

Dome Roof Extract

**CENTRIFUGAL
ROOF EXTRACT
UNITS**

for volume
and pressure



VES ROOF EXTRACT UNITS

*part of a complete range of innovative
flexible products from the HVAC experts*

Dome Roof Extract

Why choose VES

VES have been supplying products for the HVAC industry for over 40 years, and have the in-depth knowledge and resources to provide solutions to all ventilation related requirements. We are a substantial British manufacturing company with over 220 employees, several factories plus a regional base in the north of England, and sales engineers located throughout the UK.

Complete range of products

The product range encompasses all types of ventilation products, including those required for commercial, industrial, public and domestic buildings. The emphasis is on low energy products and sophisticated controls to meet the requirements of the Building Regulations.

The range extends from a small bathroom extract fan up to a mighty central station air handling unit. There are specialist heat recovery units, high temperature fans for kitchen hood extract; duct, wall, ceiling and roof units; low noise products and silencers; fitted controls.

High quality, flexible solutions

VES operate a quality assurance system to ISO 9001, monitored by the BSI. The air movement products are tested in house to BS 848 Part 1, and submitted for external testing and approval when necessary.

VES specialise in bespoke designs for ventilation units, and whatever the issue, be it space, noise, temperature etc, can provide a design solution to meet the requirements of the project.

Superior customer service

From the moment we receive your enquiry to delivery and beyond, we have the people in place to give excellent customer service.

The VES after sales service covers the whole of the UK and is among the best in the industry.

Experience and expertise

VES employ a range of experts in disciplines including air movement, noise control, air conditioning, controls, electrics and product refurbishment, and we have key staff who have worked at VES for many years.

Manufactured in the UK

VES has over 12000m² of manufacturing and stores space, and has state of the art sheet metalworking equipment, plus a large powder coating plant. VES also has a substantial controls department, and makes components such as dampers and electric heaters in-house. This not only provides employment for local people, but also many suppliers around the UK.

When a roof unit is the best choice for extracting air, there is no better selection than the VES Dome roof unit.



CENTRIFUGAL ROOF EXTRACT UNITS

For volume and pressure



Product features:

- ▶ 9 units to choose from with a wide duty range.
- ▶ Low energy fans with advanced impellor design.
- ▶ Specific fan power figures published for all duty points.
- ▶ Fan speed control options include manual and 0-10 volt, ideal for use with the VES air quality sensor.
 - ▶ With operating temperatures available up to 60°C and 100% humidity, Dome is an ideal commercial kitchen hood extract fan.
 - ▶ Suitable for curb mounting on a flat roof, or profiled pitched roof with soaker sheet base and matching purlin box.
 - ▶ Standard colour Signal Grey to RAL 7004, with many other colours available.
 - ▶ Fan safety guard / bird screen fitted as standard.
 - ▶ Fan motor fitted with quick change plug connector for easy maintenance.
- ▶ Local isolator fitted as standard to all units with easy access for wiring on site. The isolator is fitted on a solid panel to one of the four sides of the safety guard. This is designed to face the prevailing wind on exposed locations to prevent possible rain ingress into the unit.
- ▶ Lifting lugs supplied fitted as standard. They are easy to remove once unit in position.

Options:

- ▶ EC motors for maximum energy saving under variable speed control operation.
- ▶ Duct mounting silencers, fixed or cleanable, to meet required noise criteria.

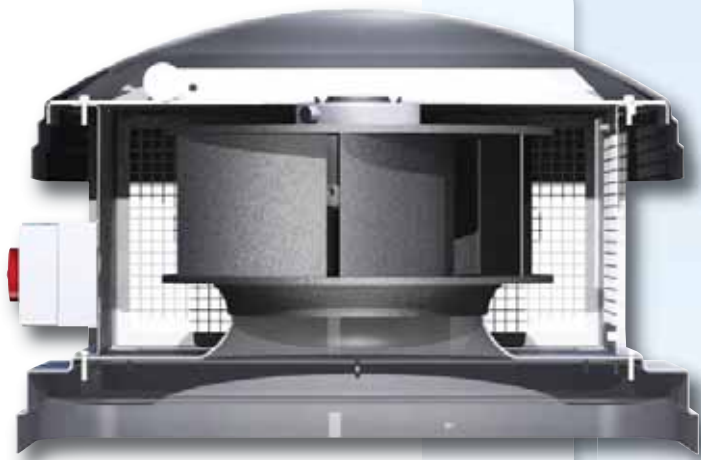
| | | |
|------------------|------------------------|------|
| Contents: | Technical details | 4-5 |
| | Selection data | 6-14 |
| | Dimensions and weights | 15 |
| | Speed controllers | 16 |

