

Alsmart®

Master your HVAC **symphony**

Alsmart® is the latest generation of programmable controller platforms for the HVAC market. Think of it as the intelligent, compact and powerful brain of your application.

Packed with state-of-the-art technology, Alsmart® empowers you to take your thermodynamic knowledge to the next level — reducing time to market with module-based design and simulations.



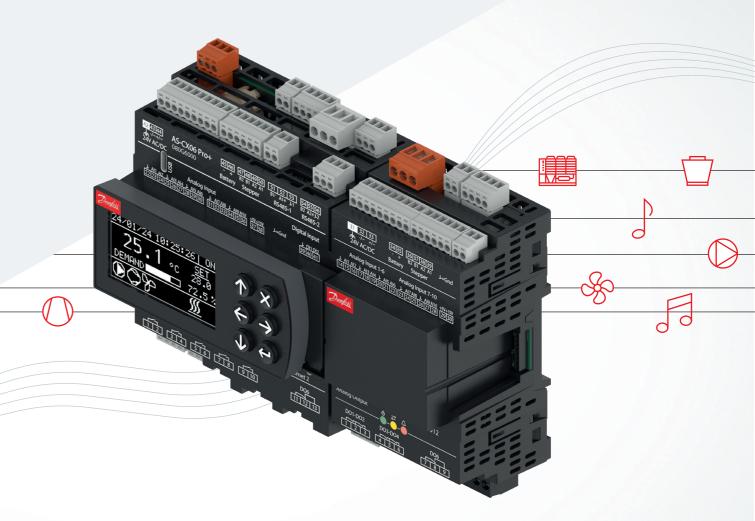
Alsmart® universal programmable controller

— Elevate your HVAC solution with Alsmart®

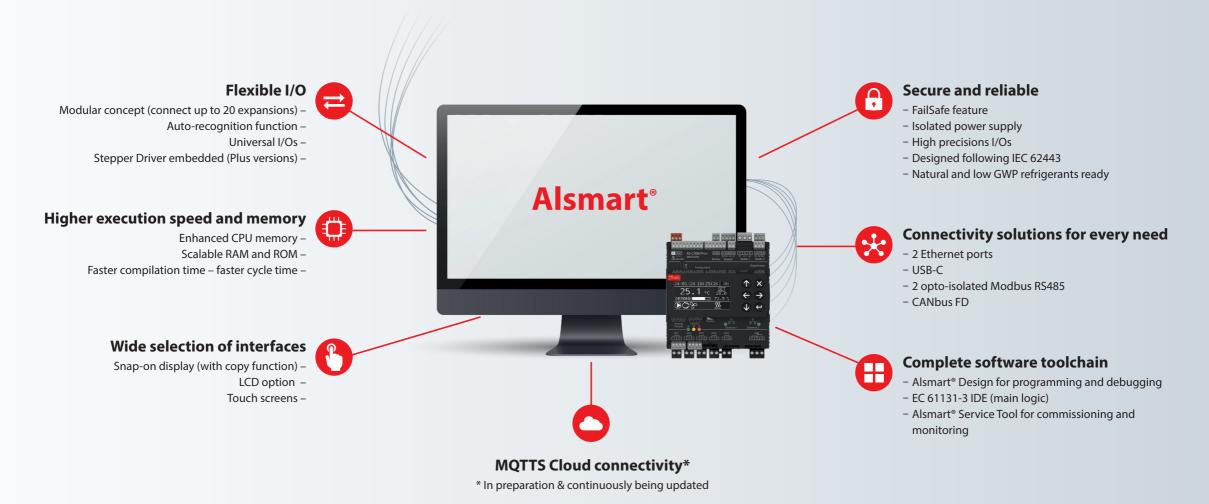
Alsmart® offers a complete and intuitive software platform that helps you take your HVAC application to the next level thanks to the programming tools Alsmart® Design and Alsmart® Service Tool.

