a fresh approach

ventilation equipment



ventilation range quick find index

	MODEL	AIR MOVEMENT RATE	DUCTED	DESCRIPTION
0	Low profile 100mm	93m³/hr	No	 Compact exhaust fans for smaller rooms Time delay option
	Heavy duty 100mm 12V 100mm	88m³/hr 75m³/hr	No	• Compact exhaust fans for smaller rooms
	Heavy duty 150mm	245m ³ /hr	No	Heavy duty exhaust fans for larger room
	Ceiling 200mm Ceiling 250mm	360m³/hr 510m³/hr	No	 Low profile ceiling exhaust fans
IN THE REAL PROPERTY OF	Fanlight	250m ³ /hr	No	Combination ceiling light and exhaust fan
1	Ceiling 100mm (LuminAir)	100m³/hr —	Yes (Ducting not included)	 LuminAir with exhaust fan LuminAir vent light
	In-line 150mm	360m ³ /hr	Yes	• Exhaust fan, duct, cable ties & grilles
60	Ceiling 100mm - ducted	160m ³ /hr	Yes	Low profile ducted ceiling exhaust fan
	Heat lamp	NA	NA	Heater for smaller rooms
0000	Instant heat 2 Instant heat 4	250m³/hr 400m³/hr	No No	• Combination light, heater and exhaust fan
020	Instant heat 2 - ducted Instant heat 4 - ducted	120m³/hr 240m³/hr	Yes Yes	 Combination light, heater and ducted exhaust fan
	Hand dryer	NA	NA	Automatic hand dryer1700 Watt
-	Ceiling sweep fans	NA	NA	 900mm, 1200mm and 1400mm ceiling sweep fans
	Ventilation accessories	NA	NA	• Time delay, weatherproof and automatic switches
	Ventilation accessories	NA	NA	Wall and window mounting kit

CATALOGUE NUMBER	APPLICATION	PAGE
R621/4S, R621/3S	INSUITE SWEE	8
R621/4A, VA100SVL12, VA100SVX12		9 10
R621/8A, R621/9A	RATHROOM S WC	11
R621/1, R621/2, R621/1A, R621/2A	ATHROOM SWC	12
R620	RATHROOM S WC ENSUITE CICHEN LAUNDRY GARAGE	13
LM100L 453746	WET AREA BATHROOM E WE	14
R621/6L	BATHROOM S WC	15
R621D1	BATHROOM S WC	16
R615		17
R622/1AC R622/2AC		18
R622D1 R622D2	BATHROOM S WC	19
R623/1000A	BATHROOM B WC	20
		21
TF770/1RC, XLTF770/1, XLW770		22
R621/4D, R621/6D, R621/4WA, R621/6WA		22

ventilation did you know...



Ventilation is required to maintain 'healthy air' within homes and buildings. Pollutants are carried in the air and absorbed by home contents, such as carpets and soft furnishings, as well as our bodies, causing possible damage.

Problems caused by poor ventilation include:

stale air

Cooking smells, smoking, body odours, a general lack of ventilation around the house, and a damp atmosphere cause stale air. This results in an avoidable level of discomfort, risk of respiratory illness and general poor health.

condensation

Condensation can cause considerable problems, from peeling wallpaper and mould growth to severe structural damage such as wood rot and damp.

Problems occur when steam from the kitchen or bathroom finds a relatively cooler surface and condenses. Sealing windows to conserve heat intensifies the problem because natural ventilation is reduced.

Good ventilation also increases the life of paint in wet areas.

energy efficiency

Recognising the need to reduce energy usage per capita, councils are introducing more stringent building regulations – some of these affect ventilation equipment. Keeping abreast of regulatory requirements and seeking to improve building energy efficiency is recommended. The following outlines two methods of improving energy efficiency.

time delay

Exhaust fans are often most effective after you leave the bathroom or toilet. This is when the fan should be left running to clear away any remaining steam or odours. A normal fan (without time delay) could be left on for hours wasting energy.

