

# ↓ Scalable Control for Compact AHUs

KNOW  
HOW  
CREATES

HVAC  
CONTROLS & DRIVES

## AHC-3000

Control system for compact air handling units



# Simple. Scalable. And a Smart Choice for Compact AHU Systems.



## Our developers work for you

Innovation should be driven by real needs – responding to real-life challenges. That is why we always invite customers to tell us what they would like to see in their AHU control.

### Get it all in one place

We have spent four decades providing and perfecting control for air handling units. We know that different settings require different things. The AHC-3000 reflects this: a modern, future-ready controller for smaller-scale systems such as decentralised ventilation and compact air handling units.

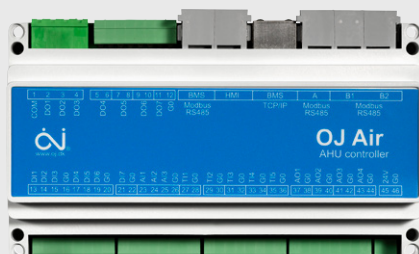
The AHC-3000 range offers the basic functions required by most systems – and more complex functions can easily and cost-effectively be added as pre-programmed add-ons. As always with an OJ series, you can get everything you need in one place – and it all fits perfectly together.

### Scalable functionality

The AHC-3000 combines simplicity with scalability. The controller comes in three different versions, offering different options for BMS integration and cloud-based control.

The standard AHC-3000 will handle all the basic functions required by smaller ventilation systems – and if you need more complex functionalities such as pressure control, these are easily available as pre-programmed add-ons. No customised programming is required; yet another feature that helps make AHC-3000 so competitive.

## KNOW HOW CREATES



### AHC-3000

A simple, straightforward controller designed for smaller system types such as decentral ventilation and compact air handling units.



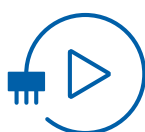
### Touch control panel with no secrets

The AHC-3000-HMI-35T unit offers logical and intuitive menus – and can be used to monitor up to 25 rooms in decentralised ventilation.



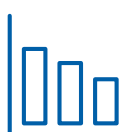
### Drive for rotary heat exchanger

Combining a stepper motor with field oriented sensorless motor control, the DRHX drive brings you energy-optimised heat recovery and precise temperature control.



### Plug & Play technology

All elements in the AHC-3000 fit together perfectly: the QuickPlug™ Modbus technology makes cabling and installation a breeze. But the Plug & Play philosophy goes further than that: With AHC-3000 controls inside, your air handling unit is in itself transformed into a single pre-installed Plug & Play-unit for remarkably easy installation on-site.



### Energy savings

Energy savings have dual benefits: saving money while helping to save the planet. The AHC-3000 controls minimise energy consumption in many ways, e.g. through heat recovery and summer night cooling.



### Reliable solution

At OJ, we have specialised in AHU control for many years. We know how important it is for our clients that their systems just keep working – and with an AHC-3000 solution, they do.

Not only are all the components of superior, lasting quality; they also fit together perfectly and are based on future-ready technology.



# Standard or Sophisticated? Get the Connectivity You Need



# OJ Air Cloud®

OJ Air Cloud® is a cloud-based system for AHU and ventilation control – and it's included on your AHC-3000 controller.

The system offers data logging, customised dashboards, easy diagnostics by means of visual graphs, device view, alarms via email and a user actions log.

The OJ Air Cloud® also helps you reduce AHU system downtime by enabling quicker, easier, and smoother troubleshooting than ever.

## You get access to following information:

- Alarm/notification overview
- User action logs
- Config device
- Device operation
- Scheduler
- Device users
- Table view
- Graph overview
- Trending and logging



