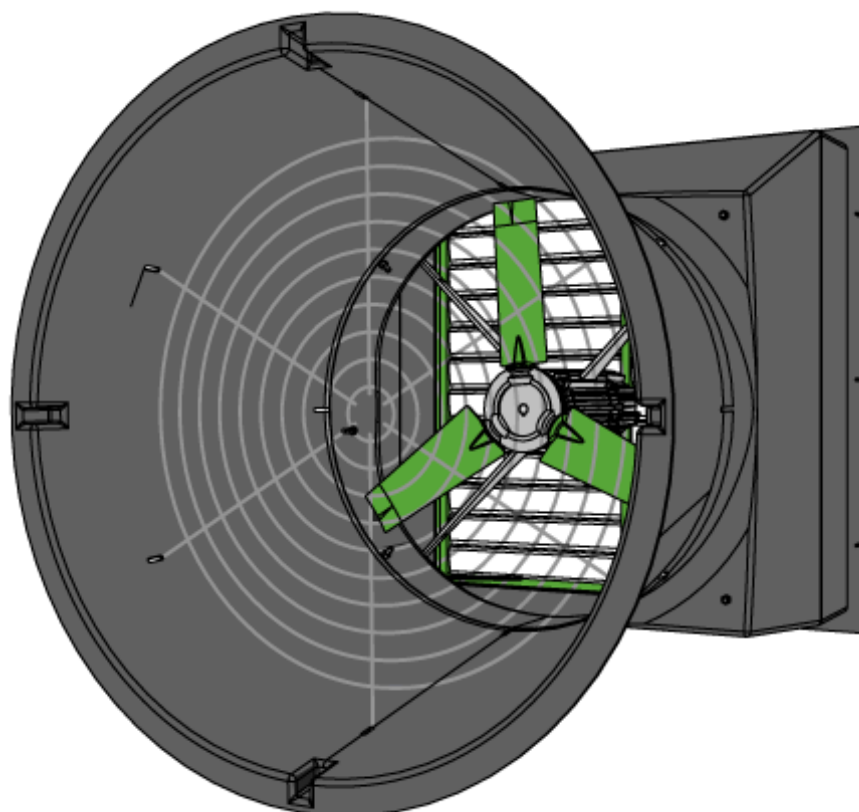


I-FAN 36" WALL



GB MANUAL

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Art.Nr. 5911984

GB161025

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1. General introduction

This manual has been compiled with the utmost care. If, however, you should discover an error, please inform Fancom B.V..








1.1 How to use this manual

The following symbols are used in this manual:

	Tips and suggestions.
	Note providing recommendations and additional information.
	Warning indicating damage to the product if you do not follow procedures carefully.
	Warning indicating danger to humans or animals.
	Electrical shock hazard. Danger to humans and animals.
	Example of a practical application of the described functionality.
	Calculation example.

1.2 Symbols on the I-fan

The following symbols are used on the I-fan:

	Read the documentation and safety instructions which are provided in this user manual.
	Warning indicating danger to the product or danger to human or animals.
	Electrical shock hazard. Danger to humans and animals.
	This unit may start at any time.
	Moving parts can crush and cut.
	Air flow direction.
	Air flow direction.

1.3 Fancom Sales & Service Center

For any questions and support, please contact the local Fancom Sales & Service Center.

1.4 Safety instructions and warnings

Before installing and commissioning the I-fan, read the safety instructions, provisions and conditions carefully. This paragraph contains a number of general safety instructions. In the following paragraph, a number of specific safety instructions are included in the installation instruction. The installation of the device and remedying of any malfunctions should be performed by a certified electrical installer according to the applicable norms. The guarantee does not apply if this product is installed in any other way than is indicated by Fancom and if the product's motor has been opened and changes have been made to the product.



Never install a damaged I-fan! Notify your supplier of any damages.



Parts of this product may have sharp edges. Wearing safety gloves is therefore recommended.

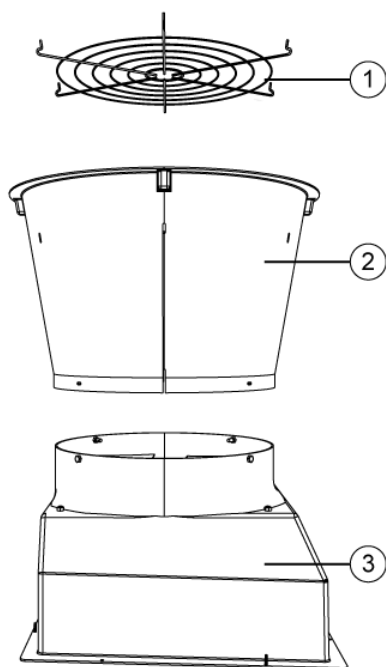


Ensure that the workplace is clean and dry.

2. Introduction of the I-fan

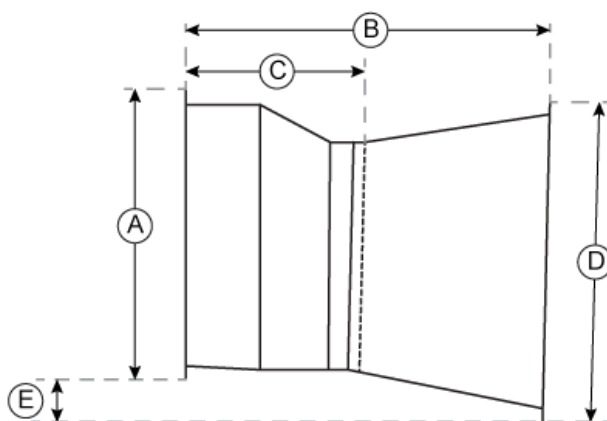
The Fancom I-fan is an energy saving fan, especially developed for use in the agricultural sector. The I-fans are equipped with energy efficient EC motors, which produce less heat and lose less energy. As well as an exceptionally low energy consumption, the I-fan features excellent controllability, a low noise production level and extreme durability. The I-fan motor already contains the control electronics and can be directly connected to the climate controller.

