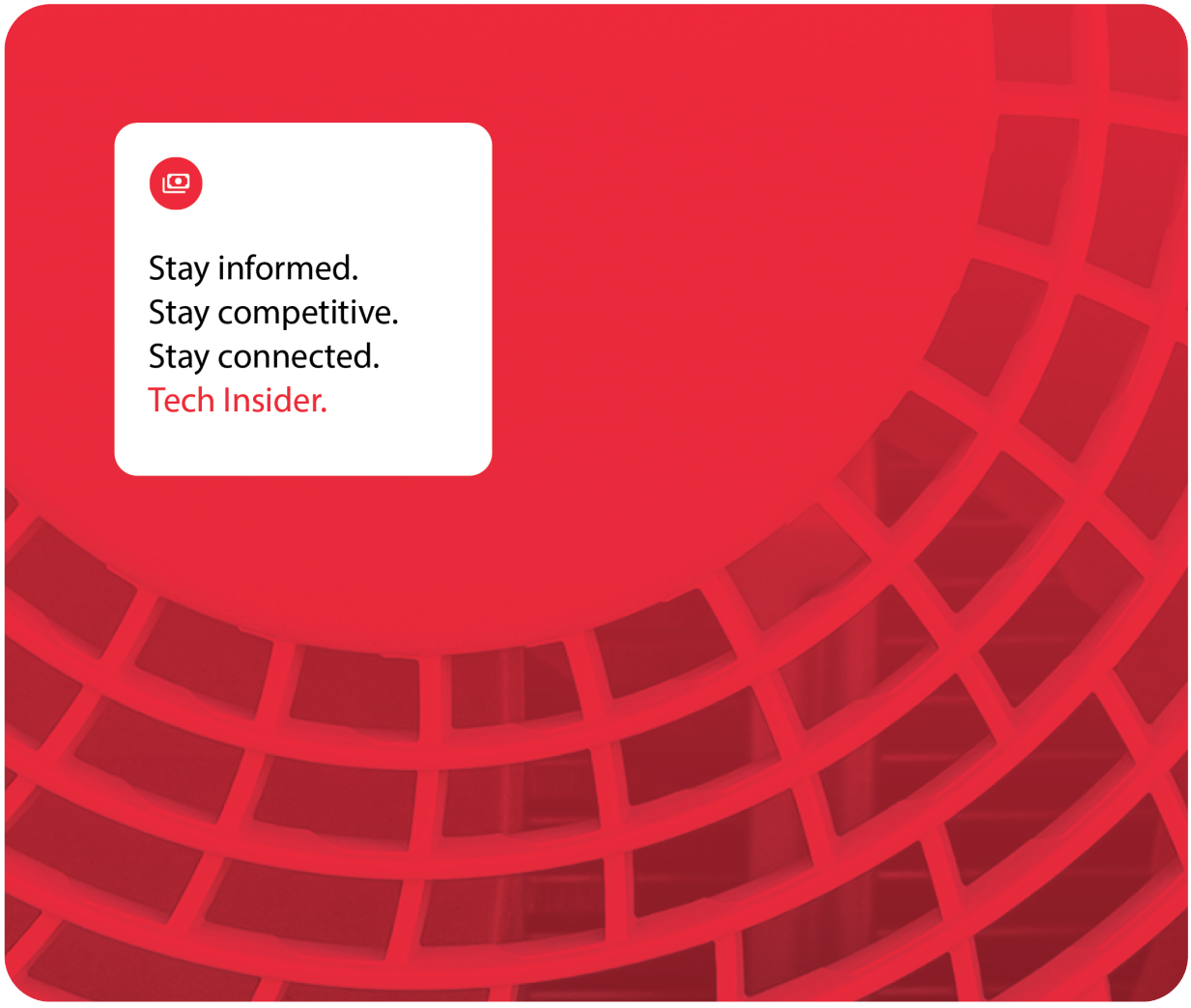
May 2026
Danfoss Climate Solutions for Cooling

TECH
INSIDER

Your regular newsletter for technical updates and
latest changes in refrigeration and industrial solutions.



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Introduction

Danfoss Tech Insider keeps you up to date with the latest developments in the Cooling and Industrial products portfolios from Danfoss Climate Solutions. Each edition offers a quick overview of key technical updates and product news, with direct links to relevant documentation and further details. Tech Insider ensures you're always informed about the latest innovations and changes across our products and solutions.

We hope you enjoy reading Danfoss Tech Insider and find it both useful and inspiring!

