System Manager 800 Series
Cool Thinking from Danfoss

Introducing the System Manager 800 series from Danfoss.
Utilizing modern technology and delivering the highest levels of functionality and flexibility for the Food Retail Industry.

Winning combination of control, **ease of use** and enterprise **wide connectivity**

When it comes to refrigeration control, Danfoss is a global leader and the System Manager offers the next logical step for store control and monitoring. The winning combination starts when you connect any of the Danfoss world class portfolio case and pack controls. Proven and real energy savings can obtained with a mix of controller and patented AK-SM 800 optimization techniques and logic.

Your new AK-SM 800 series controller provides the next step in world class control, monitoring, ease of use and connection to the enterprise layer. A core design concept for the System Manager has been to provide premier store control with the seamless connectivity from 'case to cloud'. Designing this inter connectivity concept in the product design stage results in a highly flexible solution when sharing data to the executive enterprise level. Examples of this inter connectivity can be demonstrated via the all new Enterprise Manager 800 (AK-EM 800). This all new and exciting server software package from Danfoss exemplifies enterprise multi site management for multi site alarms and history logs.

If you prefer your enterprise solution a little more 'a la Cart' consider the Danfoss Electronic Delivered Services (EDS). With a seamless System Manager connection to the EDS service, users can benefit from a wide range of reporting, energy modelling and user dashboard option via the web.

Get connected - web technology

Whilst utilizing web browsers and web technology is nothing new in the controls world, the System Manager attempts to actually take advantage of this technology and present system information in a meaningful and rich way. Unlike many of the products in the market today, the System Manager does not simply show a range of data tables in mash of browser screens, rather, it presents a fluid blend of dashboard, automatically generated system graphics and asset detail screens. Wether its a history log, current status or setpoint changes, all actions are easily achieved in one flowing web experience.

Custom graphics, available in local screen and Web browser

Wizard assistance for configuration

We understand when developing a global controls platform there is a real need to cater to the Engineering activities that are required to bring a store controls systems to life. Fortunately, the System Manager makes available configuration web wizards. The designated web wizards are intended to assist the user in a step by step format, offering clean screen formatting and drag and drop functionality. The net result is improved commissioning times and less chance of configuration errors.
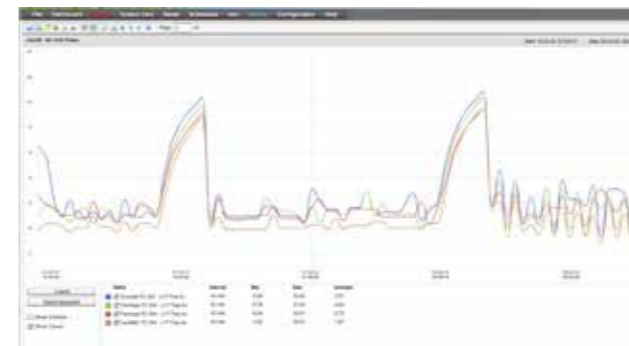
Available web wizards to assist in the commissioning process

Product highlights

Usability
The System Manager features an easy to use dashboard for each application via local screen and web view. You are able to view and modify the status of each one of your applications via an overview dashboard. More detailed layers of information are also easily reached and presented. Wether you operate from the local color screen or via the web browser, the System Manager provides the user with a comprehensive set of screens allowing easy monitoring and control of your applications.

All new design
Your System Manager is presented in a modern and flexible hardware format, making installation in control panels or walls easy. The removable keyboard panel allows easy access to key connections and network points.

StoreView desktop application
The StoreView Desktop application answers the challenge where a store requires a more permanent screen connection to the System Manager for store staff. Whilst representing exactly the same look as the System Manager web browser, the application can be installed on the relevant store PC and have various preferences set to create the perfect monitoring screen. Auto log on, show certain screens, full screen are some of the options available.

Technology highlights

Direct Connectivity to the AK-EM 800
Offering the ability to auto collect alarm and history data from hundreds of stores, the AK-EM 800 server software offers a suite of features for the enterprise user. What is equally important is how to connect all this data to the AK-EM 800. Fortunately the System Manager was designed for direct AK-EM 800 connection, so reaching your enterprise goals may be easier than you think.