Overview main parts



1. Grill
2. Cone
3. Shroud with motor and impeller

Dimensions



Type	A square inch (cm)	B inch (cm)	C inch (cm)	Ø D inch (cm)	E inch (cm)
I-fan 36 inch	45.38 (115.27)	47.00 (119.38)	23.78 (60.4)	52.38 (133.05)	5.66 (14.38)

3. Installing the I-fan

Install the I-fan and associated components as follows:

1. Build the framework and mount the shroud (see page 4)
2. Mount the cone and grill (see page 5)
3. Install the shutter (optional) (see page 7)
4. Connect the manual control (optional) (see page 7)
5. Connect the I-fan and manual control (see)
6. Test the I-fan (see page 17)



Mount the I-fan in or on a solid structure.



The direction of airflow must be from the motor to the impeller.



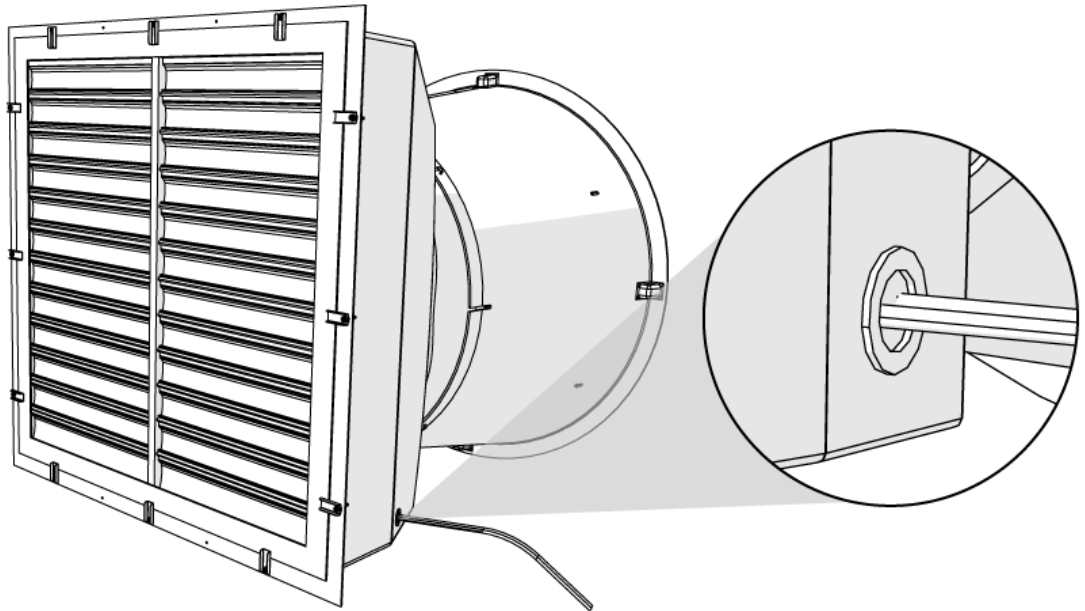
There must be sufficient free airflow available to cool the motor.



Most I-fan units are too heavy to lift. Take the necessary precautions.



Cables output is already made at a fixed position. A rubber seal is used to prevent cables from damage.

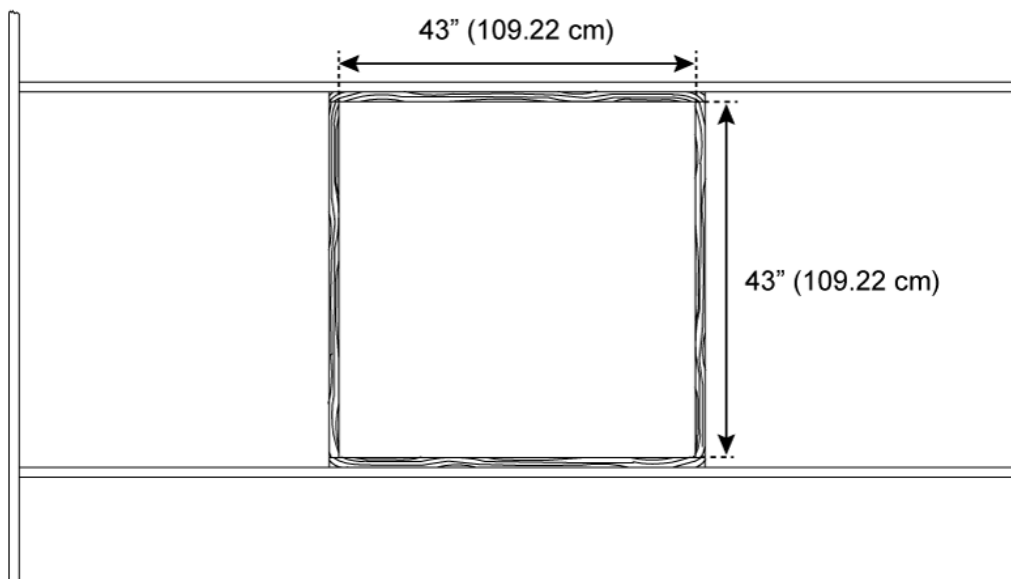


3.1 Build the framework and mount the shroud

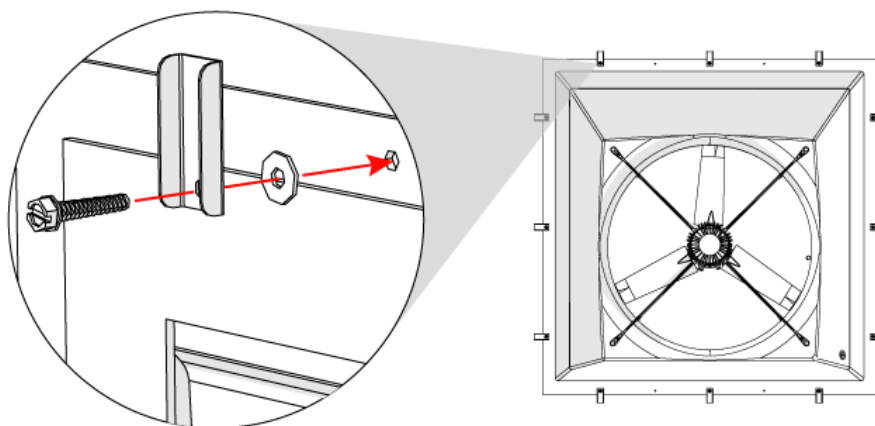


Fancom advises to build a wooden framework. The suitable mounting materials are included.

