

VA100

Installation and Wiring Instructions



Stock Ref. N°

VA100LP	25 11 10B
VA100LT	25 12 10B
VA100XP	25 13 10C
VA100XT	25 14 10C
VA100LHP	25 16 10E
VA100XHP	25 17 10F
VA100XHT	25 15 10C

220-240V~50Hz

Vent-Axia®

PLEASE READ INSTRUCTIONS IN CONJUNCTION WITH ILLUSTRATIONS. PLEASE SAVE THESE INSTRUCTIONS.

IP44

CE
UK
CA

Installation and Wiring Instructions for the VA100 Fan.



**IMPORTANT:
READ THESE INSTRUCTIONS
BEFORE COMMENCING THE
INSTALLATION**

DO NOT install this product 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 higher than 40°C or less than -5°C.
- Possible obstructions which would hinder the access or removal of the Fan.

SAFETY AND GUIDANCE NOTES

- A.** All wiring to be in accordance with the current I.E.E. Regulations, or the appropriate standards of your country and **MUST** be installed by a suitably qualified person.
- B.** The fan should be provided with a local isolator switch capable of disconnecting all poles, having a contact separation of at least 3mm.
- C.** Ensure that the mains supply (Voltage, Frequency, and Phase) complies with the rating label.
- D.** The fan should only be used in conjunction with the appropriate Vent-Axia products.
- E.** It is recommended that the connection to the fan connector terminals is made with flexible cable.
- F.** When the fan is used to remove air from a room containing a fuel-burning appliance, ensure that the air replacement is adequate for both the fan and the fuel-burning appliance.
- G.** The fan should not be used where it is liable to be subject to direct water spray for prolonged periods of time.
- H.** Where ducted fans are used to handle moisture-laden air, a condensation trap should be fitted. Horizontal ducts should be arranged to slope slightly downwards away from the fan.
- I.** This appliance is not intended for use by young children or infirm persons without supervision.
- J.** Young children should be supervised to ensure that they do not play with the appliance.

DESCRIPTION

The VA100 from Vent-Axia is a 100mm extract fan for domestic bathrooms and WC's available as window, wall or panel mounted models. Model options with shutter, timer and auto humidity control.

ACCESSORIES (not supplied)

A range of 100mm wall and window kits are available for installing into most walls/windows using telescopic liners/spacers supplied.

	Stock Reference	
	White	Brown
Window	254101A	N/A
Wall	254102	254100

A. INSTALLATION

WHERE TO FIT

A short circuit of the airflow should always be avoided by positioning the fan as far away as possible from and opposite to the main source of air replacement. Fig. 1.

VA100LH, VA100XH and VA100XHT. These models are fitted with automatic electronic humidity sensing. The humidity sensor needs free air circulation so do not site close to cupboards, etc. Do not site above a radiator or other heat source.

PANEL/CEILING MOUNTING

IMPORTANT: The fan should be installed into a closed duct system or protected by an exterior air grille.

1. Cut a 105mm diameter hole in the fixing surface.
2. Remove the grille by loosening the screw at the bottom of the grille.
3. Mark the screw centres through the holes in the fan back plate. Drill, plug and screw into position.
4. Replace grille and tighten the screw.

WINDOW MOUNTING (Window kit not supplied – see Accessories above)

1. Cut a 105mm diameter hole in the glass.
2. Fit spacers as required behind the fan back plate, engaging the locating pips in the corner holes.
3. Place the fan spigot through the hole in the glass from the inside, with a gasket on each side of the glass.
4. From the outside, place on the remaining spacer, with the locating pips facing outwards. For double-glazing and materials up to 40mm thick, one or more spacers may be discarded.
5. Draw the assembly together with the threaded fixing ring. Do not over-tighten.
6. Fix the exterior grille in position, using the screws provided, with the louvres pointing downwards.

WALL MOUNTING (Wall kit not supplied – see Accessories above)

1. Cut a 115mm diameter hole through the wall and insert the wall sleeve with the large diameter sleeve on the room side. Slope the sleeve slightly downwards away from the fan. Cement both ends into position flush with the wall faces.
2. Remove the grille by loosening the screw at the bottom of the grille.
3. Mark the screw centres on the wall through the holes of the fan back plate. Drill plug and screw into position.
4. Repeat for the external grille sub-frame. Fix exterior grille into position with the louvres positioned downwards.

