial refrigeration experts offer consultancy services based on years of frontline experience developing and implementing systems in processing facilities, cold storage rooms, and custom OEM applications.



On-site commissioning and in-depth training

We assign a dedicated and experienced Project Engineer to collaborate with on-site contractors throughout the entire commissioning process—plus, in-person and remote training is available with complete flexibility when needed.



Giving legacy control systems an automation edge

Retrofit legacy control systems with new supervisory control systems quickly and with less invasive modifications thanks to Danfoss' extensive software library—and the support of our experts each step of the way.



About us



Our products



Solutions overview



Contact us

A comprehensive portfolio you can trust

Danfoss' Cool Ctrl portfolio of components and services is for virtually any industrial refrigeration system—providing all-in-one solutions tailored to your specific application needs.

We are dedicated to providing you with solutions of the highest standard, from start to finish.



**Power
Products**



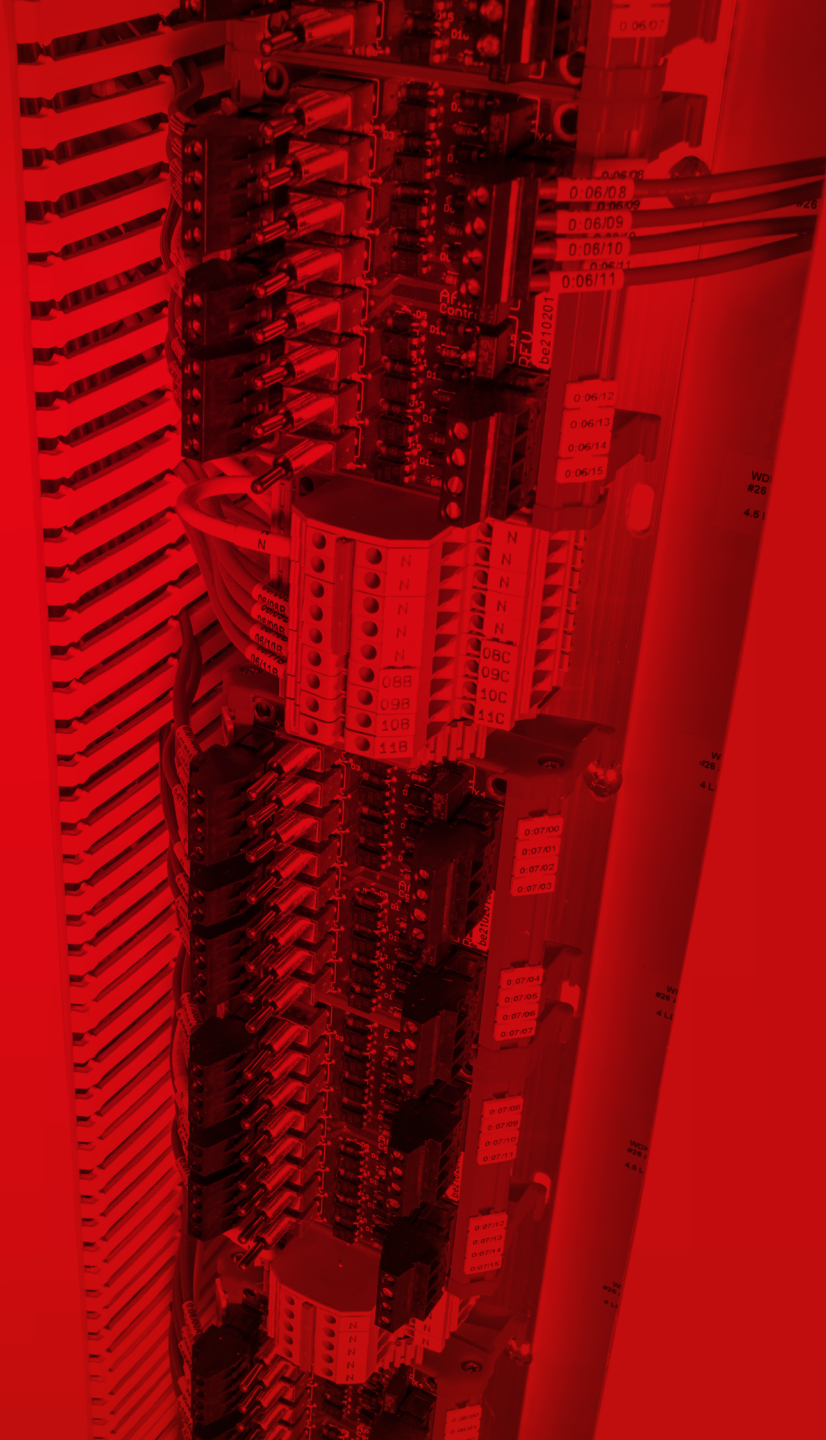
**PLC
Controls**



**Embedded
Microprocessor
Controls**



**Supervisory
Control
Systems**



Products

Power Products

Get a cost-effective, all-in-one solution with motor control, variable frequency drives (VFDs), or soft starters for compressors, condensers, vessel-pump arrangements, and evaporators engineered to your specific application demands—ensuring that the optimal environmental, control functionality, and safety requirements are met.