1. Cut a square opening in the wall according to the specifications below.
2. Build a framework as shown in the figure below. Make sure framing is square and level.



3. Mount the shroud in the wall and fasten it.
4. Mount the clips as shown in the image below (12x).



3.2 Mount the cone and grill



Placement of the grill is necessary if the I-fan.

- is within reach of animals and/or people, and
- is installed at heights less than 106,3" (270 cm) above the floor.



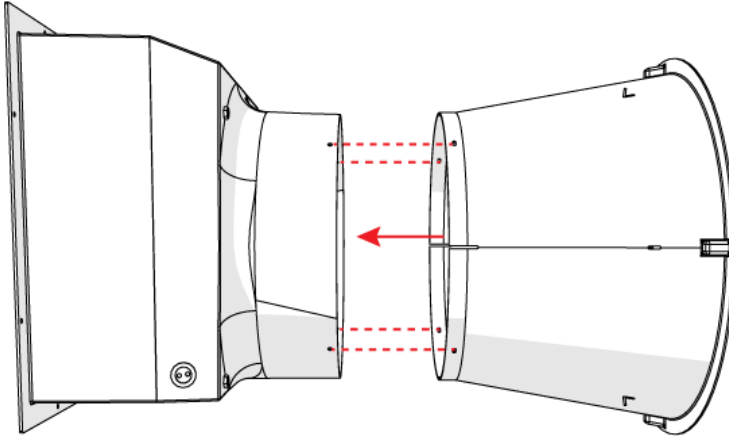
Make sure that the impeller is not turning.



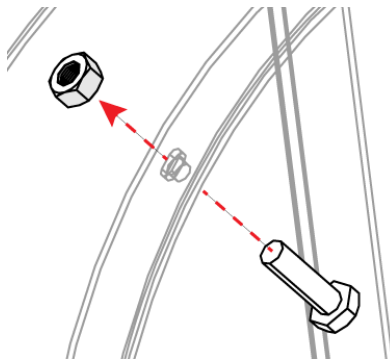
Cones may be installed to improve the performance of the I-fans.

Mount the cone and grill as follows:

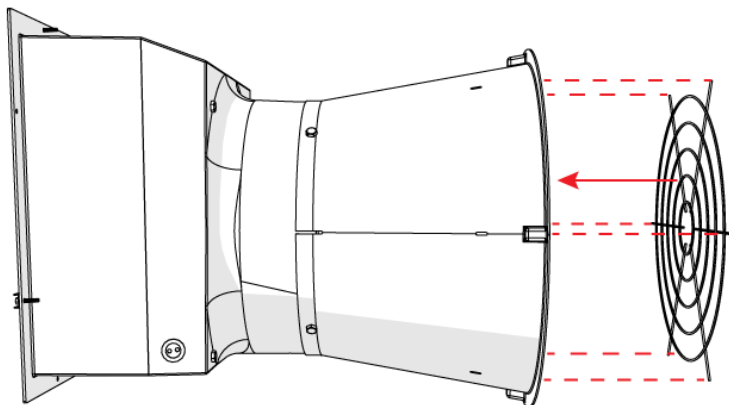
1. Slide the cone over the shroud and align the holes in the cone with the slots in the shroud.



2. Insert the bolts from inside the shroud through the cone and thread the flange nuts onto ends of the wafer head bolts.



3. Snap the cone grill into the slots on the outlet end of the cone.



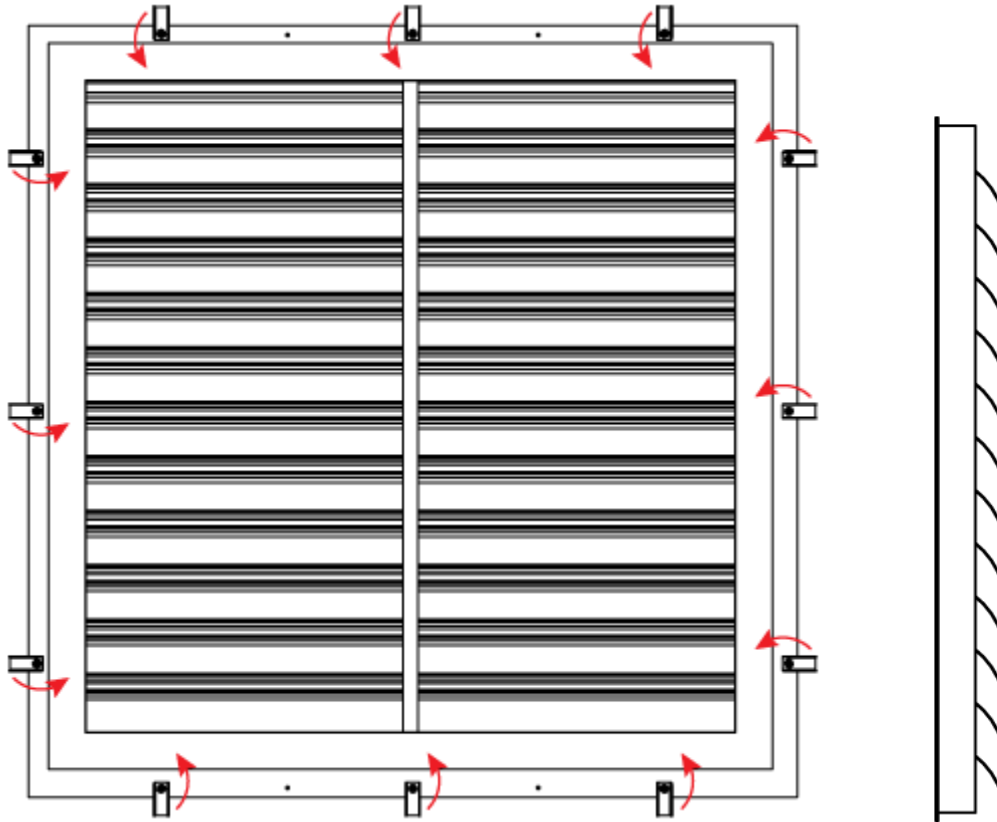
3.3 Install the shutter (optional)