XML commands for remote integration
Allowing remote data exchange, using open and standard XML technology. XML data exchange is built into the System Manager and opens up the opportunity for remote servers and data centres to extract current and historical data using automated commands.
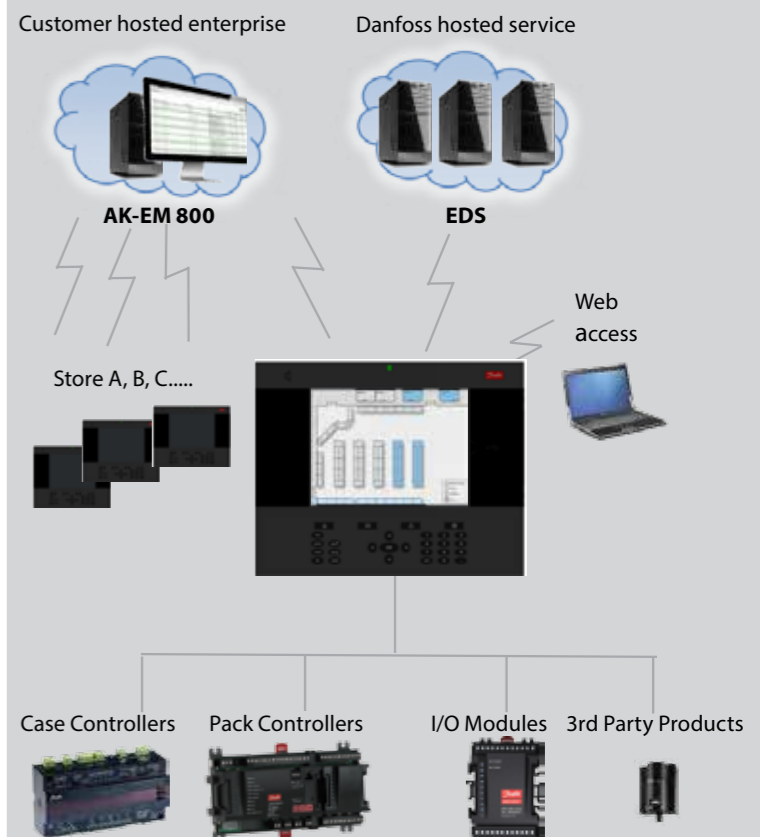
AK-Service tool
The service tool remains an invaluable tool when configuring complex and powerful AK platform case and pack controllers. The System Manager offers the commissioning user the ability to 'tunnel' over IP and directly in to the required controller.

Offline programming via web interface
Offline programming the System Manager from the comfort of your office or home via the web interface is just one of the features you expect in a modern solution Danfoss delivers via the full featured RMT tool. Simulate a System Manager database and pre-program all your store configuration, saving time and money.

Remote update
You no longer have to visit each site to perform a system update, the System Manager can now be upgraded and updated remotely via the RMT tool.

Customer hosted enterprise   Danfoss hosted service

AK-EM 800   EDS

Web access

Store A, B, C.....

Case Controllers   Pack Controllers   I/O Modules   3rd Party Products

Modern technology

- Embedded control device
- Built in Web server powering full web browser connectivity
- Full remote browser access
- AK Service Tool tunnelling support
- XML commands for remote integration
- USB Flash drive
- Offline programming via web interface
- Remote upgrade (software)
- Color local screen (800x600)
- Multi- graphic screens, allowing custom image with live data points

Approvals and specifications

Approvals C C E UL E31024

Environmental range
-10°< tamb < 55°C°
14°F < tamb < 130°F
0 - 95% RH, non condensing
IP20
Electrical range
~ 100 - 240 V a.c. 50/60 Hz
Built in alarm relay
Contact voltage: Up to 240V, Load: AC-1 (Ohmic) Current rating. 5 Amp AC-15(inductive) Current rating. 3 Amp
Local screen
Active TFT colours (thin-film transistor), SVGA 800 x 600
Size
Unit Width 295 mm (11.6"), Unit Height 235 mm (9.3"),
Unit Depth 65 mm (2.5")

Application overview

- (X1) LONWORKS® RS485 for refrigeration network
- (X1) Modbus
- (X1) Ethernet
- (X1) USB flash drive
- (X1) Alarm relay
- Direct compatibility with AK-EM 800 and Danfoss EDS
- Refrigeration control via Centralized / De-centralized methods
- Scheduling
- Custom logic functions
- Danfoss and VLT® type FC 103 variable speed drive support
- Connectivity to Danfoss refrigeration controllers
- Remote management tool (RMT) for custom graphic loading and full offline programming
- Energy optimization functionality built in

Ordering

AK-SM 820	LON RS485	Screen	C-Store	080Z4004
AK-SM 850	LON RS485	Screen	Refrigeration	080Z4001
AK-SM 880	LON RS485	Screen	Full	080Z4008
AK-SM 880 retrofit	LON TP78 (x4 TP78 connections)	Screen	Full	Estimated Q2 2014

295mm (11.6") 65mm (2.5")
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