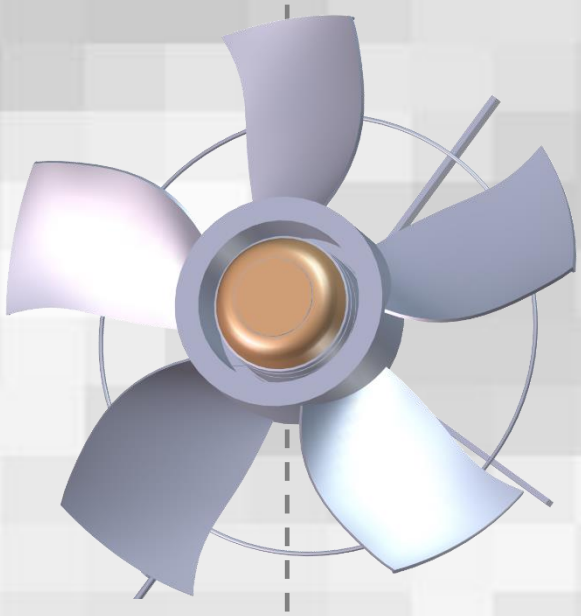
ECT 800-6 Fan

Technical User Guide



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SKOV

Product and Documentation Changes

SKOV A/S reserve the right to change this document and the product herein described without further notice. In case of doubt, please contact SKOV A/S.

Date of change appears from the front and back of this manual.

In case of maloperation or improper use, ventilation systems can result in production loss or cause loss of lives among animals.
SKOV A/S recommend that ventilation systems should be mounted, operated and serviced only by trained staff and that a separate emergency opening unit and an alarm system be installed as well as maintained and tested at regular intervals, according to SKOV A/S terms and conditions of sale and delivery.

Note

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- SKOV A/S has made all reasonable efforts to ensure the accuracy of the information contained in this manual. Should any mistakes or imprecise information occur in spite of this, SKOV A/S would appreciate being notified thereof.
- Irrespective of the above, SKOV A/S shall not accept any liability with regard to loss or damage caused or alleged to be caused by reliance on any information contained herein.
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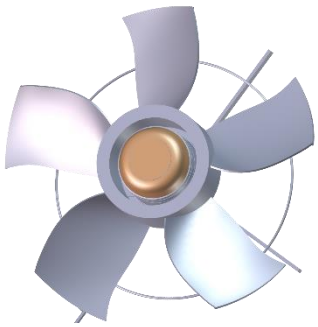
1 PRODUCT DESCRIPTION

The ECT fans particularly excel by having a brilliant build-up of the bearings, which ensures a long life of the bearings without problems with water penetration. The fans have aluminium blades, which by and large wear forever and are very sturdy. They will not be damaged by ice and dirt, which might fall on the blades.

The fans are CE-marked and have a special sturdy suspension in four “legs”, ensuring that the fan does not fall down, even if one of the suspension “legs” is damaged.

DA/ECT-Fan



409151 ECT 800-6 Triac/ON/OFF fan 230V1 50Hz

5 fan blades, 230 V fan with aluminium fan blades which fit a duct with an inside duct dimension of 800 mm.

Can be used both as a stepless triac controlled fan and as an ON/OFF fan.

High output and good pressure stability

2 MOUNTING GUIDE

2.1 Fan in DA 800 duct

The fan is intended for mounting in 4 pcs. special fan suspension.

Item no.:

- 407828 DA 800 duct f. fan
- 409924 Fan ring 800 mm

The above-mentioned are mounted in vertically placed ducts with a diameter of 800 mm. The fan ring is mounted 64 cm from the bottom edge of the duct.

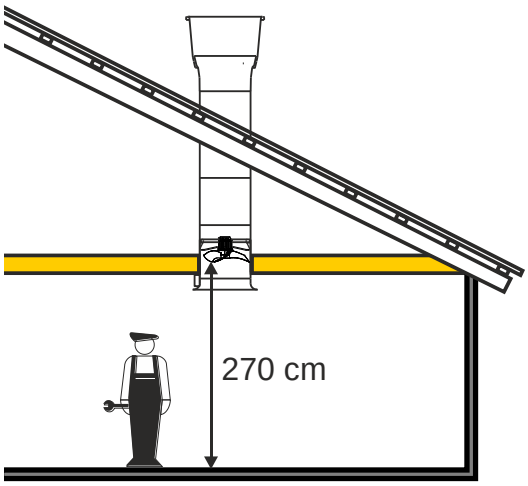
The fan is placed in the fan suspension it must be fixed at all four fan legs with split pins.

