



ENGINEERING
TOMORROW



eBook | Danfoss AAIM Controls

Innovative control solutions for Industrial Refrigeration

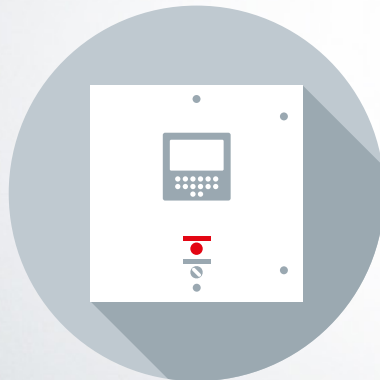
Digitalization, climate change, and urbanization are driving the rapid evolution of industrial refrigeration—placing greater demands on systems for optimization, efficiency, and future-proof performance. Learn how Danfoss AAIM Controls provides you with an industry-leading portfolio of electronic regulation and control automation solutions that are central to the reliable, efficient, and safe industrial refrigeration systems of tomorrow.

> **START HERE**

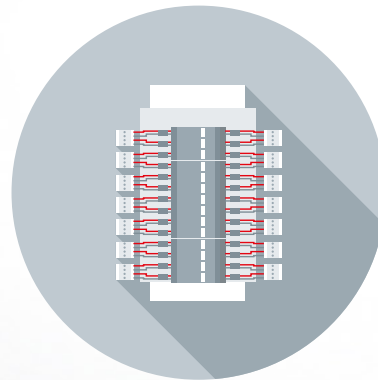
aaimcontrols.danfoss.com

Index

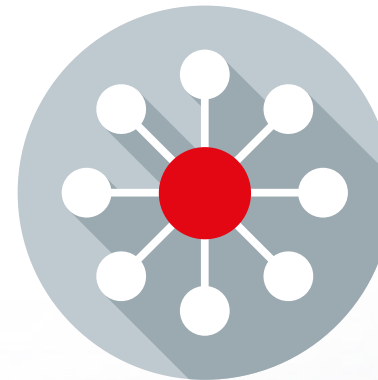
Navigate through this eBook by
clicking on the different tabs and menu icons.



About us



Our products



Solutions overview



Contact us



About us



Our products



Solutions overview



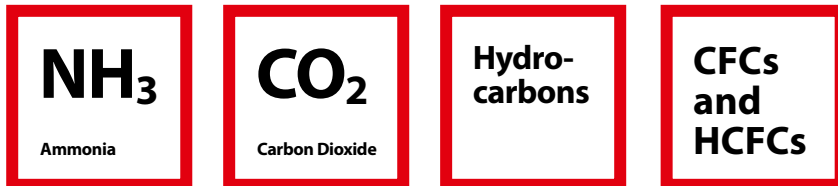
Contact us

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

Founded in 2003—and acquired by Danfoss in 2018—Danfoss AAIM Controls is the largest North American controls company with a team of industrial refrigeration experts based in a 16,000 square-foot facility in Wayneboro, Pennsylvania.

At Danfoss AAIM Controls, we're driven by a combined 250 years of deep application knowledge and experience across all refrigeration components. Our expertise enables us to develop, implement, and support your unique refrigeration control system—to your unique standards and specifications.

Systems



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.