There are two ways you can achieve a time delay function. 1. purchasing a fan with built-in time delay function or 2. couple a standard fan with a time delay switch. For more information on time delay switches please see Ventilation Accessories on page 22.

shutters

Shutters prevent outside air from entering interior spaces when the fan is not in use. Isolating external air when a room is being heated or cooled prevents increased energy usage.

Exhaust fans with shutters are recommended for cooler climates because the shutters help keep warm air inside. Similarly, exhaust fans without shutters are more suitable in warmer climates where maximising natural ventilation is important.



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choosing the right exhaust fan

• Step 1.

Calculate ventilation requirements

How to calculate ventilation requirements:

- 1. Calculate the room volume in cubic metres length (m) x width (m) x height (m) = Xm^3
- Calculate the total air movement required per hour-room volume x air changes required per hour (AC/H) Please refer to table opposite.

• Step 2.

Identify the position most suitable for the fan. Please refer to the 'Tips' for guidance on page 23. Determine if you need a ceiling, wall or window mounting fan.

💿 Step 3.

If you have chosen a ceiling fan, determine if ducting is required. Ducting is required if the fan exhausts into an inter-floor space. Ducting can also be required by law when exhausting into ceiling spaces.

Check your relevant building regulations.

• Step 4.

Choose a fan from listing below satisfying the criteria decided in the steps above.

Room	Bathroom	Kitchen
Volume	2.0m x 2.4m x 2.0m = 9.6m ³	$2.4m \times 2.8m \times 2.4m = 16m^3$
No. of AC/H	6	15
Air movement required	$6 \times 9.6 = 57.6 \text{m}^3/\text{hr}$	16 x 15 = 240m ³ /hr
Suggested fan	R621/3S, 4S, R621/4A	R621/8A and 9A

This table provides suggested air changes per hour (AC/H) under normal conditions.

Location	Air changes per hour
Bathrooms	6-10
Kitchens - domestic	15-20
Kitchens - commercial*	30
Toilets	6-10
Bedrooms	2-4
Utility rooms	15-20
Cellars	3-10
Laundries	10-30
Entrance halls & corridors	3-5
Living rooms	3-6
Offices	6-10
Garages	6-8

* Some commercial kitchens may require higher ventilation rates, based on cooking equipment in use.

Note: More than one unit may be required to move large volumes of air. Increasing ducting length may decrease performance, efficiency and product life span

Cat No.	Fan size	Product description	Suggested applications	Air dispacement
R621/3S	100mm (4")	Low profile wall or ceiling fan with time delay in white	En, WC	93m ³ /hr
R621/4S	100mm (4")	Low profile wall or ceiling fan in white	En, WC	93m ³ /hr
R621/4A	100mm (4")	Heavy duty wall or ceiling exhaust fan	En, WC	88m ³ /hr
VA100SVL12	100mm (4")	12V wall exhaust fan	En, WC	75m ³ /hr
VA100SVX12	100mm (4")	12V wall exhaust fan with shutters	En, WC	75m ³ /hr
R621/8A	150mm (6")	Heavy duty wall exhaust fan	B, En, K, L, WC	245m ³ /hr
R621/9A	150mm (6")	Heavy duty wall exhaust fan with shutters	B, En, K, L, WC	245m ³ /hr
R620	250mm (8")	Ceiling exhaust fan with light	B, En, K, L, WC	250m ³ /hr
R621/1	200mm (8")	Ceiling exhaust fan with round grille	B, En, K, L, WC	360m ³ /hr
R621/2	250mm (10")	Ceiling exhaust fan with round grille	B, En, K, L, WC	510m ³ /hr
R621/1A	200mm (8")	Ceiling exhaust fan with square grille	B, En, K, L, WC	300m ³ /hr
R621/2A	250mm (10")	Ceiling exhaust fan with square grille	B, En, K, L, WC	410m ³ /hr
R621D1	120mm (Centrifugal)	Ceiling exhaust fan with 3m of 100mm dia. ducting	B, En, K, L, WC	160m ³ /hr
LM100L (LuminAir)	100mm (4")	Ceiling exhaust fan and light (suitable in splash zone)	B, En, WC	100m ³ /hr
R621/6L	150mm (6")	Inline exhaust fan kit with 5m of 100mm dia. ducting	B, Bd, En, K, L, WC	360m ³ /hr
R622/1AC	200mm (8")	Instant heat 2-2 x 275W heat lamps, exhaust fan, and 100W light	B, En, WC	250m ³ /hr
R622/2AC	200mm (8")	Instant heat 4-4 x 275W heat lamps, exhaust fan, and 100W light	B, En, WC	400m ³ /hr
R622D1	120mm (Centrifugal)	Instant heat 2-2 x 275W heat lamps, exhaust fan, 60W light, 3m of 100mm dia. ducting and external grille	B, En, WC	120m ³ /hr
R622D2	160mm (Centrifugal)	Instant heat 4-4 x 275W heat lamps, exhaust fan, 100W light, 3m of 100mm dia. ducting and external grille	B, En, WC	240m ³ /hr