The DA-fan is mounted with the motor at the top and the fan blades at the bottom. Check that the fan is turned correctly and according to fan type.

The ECT-fan is mounted with the fan blades at the top and the motor at the bottom. Check that the fan is turned correctly and according to fan type.

Be careful, the fan may rotate if gripped by wind.

2.2 Safety Distance



If the distance from the floor to the fan blade is less than 270 cm, mounting a protective mesh in the inlet bell mouth may be required to meet the statutory requirements.

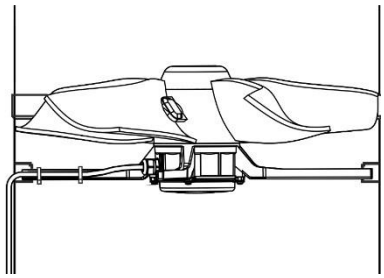
3 Installation Guide

3.1 Electric Connection

Qualified personnel must perform installation, service and fault-finding of all electrical equipment in accordance with the applicable national and international standard EN 60204-1 and any other EU standards that are applicable in Europe.

The installation of a power supply isolator is required for each motor and power supply to facilitate voltage-free work on the electrical equipment. SKOV A/S does not supply the power supply isolator

3.1.1 Cabling



Drill a hole for the cable and pull it along a leg to the same side as the winch motor. Seal the hole from the inside before the next duct/inlet is mounted.

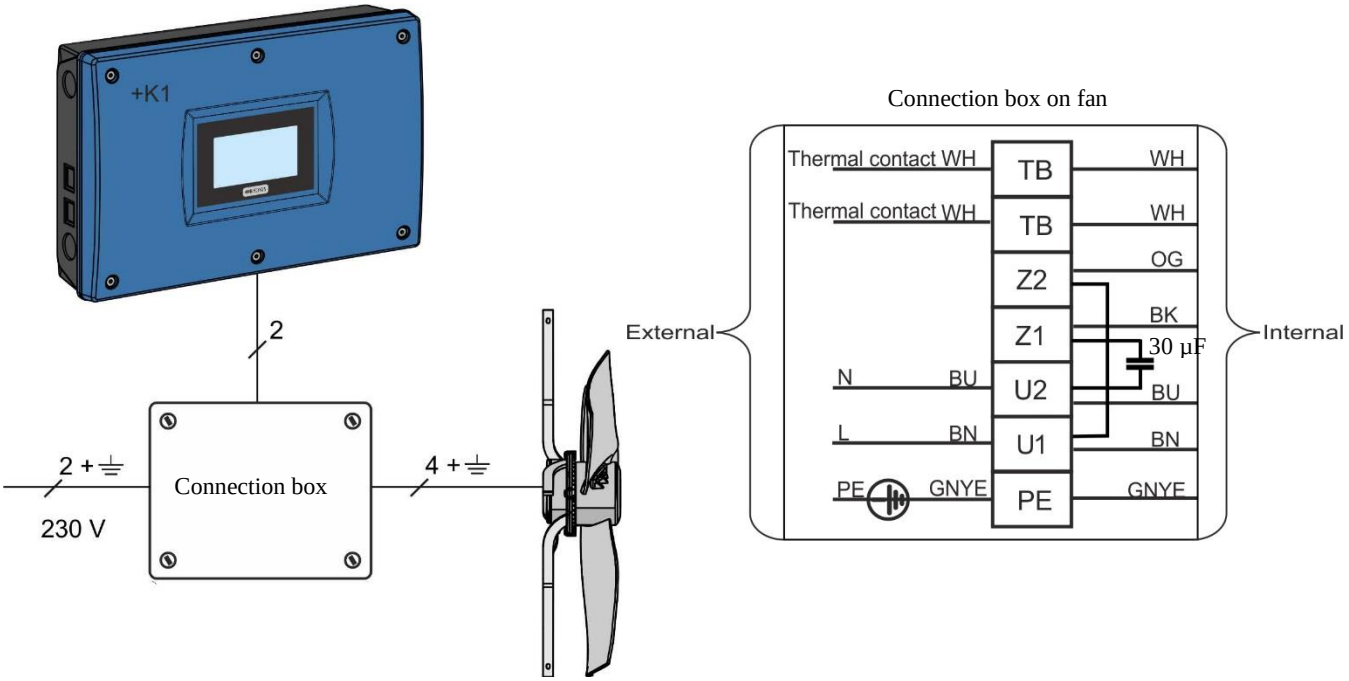
3.1.2 Colour Code

Colour code on the wires in appliance with the IEC 60757 standard: Alphabetic codes for identification of colours used on drawings, diagrams, marking, etc.