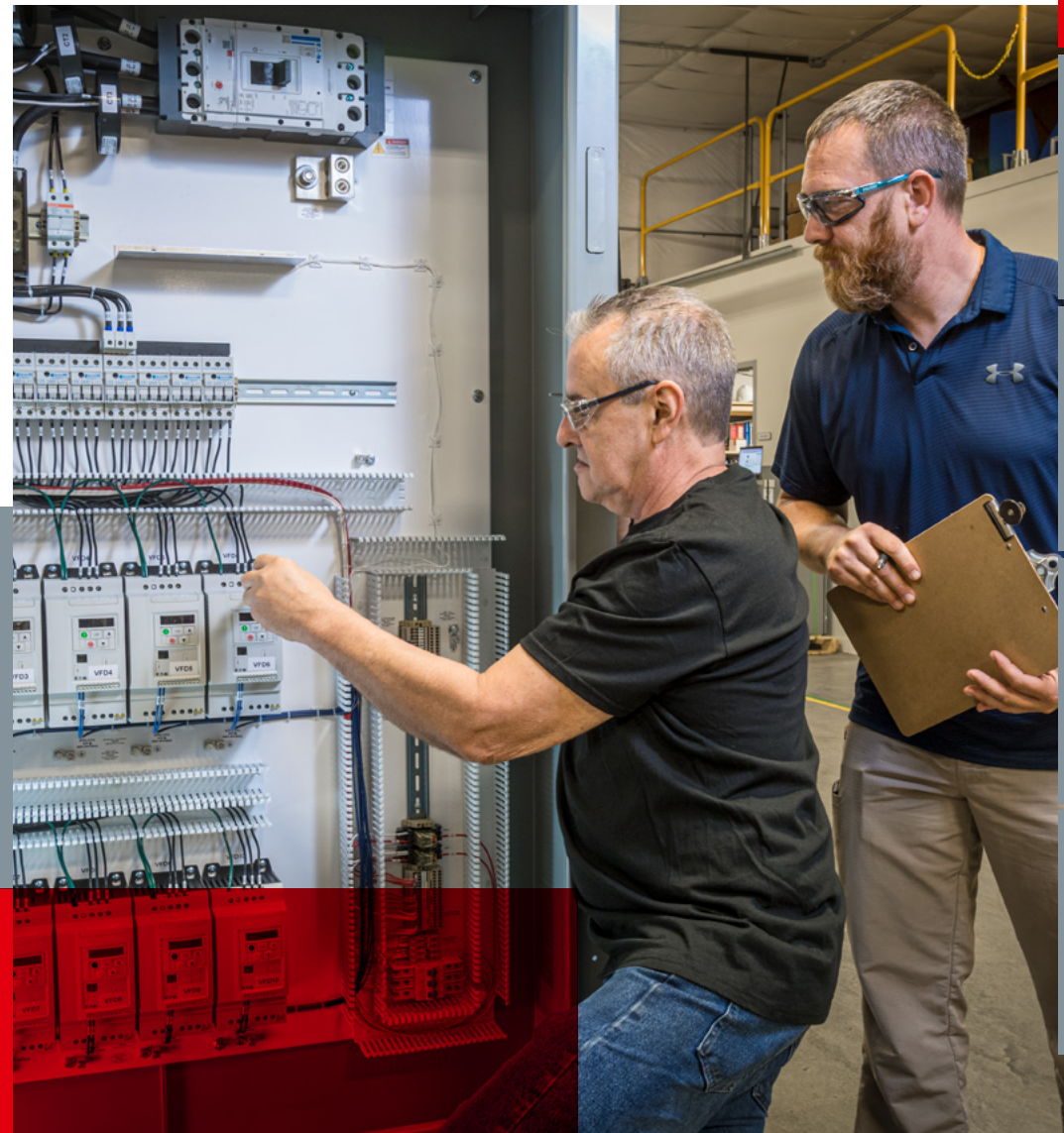
On-site commissioning and in-depth training

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 AAIM Controls provides a complete portfolio of components and services for virtually any industrial refrigeration system—providing all-in-one solutions tailored to your specific application needs.