AFTER INSTALLATION ENSURE IMPELLER ROTATES FREELY



WARNING: THE FAN AND ANCILLARY CONTROL EQUIPMENT MUST BE ISOLATED FROM THE POWER SUPPLY DURING THE INSTALLATION / OR MAINTENANCE.

B. WIRING.

IMPORTANT: There are two methods of cable entry to the fan. If the side cable entry option is used, ensure the supplied grommet is used and maintains a good seal to prevent water ingress.

The VA100 is suitable for connection to 220-240V/1/50Hz supply. It is class II double insulated and **MUST NOT** be earthed.

1. Select and follow the appropriate wiring diagram. (Fig. 2, 3 or 4)
2. Check all connections have been made correctly and ensure all terminal connections and cable clamps are securely fastened.
3. Ensure the impeller rotates and is free from obstructions.

C. SETUP

TIMER ADJUSTMENT (VA100LT, VA100XT & VA100XHT)

BEFORE ADJUSTING THE TIMER, SWITCH OFF THE MAINS SUPPLY. TIMER SHOULD ONLY BE ADJUSTED BEFORE OR DURING INSTALLATION.

1. Remove the fan grille. The controller is factory set at 15 minutes approx. The overrun time period can be adjusted from 3-25 minutes by altering the adjuster on the control PCB.
2. To REDUCE the operating time, use a small screwdriver to turn the adjuster **ANTI-CLOCKWISE**.
3. To INCREASE the operating time, use a small screwdriver to turn the adjuster **CLOCKWISE**.
4. Replace the fan grille.

HUMIDITY SET-POINT ADJUSTMENT

BEFORE ADJUSTING THE CONTROLLER, SWITCH OFF THE MAINS SUPPLY. HUMIDISTAT SHOULD ONLY BE ADJUSTED BEFORE OR DURING INSTALLATION.

1. Remove the fan grille. The controller is factory set to switch on at about 70% RH. The humidity set point can be adjusted from 40-95%RH by altering the adjuster on the control PCB.
2. To LOWER the set-point use a small screwdriver to turn the adjuster **ANTI-CLOCKWISE**. This makes the controller MORE sensitive.
3. To RAISE the set-point use a small screwdriver to turn the adjuster **CLOCKWISE**. This makes the controller LESS sensitive.
4. Replace the fan grille.

IMPORTANT: Upon installation it is possible that the humidity controller will make the fan run continuously until it has acclimatised to the environment. As part of the installation process it is important to set/adjust the humidity sensitivity to the desired position. The controller is already factory set to switch on at about 70% R.H.

SHUTTER OPERATION

The shutter mechanism in all VA100'X' model fans will open approximately one minute after the fan is turned on. The shutter will close about a minute after the fan is switched off.

PULLCORD OPERATION (VA100LH, VA100XH)

The PULLCORD will activate the fan when switched. When the PULLCORD is switched into the off position, After which the fan will return to the Auto sensing mode. The Neon will only activate if the PULLCORD is in the ON position.

NEON OPERATION

The Neon will activate whenever the LS or PULLCORD is activated. The NEON will switch off if the fan is running in Timer overrun or Humidity mode (if applicable).

D. SERVICING AND MAINTENANCE.

1. At intervals appropriate to the installation, the fan should be inspected and cleaned to ensure there is no build up of dirt or other deposits.
2. Wipe the inlets and front face with a damp cloth until clean.

The fan has sealed for life bearings, which do not require lubrication.

