

## iCON™ Domestic DC Fans Installation and Operating Guide



## iCON™ eco

12V SELV Base Models:

**iCON eco15S – 72683701 (15S)**

**iCON eco30S – 72683801 (30S)**



Certificate No. EMS 569454  
BS EN ISO 14001 : 2004



Certificate No. FM 00152  
BS EN ISO 9001 : 2008





## **iCON Domestic DC Fans – 15S & 30S**

### **Installation, Maintenance and Use**

iCON Domestic DC Fans are available in 2 model sizes and can be fitted into a wall or ceiling. Each fan requires a suitable size hole through the wall or ceiling which connects into a duct venting to the outside. The external opening should be covered by a suitable external grill, available separately from Airflow Developments Ltd.

#### **Model Options**

72683701 - 15S -100mm Axial Fan with maximum capacity of 21.9 l/sec.

72683801 - 30S -100mm Mixed Flow Fan with maximum capacity of 34.25 l/sec

iCON Domestic DC Fans can be used as a simple extract fan powered via the SELV power supply unit (supplied), and connected to either a remote switch, or can be fitted with an internal control module, supplied to give a range of control options including timer, humidity, motion sensor, pull cord, trickle speed or a combination of these functions. Optional control modules are available separately and can be fitted at the time of installation or retrofitted.

iCON Domestic DC Fans have IPX 4 rated housings, they are double-insulated and are suitable for fitting in Zone 1 or 2 of bathrooms, toilets, kitchens, utility rooms and inside shower cubicles as defined in Section 701 BS7161:2008 (IEEE Wiring Regulations, 17<sup>th</sup> Edition ). They also comply with the 2010 Building Regulations, Approved Document F. The power supply unit, supplied with the fan, must be fitted outside of Zones 0, 1 and 2. It is usually installed outside the room.

Do not place the fan near direct heat sources, e.g. radiant heaters, or where temperatures can exceed 40°C (104°F).

The power supply unit has resettable over current and short circuit protection. An external 3Amp fuse is still required with each power supply. The power supply unit has a Led indicator to show that the unit is switched on and functioning correctly.

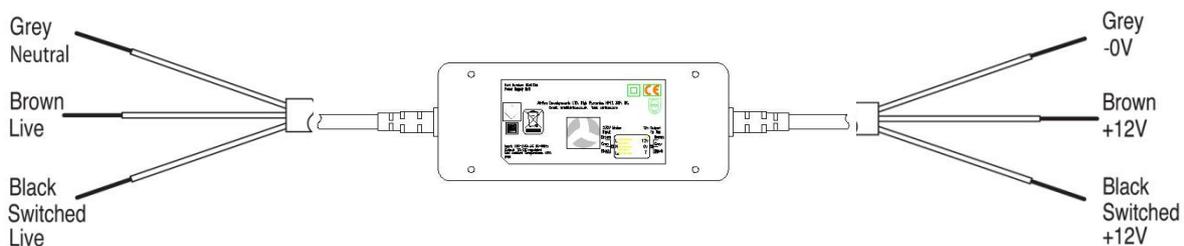
Note: Switches for fans should be selected and sited in accordance with BS7161:2008

All electrical installation to be carried out by an approved electrician in accordance with Part “P” U.K. Building Regulations and to the latest IEEE standards, or the appropriate regulations in the country of installation.

**ALWAYS ISOLATE THE POWER SUPPLY UNIT AND FAN UNIT FROM THE POWER SUPPLY BEFORE REMOVING THE COVER.**

## Mechanical Installation

### Power Supply Unit



The power supply unit does not require dismantling and should be installed by a qualified electrician to BS7161:2008 (IEEE wiring standards 17<sup>th</sup> Edition). The maximum length of wire between the power supply and the fan should not exceed 5m using 1.5mm<sup>2</sup> wire.

**NEVER COVER THE POWER SUPPLY UNIT WITH THERMAL INSULATION MATERIALS**

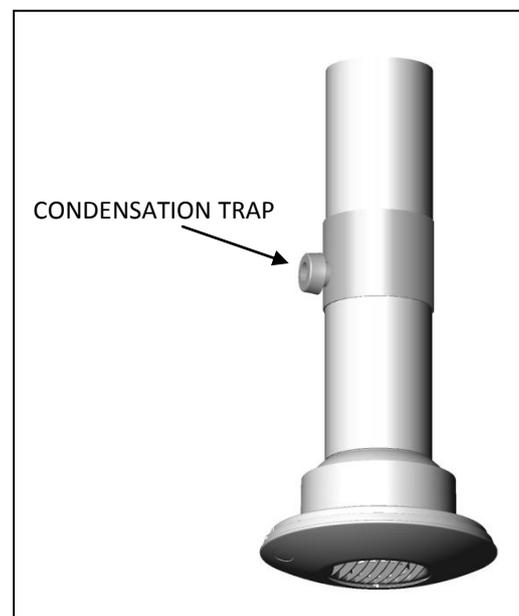
### **Fan Unit**

iCON Domestic DC Fans can be recessed in a wall or ceiling. A mounting skirt is provided for surface mounting of the 30S.