And 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



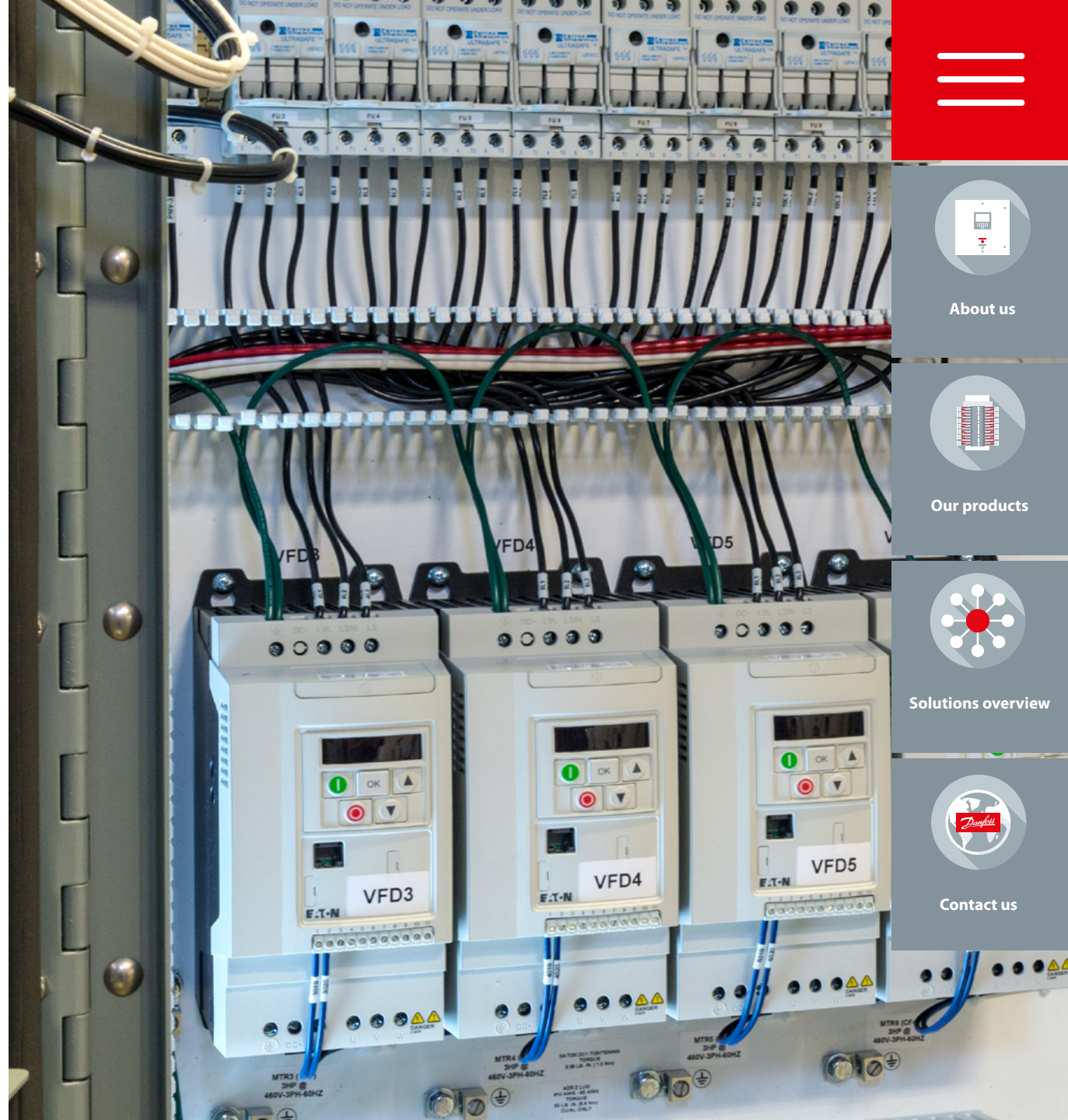
PLC
Controls



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



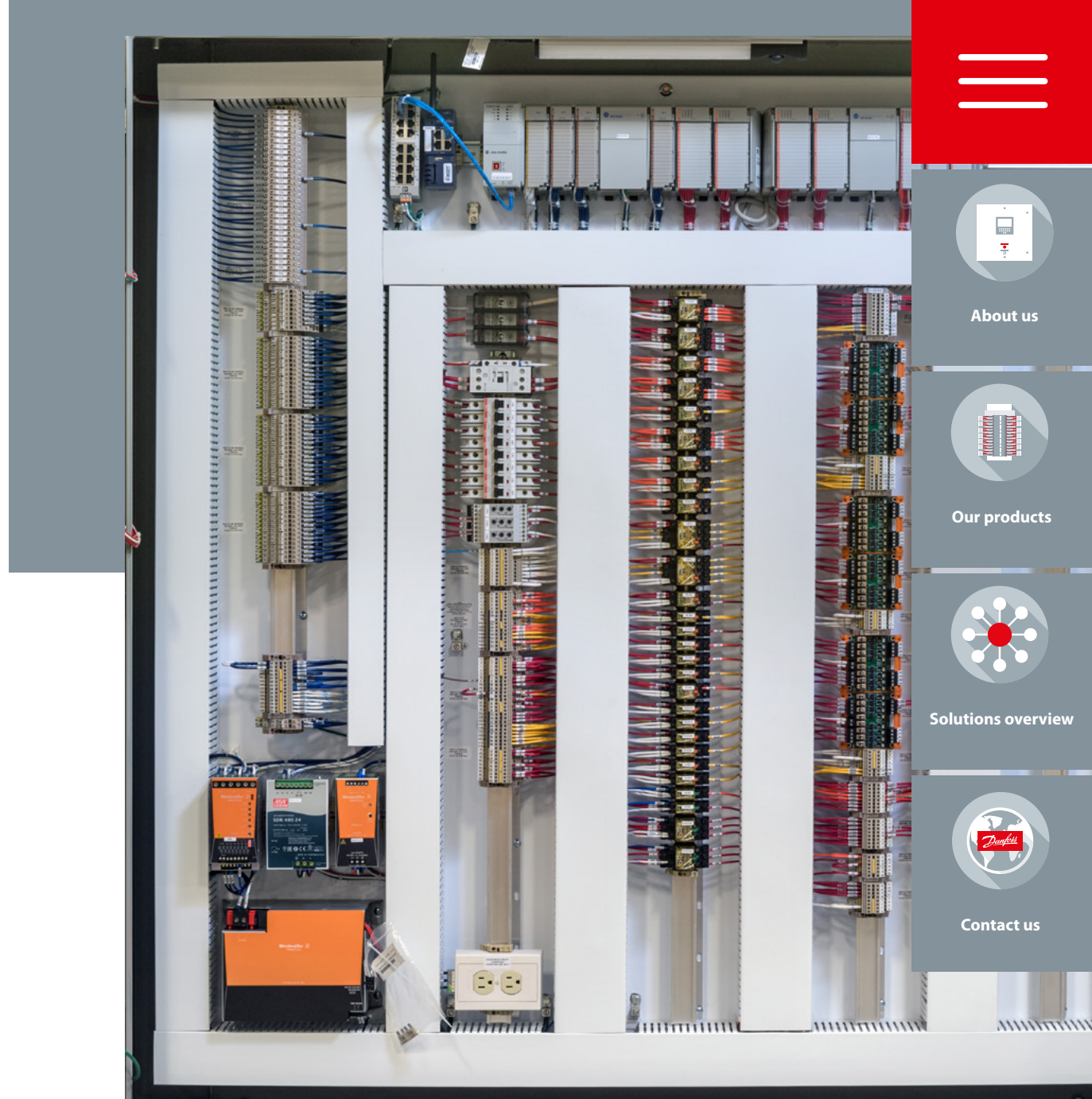
PLC
Controls



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 AAIM Controls 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

See **Danfoss AAIM Controls** at work

We offer both distributed control panels based on PLCs or microprocessors and central logic controllers in the main PLC for all subsystems except for the compressor.