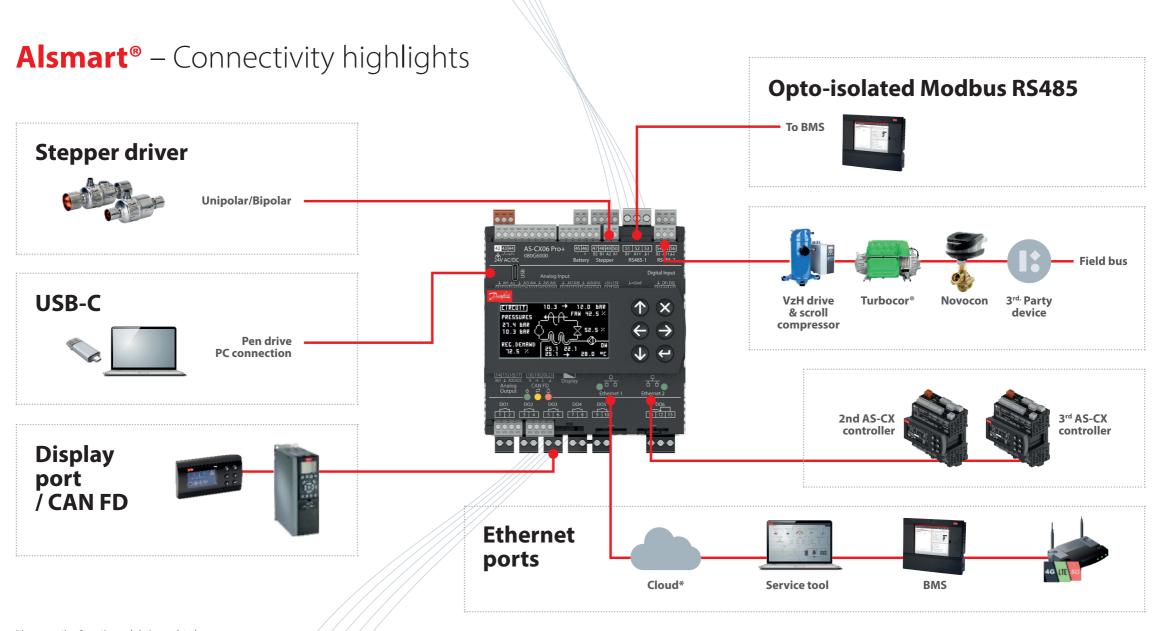
Alsmart® Design is the programming tool that helps you optimize your HVAC application. It is the core of the toolchain, the programming tool used to program, compile, and debug your application to fully manage the universal controller and expansion modules connected to it.

Alsmart® Service Tool is web-server-based and its main purpose is to set up and monitor the application. The dashboard is customizable, allowing you to add new widgets with live diagrams and graphs, as well as monitor specific preferred parameters.



The major Alsmart® pillars to achieve the best performance with your HVAC system





^{*} In preparation & continuously being updated

Software Toolchain

Alsmart® Design is the core of the toolchain, the programming tool used to program, compile, and debug your application to fully manage the universal controller and expansion modules connected to it. It supports five main standard programming languages, with an automated test function embedded, a simulation mode function, options to design and customize your user interface, and many other features that will make the difference in optimizing the performance of your HVAC application.

Alsmart® Service Tool is web-server-based and its main target is to set up and monitor the application. The dashboard is customizable by adding new widgets with live diagrams and graphs but also to check preferred specific parameters. It's possible to set different users with different access and visibility to create different levels to monitor and manage all application parameters and set up the communication of the controller. From a service part point of view, it's possible to look, save, and download alarms, logs, and behavior history, in order to have a clear understanding of what is happening live in the system and, as a consequence, in order to easily define the best performance of the system and replicate it quickly once again. It also offers the best support for backing up and restoring controller settings for the ultimate maintenance experience.



