

Purge Ventilation Unit

TP625

Product Manual



Warnings, Safety Information and Guidance

Important Information

Important: read these instructions fully before the installation of this appliance

1. Installation of the appliance and accessories must be carried out by a qualified and suitable competent person and be carried out in clean, dry conditions where dust and humidity are at minimal levels.
2. This manual covers the installation of the Purge Ventilation Unit.
3. All wiring must conform to current I.E.E. Wiring Regulations and all applicable standards and Building Regulations.
4. Inspect the appliance and electrical supply cord. If the supply cord is damaged, it must be replaced by the manufacturer, their service agent or similarly qualified persons in order to avoid a hazard.
5. The unit is supplied with a mains rated 3 core flexible cord (PVC sheathed, brown, blue and green/yellow 0.75mm²).
6. The appliance must be connected to a local double pole isolation switch with a contact separation of at least 3mm.
7. The appliance must be earthed.
8. The appliance is suitable for 220-240V~ 50-60Hz single phase with a fuse rating of 3A.
9. Ensure all cable glands are fully tightened.
10. The unit must be stored in a clean and dry environment. Do not install the appliance in areas where the following may be present or occur;
 - Excessive oil or a grease laden atmosphere,
 - Corrosive or flammable gases, liquids or vapours,
 - Ambient temperatures above 40°C or below -5°C,
 - Humidity levels above 90% or is a wet environment.
11. The appliance is not suitable for installation to the exterior of the dwelling.
12. This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children should be supervised to ensure that they do not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
13. Ensure that external grilles are located away from any flue outlet, in accordance with relevant Building Regulations.
14. The unit must not be connected to a tumble dryer or a cooker hood.
15. Precautions must be taken to avoid the back-flow of gases into the room from an open flue appliance.
16. Ensure all ducting is free from debris and blockages before switching on.

Explanation of symbols on the appliance.



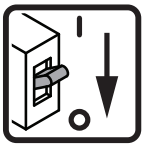
Read instruction Manual.



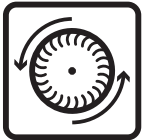
Risk of Electric Shock.



General hazard safety alert.



Disconnect the mains supply before removing this cover.



Wait until all machine components have completely stopped before touching them.

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The Purge Ventilation Unit provides an effective solution for the rapid removal of pollutants from within the home.

Product Features

- Compact low profile unit.
- Straight forward Installation.
- Easy access mounting fixings.
- Commissionable via a single pot.
- Configurable between Inline flow and right angle flow directions.
- 220x90mm ducting compatible, reducers / converters available for converting to alternative ducting sizes, such as 204x60, Ø150mm etc.

Packaging Contents

Inspect the unit when taking delivery. Check the unit for damage and that all accessories have been supplied. Package supplied with;

- Purge Unit x 1.
- 220x90 inline port.
- Product Manual x 1.
- EuP Documentation.

Any shortages or damage must be immediately reported to the supplier.

Recommended Accessories

Titon recommend the following accessories to be installed with the unit as part of a complete ventilation system solution:

- Ø150mm sprung backdraft damper.
- Ø150mm ducting or 220x90mm (depending on system design).
- 220x90mm to Ø150mm transformation ducting.
- Ø150mm Mains Actuated Backdraught Damper. TP 630
- Ø150mm external wall vent.
- Internal ceiling or wall vent (depending on system design).
- 450x300mm ceiling access panel (depending on install location).
- Ceiling cover plate.