Furthermore, our VFD control cabinets are programmed and tested for the specific application prior to shipment, reducing start-up time and cost.

- ✓ UL508A, cUL, CSA, and CE compliant
- ✓ Get compressor VFDs and soft starters for new and retrofit applications
- ✓ Packaged with system controls and valves for a single cost-efficient solution



Power
Products



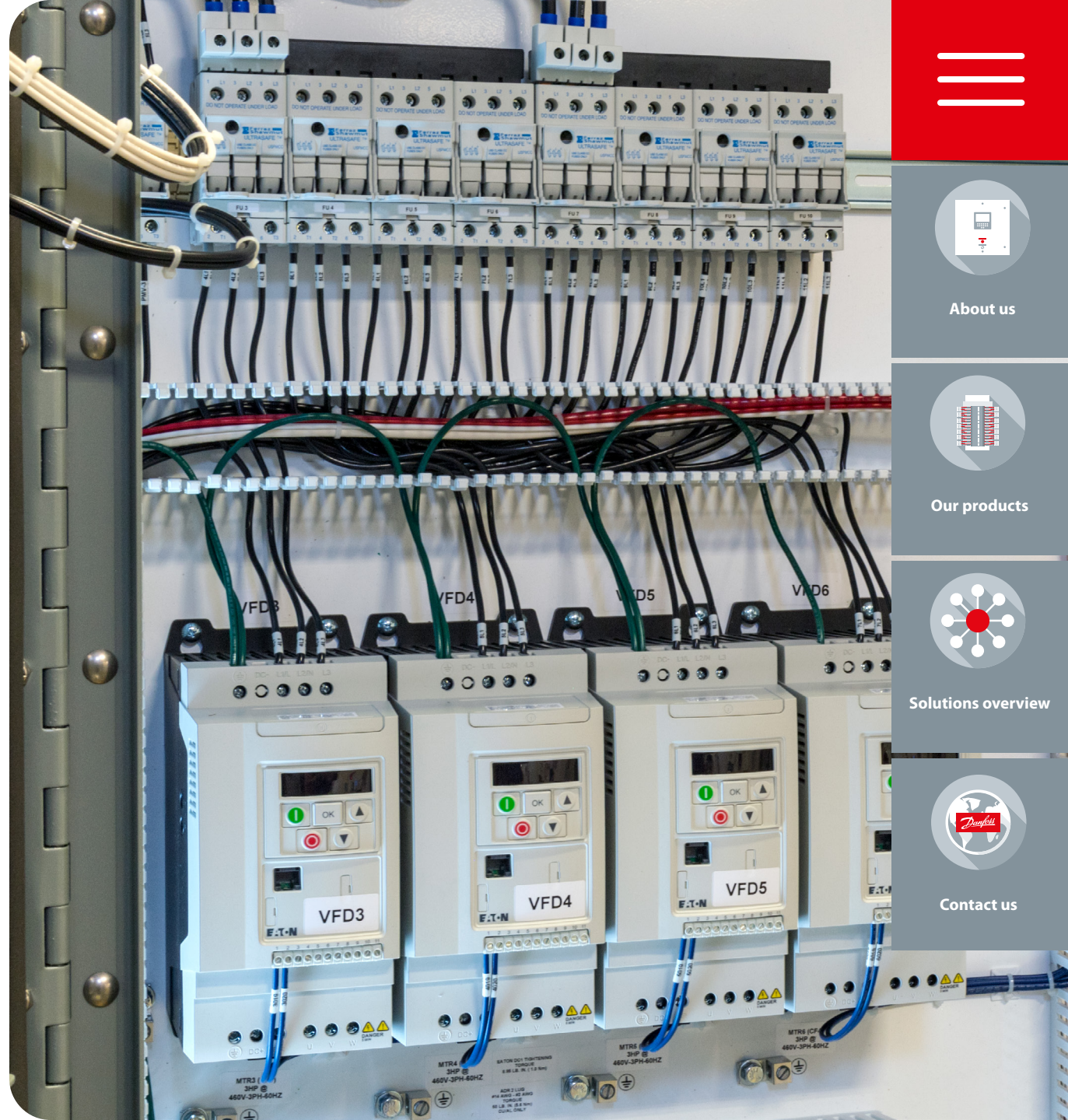
PLC
Controls



Embedded
Microprocessor
Controls



Supervisory
Control
Systems



About us



Our products



Solutions overview



Contact us

Products

PLC Controls

Industry-leading experience combined with innovative technology enables us to design effective systems tailored to individual application needs. Our wide range of customized PLC control systems use intelligent modulation to optimize plant operations—reducing energy consumption and operating costs while ensuring maximum safety.