Fig. 1

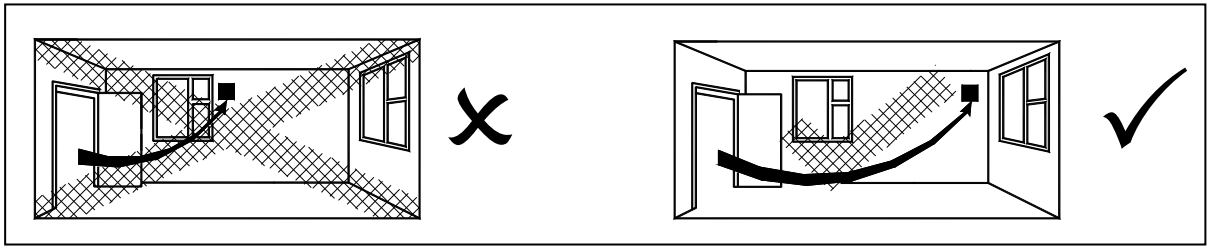


Fig. 2 : VA100L

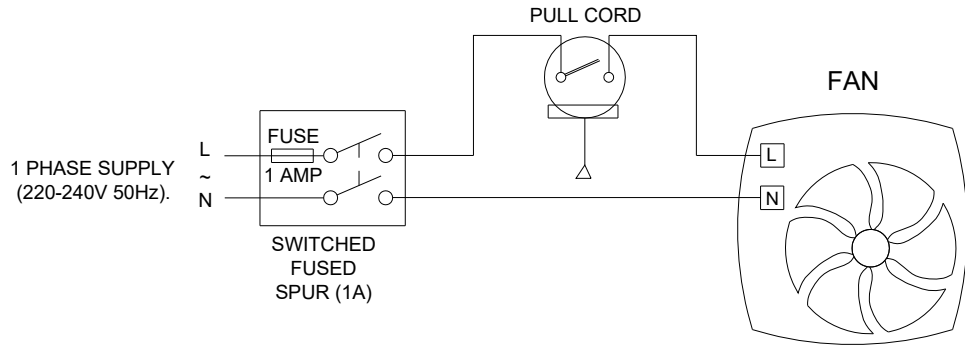


Fig. 3 : VA100X/VA100LH/VA100XH

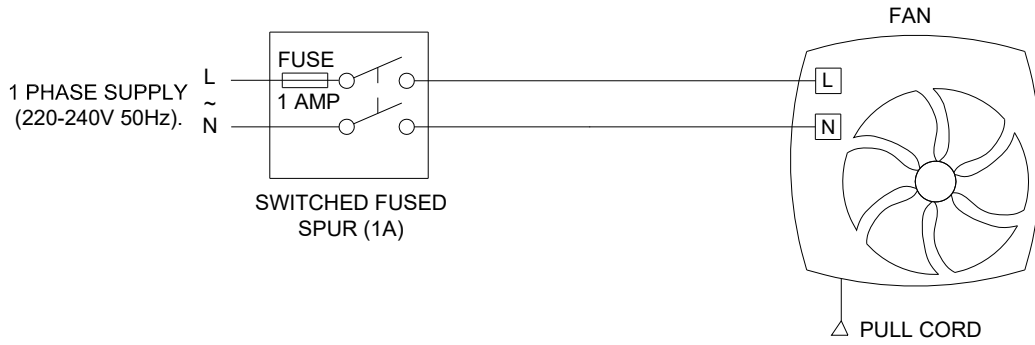
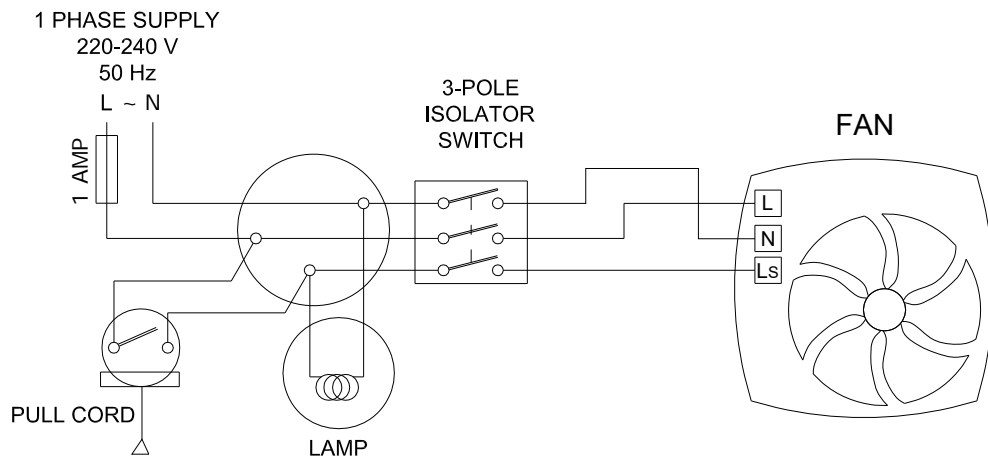


