Installation and Operating Instructions
QuietAir 100/120mm Axial Fan

MODEL: QT 100HT - Two Speed Fan (75/90m³/hr)
QT 120HT - Two Speed Fan (150/170m³/hr)
with Delay Start, Automatic
Humidity control and Timer

- Low Energy
- Whisper Quiet
- Long Life
- Extra Safe
- Delay Start

Warranty:
Applicable to units installed and used in the United Kingdom. Airflow’s Warranty covers the QuietAir fan for TWO years. The Warranty can be upgraded to THREE years from date of purchase against faulty material or workmanship by registering on our web site at www.airflow.com.

The Warranty covers the product only and not the installation cost.

In the event of any defective parts being found, Airflow Developments Ltd reserve the right to repair or at our discretion replace without charge provided that the unit

1. Has been installed and used in accordance with the fitting and wiring instructions supplied with each unit
2. Has not been connected to an unsuitable electrical supply
3. Has not been subjected to issue, neglect or damage
4. Has not been modified or repaired by any person not authorised by Airflow Developments Ltd.
5. Has been installed in accordance with latest Building Regulations and IEE wiring regulations.

Airflow Developments shall not be liable for any loss, injury or other consequential damage, in the event of a failure of the equipment or arising from, or in connection with, the equipment excepting only that nothing in this condition shall be construed as to exclude or restrict liability for negligence.

This warranty does not in any way affect any statutory or other consumer rights.

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IP45  |  E  |  CE
Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its Operation and Installation Instruction, indicates that it should not be disposed with other household wastes at the end of its

recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this

item for environmentally safe recycling.

This product should not be mixed with other commercial wastes for disposal.

Business users should contact their supplier and check the terms and conditions of the purchase contract.

(Waste Electrical & Electronic Equipment)
1.10 Electrical connection
All work must be carried out with the equipment fully isolated from the power supply. The electrical connection
to be carried out in accordance with the relevant wiring diagram and are only to be done by a certified elec-
trician. The electrical connection must be fully isolated from the supply up to the final assembly !
All relevant safety regulation, national standards and norms are to be adhered to. An appliance is required for cut off
from the supply with a minimum of 3 mm contact opening of each pole.
The rated voltage and frequency must correspond with the data on the type plate. The insertion of mains supply cable
can be carried out via a cable grommet which is included in the delivery. Never lead cable over sharp edges. The equipment
must be kept in a dry and clean environment.

1.11 Accessories (optional)

Wall switch 0-1-2
Ref.no. 71523101

1.12 Overview of type.

QuietAir 100HT
with automatic humidity control and timer

QuietAir 120HT
with automatic humidity control and timer

2.0 Scope of delivery / packing unit

Leaves the fan in its box until installation. Check that the fan is in good condition and has not been damaged in transit.

3.0 Preparation for wall or ceiling installation (surface mounted)
The assembly and start-up of the fan unit should be carried out first after finishing all other work and after the final
installation in order to avoid damage and contamination of the fan unit.

3.1 Cable exit from the wall
- Distance to the duct centre depending on cable exit 59/68 mm with a variable position under the casing.
- For a simple assembly an exit is recommended as shown (turnable by 90° in each case).
The optimal position is 45° each if the cable exit is directly at the position of the cable grommet.
- Duct inside diameter QT100HT = 100mm / QT120HT =120mm and distance to room corners: at least 90 mm
- Mounting hole radius QT100HT = 58mm / QT120HT = 68mm

3.2 Drill holes
- Set casing against the wall, mark the holes and drill. Faster with at least 2 screws and plugs. For surface installation
the casing is provided with a side entry knockout (Fig.5, Pos.1) for the cable ! The mains supply cable is to be kept in
such a way that no ingress of moisture is made possible along the cable.

3.3 Wall or ceiling installation

1. Pull cable through grommet, don’t cut open!
2. Cut cable at least to length 180 mm and remove cable jacket at least 100 mm in length.
3. Connect fan according to wiring diagram (see page 5).
4. Run cable in the conduit. Ensure cable / grommet is sealed to maintain IP45.

WARNING
NOTE

fig.1

fig.2

fig.3

fig.4

fig.5

fig.6

fig.7

fig.8

fig.9

Installation and Operation Instructions
CHAPTER 4

4.0 Electrical connection

All work must be carried out with the equipment fully isolated from the power supply. The electrical connection is to be carried out in accordance with the relevant wiring diagram and are only to be done by a certified electrician. The fans may not be operated with transformer controllers.

Fan should be protected by a 3A fuse at all times.

All relevant safety regulation, national standards and norms are to be adhered to.