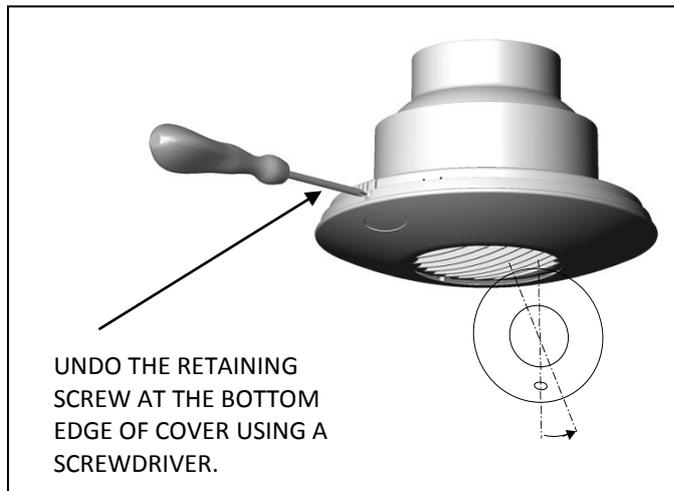
To avoid the backflow of condensation into the fan in a ceiling installation it is good practice to fit a CONDENSATION TRAP to the outlet duct of the fan.

Ensure free running of the fan impeller and that flexible duct connections are not over tightened to the fan's outlet spigot.

Airflow recommend that rigid ducting is used instead of flexible ducting, this will ensure maximum performance



## Front Cover Removal



The front cover has a bayonet type fitting. To remove, undo the retaining screw at the bottom edge of the cover using a screwdriver, then rotate the cover a few degrees anticlockwise and remove. To refit, reverse the above procedure.

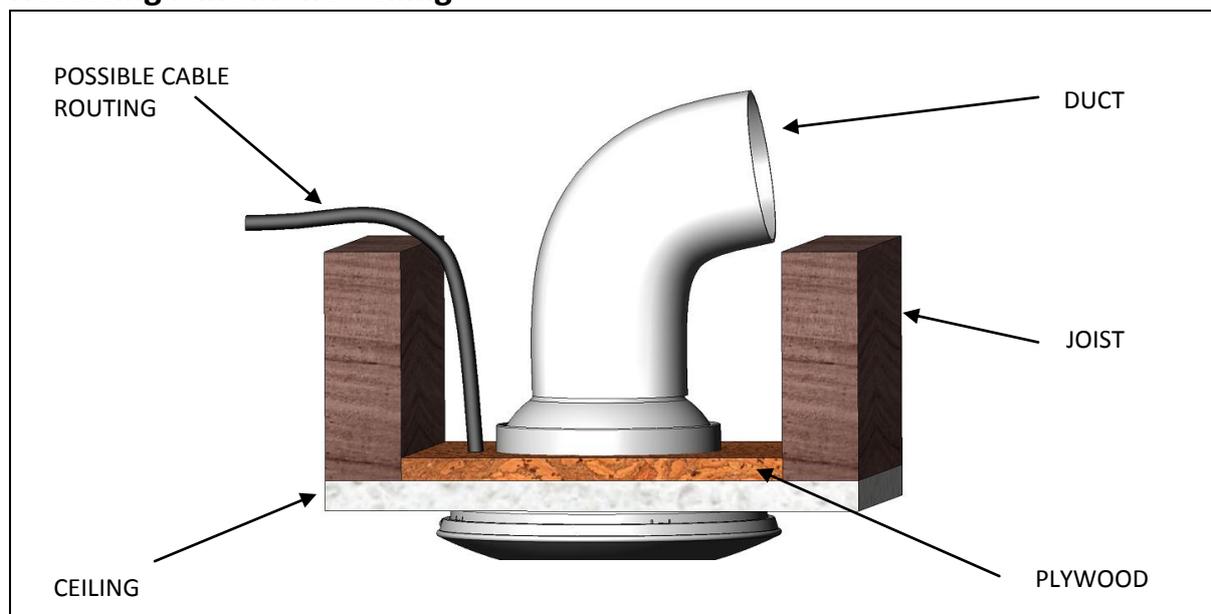
The 15S requires a 110mm diameter hole through the wall, lined with a 100mm id (internal diameter) duct.