Table of Contents

Not all products/variants are available in all countries.
Please contact your local sales company for further info and product availability.

Release

EKE 315 Superheat Controller now available

The EKE 315 Superheat Controller is now available for industrial refrigeration applications. It is designed to support efficient installation, reliable operation, and straightforward commissioning across a wide range of superheat control applications.

The EKE 315 offers efficient installation with quick setup, reduces downtime and labor costs. An intuitive wizard streamlines the commissioning process, making it user-friendly and straightforward. Simplified connections are achieved with a single 24 V AC or DC supply, ensuring seamless integration with expansion valves, such as the AKV, AKVA, or Danfoss motorized expansion valves (type ICM with ICAD) via a 4–20 mA signal exchange.

Built for robust industrial use, the EKE 315 features precise control via a 4–20 mA analog input and output. Reliable communication is facilitated through Modbus RTU RS485, ensuring effective bus communication across your systems.

It supports low-GWP refrigerants, including ammonia, CO_2, hydrocarbons, and HFOs, ensuring long-term compliance and reduced environmental impact.

Multilingual support: 14 language options are available, enabling easier use and customization for a wide range of global users.

Main advanced features

- Modulating Thermostat (MTR)
- Minimum Stable Superheat (MSS)
- LoadApp for load-defined superheat
- Suction Pressure Optimization (Po Optimization) for possible integration with System Manager SM-800A

The CoolConfig PC tool supports project management by allowing settings to be replicated across multiple units and by simplifying documentation. This helps ensure consistency and ease of use when managing projects from one EKE 315 to several units.

The EKE 315 can be used to service and replace the large installed base of EKC 315s units that were phased out years ago.

Sales codes

Superheat Controller, EKE 315	
Code number	Description
080G5042	EKE 315 Superheat Controller

For more information, visit our Danfoss Store or contact your local sales representative.

Release

DSH large scroll compressors available with factory-mounted oil level switch

Selected models in the DSH large scroll compressor range are now available with a factory-mounted oil level switch (OLS). This is an important enhancement to our DSH large scroll compressor range. The OLS provides real-time monitoring of oil level and oil temperature to support compressor protection and system reliability.

Main advantages

- ✓ Proactive protection: Early detection of low-oil conditions before reaching critical levels.
- ✓ Enhanced reliability: Reduced risk of compressor damage and downtime.
- ✓ Advanced diagnostics: Integrated NTC sensor measures oil temperature, enabling oil superheat calculation and interpretation of dilution curves from Danfoss guidelines to assess lubrication quality.

New commercial references

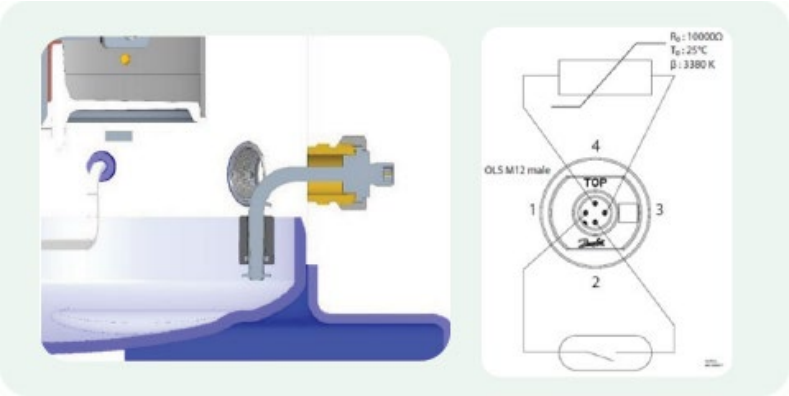
Compressor model	Motor protection	Ordering references
DSH485-4-SP-SINGLE	Module 110–240 V	**120H2674**
DSH485-4-SP-INDUST	Module 110–240 V	**120H2673**
DSH381-4-SP-SINGLE	Module 110–240 V	**120H2670**
DSH381-4-SP-INDUST	Module 110–240 V	**120H2669**
DSH295-4-SP-SINGLE	Module 110–240 V	**120H2666**
DSH295-4-SP-INDUST	Module 110–240 V	**120H2665**
DSH240-4-SP-SINGLE	Module 110–240 V	**120H2662**
DSH240-4-SP-INDUST	Module 110–240 V	**120H2661**
DSH485-4-SX-SINGLE	Module 24 V AC	**120H2697**
DSH485-4-SX-INDUST	Module 24 V AC	**120H2696**
DSH381-4-SX-SINGLE	Module 24 V AC	**120H2695**
DSH381-4-SX-INDUST	Module 24 V AC	**120H2694**

How it works

The OLS is a float-type sensor with a potential-free reed contact that changes state depending on the oil level in the compressor sump. The alert level is set just below the oil sight glass. This is not the critical lubrication level, but an indication that the oil has left the “comfort zone” and that action is required.