Legend: B-Bathroom Bd-Bedroom En-Ensuite K-Kitchen L-Laundry WC-Toilet

an exhaust fan for every room



Things to consider when selecting an exhaust fan:

- Size of room and volume of air to be moved (see page 5)
- Whether it's a wet area
- Best position for maximum air movement (see page 23)



- Where the expelled air goes
- Time delay switches (see page 22)
- Shutters to eliminate backdraft

low profile 100mm



Standard model (white): Cat R621/4S Time delay model (white): Cat R621/3S

compact, low profile exhaust fans for smaller rooms



*R621/3S only

- Suitable for wall or ceiling installation
- Same size as standard wall tile
- Cover removes for easy cleaning
- Adjustable time delay between 3 and 25 minutes (Cat R621/3S)

specifications



Supply voltage: 230-240V a.c. 50Hz Motor rating: 22W Air movement: 93m³/hr Time delay (R621/3S models only): adjustable between 3 and 25 minutes Projection into wall/ceiling: 80mm Face protrusion: 12mm Impeller diameter: 88mm Hole cut-out size: 110mm diameter Weight: 600g Warranty: 1 year IP rating: IPX3M



heavy duty 100mm



Standard model: Cat R621/4A

compact, heavy duty exhaust fan for smaller rooms



- Ideal for high performance ventilation in smaller rooms
- Quiet operation
- Long lasting motor

specifications



Supply voltage: 230-240V a.c. 50Hz Motor rating: 16W Air movement: 88m³/hr (approx) Projection into wall/ceiling: 46mm Face protrusion: 47mm Impeller diameter: 90mm Hole cut-out size: 105mm dia required for ducting and cable tie Weight: 700g Warranty: 3 year IP rating: IPX3M



12V 100mm



Standard model: VA100SVL12 Model with shutters: VA100SVX12

low voltage, wet zone exhaust fan for smaller rooms



- Extra low voltage for splash zone
- Can be installed within reach of a person in the bath or shower
- Includes 240/12V transformer
- Model with shutters shutters open when operating and close when the unit is off, preventing backdraft, noise and dust

specifications



Supply voltage: 230-240V a.c. 50Hz Transformer secondary voltage: 12V Motor rating: 18W Air movement: 75m³/hr Projection into wall: 55mm Face protrusion: 45mm Impeller diameter: 90mm Hole cut-out size: 105mm Weight: 500g Warranty: 1 year IP rating: IP57



heavy duty 150mm



Standard model: Cat R621/8A Model with shutters: Cat R621/9A

heavy duty exhaust fans for larger rooms



- Suits wall, window or ceiling installation
- High performance, long lasting motor
- Model with shutters shutters open when operating and close when the unit is off, preventing backdraft, noise and dust

specifications



Supply voltage: 230-240V a.c. 50Hz Motor rating: 29W Air movement: 245m³/hr (approx) Projection into wall/ceiling: 65mm Face protrusion: 47mm Impeller diameter: 140mm Hole cut-out size: 160mm dia required for ducting and cable tie Weight: 965g R621/8A, 1.2kg R621/9A Warranty: 3 years IP rating: IPX3M



ceiling 200 and 250mm



200mm model: Cat R621/1, R621/1A 250mm model: Cat R621/2, R621/2A

low profile ceiling exhaust fans



- Minimal protrusion below the ceiling •
- Easy-clean round or square grille •
- Complete with lead and 2 pin plug •
- Round hole for quick and easy cut-out

specifications

Supply voltage: Motor rating: Air movement: Projection into wall/ceiling: 100mm Face protrusion: Impeller diameter: Hole cut-out size: Weight: Warranty: 1 year **IP rating:** NA