The blades of the I-fan may run backward due to external influences. To prevent the I-fan turning in the opposite direction, it is necessary to place a shutter. If the rotating speed of the blades in the opposite direction is higher than 25% of the I-fan unit's maximum RPM, the I-fan is no longer able to reverse the blades to the correct direction of rotation. Then, the I-fan will not start and will sound an alarm.

Place the shutter frame as follows:

1. Position the shutter and rotate the shutter clips to lock the shutter in place. Align the shutter horizontally and note that the lamellae should open towards the motor.



2. Check the shutter for proper operation.
The shutter must be able to open and close freely without obstructions.

3.4 Connect the manual control (optional)

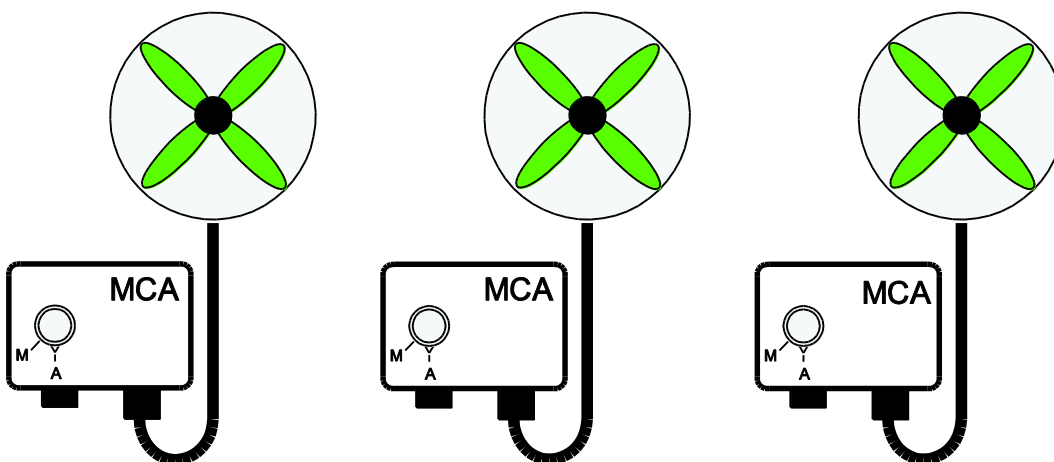


The manual control can be connected to 1 or more fans (a maximum of 3).

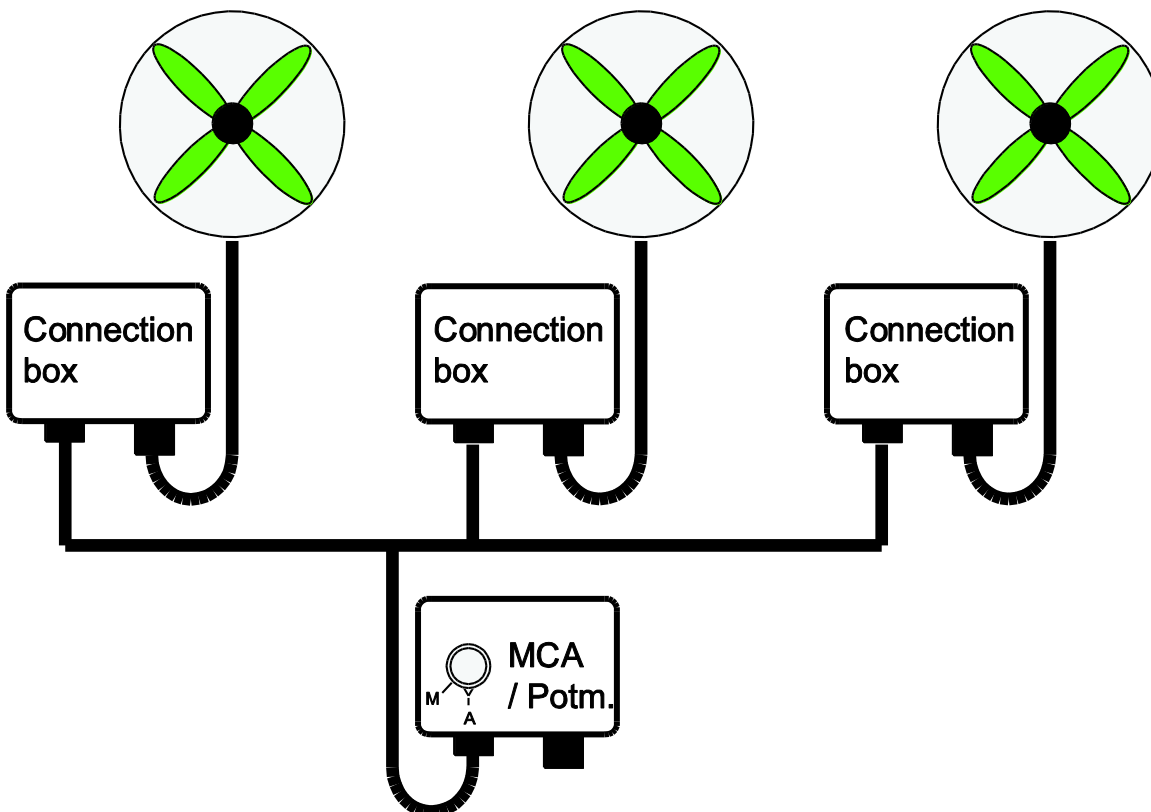


Below are examples where the connection box(es) and the manual controls may be placed.