This provides a defined reaction time before a dangerous threshold is reached.
See Recommended protection logic below.

When the oil level drops below the alert threshold, the reed contact opens and sends a signal to the controller. The integrated NTC sensor measures oil temperature accurately, which is essential for calculating oil superheat—a key input for interpreting the dilution curves provided in Danfoss guidelines.
This helps assess lubrication quality and detect possible refrigerant dilution in the oil.



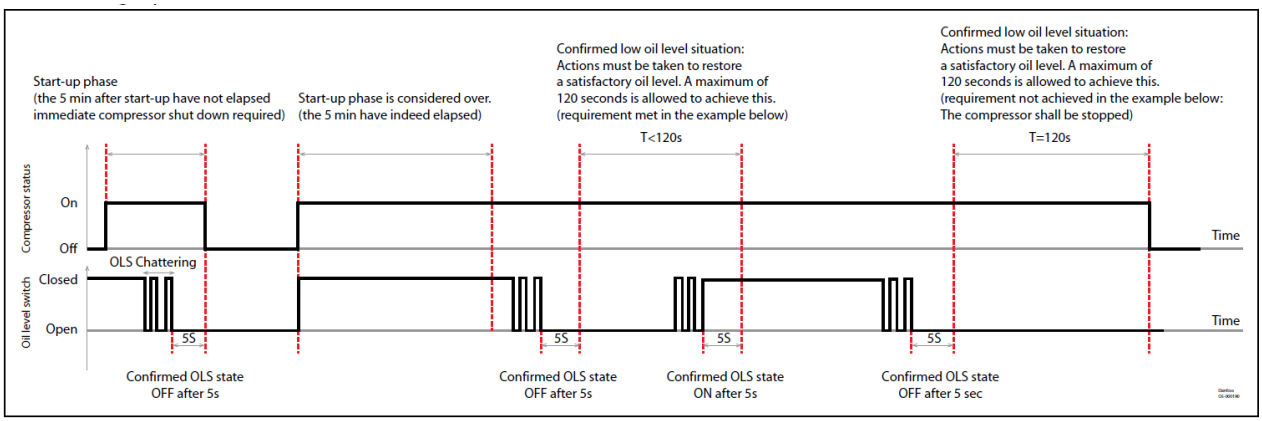
Important note

OLS operation may be disrupted if ferromagnetic particles are present in the refrigeration circuit. Ensuring circuit cleanliness is critical to guarantee optimal OLS functionality.

It is not possible to install the OLS on standard DSH compressors, as this requires a new shell design for PED compliance. Therefore, when the OLS is required, it must be ordered pre-mounted from the factory.

Recommended protection logic

- Within 5 minutes after an event (start-up, defrost, etc.):
  If the low-oil signal is continuous **for more than 5 seconds, stop the compressor immediately**.
- Under stable conditions (more than 5 minutes after the last event):
  Attempt to restore oil level within **120 seconds; if unsuccessful, stop the compressor**.



For more information, please visit our Danfoss Store or contact your local sales representative.

Product update

Flexible grommets become standard for SH compressors (SH180–380)

An update is being implemented to the standard accessories supplied with the Danfoss SH large scroll compressor range (models SH180 to SH380). Based on current market application requirements, these compressors will be supplied with flexible mounting grommets as standard.

