



PRODUCT INFORMATION & INSTALLATION GUIDE 2021

Pearl S1 **FANDST25S1**
PEARL SERIES

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MEC  **FANS**

MODEL S1 DIMENSIONS AND PROPERTIES



UNIT SIZE

| | |
|----------------|---------|
| Weight: | 2.9 kgs |
| Height to Rim: | 229 mm |
| Total Height: | 280 mm |
| Diameter: | 286 mm |

STANDARD

MOTOR

| | |
|-------------------------------------|----------------|
| Watts*: | 31 |
| RPM*: | 1450 |
| L/S*: | 216 |
| m ³ /hr: | 780 |
| Centre Line Velocity ¹ : | 2.40 m/s @ 3 m |
| AMPS*: | 0.13 |

230V @ 50 Hz

*Motor data provided by motor manufacturer and is subject to change at anytime
¹Velocity profile tested in situ

COVERAGE

| | | |
|----------------|--------------------------|--------------------------|
| Ceiling Height | = 3m - 5.5m | = 3m - 7m |
| Floor area | = Up to 50m ² | = Up to 70m ² |

COOLING

HEATING

All data is indicative only and can change subject to application. For more accurate design please contact Airius Oceania

MOTOR

Single Phase
PSC - Permanent Split Capacitor motor
230 Volt @ 50 Hz

OPERATING TEMPERATURES

| | |
|--------------------------|-----------|
| Min start temp (approx.) | = - 10° C |
| Min running temp | = - 25° C |
| Shut off | = 110° C |
| Reset | = 90° C |

HOUSING

PC/ABS Resin - Inc. internal fixed blade stator
5VA flame resistance rating
1.8m steel safety leash cable (fastened to housing)

INGRESS PROTECTION

IP55 Rated

NOISE LEVELS

| | |
|------------------------------|------------|
| Sound Power Level | = 59 dB(A) |
| Sound Pressure Level @ 3 mts | = 38 dB(A) |
| Sound Pressure Level @ 6 mts | = 32 dB(A) |

Note: A typical free field environment over a reflecting plane.
All acoustic testing conducted at 230 Volt, 50Hz and undertaken at the EBM- Papst Acoustic Laboratories in Connecticut USA during August 2014

Please contact Airius for full Noise Testing Report

COLOUR

Off-White, Black or Grey available

ACCESSORIES & OPTIONS

Airius suspended ceiling kit - Allows Airius unit to be mounted in a suspended ceiling grid

Airius Transformer type speed controller 1 and 5 Amp available.
0-100% in 5 steps

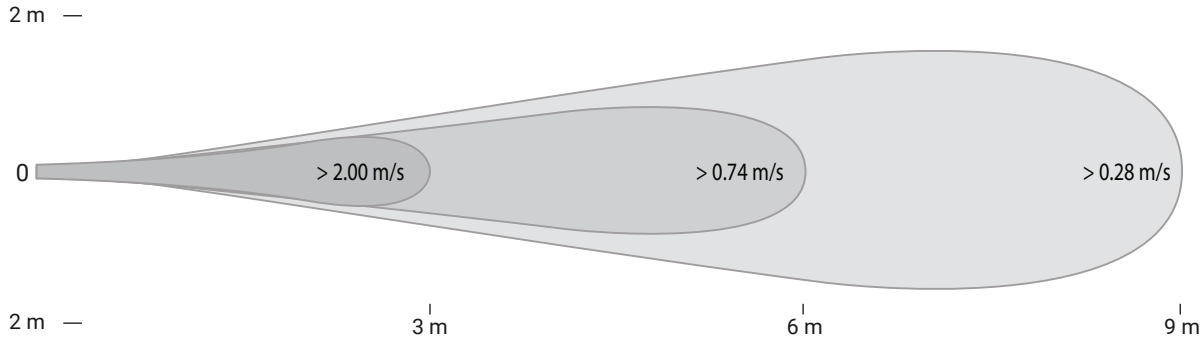
Air & Surface Purification - Used to mitigate contaminants:
- PHI kit - Photohydroionization - Advanced oxidation technology
- NPBI kit - Needlepoint BiPolar Ionization - Leading Ion technology

For horizontal installations Airius recommend the use of the Airius proprietary cradle or a second cable or rod attachment to the discharge end to provide balance

WARRANTY

5 years full manufacturers replacement from date of despatch.
Subsequent 5 year 'half new price' rebuild cover

VELOCITY PROFILE



UNIT PLACEMENT

PREPARATION

Install electrical circuit(s) and outlet(s) in accordance with national and local electric codes.

Outlets should generally be mounted vertically unless a “twist/locking” type is being used.

Wall switch may be installed in circuit to disable power and prevent electrical hazards when servicing.