Local manual control with MCA



Central manual control with MCA



3.5 Connect the I-fan and manual control

	Before connecting, turn off the power and turn it back on only after the entire installation is ready.
	The motor/thermal protection is already integrated in the I-fan.
	Due to a higher inrush current it is possible that the current protection will be activated while power up. The amount of I-fans, which you can connect behind a current protection, is depending on the type of protection. Type B: 2 I-fans Type C: 4 I-fans
	Make sure that the I-fan is well and properly grounded according to the guidelines.
	Keep signal and power cables as short as possible.
	Place cables preferably in a duct (separate signal cables from power supply cables).

Connect the I-fan and manual control:

- Connect the I-fan connection box (see page 9)
- Connect the I-fan manual operation box MCA (see page 10)
- Check the jumper settings at the MCA (see page 12)
- Connect two I-fans with manually operation box MCA and I/O-net (see page 13)
- Connect the power supply (see page 13)
- Set the dipswitch settings (see page 14)

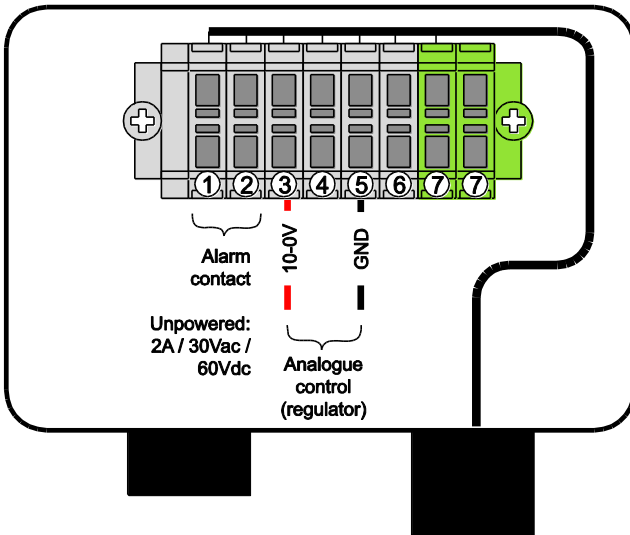
Connect the I-fan connection box



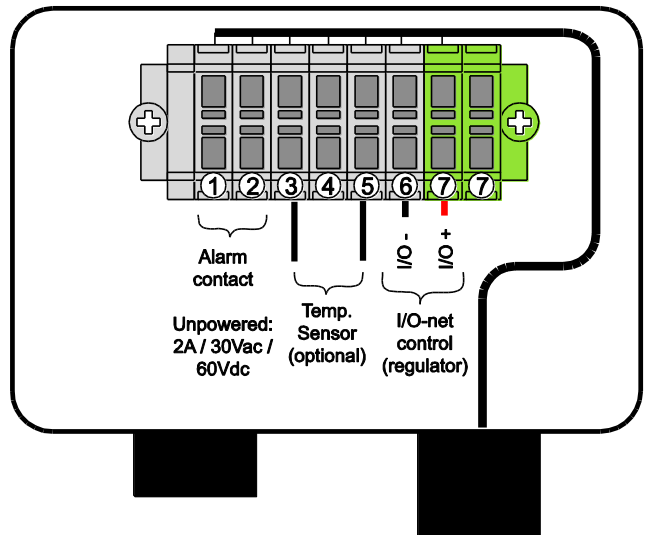
The I-fan connection box is supplied with the I-fan.



Analogue control



I/O-net control

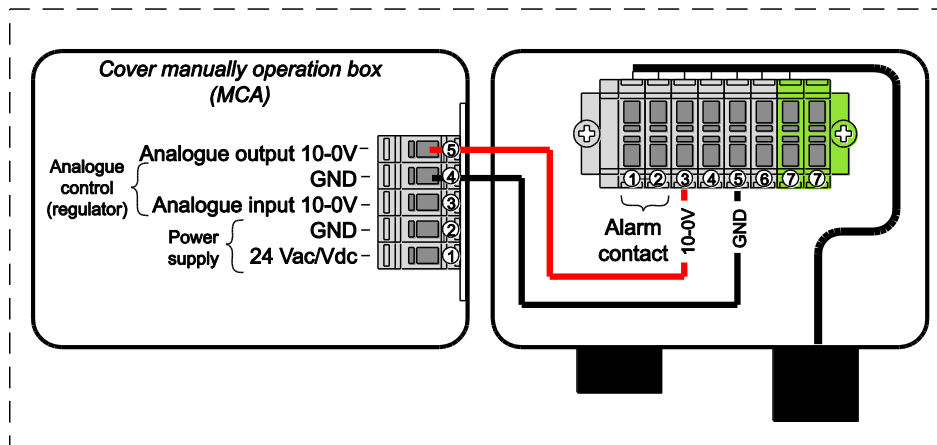


Connect the I-fan manually operation box MCA

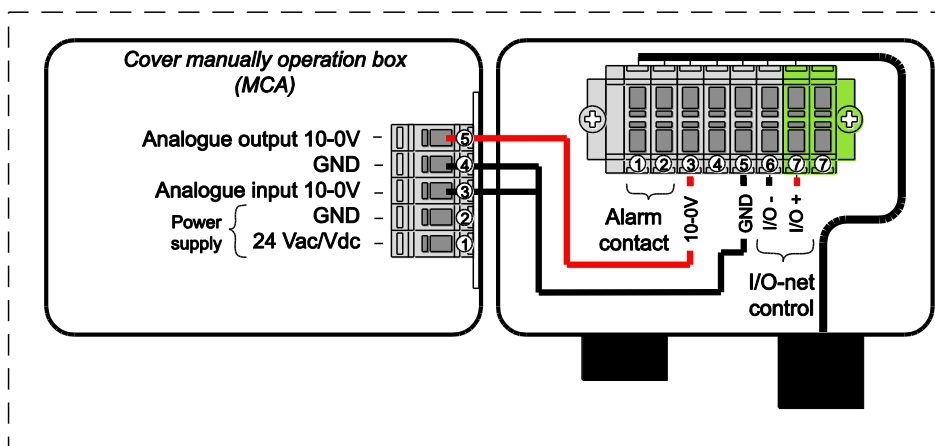
! In order to connect the regulator's analogue output, the standard connection Analogue In (3) and Gnd (4) must be removed from the MCA inside the cover.