230-240V a.c. 50Hz 35W 360m³/hr 25mm 200mm 242mm diameter 1.3kg

Round grille R621/1 Round grille R621/2

230-240V a.c. 50Hz 38W 510m³/hr 100mm 28mm 250mm 298mm diameter 1.7kg 1 year NA



Supply voltage: Motor rating: 38W Air movement: Projection into wall/ceiling: 100mm Face protrusion: 24mm Impeller diameter: 200mm Hole cut-out size: 240mm Weight: 1.3kg Warranty: 1 year **IP rating:** NA

Square grille R621/1A Square grille R621/2A 230-240V a.c. 50Hz 230-240V a.c. 50Hz 38W 300m³/hr 410m³/hr

100mm 27mm 250mm 287mm 1.7kg 1 year NA



GRILLE DIMENSIONS: 328 x 328mm

fanlight



Cat R620

combination light and exhaust fan



- Easy to wire and install
- Angled vents hide build-up of dirt
- Removable grille and diffuser for easy cleaning

specifications



Supply voltage: 230-240V a.c. 50Hz Motor rating: 38W Max. globe rating: 100W BC Air movement: 250m³/hr (approx) Projection into ceiling: 130mm Face protrusion: 90mm Impeller diameter: 200mm Hole cut-out size: 300mm dia Weight: 3.0kg Warranty: 1 year IP rating: NA

features/
benefitsImage: Comparison of the second second

ceiling 100mm (luminair)



Ceiling vent light: **Cat 453746** Ceiling exhaust fan and light: **Cat LM100L**



- Extra low voltage for splash zones
- Suited to ducted systems in kitchens, bathrooms, showers, toilets and ensuites
- Quick and easy installation
- Includes 20W long-life halogen lamp
- Includes transformer and fixing instructions

specifications

	LM100L	453746		LM100L
Supply voltage:	230-240V a.c. 50Hz	230-240V a.c 50/60Hz	150mm 10 140mm	→
Transformer				<u>,</u> T T
secondary voltage:	12V	12V		
Lamp rating:	20W	20W		98mm 103mm
Lamp type:	Dichroic halogen	Dichroic halogen	φ Ψ	33
Motor rating:	15W	NA		
Air movement:	100m ³ /hr	NA		
Projection into ceiling:	140mm	180mm		
Face protrusion:	10mm	10mm		453746
Impeller diameter:	100mm	NA	12 103mm	
Hole cut-out size:	105mm dia	105mm dia	150mm	───┤ ਗ਼── │ ↑
Weight:	750g	500g		
Warranty:	1 year	1 year		6
IP rating:	IP65	IP54		165mm

installation



Cat LM100L LuminAir with exhaust fan



180mm

Cat 453746 LuminAir Vent Light can be connected with an in-line fan venting to the outside environment

inline 150mm fan



150mm model: Cat R621/6L

exhaust fan, duct and grilles



- Less noise because the fan is mounted further into the ceiling away from the room requiring ventilation
- Ducting to the outside prevents condensation damage to the ceiling
- Ideal for transferring hot or cool air from air-conditioning, fireplaces, and oil heaters from one room to another

specifications

Supply voltage: 230-240V a.c. 50Hz Motor rating: 46W Air movement: 360m³/hr Flexible duct length: 5m Face protrusion: 15mm Impeller diameter: 150mm Hole cut-out size for grille: 160mm dia Weight: 2.9kg Warranty: 1 year IP rating: NA



ceiling 100mm - ducted



Standard model: Cat R621D1

ceiling exhaust fan, duct and grille



- Suitable for low roof or inter-floor spaces
- Ducting to outside prevents condensation damage to the ceiling
- · Built-in draft-stopper improves household energy efficiency
- Supplied with 3m ducting, grille, lead and plug -• ready for installation