Confirm electrical continuity of Airius unit on the ground before permanently mounting in the ceiling.

MAINTENANCE

Frequency of cleaning will vary by application and environment.

You may clean the plastic housing with a damp warm cloth, using mild household detergents.

Do not use petroleum products, thinners or solvents to clean any part of the Airius unit.

If the Airius unit fails, contact manufacturer.

MATERIALS & PROPERTIES

Constructed from recyclable materials.

The outer shell, stator and fan blades are fire rated 5VA materials.

Power cord is a 1.8m, 3 wire, 1.02 mm diameter 300VAC rated electrical cord - CE/EU compliance rated as HO5VV (PLUG NOT SUPPLIED).

Single phase, shaded pole, single speed, axial motor.

Motor is thermally protected. Shutoff is at 110°C & reset is at 90°C.

No lubrication required. Bearings are sealed.

OPERATION

Designed to operate 24 hours-a-day, 7 days-a-week to maintain air circulation/thermal equalization/humidity equalization.

Use optional speed control to fine tune RPM if needed.

INSTALLATION

Do not hard connect fans in excess of 10 kgs unless agreed with Airius prior to Installation. When attaching it is preferred if some chain or cable is used between fan and the support. However it is not imperative.

For Cooling the Airius fan should be located to suit client's requirements. Suggested locations are from just under the ceiling or closer to the floor to ensure suitable air-cooling flow.

For Heating or Conditioned Spaces the Airius fan should be securely installed as close as possible to the ceiling.

For combination applications fans can be installed close to ceiling or lowered slightly. Contact Airius for design details and assistance.

The Airius unit performs best when air column from the nozzle is unimpeded to the floor.

The Airius unit should not be mounted directly in front of heat ducts, vents or any other high heat source.

Use professionally installed hardware, capable of supporting a minimum of five times the weight of the fan unit.

Hardware to hang the unit includes but is not restricted to: Hooks, chains, cables, carabiners, bridle rings, beam clamps and bolts.

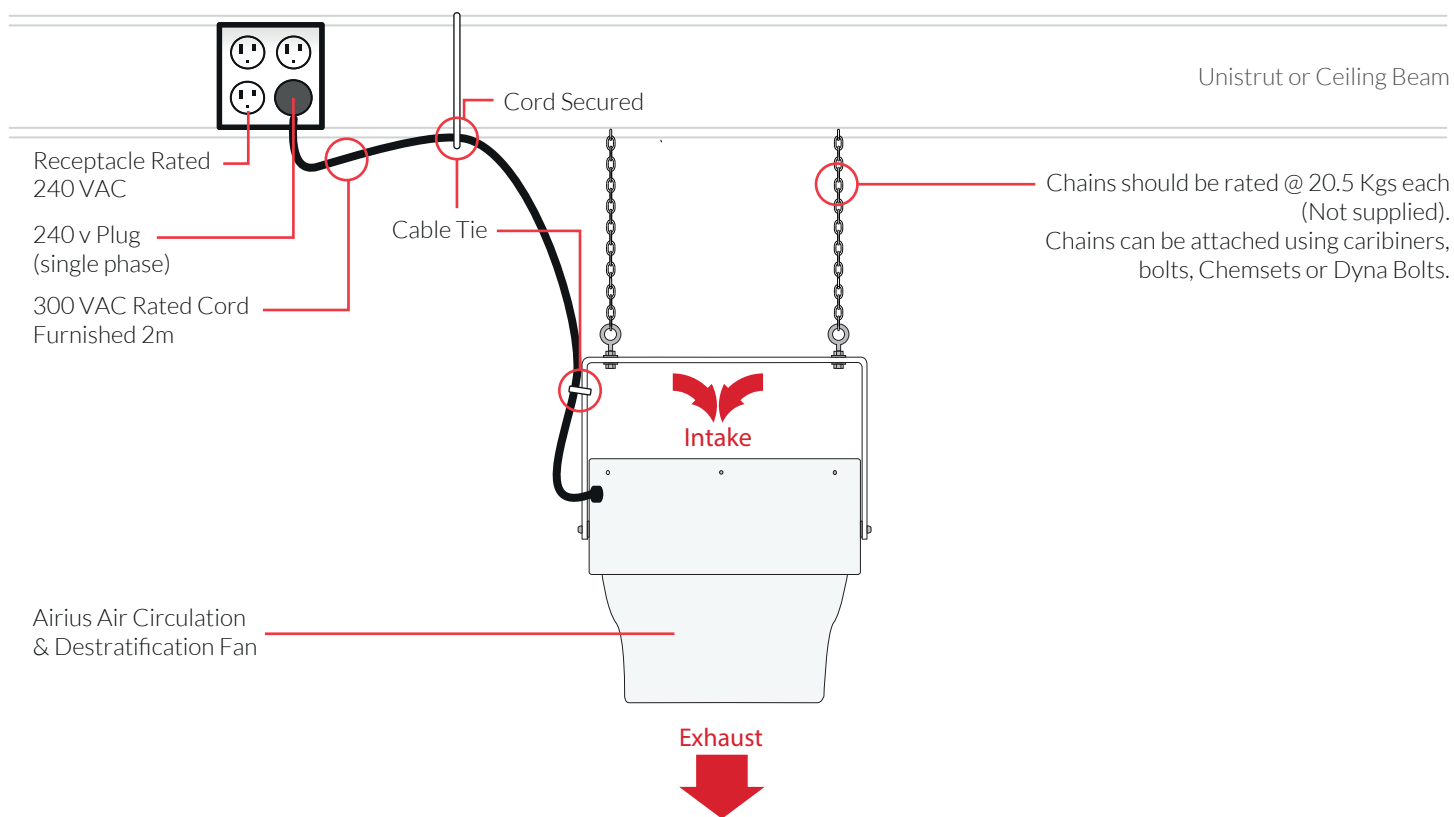
Density of the placement is directly related to the effectiveness, performance and savings.