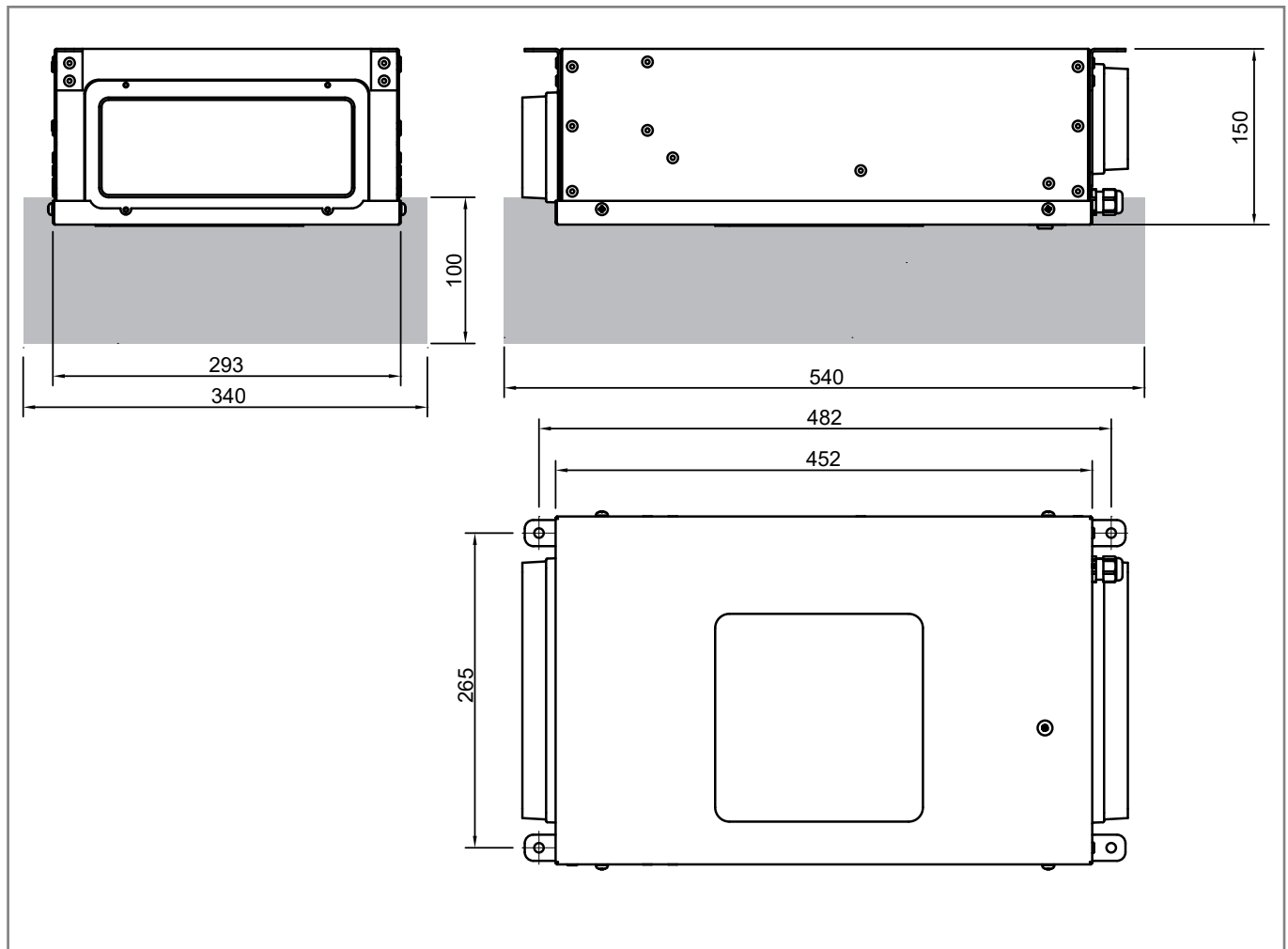
Other Accessories Available

Titon offer a range of complimentary ducting and unit accessories that could be fitted to this unit if required, such as:

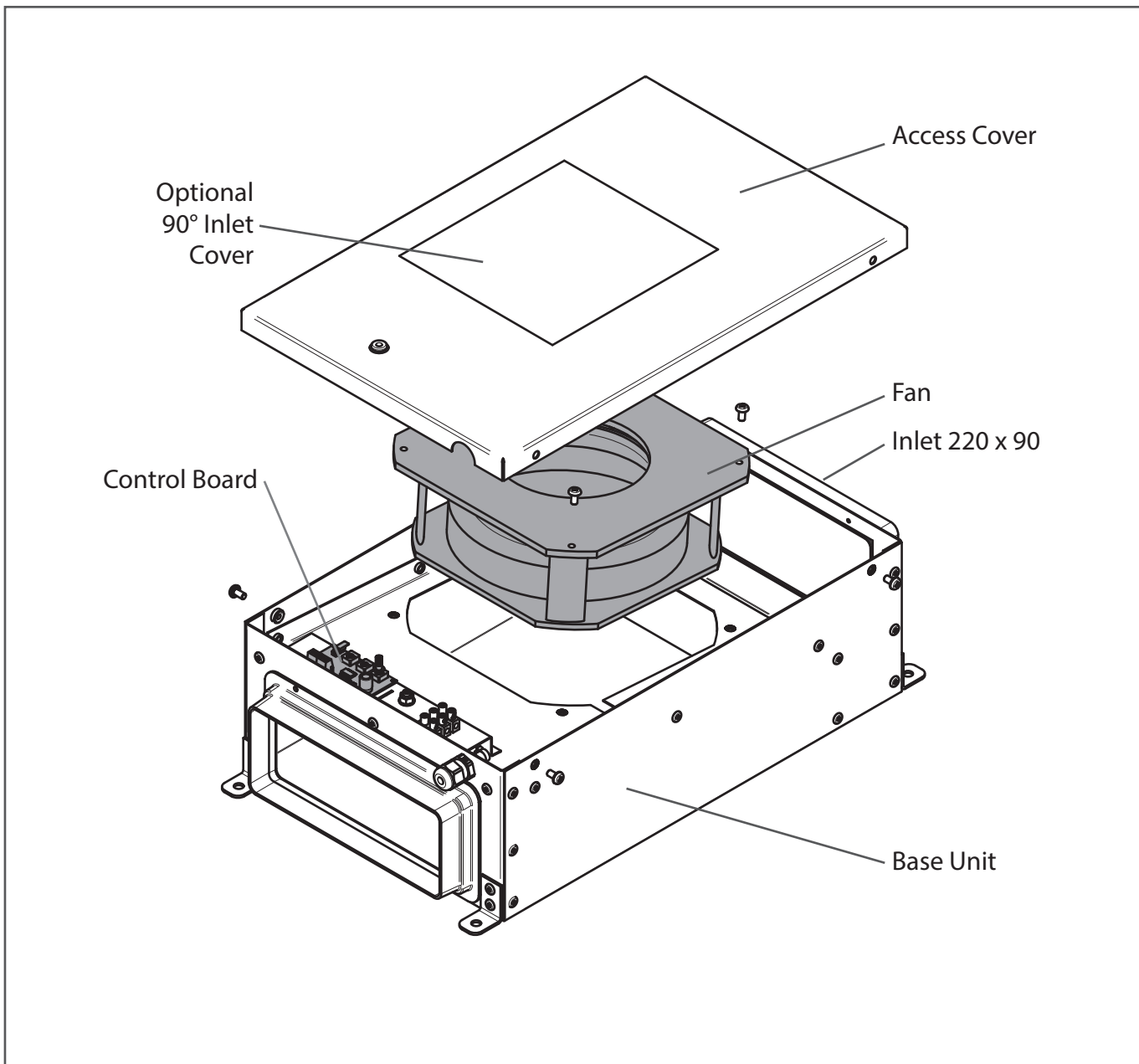
- Acoustic ducting.
- Anti-vibration pads.

Dimensions

The diagram details the overall size of the unit and the additional space required around the unit to allow for commissioning and future servicing and maintenance.