MACHINERY ROOM

Vessel/Separator

Danfoss AAIM 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 AAIM 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

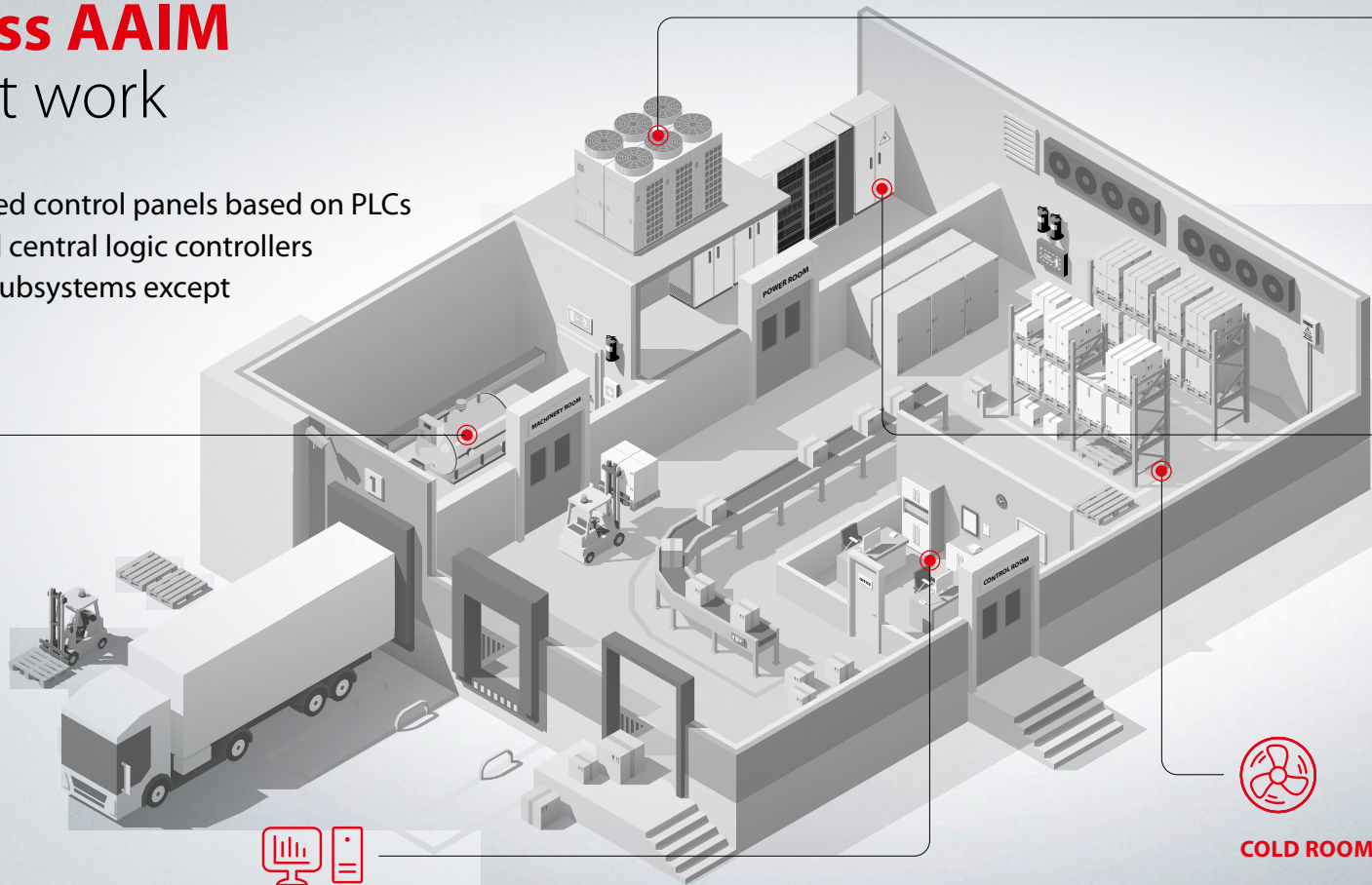


CONTROL ROOM/PLC

Supervisory system

Danfoss AAIM 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
- Fast and easy remote access



ROOFTOP

Condenser

Danfoss AAIM offers standalone PLC, microprocessor control panels and central logic controls for various condenser types (evaporator air-cooled, fluid coolers, and cooling tower) and control types (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 AAIM 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: baltimore@danfoss.com

Call us: +1 717 765 9100

Danfoss AAIM Controls

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.