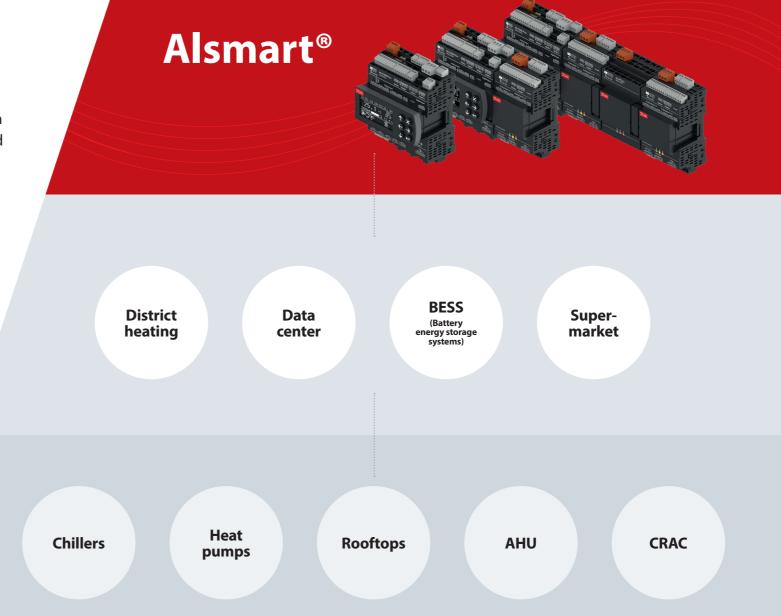


A world of possibilities

With Alsmart®, you can configure your controller to manage virtually any application. To make things even easier, we are developing a library of pre-programmed blocks and software applications specifically designed for HVAC systems, providing a quick and efficient way to get started.

Our ADC laboratory is contributing greatly to the drafting and testing of the software applications to ensure maximum thermodynamic process optimization during the drafting of the application code.

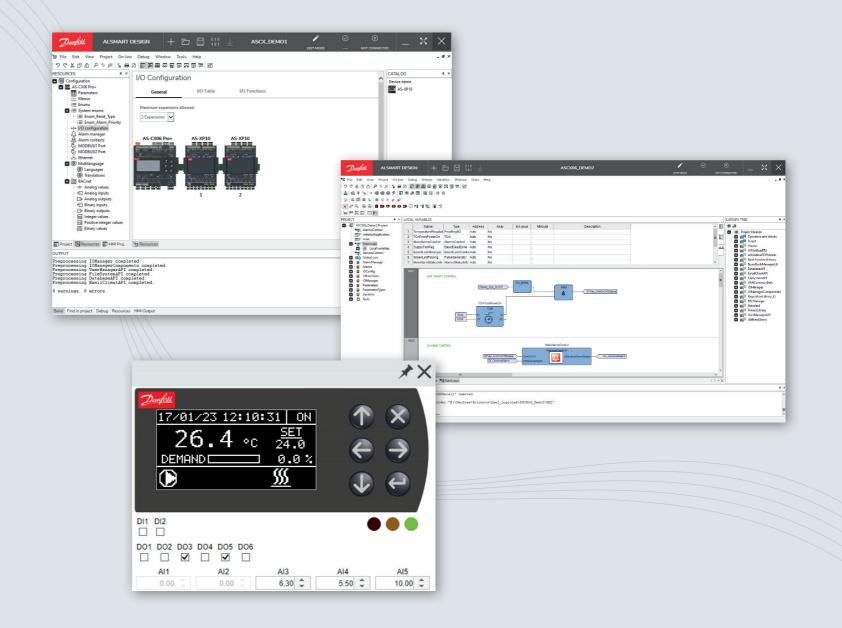
We've leveraged our vast application know-how, broad portfolio and comprehensive support to create the best HVAC control experience with the highest level of performance and safety for you.



Alsmart®

DesignHighlights

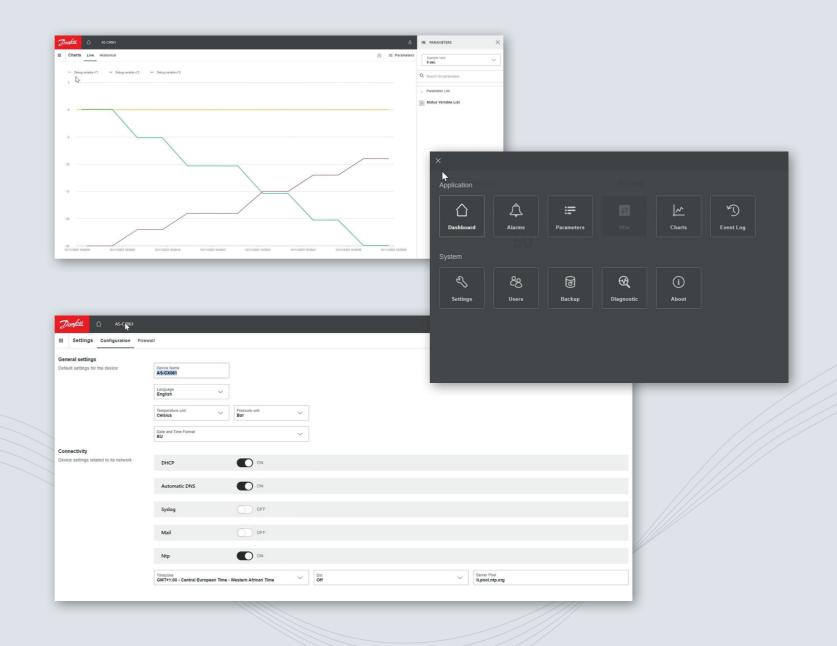
- IEC 61131-3 IDE (main logic)
- UI designer for low resolution displays (monochromatic LCD, 7-segment)
- UI designer for high resolution displays (color touchscreen, HTML browser)
- Debugger and simulator
- Parameter database and normalization
- Translation tool
- Automated test system
- Documentation generator (developer's documentation, user manual)