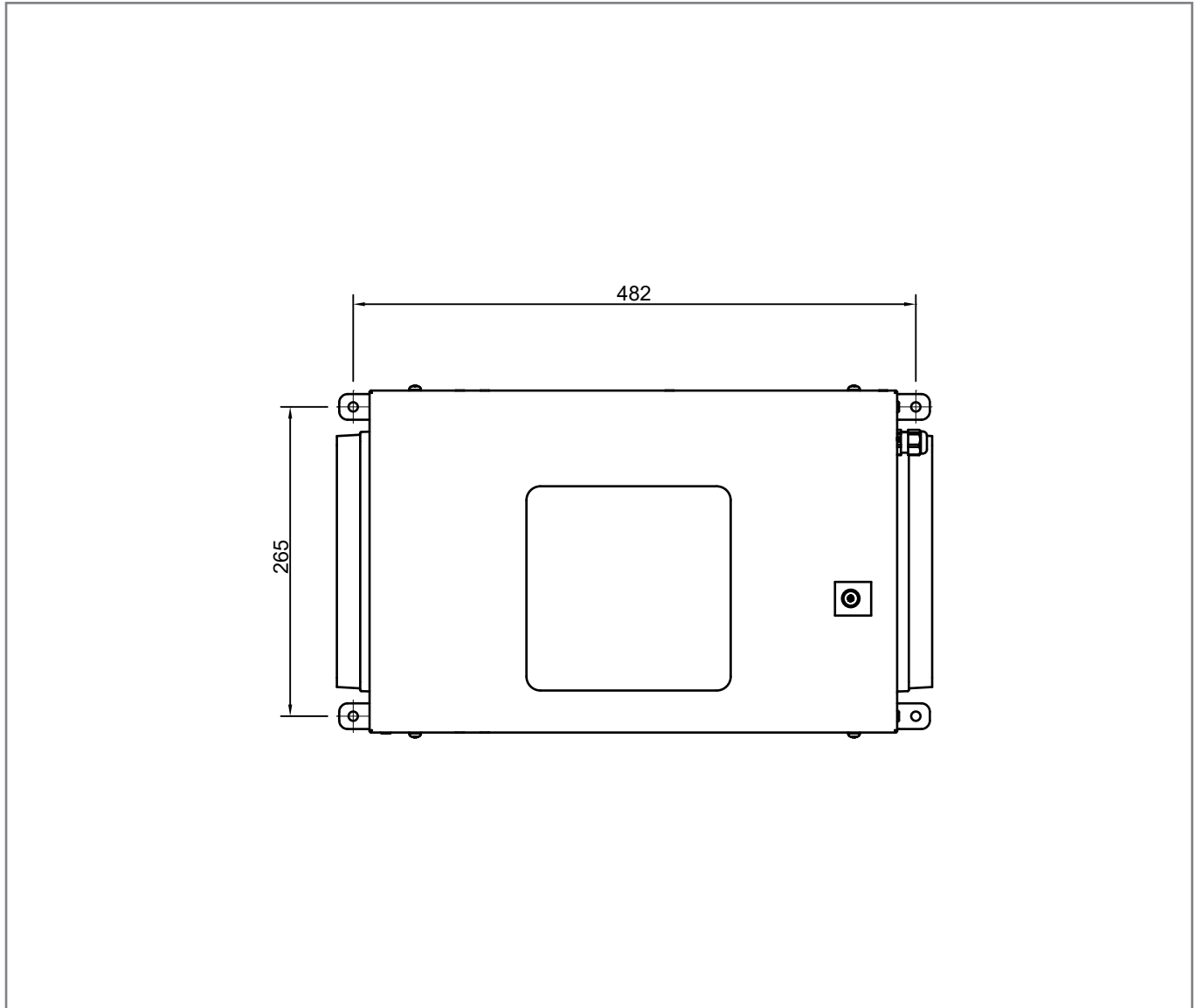
Component Identification



Installation

Fixing

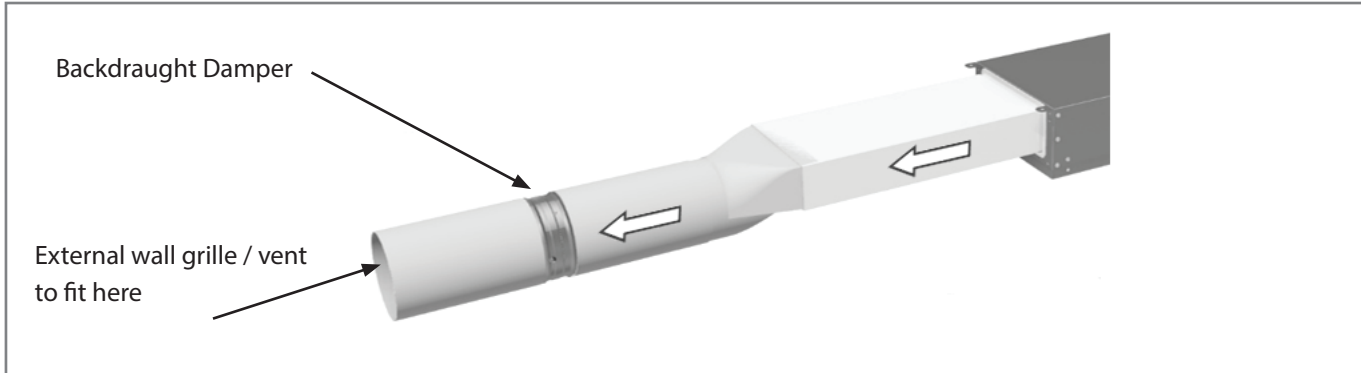
1. The unit must be securely fixed to a smooth flat surface, any orientation is possible.
2. Mark the four fixing hole centres using the unit as a template.
3. Drill suitable holes into the substrate. Always use a fixing type and length suitable for the substrate, if in doubt ask your local fixing specialist for advice.
4. Support the unit and secure in place with the appropriate fixings.