The 30S requires a 110mm diameter hole through the wall, counter bored 160mm diameter to a depth of 75mm. The 110mm hole should be lined with a 100mm id duct.

## Surface Mounting on the Wall

When surface mounting the 30S, the supplied mounting skirt should be used. The 30S requires a 110mm diameter hole through the wall lined with a 100mm id duct.

## Recessing Fans in the Ceiling

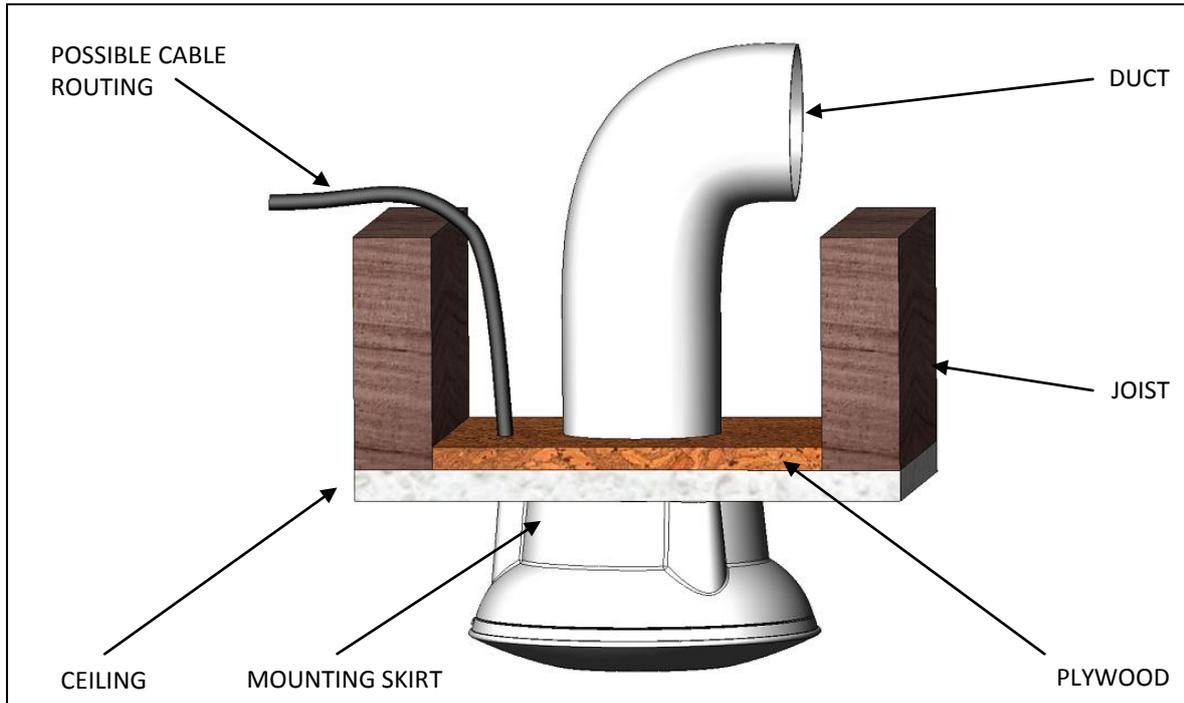


When recessing fans in the ceiling, a plywood support (min 18mm thick) should be mounted between the ceiling joists. Fans should not be fitted to unsupported plaster board.

The 15S requires a 110mm diameter hole through the ceiling. The fan should be fixed with the screws provided, through the plaster board into the support.

The 30S requires a 160mm diameter hole through the ceiling. The fan should be fixed with the screws provided, through the plaster board into the support.