4.1 Electronic control board

PCB with automatic humidity control and timer. The control board is fitted into a splash-proof casing.

QuietAir 100HT with automatic humidity control and timer

QuietAir 120HT with automatic humidity control and timer

NOTE

EMV regulation

Important indication for the electromagnetic compatibility

Interference resistance according to DIN EN 55014-2 depending upon impulse form and energy rate of 1000 V to 4000 V. With operation with fluorescent tubes, switch power supplies, electronically regulated halogen bulbs etc. these values can be exceeded.

In this case additional suppression shielding activities are necessary (L-, C or RC elements, protection diodes, resistors).

CHAPTER 5

CLEANING AND MAINTENANCE

5.0 Cleaning and maintenance

- Before cleaning, ensure that the fan is isolated from the power supply.
- Prevent unintentional restart!
- Clean device only with a damp cloth.
- Prevent unintentional restart!
- Extreme performance reduction can occur if the fan must work against too high resistance of the ventilation system.
- Abnormal noises can mean worn out bearings.

5.1 Dismantling of fascia

Procedure:
1. Isolate the device from the power supply and prevent unintentional restart!
2. Remove the fascia (1) by using the correct tool (e.g. screw driver) and applying light pressure on the spring catches left and right of the fascia (Fig. 10).
3. Utilisation of the screws of the control board cover (2) (Fig. 11).

Remove the fascia by using the correct tool (e.g. screw driver) and applying light pressure on the spring catches left and right of the fascia.

CHAPTER 6

TROUBLESHOOTING

6.0 Troubleshooting

- If the thermal protection trips this could be the result of dirt build-up, a hard running impeller and/or bearings. Too high winding temperature through insufficient motor cooling, or too high air flow temperature could be the cause of disturbance.
- Abnormal noises can mean worn out bearings.
- Vibrations can originate from an unbalanced or dirty impeller or due to the installation.
- Extreme performance reduction can occur if the fan must work against too high resistance of the ventilation system or if there is a lack of sufficient supply air (causing also higher sound level).

Installation and Operation Instructions

Wiring diagram overview

QuietAir 100HT - 75(90)m³/hr

QuietAir 120HT - 150(170)m³/hr

Terminal NL:
A permanent supply voltage of 230v/1Ph/50-60 Hz. should be connected to terminals N and L. All installations. The unit is double insulated and does not require an earth. (drawing SS-919)

You need an additional switched live to Terminal 1 OR/AND Terminal 2 to give your fan its functionality.

Terminal 1 Functionality
Factory set 2 minute delay start, 15 minute timer overrun and humidity sensor is active and active. (drawing SS-919)

Terminal 2 Functionality
Fan performs at a second speed by way of a second switch. (drawing SS-919)

TERMINAL 1 AND TERMINAL 2 FUNCTIONALITY

The fan functions as outlined in Terminal 1 above, when Terminal 1 timer delay or run on timer or humidity is not activated, then a separate switch wired to Terminal 2 enables you to use the second speed. (drawing SS-919)

See also notes 1, 2 and 3 below for more detail.

1. Standard functionality out of the box with Terminal 1 ONLY used

This option activates a 2 minute delayed start with the functionality according to Terminal 1 above. However, this will also activate the humidity sensor and the Humidity control according to Terminal 1 above. Please see notes 1, 2 and 3 below for more detail.

Delayed start 2 minutes

The energy saving function enables a short start-up without the fan turning on. The useful facility, particularly at night.

Run on Timer

When the fan has been activated by a switch, the 15 minute run on timer is also activated when the switch has been turned off.

Automatic Humidity Control

With a progressive increase in humidity the fan will start when the preset value (factory setting 70% RH) is reached. However, when the sensor detects a rapid increase in humidity the fan will start automatically before the preset value has been reached so that preventative ventilation commences.

The fan switches off automatically whenever the humidity is reduced to 10% below the preset value.

Note: It is possible that a high level of humidity is present within the room for a longer period of time due to generally high humidity in the ambient air (summer months) or a build up of high humidity over several hours (steam room/sauna etc.)

2. Standard functionality out of the box with Terminal 2 ONLY live

Fan operates by a remote switch at the speed set in terminal 2.

3. Standard functionality out of the box with Terminal 1 AND 2 live

This option gives you all the functionality of terminal 1 as outlined above and the functionality of terminal 2 as outlined above. However Terminal 2 only functions when none of the functions of Terminal 1 are active.

Test mode and calibration at initial start-up

When applying the supply voltage the fan is in the test mode for 1 minute (Note: Factory DP switch settings must be in accordance with wiring diagram SS-941-2). In this mode the delayed start and the overrun timer functions are deactivated within the first minute.