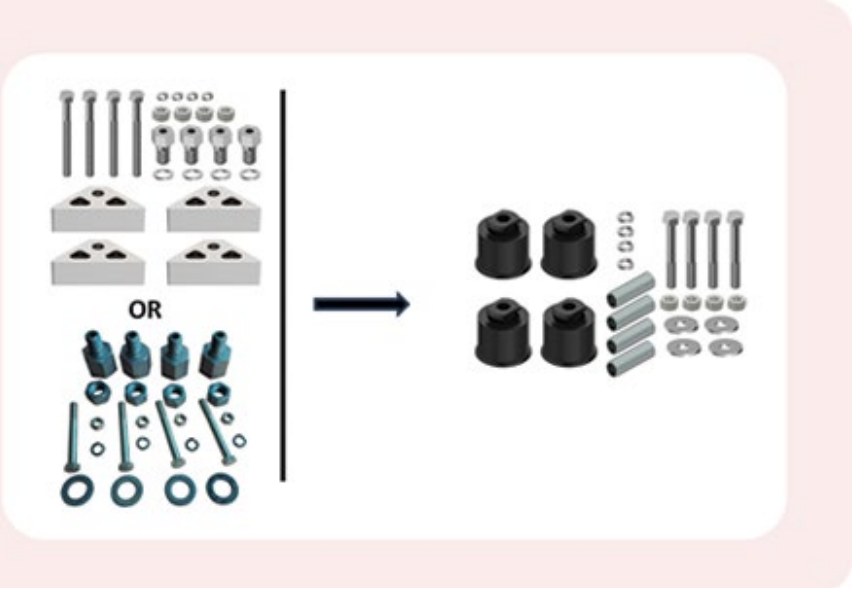
Effective from the second quarter of 2026 (Q2 2026), all compressors in this range will be factory-supplied with flexible mounting grommets 8156138 instead of the current rigid mounts.

This change reflects the current shift in market applications. Most compressors in this range are now installed in single-unit applications, where flexible grommets are required for effective vibration and noise damping. Supplying flexible grommets as standard removes the need for most customers to order a separate accessory kit and reduces disposal of unused rigid parts.

We are confident that this update will streamline your installation process and support our shared environmental goals.

What this means for you

- ✓ For single-compressor applications: You will no longer need to order a separate accessory kit. The correct flexible mounts will be included directly with the compressor, ready for installation.
- ✓ For parallel (manifold) applications: If your installation does not allow the compressors to be mounted directly onto the rails, you will now need to order the rigid mounting kit separately.
  The part number for Mounting Compressor kit is 120Z0495.



For more information, please visit our Danfoss Store or contact your local sales representative.

Product update

Modified dimensions for shut-off valves on Bock compressors

As part of Danfoss Corporation's strategic realignment, an additional supplier is being introduced for shut-off valves used on Bock compressors. This change is intended to support supply chain continuity while maintaining quality requirements in line with company guidelines. The addition of a second supplier is expected to improve delivery robustness and availability.
Affected products: BOCK® (PL92) products (detailed product information, on following pages).

The change will take place / start in July 2026.

The compressor part number's "G codes" and spare parts number's remain unchanged.

Description

With the introduction of an additional supplier, some shut-off valve dimensions may change, including the wrench sizes of the spindle. The surface protection coating will change from copper-based to nickel-based. In general, technical specifications, corrosion protection, and interchangeability remain completely unchanged.
As a result of changes to the valve dimensions, it may be necessary to review the system design regarding distances to other components or required tools.
There will be no change to the product designation or part number.

Example shut-off valve existing supplier

Example shut-off valve additional supplier

Verifications

All requirements according to Danfoss BOCK® and general EN and UL standards.
Endurance and performance tests are verified by internal validation.

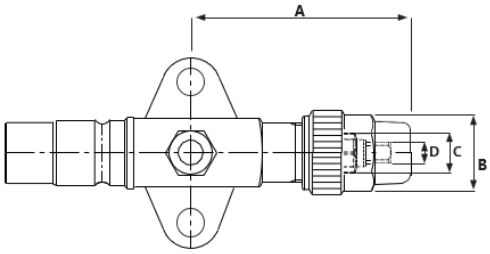
Product selection & support

- ✓ Selection software BOCK VAP:
  VAP for Stationary Applications 11.15.0 (online) – Start
- ✓ BOCK Compressor Finder: Coolselector®2
  Compressor Selector | Danfoss
- ✓ Product details, literature, and pictures:
  store.danfoss.com
- ✓ Online support and detailed product information:
  Partner Portal/Product Data Tool

For more information, please contact your local Danfoss representative.

Product update: Modified shut-off valves on Bock compressors

Definition



A. Length deviation compared to current version
B. New wrench width spindle protection cap (SW/AF)
C. New wrench width valve packing nut (SW/AF)
D. New wrench width spindle (SW/AF)
- -: Remains unchanged

Note

The pipe connections and mounting points to the compressor remain unchanged.
Valves whose dimensions are extended by less than 3 mm are not mentioned (valid for **A**).
The same applies if the dimensions are reduced.

The dimensions have not changed for any compressor not listed.