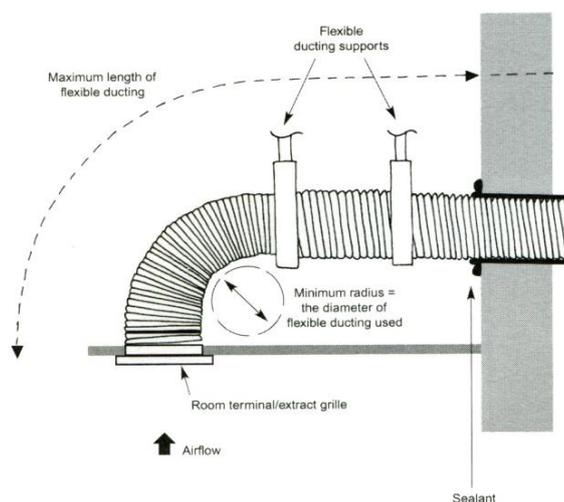
### Surface Mounting Fans in the Ceiling



When surface mounting the 30S, the mounting skirt should be used.

The 30S requires a 110mm diameter hole through the ceiling. The surface mounting skirt to be fixed, with the screws provided, through the plaster board into the support. The fan is then fitted into the skirt.

Where flexible duct is used the diameter must be maintained.

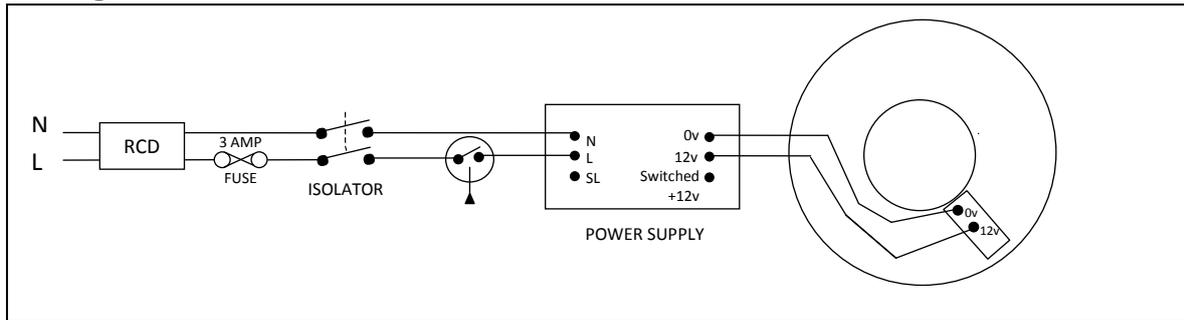


## Electrical Installation

All electrical installation to be carried out by an approved electrician in accordance with Part "P" U.K. Building Regulations and to the latest IEEE standards, or the appropriate regulations in the country of installation.

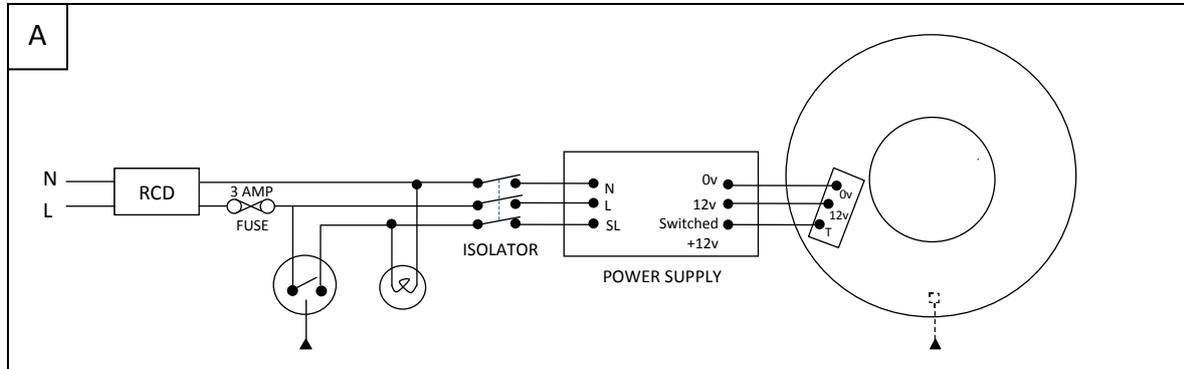
iCON Domestic DC fans require a 12V dc supply via the power supply unit.

Wiring with no control module fitted.