Dome

Technical Details

Fans and Motors

- ▶ The aerofoil section blades are made from glass fibre reinforced plastic and are statically balanced in accordance with UNI ISO 1940.
- ▶ All motors have a die cast enclosure in aluminium alloy, being external rotor type with ball bearings. All motors are insulated to Thermal Class 155 (previously insulation class F). The motor has a protective paint finish. The motor is prewired to an external isolator.
- ▶ The fan performance has been tested within the Dome unit and certified in accordance with BS 848 Part 1. The electrical supply is to be 230 volt 50Hz 1 phase or 400 volt 50Hz 3 phase.



Dome Housings

- ▶ The Dome roof unit is supplied with two grp mouldings, cowl and base. The base has an integral moulded raised inlet eye for the fan. The fan support assembly comprises the four sided guard, isolator mounting plate and motor mounting plate. All metalwork is manufactured from galvanised sheet steel which is powder coat paint finished to match the grp before assembly. The whole assembly is weatherproof and fully protected against corrosion. The grp construction conforms to BS 3532 (type C), but if specified may be supplied to BS 3532 (type E) having Class II fire retardant characteristics in accordance with BS 476 Part 7, 1971. The standard colour is Signal Grey to RAL 7004, most other colours can be supplied to specified colour.
- ▶ The four lifting lugs are to be removed once the unit is positioned on site.

Backdraft Shutters

- ▶ Backdraught shutters cannot be supplied fitted as part of the Dome unit.
- ▶ There are two solutions to prevent draughts when the fan is not running.
- ▶ The first is to fit a motorised damper within the ductwork.
- ▶ The second is to fit duct mounting backdraught shutters, which are available for vertical or horizontal airflow.
- ▶ VES manufacture dampers and backdraught shutters and can supply them to the required size.

Quality Assurance

- ▶ VES Andover Ltd is a company of assessed capability by BSI to the requirements of ISO 9001 – 2008, certificate no Q5375.
- ▶ Units comply with all relevant European directives and are CE marked.