Mount out of reach from people and animals.

Floor plans, mezzanines, office locations, machinery, people placement, plumbing, lighting, duct work, electrical systems, natural light/air systems, cranes, doors, windows, ventilation and fire suppression systems are all factors in properly locating the Airius system within the ceiling.

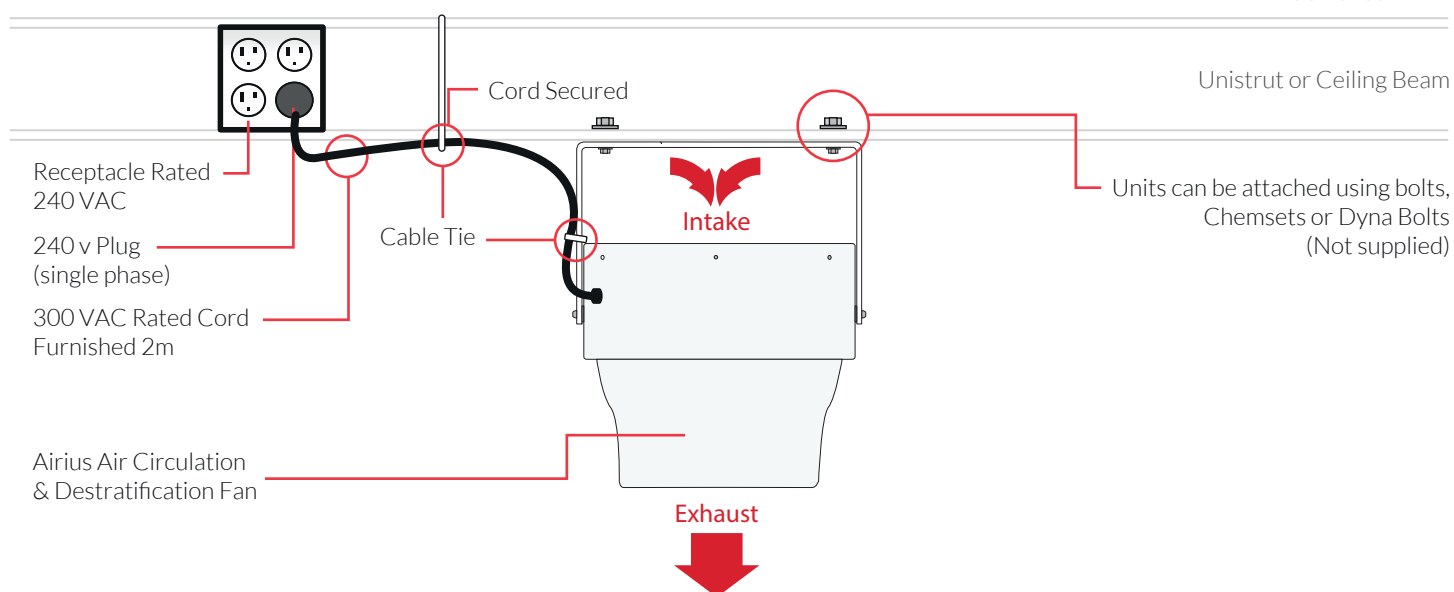
CHAIN HUNG (STRAIGHT)