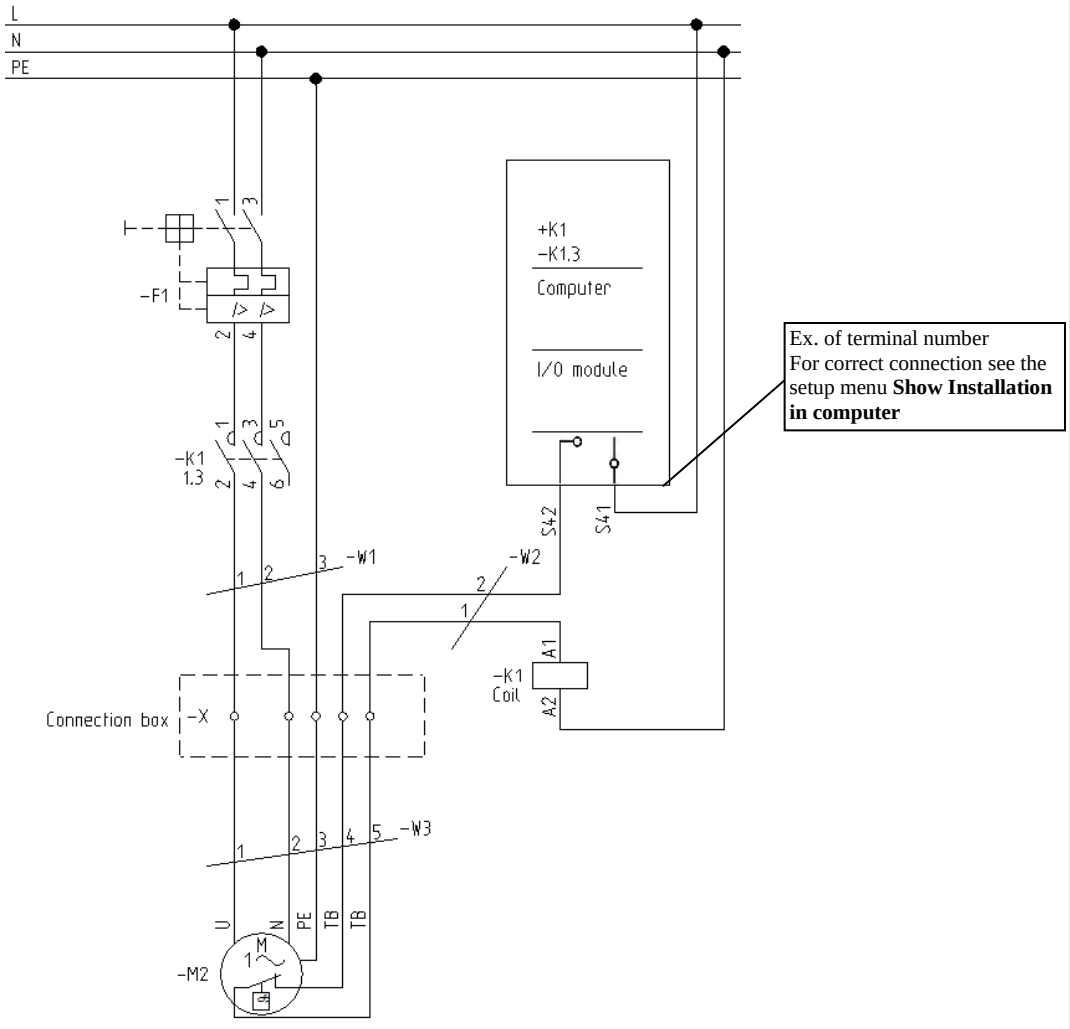
Bogstavkode	Farve
BK	Black
BN	Brown
RD	Red
OG	Orange
YE	Yellow
GN	Green
BU	Blue (incl. light blue)
VT	Violet (purple red)
GY	Grey (slate)
WH	White
PK	Pink
GD	Gold
TQ	Turquoise
SR	Silver
GNYE	Green-and-yellow

3.2 ECT 800-6 Fan 230 V 50 Hz (409151)

3.2.1 Cable Plan and connection



3.2.2 Circuit Diagram



4 Maintenance Guide

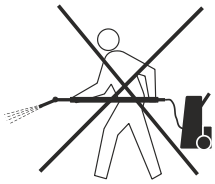
4.1 Cleaning

Clean the fan regularly to allow unobstructed passage of cooling and air

1. Set the climate computer to the **Wash** in-between function.
2. Disconnect the supply to the fan.
3. Fix the fan blade before cleaning, e.g. by tying a blade to a leg.