OJ Air Cloud®



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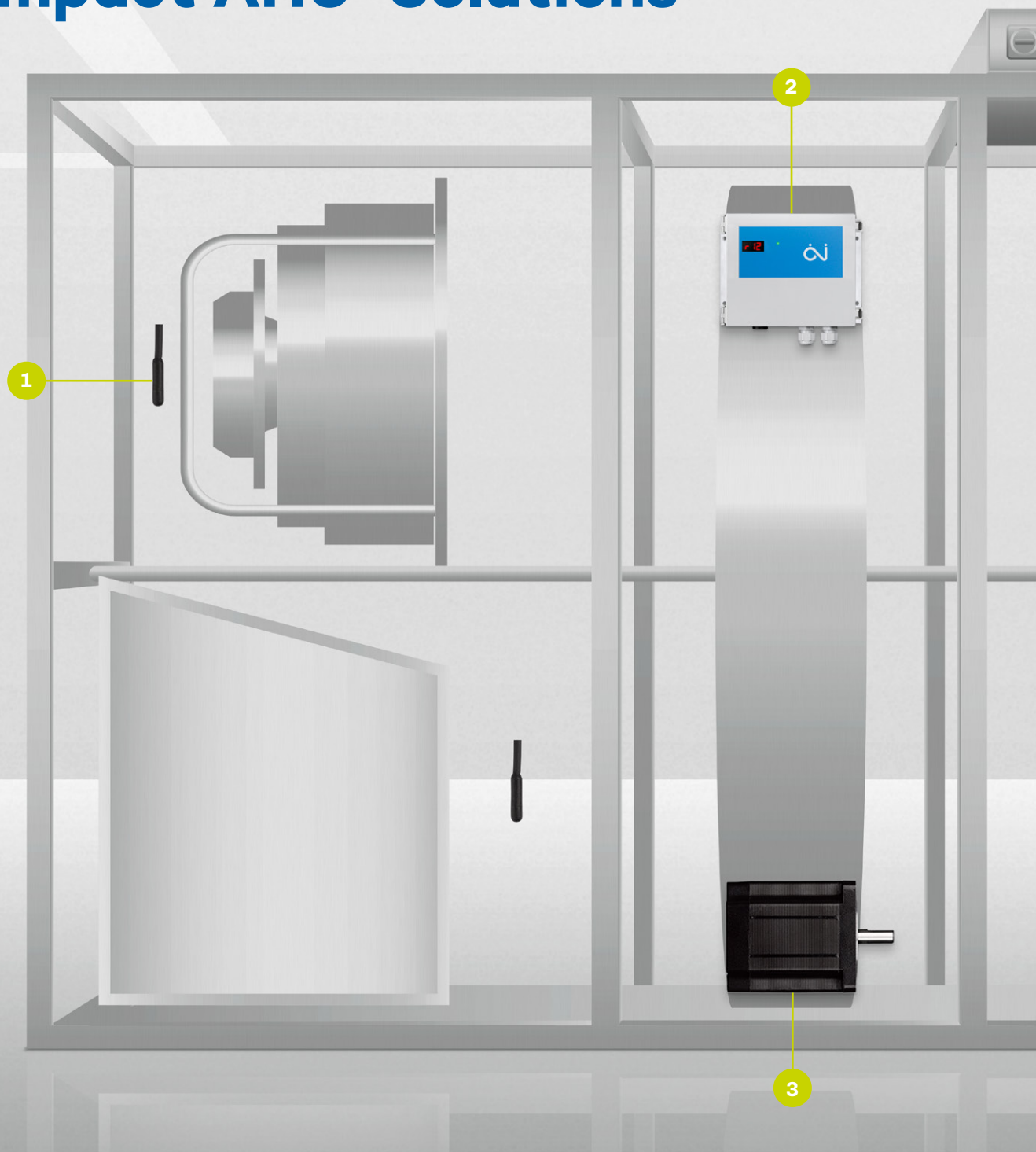
## BasicBMS:

**Monitor up to 25 units with a single touch panel**

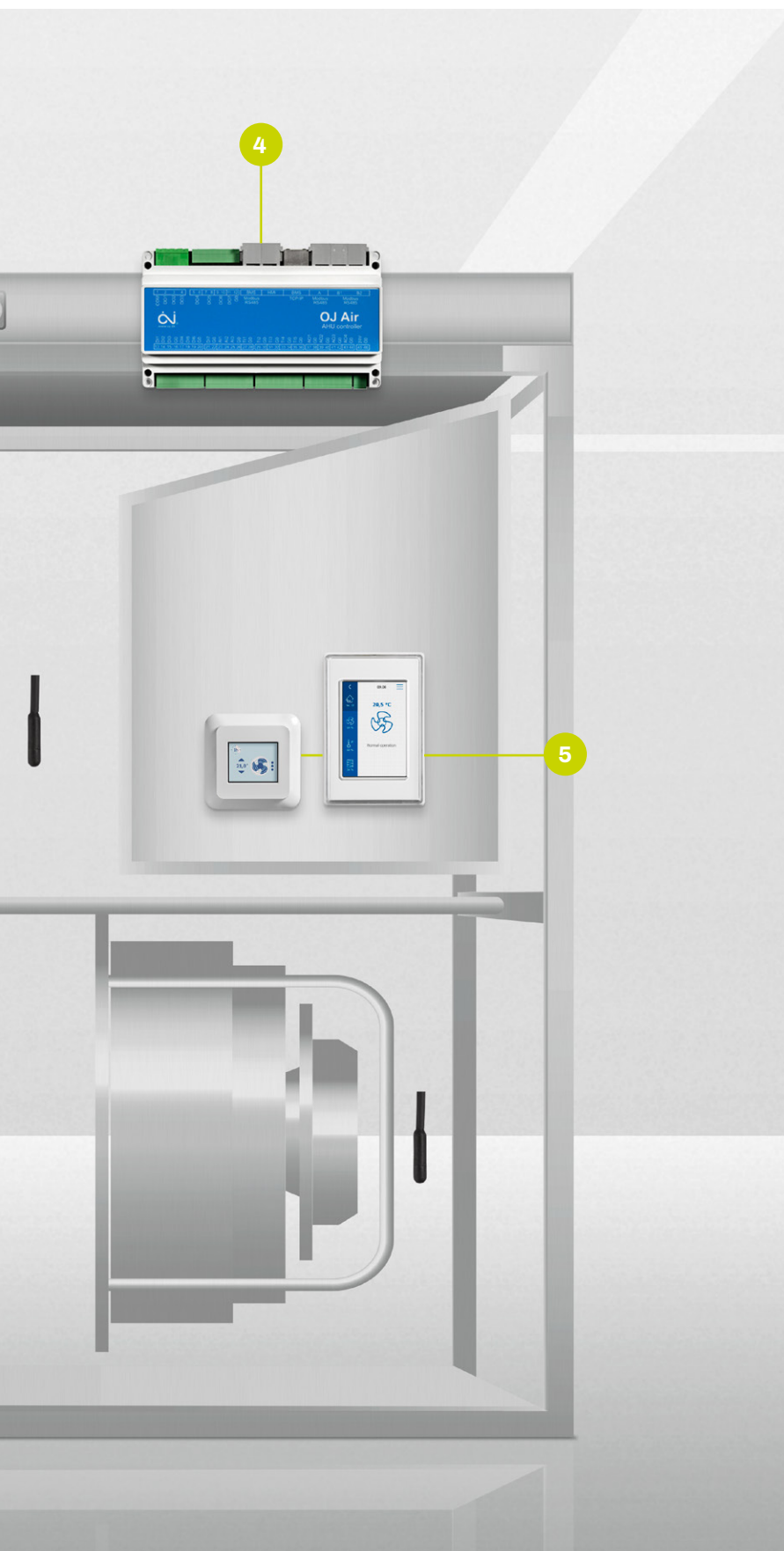
In decentralised ventilation systems, the AHC-3000 lets you monitor and control up to 25 AHUs via a single touch panel. That way, you can create very competitive BMS solutions straight out of the box. We call this 'BasicBMS' – and it typically brings savings of up to 92% compared to traditional BMS solutions.



# Everything You Need for Decentralised and Compact AHU-Solutions







## The AHC-3000 range

The AHC-3000 range was created especially for decentralised and compact ventilation systems.

It offers all the standard functions required by most systems – and a choice of models, components and pre-programmed add-on options makes the system entirely scalable to match your needs.

1. TEMPERATURE SENSOR
2. DRIVE FOR ROTARY HEAT EXCHANGER
3. STEPPER MOTOR
4. AHC-3000 AHU CONTROLLER
5. TOUCH CONTROL PANELS

# All Standard Functions Included

## The AHC-3000 range

The range is designed for relatively simple ventilation systems and AHUs, but still gives you a wide choice of control options – as listed on these pages. Some are included as standard in each of the three versions of the controller, others are available as add-ons.



## Pre-programmed add-ons

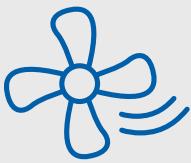
The AHC-3000 handles all basic functions out of the box. If you want additional functions, these are easily available as add-ons: everything is pre-programmed and prepared, so no customised programming is necessary. This enables you to get exactly what you want for each system. In a highly cost-efficient way.





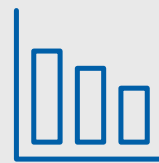
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# Freedom to Pick the Features You Need



## FAN CONTROL

- Constant pressure VAV
- True constant flow CAV
- Extract Air slave
- Supply Air slave
- Constant VOC/CO<sub>2</sub>
- OJ GreenZone™ control
- Constant motor speed
- High-speed setpoint
- Medium-speed setpoint
- Low-speed setpoint



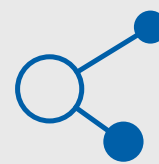
## ENERGY SAVINGS

- Heat recovery
- Cold recovery
- Summer night cooling
- Free cooling
- Modulated recirculation
- RH Control
- CO<sub>2</sub> control
- PIR sensor control
- Scheduler
- Fan speed reduction
- Split type heatpump



## TEMPERATUR CONTROL

- Constant supply air
- Constant extract air
- Constant room temperature



## CONNECTIVITY

- Modbus TCP-IP
- Modbus RTU (RS-485)
- Bluetooth®



## OJ AIR CLOUD®

- Have instant error notification
- Troubleshoot via cloud
- Reduce service cost
- Minimise Carbon footprint



## HUMIDITY CONTROL

- Fan speed increase

# Product Overview

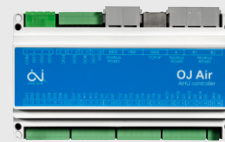
The OJ AHC-3000 range is fully rounded, covering everything you need for your decentralised ventilation system or compact air handling units. Here is an overview of what's available – ask us for details.