PLUG NOT SUPPLIED



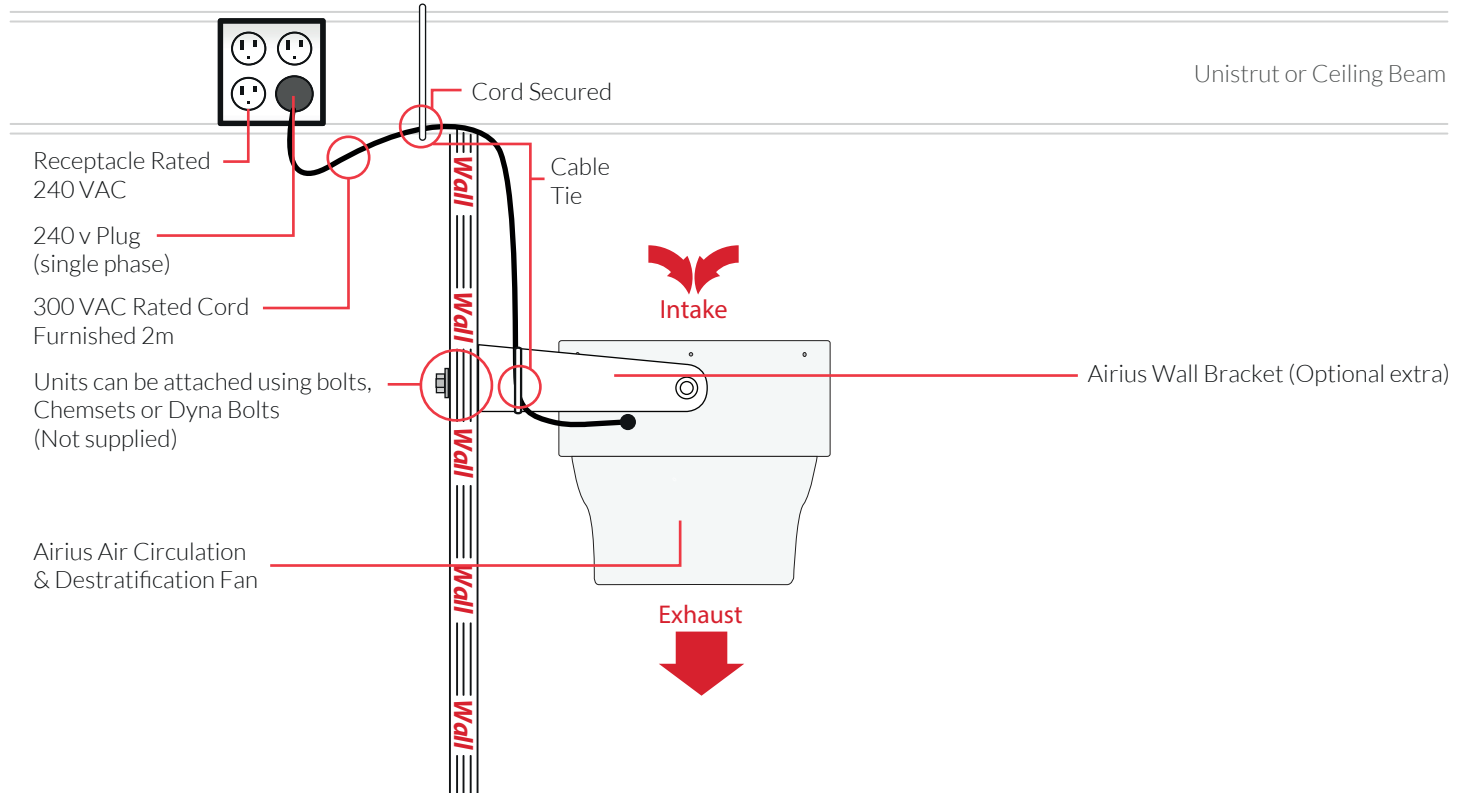
CEILING FIXED (STRAIGHT)

PLUG NOT SUPPLIED



WALL FIXED (STRAIGHT)

PLUG NOT SUPPLIED



DESTRATIFICATION FAN WALL BRACKET



Optional Accessory For Wall Installations

MATERIAL

Powdercoated 5mm aluminum.

MOUNTING HOLE PATTERN

2 x 3 hole pattern. 70mm vertical by 140mm from centre.

DIMENSIONS

MOUNT- 10, 15 & 25

A = 302 mm
B = 305 mm
C = 96 mm

MOUNT- 45

A = 280 mm
B = 343 mm
C = 96 mm

WARRANTY

Warranty - 3 -years parts and workmanship.