Affected products

Compressor type		Valve type	A	B	C	D
HG(X)44e/	565 S* 665 (S)* 770 (S)*	Suction side	+12,5 mm	- -	SW16	- -
HG(X)56e/	... all*	Suction side	+ 25 mm	SW41 SW36	SW22 SW22	SW12,7 SW12,7
HG(X)66e/	1340 (S)* 1540 (S)* 1750 (S)*	Suction side	+ 25 mm	SW41	SW22	SW12,7
HG(X)66e/	2070 (S)*	Suction side	+ 25 mm	SW41	SW22	SW12,7
HG(X)66e/	... all*	Discharge side	+12,5 mm	- -	SW16	- -
HG(X)88e/	... all*	Suction side	+ 25 mm	SW41	SW22	SW12,7

* Including HC, LG, UL and ATEX versions

Compressor type	Valve type	A	B	C	D
HGZ(X)7 all	Suction side	+ 25 mm	SW41	SW22	SW12,7

Compressor type	Valve type	A	B	C	D
HGX34P/315-2 A K HGX34P/380-2 A (K)	Discharge side	+6 mm	- -	SW12	- -
HGX34P/380-4 S A	Suction side	+5,5 mm	SW27	SW15	- -
HGX34e/315-4 S A HGX34e/380-4 S A	Discharge side	+6 mm	- - - -	SW12 SW12	- - - -

Product update: Modified shut-off valves on Bock compressors

Compressor type	Valve type	A	B	C	D
HGX12 CO_2 T*	Discharge side	+3 mm	- - - -	SW12 SW12	- - - -
HGX24 CO_2 T**	Discharge side	+3 mm	- - - -	SW12 SW12	- - - -
HGX34/290-4 S CO_2 T**	Discharge side	- - - -	- - - -	SW12 SW15	- - - -
	Suction side	- -	- -	SW15	- -
HGX46 CO_2 T**	Suction side	- -	- -	SW15	- -

* Including UL versions ** Including UL and LSPM versions

Compressor type	Valve type	A	B	C	D
HGX12e CO_2 LT*	Suction side	+5 mm	- -	SW12	- -
	Discharge side	+3,5 mm	- -	SW12	- -
HGX24e/... 90-4 ML/S CO_2 LT* 110-4 ML/S CO_2 LT* 130-4 ML/S CO_2 LT* 145-4 ML/S CO_2 LT*	Suction side	- -	- -	SW12	- -
	Discharge side	+3,5 mm	- -	SW12	- -

* Including UL versions

Compressor type	Valve type	A	B	C	D
HGX12e CO_2*	Suction side	+6 mm	- -	SW12	- -
HGX22e CO_2*	Suction side	+3,5 mm	- -	SW12	- -
	Discharge side	+6 mm	- -	SW12	- -
HGX34e CO_2*	Discharge side	+3,5 mm - -	- - - -	SW12 SW15	- - - -
HGX44e/320-4 S CO_2*	Suction side	- -	- -	SW12	- -
HGX44e... 390-4 S CO_2* 475-4 S CO_2* 565-4 S CO_2*	Discharge side	- -	- -	SW12	- -

* Including UL versions

Software release

AK-CC55 Single Coil software version 2.30 now available

New software version 2.30 is now available for AK-CC55 Single Coil (UI) case controllers.
Affected part numbers are 084B4082, 084B4083, 084B4182, and 084B4183.

This release corrects a bug in the defrost method using pulsing electrical heaters that was introduced in software version 2.24, and it also adds new functionality. The update is currently released as a web release and is available through the AK-CC Connect app or as an update file for KoolProg.

From May 2026, this software update is also planned to be pre-installed on controllers leaving production. If the product is used as part of a production line, please update the setting files accordingly.

Details

Software version 2.30 provides a permanent correction for the issue identified in the defrost method using pulsing electrical heaters introduced in software version 2.24 (web release only).

Version 2.30 also includes the following new functionality:

- ✓ Fan ECO mode extended (always at night, at night cut-out, always at cut-out)
- ✓ Fan ECO speed during defrost configurable
- ✓ Leak alarm action with leak shutoff safety valve and alarm reset delay
- ✓ Option to set ECO Fan and variable fan speed during leak alarm action

Affected products

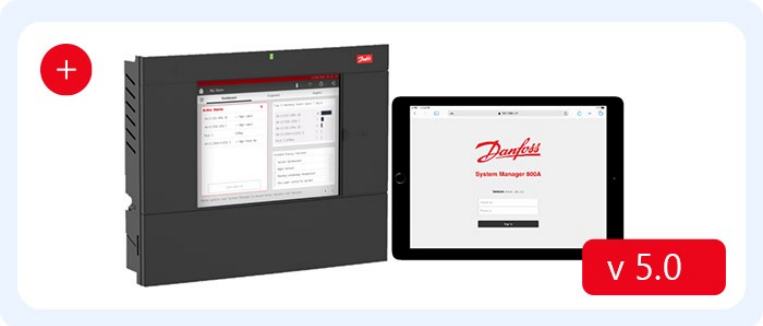
- AK-CC55 Single Coil 084B4082
- AK-CC55 Single Coil UI 084B4083
- AK-CC55 Single Coil 084B4182
- AK-CC55 Single Coil UI 084B4183

For more information, please contact your local sales representative.