Ducting Connections

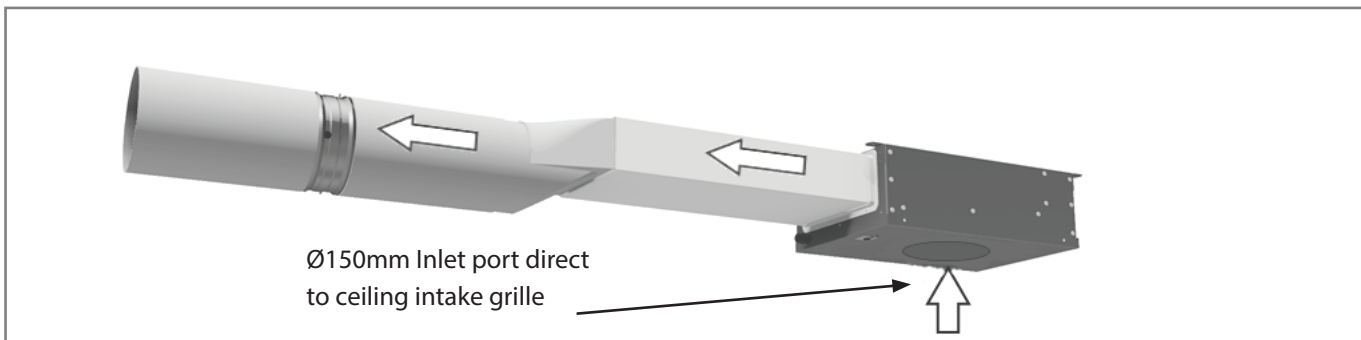
Titon recommend that:

1. 220x90mm ducting is primarily used for the connection of the extract port to the outside, reducing down to Ø150mm when breaching the external wall and connecting to a wall vent.



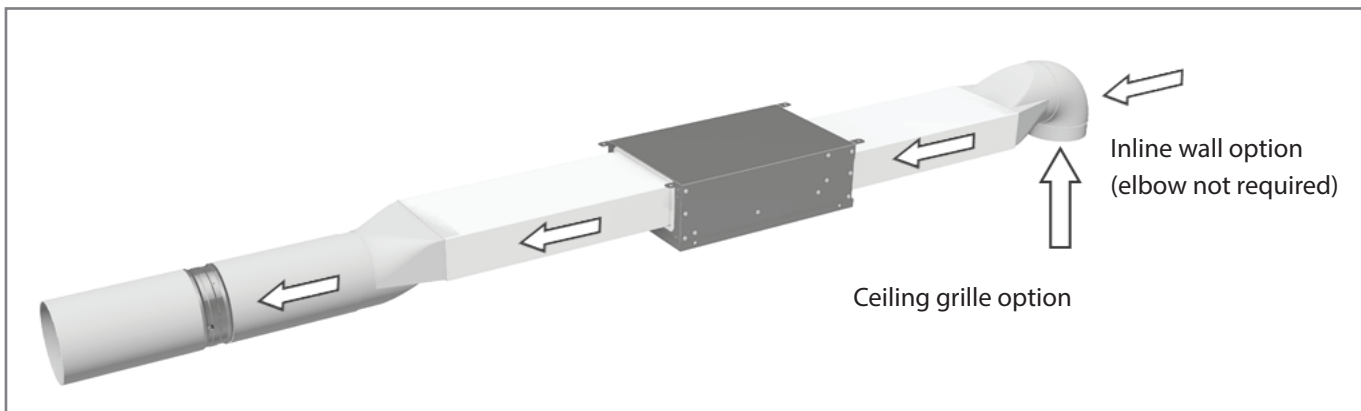
Extract duct work from the unit to external grille / vent

2. Depending on the inlet configuration to the unit there are two options right angle & in-line;
 - 90° option (Ø150 inlet port) – connection is direct to the ceiling air intake grille.