specifications



60mm 16.5 125mm 98.8mm

Supply voltage: 240V a.c. 50Hz Motor rating: 34W Air movement rate: 160m3/hr with 3m ducting Grille dimensions: 290mm square Projection into ceiling: 167mm Face protrusion: 20mm Fan size: 120mm centrifugal Hole cut-out size: 230mm x 252mm Duct size: 100mm diameter Flexible ducting: 100mm dia x 3m Weight: 2kg Warranty: 1 year IP rating: NA



installation



Cat R615

1x275 watt heater for smaller bathrooms, toilets or ensuites



- Lamp may be dimmed for variable heat
- Multiple heat lights can be installed in larger rooms
- 5 year warranty on materials and workmanship
- 2 year warranty on infra red lamps
- · Round hole cut-out for easy installation

specifications



Supply Voltage: 230-240V a.c. 50Hz Max. rating: 275W Heat lamps: 1 x 275W Projection into ceiling: 210mm Face protrusion: 25mm Hole cut-out size: 151mm dia Weight: 750g Warranty: 5 years on material and workmanship 2 years on infra red lamps IP rating: NA

instant heat 2 and 4



2 heat lamp model: Cat R622/1AC 4 heat lamp model: Cat R622/2AC combination light, heater and exhaust fan for larger bathrooms and ensuites



- Instantaneous heat at the flick of a switch
- Individual controls for each function
- HPM excel switch plate included
- More economical to run than most heaters
- 5 year warranty on materials and workmanship
- 2 year warranty on infra red lamps
- * Not available in New Zealand

specifications

Instant heat 2 Supply voltage: 230-240V a.c. 50Hz Max rating: 690W Motor rating: 40W Heat lamps: 2 x 275W Light lamps: 1 x 100W ES Air movement rate: 250m³/hr Projection into ceiling: 200mm Face protrusion: 40mm Impeller diameter: 230mm Hole cut-out size: 300mm dia Weight: 3.3kg Warranty: 5 years on material and workmanship 2 years on infra red lamps IP Rating: NA



Instant heat 4 Supply voltage: 230-240V a.c. 50Hz Max rating: 1240W Motor rating: 40W Heat lamps: 4 x 275W Light lamps: 1 x 100W ES Air movement rate: 400m³/hr Projection into ceiling: 200mm Face protrusion: 40mm Impeller diameter: 230mm Hole cut-out size: 322mm square Weight: 4.5kg Warranty: 5 years on material and workmanship 2 years on infra red lamps IP Rating: NA



instant heat 2 and 4 - ducted



2 heat lamp model: **Cat R622D1** 4 heat lamp model: **Cat R622D2** combination light, heater and ducted exhaust fan for bathrooms and ensuites



- Instant heat at the flick of a switch
- HPM Excel switch plate included
- Suitable for low roof or inter-floor spaces
- Ducting to outside prevents condensation damage to the ceiling
- Built-in draft-stopper improves household energy efficiency
- 5 year warranty on materials and workmanship
- 2 year warranty on infra red lamps

specifications

Instant heat 2-ducted Supply voltage: 230-240V a.c. 50Hz Max rating: 630W Motor rating: 20W (centrifugal) Heat lamps: 2 x 275W Light lamps: 1 x 60W ES Flexible ducting: 100mm dia x 3m Air movement: 120m³/hr with 3m ducting Projection into wall/ceiling: 200mm Face protrusion: 40mm Rotor diameter: 120mm Hole cut-out size: 335 x 180mm Weight: 3.0kg IP rating: NA



Instant heat 4-ducted Supply voltage: 230-240V a.c. 50Hz Max rating: 1240W Motor rating: 40W (centrifugal) Heat lamps: 4 x 275W Light lamps: 1 x 100W ES Flexible ducting: 100mm dia x 3m Air movement: 240m³/hr with 3m ducting Projection into wall/ceiling: 210mm Face protrusion: 40mm Rotor diameter: 160mm Hole cut-out size: 310 x 310mm Weight: 4.5kg IP rating: NA



installation





Note: Increasing ducting length may decrease performance, efficiency and product life span.