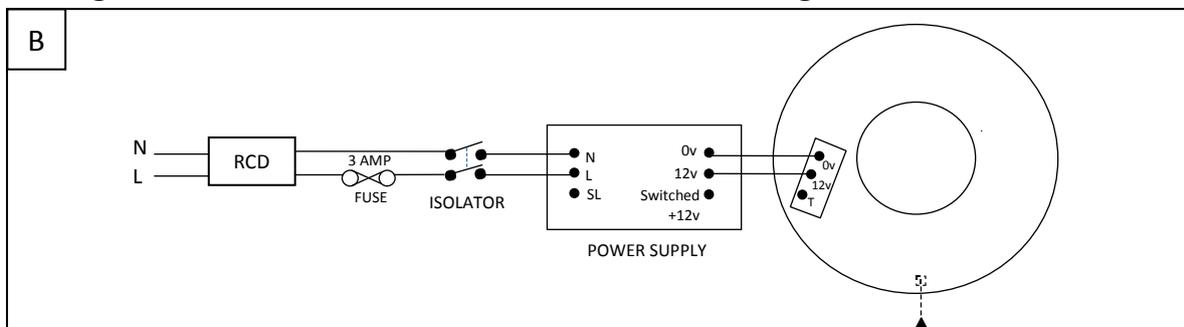


## Optional Modules for iCON Domestic DC Fans

Wiring via control module with external switching.



Wiring via control module with no external switching.



Refer to instructions supplied with (optional) modules for further information.

## **Maintenance**

SAFETY FIRST: ALWAYS ISOLATE THE FAN UNIT FROM THE POWER SUPPLY BEFORE REMOVING THE COVER.

Warranty only covers the fan, not the reinstallation of the fan if required.

When installed according to these instructions the iCON Domestic Fans are completely safe.

The materials used do not constitute a hazard. The module covers are made of a flame retardant material.

## **Cleaning**

- The external housing of the fan can be wiped with a damp cloth. Do not use household cleaners containing abrasives.
- Cleaning of the internal parts such as the impeller should be carried out using a soft brush.  
**Note:** Always ensure that the fan unit is isolated from the power supply before inserting the brush into the impeller duct.
- Never clean any parts of the fan assembly by immersing in water or using a dishwasher.

## **Warranty**

Applicable to units installed and used in the United Kingdom. Airflow guarantees the iCON Domestic DC Fans for 2 YEARS from date of purchase against faulty material or workmanship. Extended to 3 when registered @ airflow.com. Warranty only covers the fan, not the reinstallation of the fan if required.

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 misuse, 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 IEEE 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.**

## Range of Optional Modules Available

### Choose the 12v DC Module

The same Low Voltage Module fits any Low Voltage Fan

PCS – Pull Cord: 72573603

PCTS – Pull cord with Adjustable Timer: 72574204

HTS – Humidity, Pull cord with Timer Overrun: 72574202

PRTS – Motion Sensor with Timer: 72574203

PRHTS – Motion Sensor/Humidity/Timer: 72574201

DTS – Self Delay Start, Pull cord with Timer Overrun: 72682307B



## Choice of Anthracite, Sandstone, Chrome and Silver covers



Anthracite



Sandstone



Chrome



Silver

<b>iCON 15 cover Anthracite</b>	52634503B
<b>iCON 15 cover Silver</b>	52634504B
<b>iCON 15 cover Sandstone</b>	52634505B
<b>iCON 15 cover Chrome</b>	52634502B
<b>iCON 30 cover Anthracite</b>	52634506B
<b>iCON 30 cover Silver</b>	52634507B
<b>iCON 30 cover Sandstone</b>	52634508B
<b>iCON 60 cover Anthracite</b>	52634509B
<b>iCON 60 cover Silver</b>	52634510B
<b>iCON 60 cover Sandstone</b>	52634511B

### **UK Head-Office**

AIRFLOW DEVELOPMENTS Limited  
Aidelle House, Lancaster Road  
Cressex Business Park  
High Wycombe  
Buckinghamshire  
HP12 3QP  
UK

Tel: +44 (0) 1494 525252  
Fax: +44 (0) 1494 461073  
Email: [info@airflow.com](mailto:info@airflow.com)  
Web: [airflow.com](http://airflow.com)

### **Czech Republic**

AIRFLOW LUFTECHNIK GmbH  
o.s. Praha  
Hostýnská 520  
108 00 Praha 10  
Malešice  
Czech Republic

Tel: +42 (0) 2 7477 2230  
Fax: +42 (0) 2 7477 2370  
Email: [info@airflow.cz](mailto:info@airflow.cz)  
Web: [airflow.cz](http://airflow.cz)

### **Germany**

AIRFLOW LUFTECHNIK GmbH  
Postfach 1208  
D-53349 Rheinbach  
Germany

Tel: +49 (0) 222 69205 0  
Fax: +49 (0) 222 69205 11  
Email: [info@airflow.de](mailto:info@airflow.de)  
Web: [airflow.de](http://airflow.de)