MCA and 10-0V or 0-10V regulator control



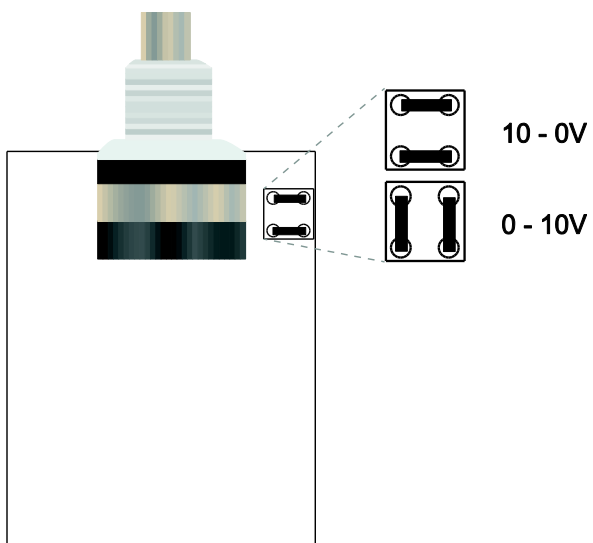
MCA and I/O-net control



Check the jumper settings at the MCA

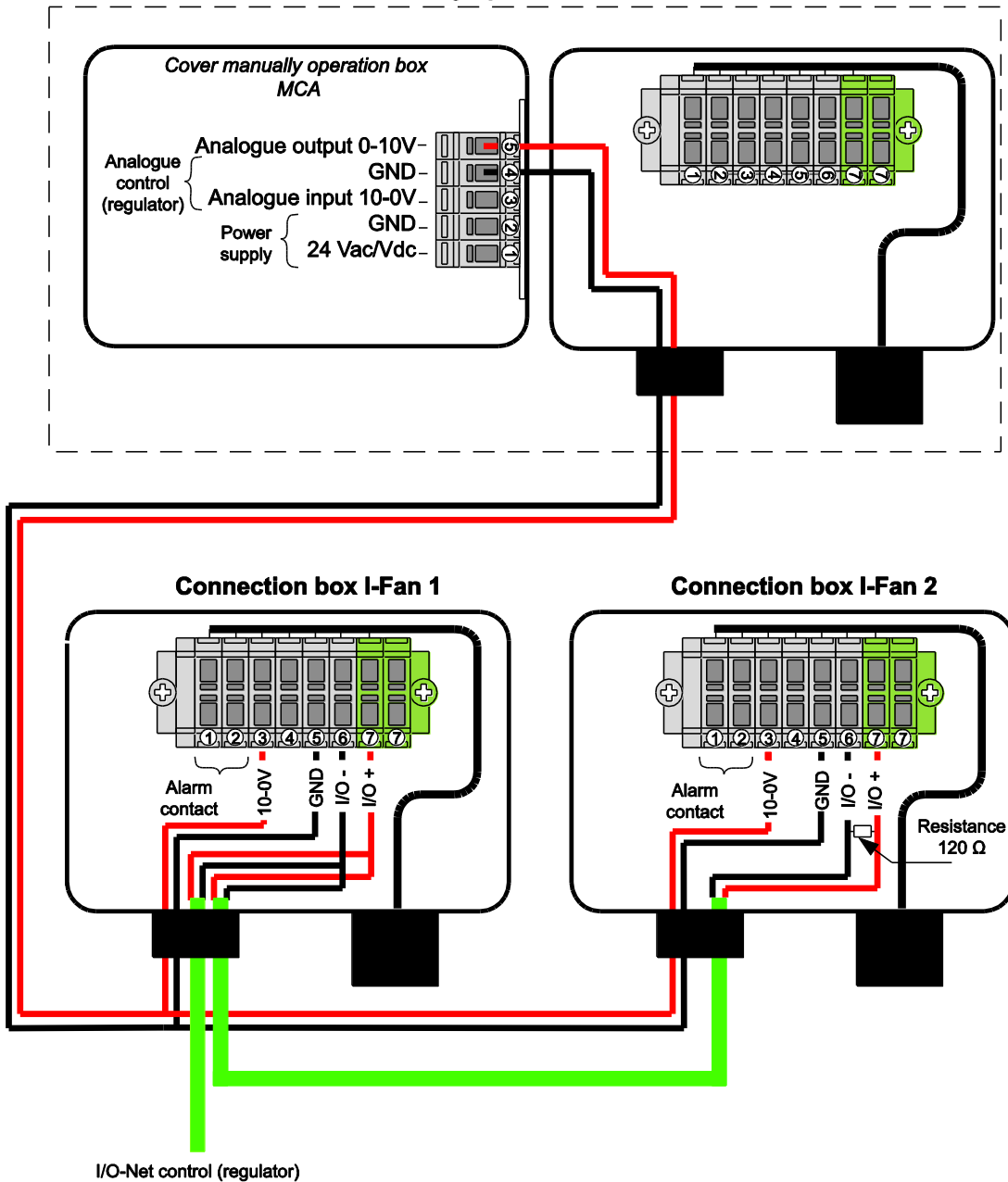
By default, the jumper settings are set to overrule the I/O-net controlled I-fan units via the I/O network (1-10V). To overrule the analogue control I-fan units, the jumper settings must be changed to 0-10V / 10-0V. Do this as follows:

1. Replace the jumper with resistance with the jumper delivered as a standard.
2. Set the jumper to the proper position:



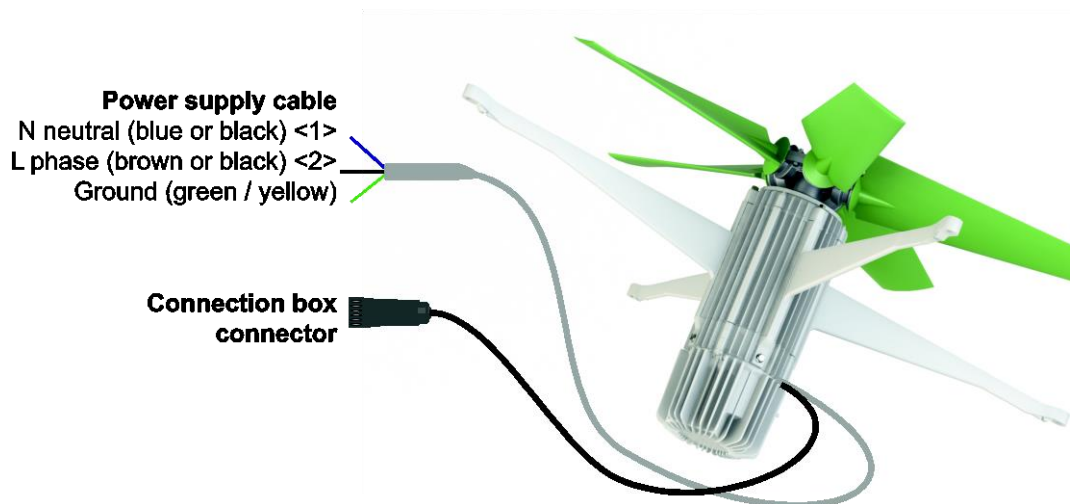
Connect two I-fans with manually operation box MCA and I/O net

Manually operation box MCA



Connect the power supply

1 phase I-fan



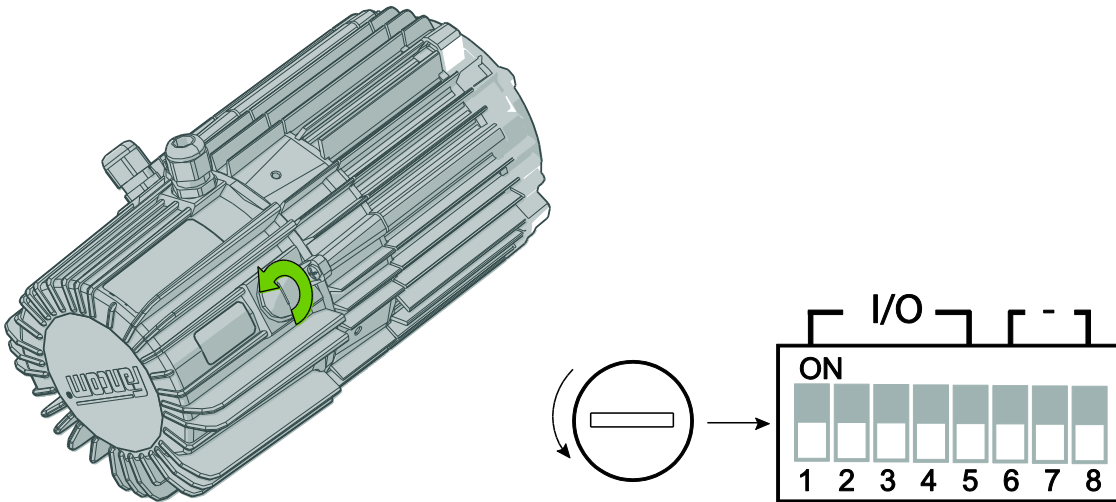
Specifications



Mounting and electric connection may be executed by qualified personnel only according to the current standards and regulations. Please see the ID label attached to the motor for additional information. Also see detailed specifications and fan characteristics for each type at www.fancom.com/uk/downloads or the Fancom extranet.

Set the dipswitch settings

Using the table on the following pages, set an I/O address with the dipswitches on the I-fan motor.



! In an I/O network, all I-fan units must have a unique address.

Analogue control

I/O address	DIP 1	DIP 2	DIP 3	DIP 4	DIP 5	DIP 6	DIP 7	DIP 8
0	ON	ON	ON	ON	ON	ON: 10-0V dc (10V=0%, 0V=100%) OFF: 0-10V dc (0V=0%, 10V=100%)	ON	N/A (ON/OFF)

Digital control

I/O address	DIP 1	DIP 2	DIP 3	DIP 4	DIP 5	DIP 6	DIP 7	DIP 8
1	OFF	ON	ON	ON	ON	ON: 10-0V dc (10V=0%, 0V=100%) OFF: 0-10V dc (0V=0%, 10V=100%)	ON	ON: 50% OFF: 100%
2	ON	OFF	ON	ON	ON			
3	OFF	OFF	ON	ON	ON			
4	ON	ON	OFF	ON	ON			
5	OFF	ON	OFF	ON	ON			

6	ON	OFF	OFF	ON	ON			
7	OFF	OFF	OFF	ON	ON			
8	ON	ON	ON	OFF	ON			
9	OFF	ON	ON	OFF	ON			
10	ON	OFF	ON	OFF	ON			
11	OFF	OFF	ON	OFF	ON			
12	ON	ON	OFF	OFF	ON			
13	OFF	ON	OFF	OFF	ON			
14	ON	OFF	OFF	OFF	ON			
15	OFF	OFF	OFF	OFF	ON			
16	ON	ON	ON	ON	OFF			
17	OFF	ON	ON	ON	OFF			
18	ON	OFF	ON	ON	OFF			
19	OFF	OFF	ON	ON	OFF			
20	ON	ON	OFF	ON	OFF			
21	OFF	ON	OFF	ON	OFF			
22	ON	OFF	OFF	ON	OFF			
23	OFF	OFF	OFF	ON	OFF			

24	ON	ON	ON	OFF	OFF			
25	OFF	ON	ON	OFF	OFF			
26	ON	OFF	ON	OFF	OFF			
27	OFF	OFF	ON	OFF	OFF			
28	ON	ON	OFF	OFF	OFF			
29	OFF	ON	OFF	OFF	OFF			
30	ON	OFF	OFF	OFF	OFF			
31	OFF	OFF	OFF	OFF	OFF			

3.6 Test the I-fan

1. Check whether the I-fan has been connected correctly.
2. Check whether the I-fan works optimally.



Do not touch any of the I-fan moving parts.