Do not stop the fan by leading hard objects up into the fan blades as this may damage the blades.

Do not subject the fan to higher loads than its own weight.



Clean the product with water and a brush without using:

- high-pressure cleaner
- solvents
- corrosive/caustic agents

4.2 Dismantling for Recycling / Disposal

SKOV A/S' products which are suited for recycling are marked with a pictogram showing a refuse bin that is crossed over.

Customers can dispose of SKOV A/S products at local collecting points/recycling stations according to local directions. The recycling station will then send the products to an approved plant for recycling and reuse.

4.3 Troubleshooting Guide

Always disconnect the power securely before servicing the fan.

When the control voltage has been disconnected, wait for 30 sec. before removing the lid of the motor control or touching the motor cables.

Symptom	Løsning
The fan does not start.	Check the fuses. Check if the fan motor is blocked. Set the climate computer to manual control and try to start the fan via the Auto/Manual menu. Disconnect the supply voltage for 30 sec. to restart the motor control after a fault has occurred. Control error: - too high temperature - too high output current - short circuit of output/short circuit to earth - overvoltage/undervoltage (supply) - supply disconnected
Abnormal fan noise. Bearing noise. Vibrating fan.	Check for broken or dirty fan blades.
Difficult to start or irregular running.	Contact authorised personnel regarding a replacement.

5 Technical Data

5.1 ECT 800-6

Fan type Electric	409151 ECT 800-6
Rated voltage [V AC]	230 ± 10 %
Operational voltage [V AC]	207 - 253
Frequency [Hz]	50
Max. power consumption [A]	6.2
Power consumption at [A] - 40Pa	4.6
Power [W]	1,300
Adjustment ability	Sinus filter must be used by frequency converter
Motor protection	Thermistor
Motor relay	-
Mechanic	
Cable length [mm]	2050
Min. duct diameter [mm]	800
Blade diameter [mm]	770
Number of blades [pcs.]	5
Fan output	
Revolutions [per minute] (mark)	870
Air output [m^3/h] (at –10 Pa]	18,900
Air output [m^3/h] (at –20 Pa]	18,500
Air output [m^3/h] (at –30 Pa]	18,000
Air output [m^3/h] (at –40 Pa]	17,400
Air output [m^3/h] (at –50 Pa]	16,700
Air output [m^3/h] (at –60 Pa]	16,200
Air output [m^3/h] (at –80 Pa]	14,400
Air output [m^3/h] (at –100 Pa]	12,200
Air output [m^3/h] (at –120 Pa]	7,600
Air output [m^3/h] (at –140 Pa]	6,100
Power consumption [W] (at -10 Pa)	890
Specific output [m^3/kWh] (at -10 Pa)	20,800
Specific energy [Watt/1000 m^3/h] (at -10 Pa)	48
Pressure stability, change from 0 to -20 Pa [%]	5
Test authorities	SKOV A/S

Fan type	409151 ECT 800-6
Environment	
Operating temperature [° C]	70
Start temperature [° C]	÷ 40 to + 70
Storage temperature [° C]	÷ 40 to + 80
Ambient humidity, operation [%]	85
Protection class	IP54
Shipping	
Dimensions crated H x W x D [mm]	870 x 870 x 360
Weight [g]	31,000
Shipping weight [g]	33,000

5.1.1 ErP/Ecodesign

Fan type	409151 ECT 800
Ecodesign	EU 327/2011
Efficiency classification [N]	41.3
Classification (η) [%]	-*
Measurement category	A
Efficiency category	40
Optimum efficiency [%]	35.5
VSD required	No
Year of manufacture	2015
Manufacturer's name	ZIEHL-ABEGG
Product's model number	170123 FN080-6ET.6N.A5P7
Motor power input [kW]	1.224
Flow rate [m^3/s]	3.723
Optimum pressure [Pa]	114
Total pressure [Pa]	-*
Rotations per minute [RPM]	883
Specific ratio	1
Recycling/disposal	The product is designed for recycling and it will be possible for customers to deliver worn-out product to SKOV A/S or to local collection sites/recycling stations according to local instructions.
Impact on environment	-*
Additional items used when determining the fan energy efficiency	-*

* Not relevant

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