Software release

AK-SM 800A Series software release 5.0, including SvW update

Software release 5.0 is now available for the ADAP-KOOL™ System Manager 800A series.
This release is accompanied by Danux package 4.14.017.194, which is recommended to be installed before loading the AK-SM800A application update.



Both packages are available on ADAP-KOOL support site

Software package 5.0 requires Danux 4.14.017.194

Important notes on package 5.0 update

Please note that release R5.0.x includes important changes to the overall database structure. As a result, returning to an earlier software version after the update will not be supported. To ensure a smooth update process, we strongly recommend taking a full backup of the system database before starting the upgrade.

As part of the update, existing History data will be automatically converted to the new format. The progress of this process can be followed under [History Config --> Status]. To help protect the data during conversion, we recommend avoiding unit resets while this process is running. The system can tolerate up to three resets during conversion; however, if a fourth reset occurs, any history data not yet converted will be lost.

After the update, StoreView Web (SvW) embedded will become the default remote user interface. SvB5 will remain available for a limited period and is planned to be phased out in a future release.

Main release highlights

Release 5.0.x is a major release for the SM800A series and is recommended for all customers.

Multiple updates and new features are included. Some of the main highlights are:

- ✓ Default remote user interface now StoreView Web (SvW 'embedded')
- ✓ Increased capacity for EDF files (from 1500 to 3000)
- ✓ Improved history function and memory management
- ✓ Support for Alsmart Modbus/TCP
- ✓ New caution prompts added when removing key application config (local screen only)
- ✓ Improved SNMP performance
- ✓ Security updates
- ✓ Bug fixes

Software release / AK-SM 800A Series software release 5.0 , including SvW update

StoreView Web (embedded user interface - new)

The term *SvW Embedded* refers to the remote user interface (web screens) integrated directly into the System Manager. Following the update to R5.0.x, users can enter the IP address or URL of the System Manager into a standard web browser to access the interface. Instead of SvB5, the system will then open StoreView Web (SvW). SvW is the preferred remote user interface going forward and complements the already available SvW Cloud and SvW desktop solutions.

- ✓ SvW comes in three variants
  - SvW 'Cloud' (requires internet connection)
  - SvW 'Embedded' – built into the System Manager (no internet required)
  - SvW Desktop – SvW for your PC (used to connect to http and https units)
- ✓ SvW cloud can be accessed via https://svw.danfoss.com and can be used in conjunction with HTTPS enabled 800A units
- ✓ To download SvWDesktop (supporting http/https 800A units) first log into the cloud version https://svw.danfoss.com, then via the 'More…' tab, you can download the desktop version.

Updated History function

The *History* function has been updated to improve system management of the data and to assign dedicated flash memory for new Active and Archive directories. Improvements include:

- ✓ Strict boundary protection – memory allocation can no longer be overfilled
- ✓ Dedicated assigned memory allocation for new Database Directories
- ✓ New Active Database Directory for polled points (8GB)
- ✓ New Archive Database Directory (2GB)
- ✓ History is stored as monthly files within the Active directory until either capacity is reached or the start of a new month – then last file will be automatically transferred to the Archive directory – this ensures the Active directory cannot overspill / delete data / freeze system
- ✓ History in Active directory can always be viewed via the History view screen
- ✓ History migrating to Archive directory will be converted to CSV and zipped to minimize size and maximize the length of time it can be stored (2GB). Any transitioned monthly file in Archive can be downloaded
- ✓ The maximum number of polled points is updated to 3000*
  *it may not be possible to log 3000 points at max frequency (1 min) on slow field bus (i.e. Serial Modbus) – in this case the sample rates can be increased
- ✓ Conversion from current history architecture to the new format is done automatically and starts after the system has been updated to version 5.0.x software

Important changes

For security reasons, the service tool (ST-500) port is disabled by default. To enable a remote service tool tunnel connection, enable the port via the [Configuration > Security screen]. Disable the port again when the tunnel is no longer needed. To comply with Cyber Security requirements, new user accounts must have strong passwords (8 characters, including 1 uppercase, digit, and special character).