COLOUR OPTIONS

“Off White”
Cool Gray 2C

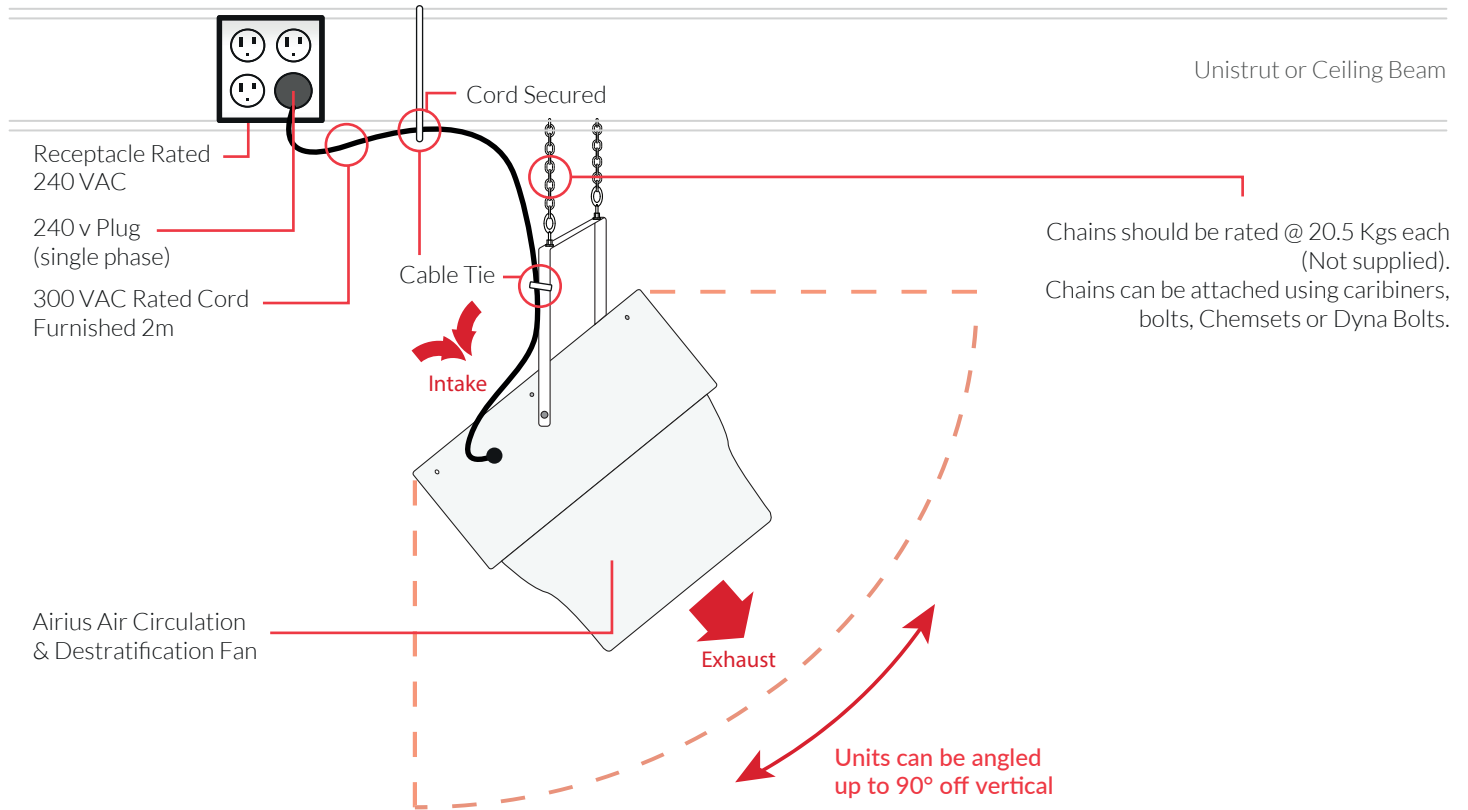
Limited colour options available with a minimum order.

DESCRIPTION

Airius' powder coated, 5mm, aluminum wall bracket is used with the Air Pear Series, Designer Series 10, 15, 25, 45, or Retail Series 20EC sized fans to mount to a vertical surface. Connection detail now includes ratchet teeth to lock the fan at an angle.