Multi storey application

Standard roof application

automatic hand dryer



Cat R623/1000A



- Senses hand movement and issues power only when required saving energy and money
- Eliminates labour required to re-order, stock, and clean-up consumables – more cost efficient and cleaner than paper towel and linen
- Quiet operation
- Quick and easy installation
- * New Zealand indent only

specifications



Voltage: 230-240V a.c. 50Hz Rated power: 1700W Bezel Colour: White Material: High-grade ABS/Polycarbonate Air movement rate: NA Projection into wall: 0mm Face protrusion: 141mm Hole cut-out size: NA Weight: 2.6kg Warranty: 1 year IP rating: NA

installation



ceiling sweep fans





- Hangsure or j-hookAluminium "quick connect" blades for easy fixing
- Pre-wired for time-saving installation
- Fully light adaptable
- Reversible operation for summer and winter
- 3 speed flush mount controller including HPM Excel mounting plate
- Heavy-duty sealed bearings
- * Not available in New Zealand





ventilation accessories



Cat TF770/1RC Cat XLTF770/1

time delay switch

- Switch off light and keep fan running for better ventilation results
- Fan run-on time adjustable to 3, 10 or 20 minutes (approx)
- · Prevents fan being accidentally left on saves energy

specifications Supply voltage: 230-240V a.c. 50Hz Lamp circuit max load: 2400VA Fan circuit max load: 600VA Fan circuit min load: 7VA Plate size: 117mm x 73mm (XLTF770/1) Time delay: 3, 10, or 20 mins IP rating: NA

weatherproof switches

- May be installed in restricted wet zones including bathrooms, laundries, ensuites and even outdoors
- IP56 rating
- Flush or surface mounted using Cat 239 mounting block
- Available in one or two gang in vertical or horizontal

specifications Supply voltage: 230-240V a.c. 50Hz Rating: 10A Plate size: 117mm x 73mm IP rating: IP56

wall ducting kit

Includes exterior wall grille, 350mm of ducting, cable ties and wall plugs

- R621/4D and R621/6D suit 100mm and 150mm exhaust fans respectively
- · Economical and convenient for ducting through to outside
- Typical wall installations include double brick walls, brick veneer, cladded exterior walls
- Projection into wall: R621/4D 60mm, R621/6D 30mm

window kits

Includes gaskets for watertight seal, exterior grille and a fixing plate

- 100mm kit suits Cat R621/4A heavy duty wall exhaust fan
- 150mm kit suits Cat R621/8A & R621/9A heavy duty wall exhaust fans
- Economical and convenient for exhausting steam and odours through a window
- Grille dimensions R621/4WA: 155w x 155h x 60d
- Grille dimensions R621/6WA: 225w x 220h x 80d



Cat XLW770 series





60mm _16,5

100mm kit-R621/4D 150mm kit-R621/6D





• Locate the fan, if possible, on the opposite side of the room and as far away as possible from the main fresh air source. Ideally, position the fan so vapour sources such as showers and stoves, fall within the air flow path. Please see diagrams.



- Consider the fresh air flow within the room. Adequate fresh air is crucial to an exhaust fan's performance; fresh air is required to replace the air exhausted. In rooms where doors and windows are usually closed, consider installing wall or door grilles.
- Positioning fans as high as possible will increase the exhaustion of air often trapped near the ceiling.
- Wall mounting check your potential position has no hidden pipes or cables nearby, and your potential position on the outside wall is free of drainpipes.
 Please note: not all fans can be wall mounted.
- Ceiling mounting check the area above the proposed fan location is free of joists, pipes or cable. **Please note:** not all fans can be ceiling mounted.
- Window mounting HPM recommends a professional glazier pre-cuts the glass. If there is pre-existing stress in the glass, it could crack during cutting.
- Wire exhaust fans to turn-on simultaneously with lights. This increases usage and therefore increases benefits.
- Install time delay units such as HPM's TF770/1 and XLTF770/1 to prevent unintentional usage and energy waste.
- Clean fan grilles periodically by removing obstructions from both inlets and outlets to help ensure maximum performance.
- To extend the life of an exhaust fan or heat lamp, operate upon entering the room before using room facilities. For example, before having a shower.