Software release: AK-SM 800A Series software release 5.0 , including SvW update

Release R5.0 Full Change Log

For release 5.x Change Log please visit ADAP-KOOL® Support site and SvW Release Notes under information / application information panel.

Security

To help keep your Danfoss products secured and protected, we emphasize implementing cyber security best practices to maximize your protection against malicious attacks.

Software installation

Step1: Install Danux 4.14.017.194.lpk

- ✓ Using StoreView Browser 5 / StoreView Web select OS update and proceed with Danux upgrade
- ✓ Allow a few minutes to pass with the new OS installed

Important notes: *This file size package is large and depending on your network speed may take 10+ minutes to complete.* **Do not interrupt power during the OS update. For systems utilizing DHCP it is advised that this update is performed locally, as IP address change is possible after rebooting.**

Step 2: Update System Manager firmware package 5.0.19.spk

- ✓ Using StoreView Browser 5 / StoreView Web or local USB Flash drive, select OS update and proceed software upgrade. **Do not interrupt power during the software update**
- ✓ After installation is complete, review for correct system operation

Approved products

The tables below show the approved AK-SM 800A portfolio versions suitable for software 5.0.

AK-SM 800A variants

Type	Description	Code no.
AK-SM 820A	C-Store (Refrigeration / HVAC / Lighting)	080Z4024
AK-SM 850A	Refrigeration (including Lighting)	080Z4021
AK-SM 850A – no WiFi	No Wi-Fi, Refrigeration (including Lighting)	080Z4022
AK-SM 880A	Full (Refrigeration / HVAC / Lighting)	080Z4028
AK-SM 880A – TP78	Retro-fit Full (Refrigeration / HVAC / Lighting)	080Z4029

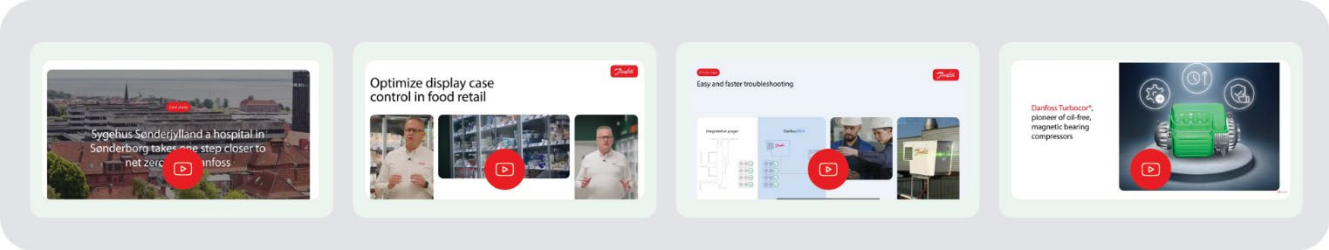
AK-SM 800A variants without LonWorks®

Type	Description	Code no.
AK-SM 820A	C-Store (Refrigeration / HVAC / Lighting)	080Z4044
AK-SM 850A	Refrigeration (including Lighting)	080Z4041
AK-SM 880A	Full (Refrigeration / HVAC / Lighting)	080Z4048

Timing and Stock

Package 5.0 is released for general update and is available via ADAP-KOOL® support site.
Stock units will not be recalled or updated.

New videos and updated content



Videos

- Bluetooth pairing with the AK-CC25 Pro BT
- How to set an access code on your new AK-CC25 Pro
- Display case refrigeration solutions
- Smarten your system with demand-based purging – Danfoss Intelligent Air Purger
- Zero Oil. Full perform. The Danfoss EXO oil-free ecosystem.
- How Danfoss helped Sygehus Sønderjylland hospital turn waste heat into sustainable heating

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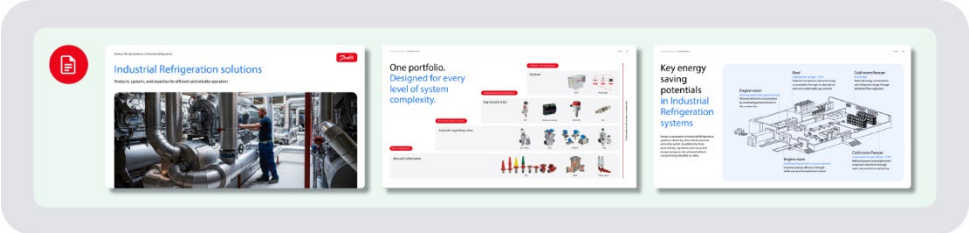


e-Brochure

- Industrial Refrigeration solutions: Products, systems, and expertise for efficient and reliable operation