- ✓ Control systems are built around IIR safety standards
- ✓ UL508A, cUL, CSA, and CE compliant
- ✓ Compressors are staged to reduce downtime and increase efficiency
- ✓ Intelligent energy management for reduced energy consumption
- ✓ One-on-one consultancy to design convenient, efficient systems
- ✓ Online tools for installation and ongoing training



Power
Products



PLC
Controls



Embedded
Microprocessor
Controls



Supervisory
Control
Systems



About us



Our products



Solutions overview



Contact us

Products

Embedded Microprocessor Controls (EMC)

Embedded microprocessor controls are reliable, cost-effective solutions for OEM applications. With a proven track record providing the most OEM control products in the industry, Danfoss' Cool Ctrl portfolio offers complete EMC solutions from concept to production—guided by our technical expertise and long-term support.

- ✓ UL508A, cUL, CSA, and CE compliant
- ✓ Cost-effective, turn-key solutions
- ✓ Secured proprietary algorithms
- ✓ Technical support and application expertise



Power
Products



PLC
Controls



Embedded
Microprocessor
Controls



Supervisory
Control
Systems



About us



Our products



Solutions overview



Contact us

Products

Supervisory Control Systems

Supervisory control systems automate industrial refrigeration facilities 24/7—relieving the demand for personnel while providing instant monitoring and remote alerts in case of an alarm or failure.

Our supervisory control systems support legacy control retrofitting with a comprehensive software library for connecting to older screw compressor, vessel, condenser, and evaporator controllers—eliminating the need for costly component replacement and rewiring.

- ✓ UL508A, cUL, CSA, and CE compliant
- ✓ Commissioning and long-term technical support, on-site and remotely
- ✓ Seamless integration of legacy control systems with comprehensive software library and expert training and support



Power
Products



PLC
Controls



Embedded
Microprocessor
Controls



Supervisory
Control
Systems



About us



Our products



Solutions overview



Contact us

Danfoss Cool Ctrl

for Industrial Refrigeration

Danfoss' Cool Ctrl portfolio of electronic regulation and control automation solutions for virtually any industrial refrigeration system – tailored to your specific application need. Plus, we offer both distributed control panels based on PLCs or microprocessors and central logic controllers in the main PLC for all subsystems with the exception of the compressor.

See how our solutions are central to the reliable, efficient, and safe cooling systems of tomorrow.



ENGINE ROOM

Vessel/Separator

Danfoss Cool Ctrl central logic controls seamlessly integrate with any vessel manufacturer microprocessor panel – including most legacy panels – to produce significant time- and cost-saving benefits.

- Easy-to-read liquid level indication
- Easy-to-use interface for quick parameter configuration
- Flexible design integrates with or without a central PLC system

Compressor

The Danfoss Cool Ctrl PLC system communications software driver modules are compatible with most, if not all, manufacturer's screw microprocessor control panels – including legacy panels.

- Seamless PLC integration with legacy panels saves cost and time
- Optimized utilization of compressors
- Reduced energy consumption
- Flexible configuration



CONTROL ROOM/PLC

Supervisory system

Danfoss Cool Ctrl supervisory control systems automate industrial refrigeration facilities 24/7. Equipped with Allen Bradley PLCs, our systems are designed to your unique needs with features such as remote system access, alarm notification, historical data trending, energy management, and power monitoring.

- Automation reduces the risk of human error
- Reduced demand for personnel on site



ROOFTOP

Condenser

Danfoss Cool Ctrl offers standalone PLC, microprocessor control panels, and central logic controls for various condenser types (evaporative, air-cooled, fluid coolers, and cooling tower) and control types (fans, water pumps, water sump level, water sump heat, wet bulb control, summer/winter control, etc.).

- Seamless PLC integration with legacy panels saving cost and time
- Remote access to condenser microprocessor data
- Remote condenser adjustment



POWER ROOM

Motor control

Our comprehensive portfolio includes soft starters, VFDs, and VFD/ATL combination starter panels that are precisely configured to your specific application requirements for increased reliability and safety.