The AHC-3000 controller handles all communication in and out of your system with ease. Specifically created for smaller ventilation applications, it comes in three different versions, allowing you to meet your customers' needs with maximum precision and cost-efficiency.

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## AHC-3000 Product Range

- Specifically designed for ventilation systems
- -40° to +50° C
- BasicBMS – 25 room network
- OJ Air Cloud® access
- QuickPlug™ installation



### AHU Controller TCP/IP

Type: AHC-3000-T

- TCP/IP port
- 14 satellites in each room
- OJ Air Cloud® access via TCP/IP



### AHU Controller Standard

Type: AHC-3000-S

- BMS Modbus RTU (RS-485)
- OJ Air Cloud® access via PC tool



### AHU Controller Bluetooth

Type: AHC-3000-B

- BMS Modbus RTU (RS-485)
- 14 satellites in each room
- Bluetooth®
- OJ Air Cloud® access via smartphone/tablet



## OJ Air Cloud®

- Have instant error notification
- Troubleshoot via cloud
- Reduce service cost
- Minimise Carbon footprint

OJ Air Cloud helps reduce downtime of AHU systems by enabling quicker, easier troubleshooting than ever. This cloud-based system offers data logging, customised dashboards, easy diagnostics by means of visual graphs, device view, alarms via email and a user actions log.



### Touch Control Panel 3.5"

Type: AHC-3000-HMI-35T

- Intuitive user interface
- 3.5" colour touchscreen
- Countersunk wall mounting
- QuickPlug™ installation
- Monitor up to 25 rooms

This 3.5" colour touch panel offers effortless, intuitive and attractive operation of your AHC-3000 controller. Easy to install, this device can be used to monitor up to 25 rooms, allowing you to create very cost-efficient BasicBMS solutions.



### Touch Control Panel 2"

Type: OJ-AIR2-HMI-20T

- Colour touch screen
- QuickPlug™ Modbus installation
- No DIP switch setting required
- User-friendly, intuitive operation
- Choose fan speed and temperature setpoint

These compact interfaces give everyday users simple control. Users can adjust the temperature setpoint and fan speed via the intuitive touch screen panel. Installation is very simple: the unit clicks in place in seconds.



### Drives for Fans

Type: OJ-DV-XXXX

- Specially designed for fans
- -40 to +50 degrees
- 0.5 to 15kW
- QuickPlug™ Modbus

Developed specifically for ventilation application. Designed for mounting inside or outside the airflow, they are maintenance-free and extremely durable. The range comprises 13 output variants (from 0.5 to 15 kW) fitted inside five different housings to match any rooftop fan, plug fan, or AHU application.



### Drive for Rotary Heat Exchangers

Type: OJ-DRHX-XXXX

- Sensorless rotation monitor
- Sensorless closed loop control
- RS485 Modbus and 0–10V control
- QuickPlug™ Modbus

The stepper motor system gives you accurate, silent control of rotary heat exchangers. For use with conventional and advanced systems.



### Extension for ventilation

Type: OJ-AIR2EXT

- Specifically designed for ventilation systems
- Pre-programmed for heating and cooling coils
- QuickPlug™ Modbus
- Extend to suit your application

The OJ-Air2EXT is specially designed for ventilation systems, it comes equipped with both digital and analogue inputs and outputs, allowing you to design more complex ventilation systems.



### Transmitters and Sensors

Type: PTH-, VTH-, HTH-, TTH-, ETF-XXXX

- Pressure transmitters
- Humidity transmitters
- Air-quality transmitters
- Temperature transmitters
- PT-1000 temperature sensors
- NTC 12 kΩ temperature sensor

The extensive range of sensors offers reliable, accurate monitoring for swift and efficient system responses.



# The OJ Way

The OJ Way is the unique tie-in of product leadership, global supply chain, perfect platforms for customisation, industry best quality processes, and a diamond partnership in one coherent package.

All processes are focused on the same general goal – to improve the climate – always – through connected electronics solutions.

In this way, we help you differentiate in the market.



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