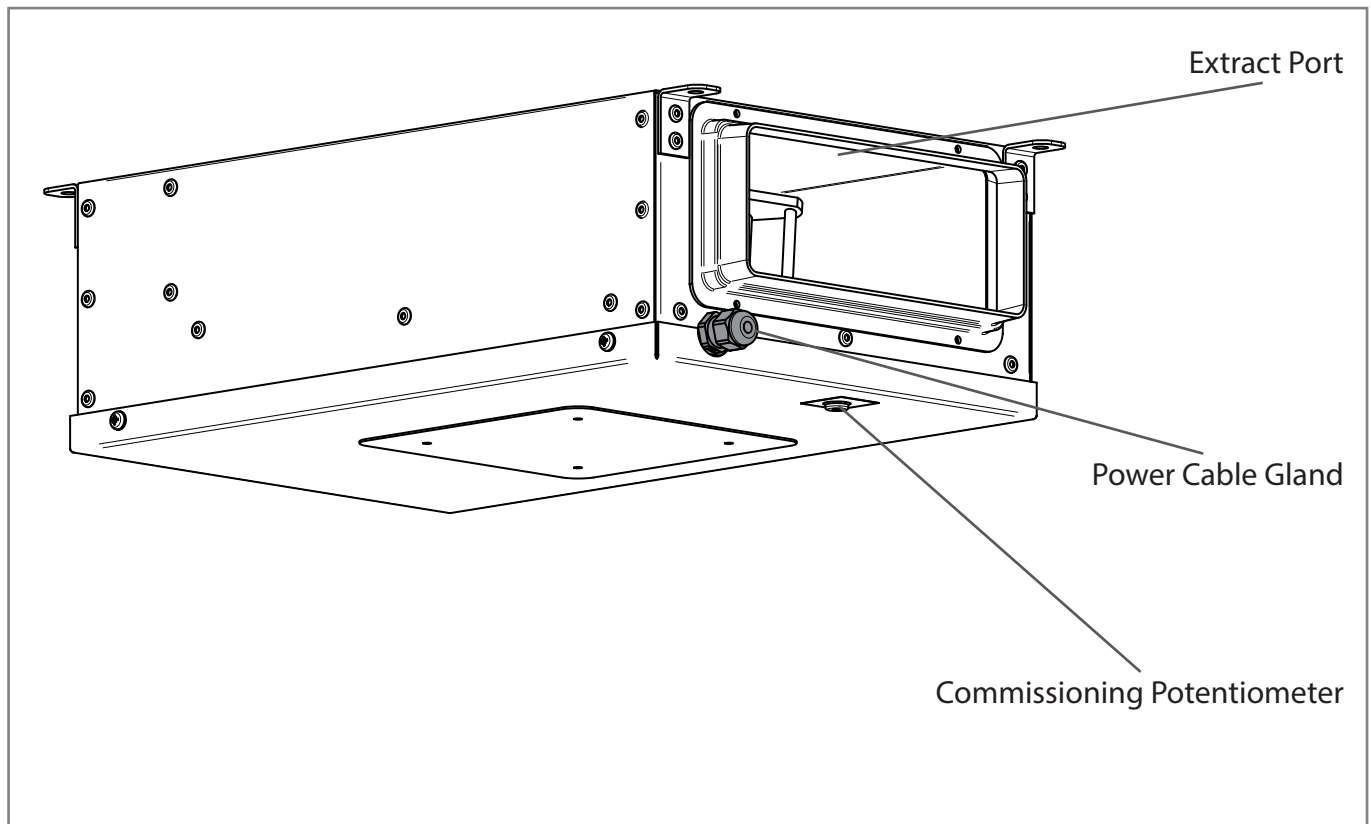
Right angle configuration

- In-line option (220x90mm inlet port) – 220x90 ducting is used for connecting to an internal wall or ceiling air intake grille at a different location; where connecting to a ceiling grille a 90° elbow can be used, if connecting to an internal wall grille, such as a linear grille, the elbow is not required. Reducers can be used where required (as in 1.) if connecting to a Ø150 grille spigot, (grilles as specified by the system design).



In-line configuration

3. Ducting should be insulated where it passes through unheated areas and voids.
4. Unit should be insulated when fitted in unheated areas.
5. Where ducts extend externally above roof level the section above the roof should be insulated or a condensation trap should be fitted just below the roof level.
6. Where ducts pass through fire barriers they must be appropriately fire stopped in accordance with the requirements of Part B Building Regulations (England & Wales).
7. A ducting condensate drain must be fitted to vertical Extract Ports on outside duct work.
8. The condensate drain pipe work must be adequately secured, installed to have a minimum 5° fall and be insulated if any part of the pipe passes through an unheated void.