- VFD control cabinets are programmed and tested prior to shipment
- UL508A, cUL, CSA, and CE compliant
- Cost-efficient solutions for an entire system

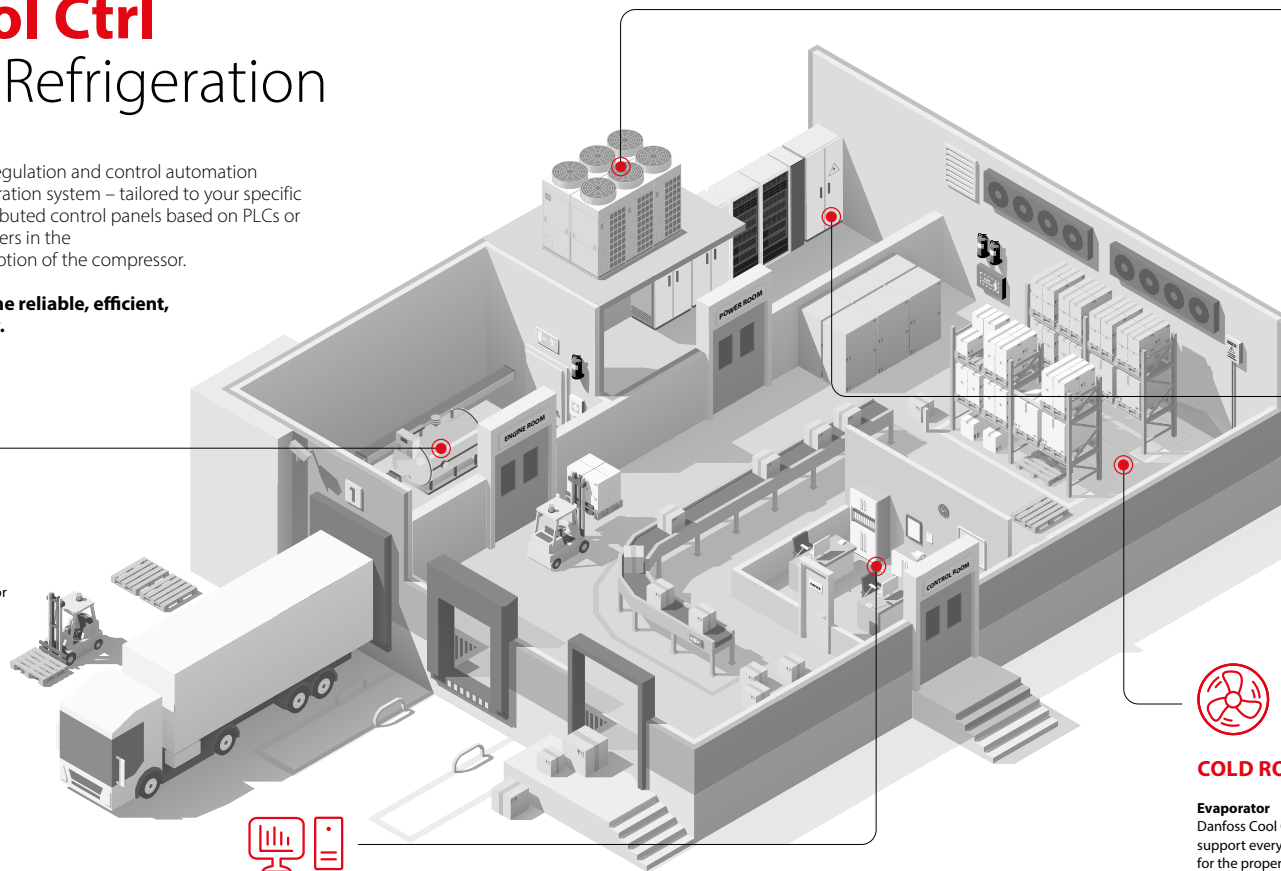


COLD ROOM/FREEZER

Evaporator

Danfoss Cool Ctrl standalone PLC and microprocessor controllers support every evaporator configuration – controlling fans and valves for the proper operation and defrosting of evaporators.

- Seamless PLC integration with legacy panels saving cost and time
- Remote access to all evaporator microprocessor data
- Remote evaporator adjustment



About us



Our products



Solutions overview



Contact us



Contact us

Our team of industrial refrigeration experts is ready to help you design the best solution for your specific application—every step of the way. Ready to learn more?

Email us: coolctrl@danfoss.com

Call us: +1 717 765 9100

Danfoss Waynesboro

11885 Mutual Drive
Waynesboro, PA 17268

Any information, including, but not limited to information on selection of product, its application or use, product design, weight, dimensions, capacity or any other technical data in product manuals, catalogues descriptions, advertisements, etc. and whether made available in writing, orally, electronically, online or via download, shall be considered informative, and is only binding if and to the extent, explicit reference is made in a quotation or order confirmation. Danfoss cannot accept any responsibility for possible errors in catalogues, brochures, videos and other material. Danfoss reserves the right to alter its products without notice. This also applies to products ordered but not delivered provided that such alterations can be made without changes to form, fit or function of the product. All trademarks in this material are property of Danfoss A/S or Danfoss group companies. Danfoss and the Danfoss logo are trademarks of Danfoss A/S. All rights reserved.