Contact information – Get in touch with Danfoss

Contact Danfoss Sales office, customer service and technical support

Sales and services
Customer service

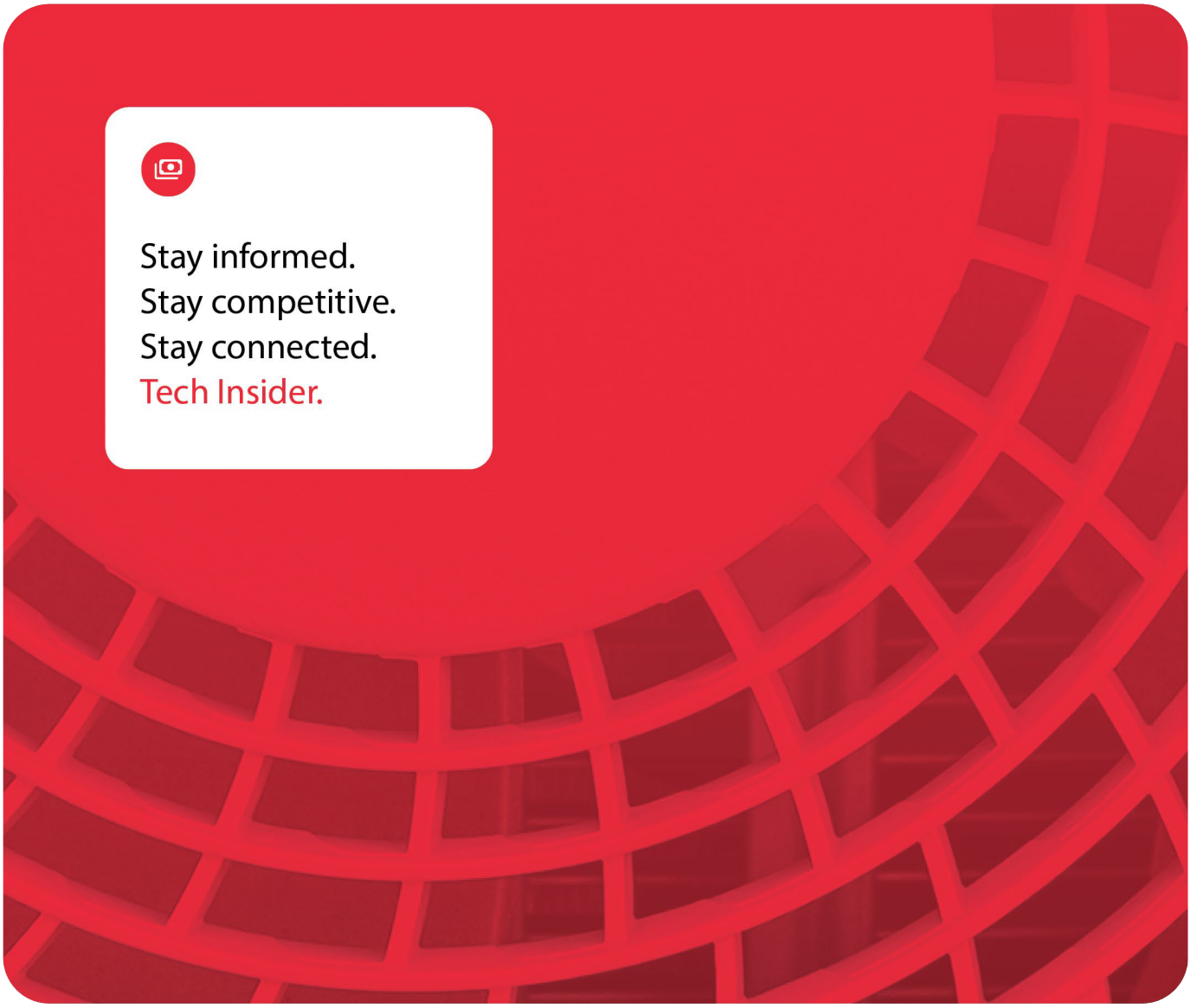
Get technical support for installing Danfoss cooling solutions

Cooling installer hub

Get technical support for installing Danfoss sensing solutions

Industrial Installer Hub

Explore our solutions:
Danfoss.com



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