Fig. 4 : VA100XT/VA100LT/VA100XHT
(VA100LH & VA100XH LS CAN BE USED AS OVERRIDE)



PRODUCT FICHE

For Residential Ventilation Units (Complying Commission Delegated Regulation (EU)

No 1254/2014)

Name:	Vent-Axia	Vent-Axia	Vent-Axia	Vent-Axia	Vent-Axia	Vent-Axia	Vent-Axia
Model ID (Stock Ref.) :	VA100LP - 251110	VA100LT - 251210	VA100XP - 251310	VA100XT - 251410	VA100LHP - 251610	VA100XHP - 251710	VA100XHT - 251510
SEC Class	F	F	F	F	D	D	D
SEC Value ('Average')	13.97	15.72	13.97	15.72	26.23	26.23	26.23
SEC Value ('Warm')	6.32	7.11	6.32	7.11	11.86	11.86	11.86
SEC Value ('Cold')	27.32	30.75	27.32	30.75	51.31	51.31	51.31
Label Required? (Yes/No=Out of scope)	No	No	No	No	No	No	No
Declared as: RVU or NRVU/UVU or BVU	RVU-UVU	RVU-UVU	RVU-UVU	RVU-UVU	RVU-UVU	RVU-UVU	RVU-UVU
Speed Drive	Multi-Speed	Multi-Speed	Multi-Speed	Multi-Speed	Multi-Speed	Multi-Speed	Multi-Speed
Type HRS (Recuperative, Regenerative, None)	None	None	None	None	None	None	None
Thermal Eff: [(%), NA(if none)]	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Max. Flow Rate (m3/h)	108.00	108.00	108.00	108.00	108.00	108.00	108.00
Max. Power Input (W): (@Max.Flow Rate)	20.00	20.00	20.00	20.00	20.00	20.00	20.00
LWA: Sound Power Level (dB)	53.52	53.52	53.52	53.52	53.52	53.52	53.52
Ref. Flow Rate (m3/s)	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Ref. Pressure Diff. (Pa)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SPI [W/(m3/h)]	0.26	0.26	0.26	0.26	0.26	0.26	0.26
Control Factor & Control Typology: (CTRL/ Typology)							
Control Factor; CTRL	1.00	0.95	1.00	0.95	0.65	0.65	0.65
Control Typology	Manual Control	Clock Control	Manual Control	Clock Control	Local Demand Control	Local Demand Control	Local Demand Control
Declared: -Max Internal & External Leakage Rates(%) for BVUs or carry over (for regenerative heat exchangers only), -&Ext. Leakage Rates (%) for Ducted UVUs;	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mixing Rate of Non-Ducted BVUs not intended to be equipped with one duct connection on either supply or extract air side;	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Position and description of visual filter warning for RVUs intended for use with filters, including text pointing out the importance of regular filter changes for performance and energy efficiency of the unit	N/A	N/A	N/A	N/A	N/A	N/A	N/A
For UVUs (Instructions Install Regulated Supply/Extract Grilles Façade)	In F&W	In F&W	In F&W	In F&W	In F&W	In F&W	In F&W
Internet Address (for Disassembly Instructions)	www.vent-axia.com	www.vent-axia.com	www.vent-axia.com	www.vent-axia.com	www.vent-axia.com	www.vent-axia.com	www.vent-axia.com
Sensitivity p. Variation@+20/-20 Pa: (for Non-Ducted Vus)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Air Tightness-ID/OD-(m3/h) (for Non-Ducted Vus)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Annual Electricity Consumption: AEC (kWh/a)	3.65	3.38	3.65	3.38	1.91	1.91	1.91
Annual Heating Saved: AHS (kWh/a)							
AHS: Average	13.97	15.72	13.97	15.72	26.23	26.23	26.23
AHS: Warm	6.32	7.11	6.32	7.11	11.86	11.86	11.86
AHS: Cold	27.32	30.75	27.32	30.75	51.31	51.31	51.31

**Disposal**

This product should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority for recycling advice.

Vent-Axia #

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TECHNICAL SUPPORT: Tel: 0344 8560594 Fax: 01293 539209

For details of the warranty and returns procedure please refer to www.vent-axia.com or write to Vent-Axia, Fleming Way, Crawley, RH10 9YX