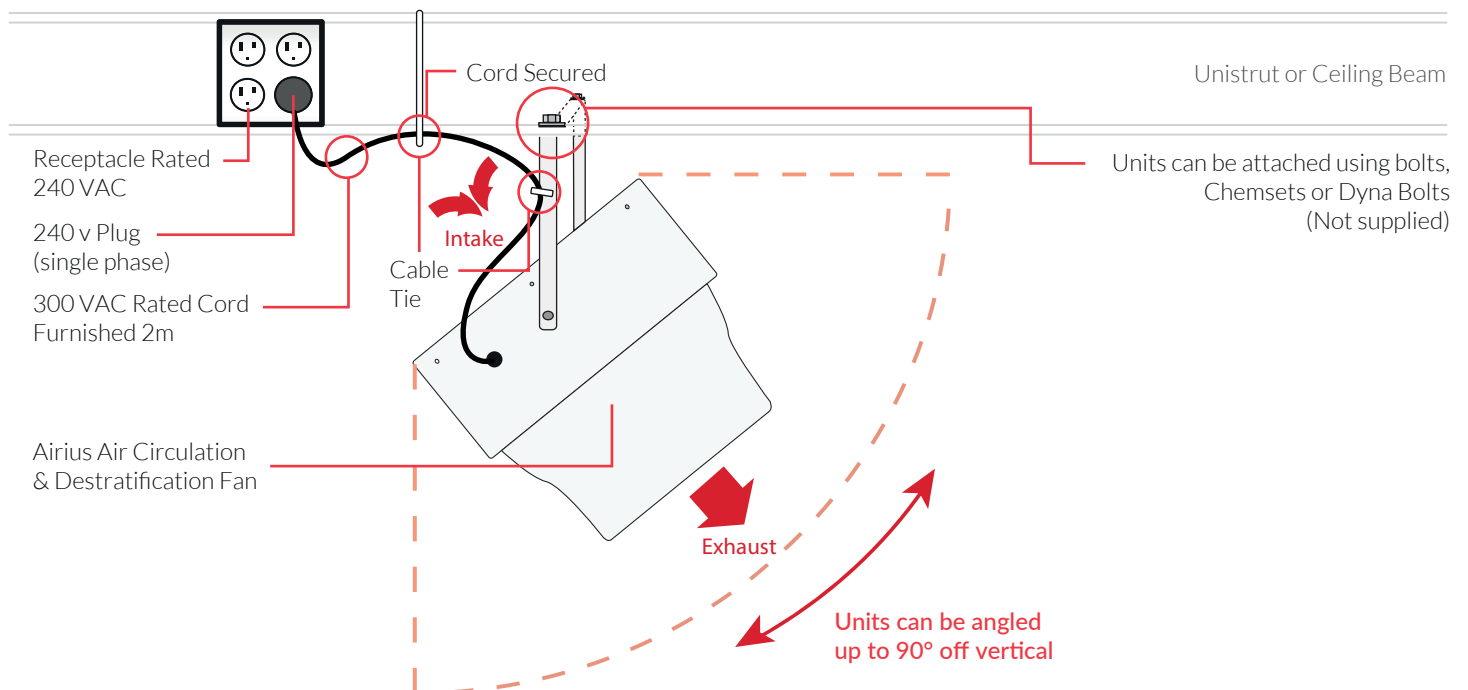
CHAIN HUNG (ANGLED)

PLUG NOT SUPPLIED



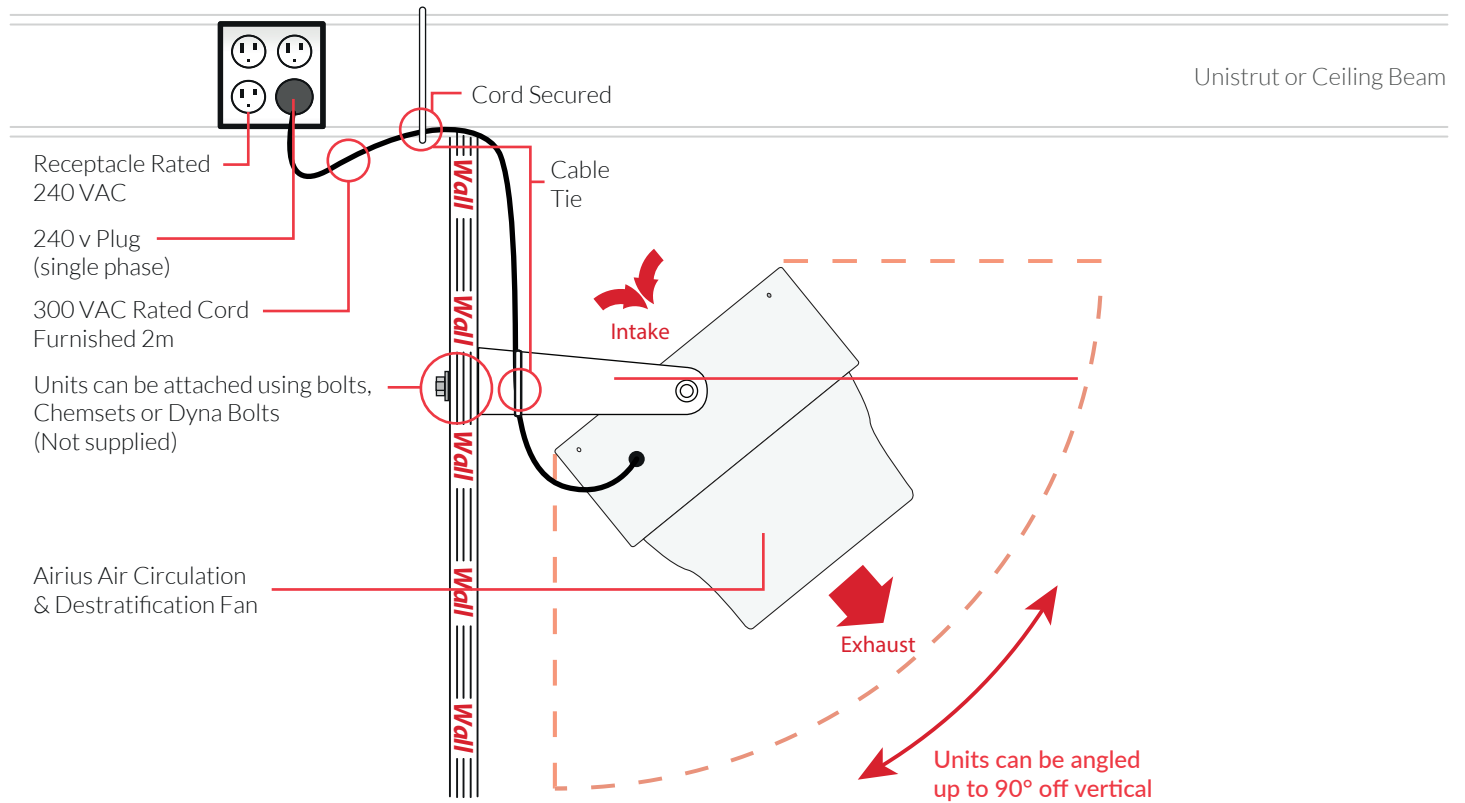
CEILING HUNG (ANGLED)