4. Using the I-fan

4.1 First use

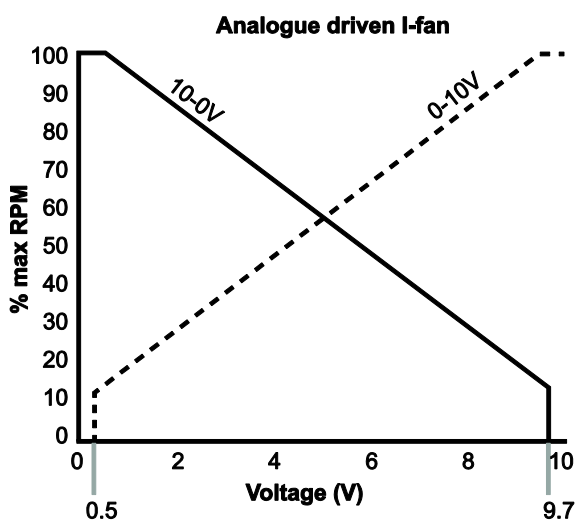


Do not touch any of the I-fan moving parts.

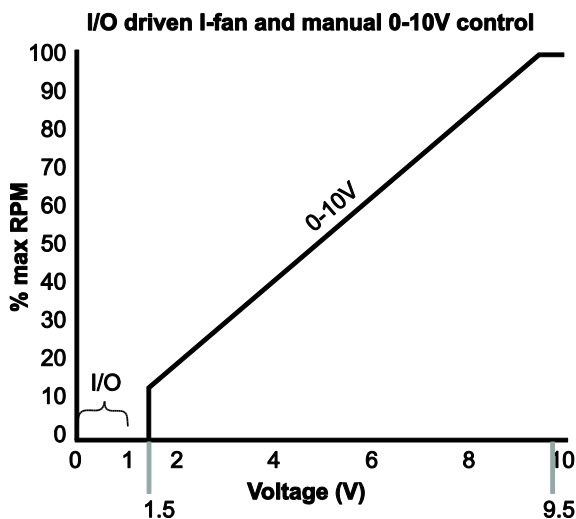
Fancom advises to leave the I-fan on for about 6 hours after installation, to let it run in.

4.2 Control options

Analogue control (0-10V;10-0V)



Digital control (I/O network)



If the I-fan is controlled via the I/O network, this can be bridged with a manual control via the 0-10V input. In this case, both the I/O network and the 0-10V are connected. Dip 7 must be set to 0-10V control. A manual control has the following positions:

- **AUT** : (0-1V) automatic regulation via the I/O network
- **OFF** : (1-1.5V)
- **MAN** : (1.5-10V) manual regulation (continuous) via manual control

4.3 Malfunctions

Analogue and digital




- When overloaded, the I-fan will adjust itself back on the basis of maximum power. If the RPM is lower than 93% of the maximum RPM, an alarm will sound.
- For other malfunctions, the I-fan will start itself up again independently after a short while. If the motor does not start up then, the alarm relay will be switched off. If the I-fan no longer starts independently, the I-fan must be removed from power for at least 30 seconds and then be started up again.

Digital

- If I/O communication is interrupted, the last set value remains active.
- Turning the power supply on and off without I/O communication will activate the predefined setting of dipswitch 8 (ON=50%, OFF=100%, see also).





4.4 Maintenance

The I-fan requires no specific maintenance. Fancom recommends that your installation technician inspects the complete climate installation, of which the I-fan is a component, every half-year.

	Inspect the I-fan periodically for any damages. Notify your installation technician immediately of any damages. A damaged I-fan is unsafe!
	Check the I-fan for proper functioning regularly.
	There must always be power to the I-fan. This prevents the formation of condensation in the I-fan. When the mains power is interrupted, the alarm relay is also interrupted.

Cleaning

The I-fan may be cleaned wet, but consider the following:

	Do not use a high pressure hose or aim at motor seals or openings at close range.
	The fan should be turning. This makes for a better seal at the shaft ends and prevents water flowing into the motor. It is recommended that the fan turns at 50%. If so, water will be discharged faster by the airflow.
	This fan has protection class IP66.
	After cleaning the I-fan, it should run at 100% rpm for at least 30 minutes to remove all dampness.

4.5 Disposal / recycling

When disposing the I-fan please comply with all relevant requirements and regulations applicable in your country.

5. Technical specifications



See the ID label on the motor for additional information. Also see detailed specifications and fan characteristics for each type at www.fancom.com/uk/downloads or the Fancom extranet.

6. EG declaration of conformity

Manufacturer: Fancom B.V.

Address: Industrieterrein 34

City: Panningen (the Netherlands)

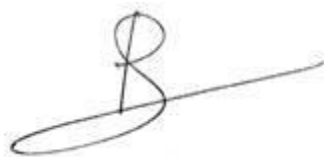
Hereby declares that the: **I-FAN 36" WALL**

Complies with the provisions of the:

1. Low voltage directive 2014/35/EU
according to NEN-EN-IEC 60335-01: 2012
2. Machine directive 2006/42/EC
Industrial ventilators according to NEN-EN-IEC 14461: 2002
3. EMC directive 2014/30/EU
Emission according to NEN-EN-IEC 61000-6-3: 2007
Immunity according to NEN-EN-IEC 61000-6-2: 2005
4. Ecodesign requirements directive 2009/125/EC
according to NR. 327/2011

Place: Panningen

Date: 25-10-2016



Paul Smits

Managing Director