9. All insulation to be the equivalent of at least 25mm of insulating material with a thermal conductivity of 0.04 W/(mK).
10. Ducting must be installed in such a way that resistance to airflow is minimised.
11. Ducting connected from the Extract Port to the Outside must be to the external air outside the building envelope.
12. All ducting joints including those to this unit must be permanently connected and sealed.

Wiring Connection Access

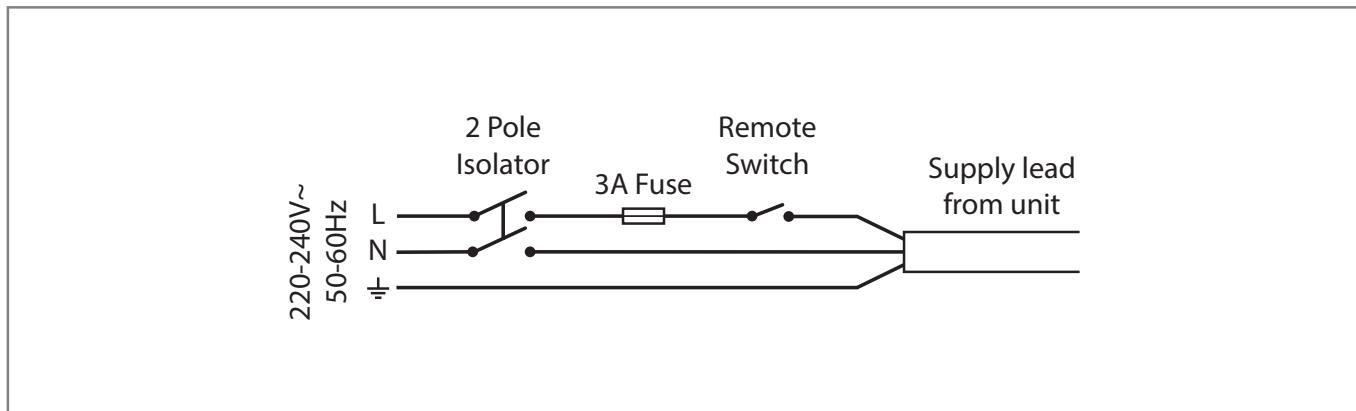
As the unit comes fitted with a flying lead no internal access is required to the unit when wiring it up.

This unit should be fitted to a latching switch with mains power supply.

If this unit is to be fitted with an optional Mains Actuated Backdraught Damper, as recommended by Titon to create a complete purge ventilation system, the Mains Actuated Backdraught Damper, should be wired into and operated by the same latching switch.