PLUG NOT SUPPLIED



WALL FIXED (ANGLED)

PLUG NOT SUPPLIED



AIRIUS SPEED CONTROLLER 1 AMP



| AIRIUS MODEL | 10 | 15/S2 | 25/S1 | 45/PS-4 | 45/PS-2 | Onyx PS-4 | 50/PS-4 | 60/PS-4 | G400/PS-4 |
|--------------|----|-------|-------|---------|---------|-----------|---------|---------|-----------|
| NO. OF UNITS | 13 | 10 | 5 | 4 | 1 | 2 | 2 | 1 | 1 |

MOUNTING

The controllers are to be mounted on a smooth surface. Connect voltage supply, motor(s) and earth as shown in the scheme with cables of the proper diameter. On the mains side, a safety switch with recommend pre-fuses has to be installed.

TRANSPORT AND STOCK KEEPING

Avoid shocks and extreme conditions, stock in original packaging.

WARRANTY

Two years from delivery date against defects in manufacturing. Any modifications or alterations to the product relieve the manufacturer of all responsibility. The manufacturer bears no responsibility for any misprints or mistakes in this data, and modifications or improvements to the product can be made at any time after date of publication.

TECHNICAL DATA

Voltage: 230Vac – 50/60Hz
Weight: 1 kg
IP Rating: IP54

| | MAX AMPS | FUSE |
|--------------------|-----------------|-------------|
| STR-1-10L10 | 1.0 | FT-1.25 A |

Enclosure: Plastic R-ABS, UL94-V0, grey RAL 7035 or sheet steel (RAL 7032, polyester powder coating).

Recommended prim. Fuse: ca 1,5 x trafo.

Max ambient temperature: 35°C

These transformer speed controllers are based on the principle of voltage control with auto-transformers. They are applicable to voltage-controllable motors (230V – 50/60Hz) to control the speed (of fans, pumps etc.). When choosing a controller it is important to know the current intensity consumption on the taps.

MAINTENANCE

In normal conditions the controllers are maintenance-free. If soiled clean with dry or dampish cloth. In case of heavy pollution clean with a non-aggressive product. In these circumstances the controller should be disconnected from the mains. Pay attention that no fluids enter the controller. Only reconnect the controller to the mains when it is completely dry.

MOTOR PROTECTION

It is always recommended to install a proper motor protection device.



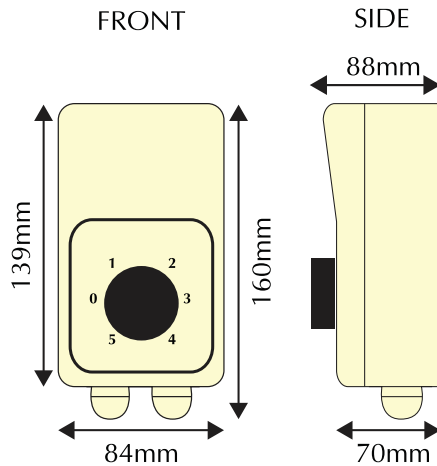
All works may only be carried out by skilled personnel following the local regulations and AFTER the controller is completely separated from the mains. Replace fuse only with same type and rating.