Alsmart® Service Tool

- Highlights

- Four level of access with different visibility
- Dashboard view customizable with widgets
- Alarm log and history accessible and downloadable
- Event log collect in one view all thesystem notifications and alarms
- Settings and users sections
- Backup to restore and copy parameters and settings



Product range overview - Hardware







Universal Controller AS-CX06

	Oliversal Collitoller AS-CAGO							
		Lite	Mid	Mid SSR *	Mid+	Mid+ SSR *	Pro	Pro+
Dimension		6 DIN						
Digital Output	N	6	6	6	6	6	6	6
	Туре	5xSPST 1xSPDT	5xSPST 1xSPDT	4xSPST 1xSPDT 1xSSR	5xSPST 1xSPDT	4xSPST 1xSPDT 1xSSR	5xSPST 1xSPDT	5xSPST 1xSPDT
Digital	N	2	2	2	2	2	2	2
Output	Туре	Voltage free						
Analog	N	3	3	3	3	3	3	3
Output	Туре	0/10V or PWM						
Universal	N	10	10	10	10	10	10	10
Input	Туре	NTC, PTC1000, 4-20mA, DI, 0/5V ratio, 0-1V / 0-5V / 0-10V						
Stepper M	Stepper Motor		_	_	1	1	_	1
CAN FE	CAN FD		YES	YES	YES	YES	YES	YES
Ethernet / Web Server		_	_	_	_	_	2	2
CANFE	CAN FD		2	2	2	2	2	2
USB		Yes, C type						
Power Supply		24 Vac or 2060 Vdc						

Expansion Modules AS-XP

Expansion modules As Ai								
AS-XP05	AS-XP05+	AS-XP10 **						
4 🛭	DIN	6 DIN						
5	5	10						
4x SPST 1xSPDT	4xSPST 1xSPDT	8xSPST 2xSPDT						
_	_	4						
_	_	24Vac or 230Vac						
2	2	2						
	0/10V or PWM							
10	10	10						
NTC, PTC1000, 4-20mA, DI, 0/5V ratio, 0-1V / 0-5V / 0-10V								
_	1	_						
_	_	_						
_	_	_						
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_	_	_						
From main control, except for stepper valve								

Dower Medule

Power Module					
AS-PS20					
4 DIN					
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^{*} Available from Q2-2025

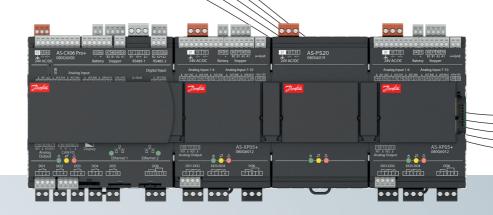
^{**} Available from Q4-2025



Ready to get started?

To learn more about how Alsmart® can optimize your application, reach out to us.

Contact us here



Visit our Alsmart® website

To learn more about Alsmart® and the supporting software toolchain, please visit our dedicated Alsmart® website.



Visit website

Alsmart® software suite

To learn more about Alsmart® Design & Alsmart® service tool please visit the Partner portal web page, where you can find documentations, video, guides and further useful tools to quickly get familiar with the Alsmart® tool chain.

Partner portal

Alsmart® Training On-demand

For the Alsmart® portfolio Danfoss provide the option for Online Training or Face to Face. We offer standard courses or customize the training according to your needs. These courses are subject to a fee.

Fill out the form and you are on your way to in-depth Alsmart® training.

Training

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