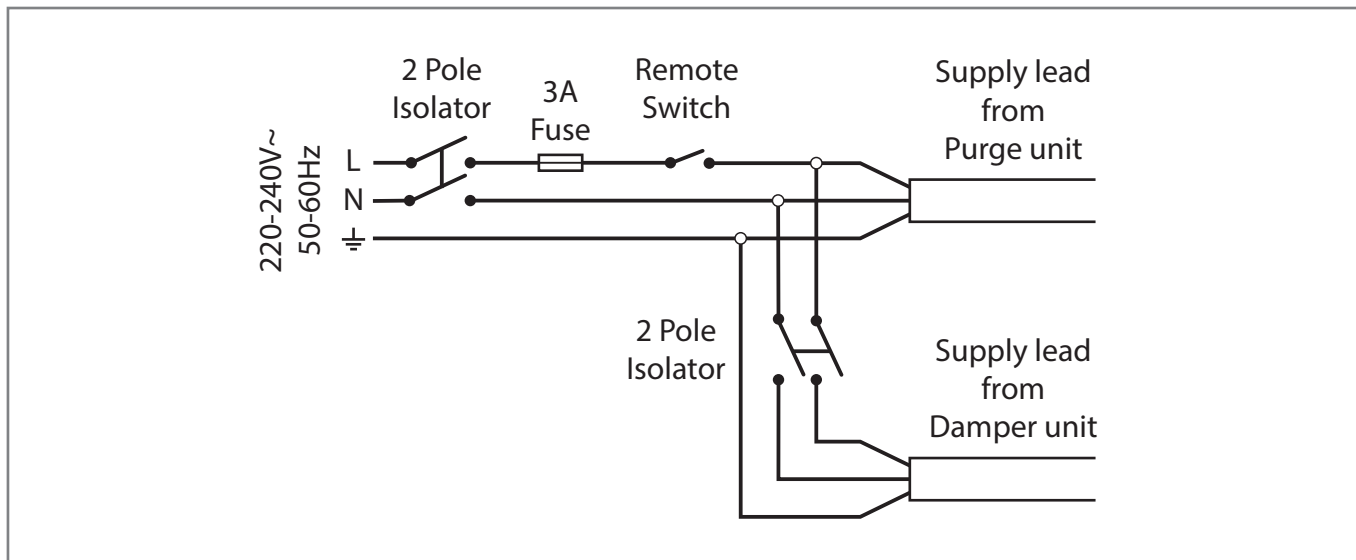
Stand Alone

This Purge Ventilation Unit unit to be fitted to a latching switch with mains power supply.



With Mains Actuated Backdraught Damper

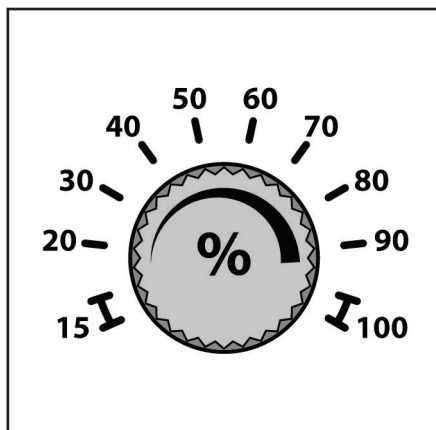
If the Purge Ventilation Unit is to be fitted as part of a complete system with the Mains Actuated Backdraught Damper the Titon Purge Ventilation Unit should be wired into and operated by the same latching switch.



Commissioning

TP625

The fan speed of the Purge Ventilation Unit will require adjustment to ensure that the flow rate is set correctly for the size of the habitable room it will be used in. The fan adjustment is made via a Rotary Potentiometer which can be found on the lid of the unit, a small flat head screwdriver will be required to make the adjustments.



In Line Configuration							
Floor Area	4 Air Changes an Hour		System Resistance (Pa)				
	l/s	m3/hr	Fan Speed %				
*m2			50	100	150	200	250
15	40	144	37%	45%	55%	63%	72%
20	53	191	45%	55%	63%	71%	73%
25	66	238	55%	63%	71%	73%	80%
30	80	288	63%	72%	75%	80%	90%
35	96	346	73%	77%	85%	100%	
40	110	396	78%	87%	100%		
45	120	432	100%				

90° Configuration							
Floor Area	4 Air Changes an Hour		System Resistance (Pa)				
	l/s	m3/hr	Fan Speed %				
*m2			50	100	150	200	250
15	40	144	32%	40%	47%	50%	62%
20	53	191	38%	45%	54%	60%	65%
25	66	238	45%	52%	58%	65%	68%
30	80	288	52%	58%	64%	70%	75%
35	96	346	60%	65%	70%	75%	
40	110	396	66%	72%	76%		
45	120	432	72%				

*assumed ceiling height 2.4m

Hardware Reset

Certain conditions (repeated supply interruptions etc.) can activate the automatic motor protection mode. Whereby the fan motors are prevented from operating. This requires a hardware reset to return the unit to normal operating mode, to achieve this power to the unit should be switched off for 5 minutes, restoring the power after this time will reset the hardware of both the motor and PCB. Commissioning settings are not affected during a hardware reset.

Routine Maintenance

All ventilation units require periodic maintenance. Routine maintenance must only be carried out by a suitably qualified and competent person. It is recommended that the Purge Ventilation Unit must be periodically cleaned internally. The maximum time between cleaning will depend on the local environment. Titon recommend the unit be cleaned every 2 – 3 years at a minimum.

In the event of any queries please contact the system installer.

WARNING: The unit uses a 220-240V~ 50-60Hz supply and contains rotating mechanical parts. ISOLATE the unit from mains power supply and allow sufficient time for all moving parts to stop before undergoing any Servicing or Maintenance.

In the event of any queries please contact the system installer.

Ensure this booklet is passed to the householder once installation & commissioning of the ventilation system is complete. This Product Manual must be kept in the Home Information Pack and used as a service record.

Installed by:



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