According to the low voltage directive: 2006/95/EC/
The EMC directive: 2004/108/EC

AIRIUS SPEED CONTROLLER 1 AMP

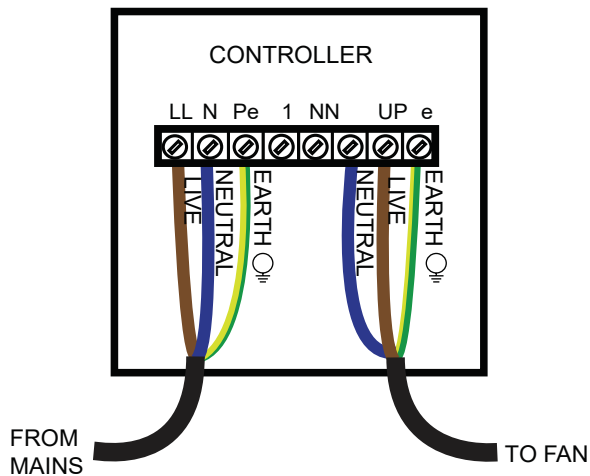
DIMENSIONS



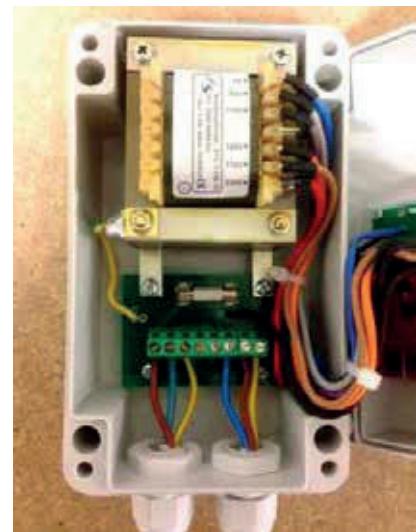
SPEED CONTROLLER COMPONENTS



WIRING DIAGRAM



To install with thermostat fit thermostat switch in line on the live wire.



When wiring is complete controller should appear as above.

PLEASE NOTE: THIS CONTROLLER MUST BE EARTHED

AIRIUS SPEED CONTROLLER 5 AMP



| AIRIUS MODEL | 10 | 15/S2 | 25/S1 | 45/PS-4 | 45/PS-2 | Onyx PS-4 | 50/PS-4 | 60/PS-4 | G400/PS-4 |
|--------------|----|-------|-------|---------|---------|-----------|---------|---------|-----------|
| NO. OF UNITS | 67 | 53 | 25 | 20 | 6 | 11 | 11 | 6 | 5 |

MOUNTING

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TECHNICAL DATA

Voltage: 230Vac – 50/60Hz
Weight: 5.5 kg
IP Rating: IP54

| | MAX AMPS | FUSE |
|--------------------|-----------------|-------------|
| STR-1-50L22 | 5.0 | FT-8.0 A |

Enclosure: Plastic R-ABS, UL94-V0, grey RAL 7035 or sheet steel (RAL 7032, polyester powder coating).

Recommended prim. Fuse: ca 1,5 x trafo.
Max ambient temperature: 35°C

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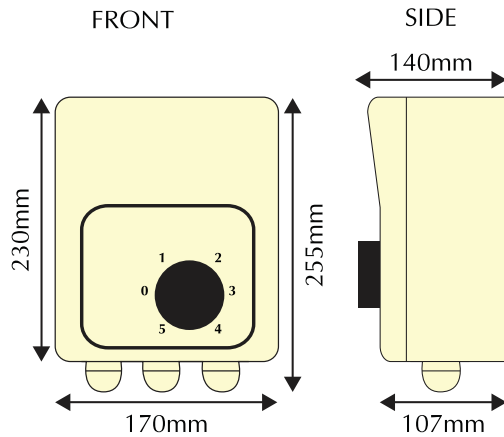
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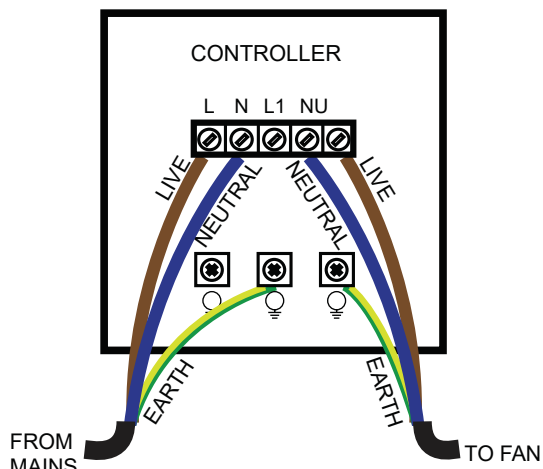
DIMENSIONS



SPEED CONTROLLER COMPONENTS



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