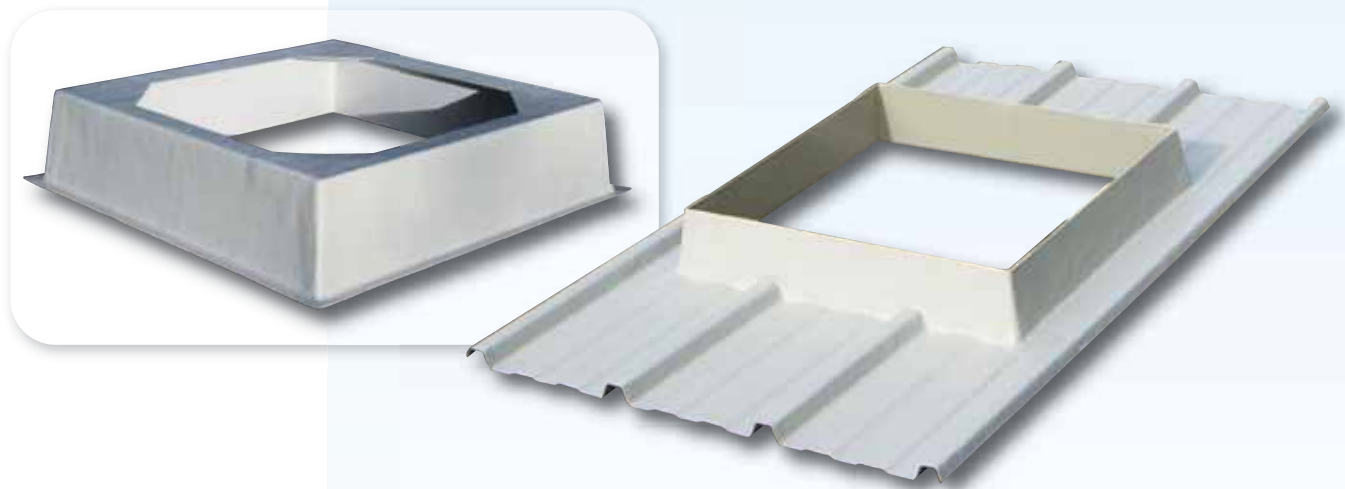
Dome

Technical Details



Soaker Sheet Bases

- ▶ The soaker sheet is to be the same profile as the roof, and is to be sealed onto the roof. It has an upstand to prevent water ingress. This upstand is not designed to support the Dome unit. The soaker sheet base length is 1800mm, which provides for rain water drainage and a full overlapping corrugation each side of the upstand. Maximum angle for roof installation 30°. The Dome unit is to be supported by the purlin box, which is to be securely fixed to the roof purlins. The soaker sheet fits over the purlin box. It is important to fix the purlin box at the correct height so that the base of the Dome covers the upstand of the soaker sheet. Failure to do this will allow rain to enter the building.
- ▶ It is possible that the roof profile cannot be identified. VES are able to assist with this to ensure correct selection. Ask the Sales Office for a Roof Soaker Identification Form.
- ▶ Do not use soaker sheets larger than size 630 on asbestos roofs.

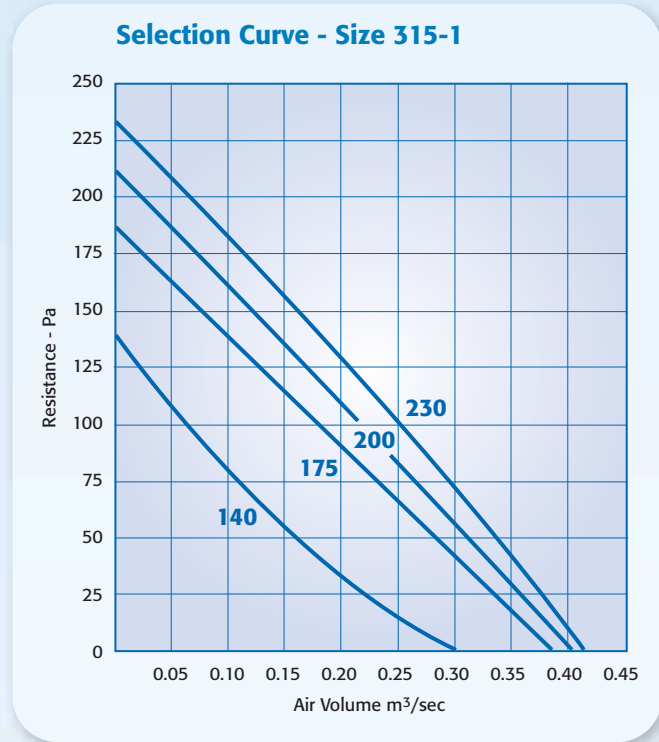


Installation on a Pitched Roof using a Soaker Sheet Base

- ▶ The Dome roof unit is supported on the roof using a purlin box.
- ▶ The purlin box is attached below the roof using trimmers between the purlins.
- ▶ The height of the purlin box above the roof is important, the base of the roof unit must fit over the upstand on the soaker sheet for a weatherproof installation.

DME315-1

Selection Curves



Sound Data

| Fan Voltage | T1 Speed Controller Setting | Sound Pressure Level - dBA | | Sound Power Level PWL, dB | | | | | | | |
|-------------|-----------------------------|----------------------------|------------|---------------------------------------|-----|-----|-----|----|----|----|----|
| | | @ 3 metres | @ 6 metres | Linear Spectrum Centre Frequency - Hz | | | | | | | |
| | | | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
| 140 | 2 | 42 | 32 | 55 | 69 | 52 | 55 | 42 | 40 | 39 | 24 |
| 175 | 3 | 46 | 36 | 55 | 66 | 51 | 61 | 54 | 40 | 46 | 26 |
| 200 | 4 | 46 | 36 | 61 | 64 | 58 | 56 | 56 | 44 | 52 | 43 |
| 230 | 5 | 47 | 37 | 59 | 68 | 60 | 58 | 55 | 45 | 50 | 48 |

Specific Fan Power - watts/litre/second

| Fan Voltage | Air Volume - m³/sec | | | | | | |
|-------------|---------------------|------|------|------|------|------|------|
| | 0.10 | 0.15 | 0.20 | 0.25 | 0.30 | 0.35 | 0.40 |
| 140 | 0.70 | 0.49 | 0.38 | 0.30 | 0.24 | 0.20 | - |
| 175 | 0.90 | 0.65 | 0.50 | 0.40 | 0.33 | 0.28 | - |
| 200 | 1.02 | 0.73 | 0.57 | 0.46 | 0.39 | 0.32 | 0.28 |
| 230 | 1.18 | 0.86 | 0.68 | 0.55 | 0.46 | 0.39 | 0.33 |

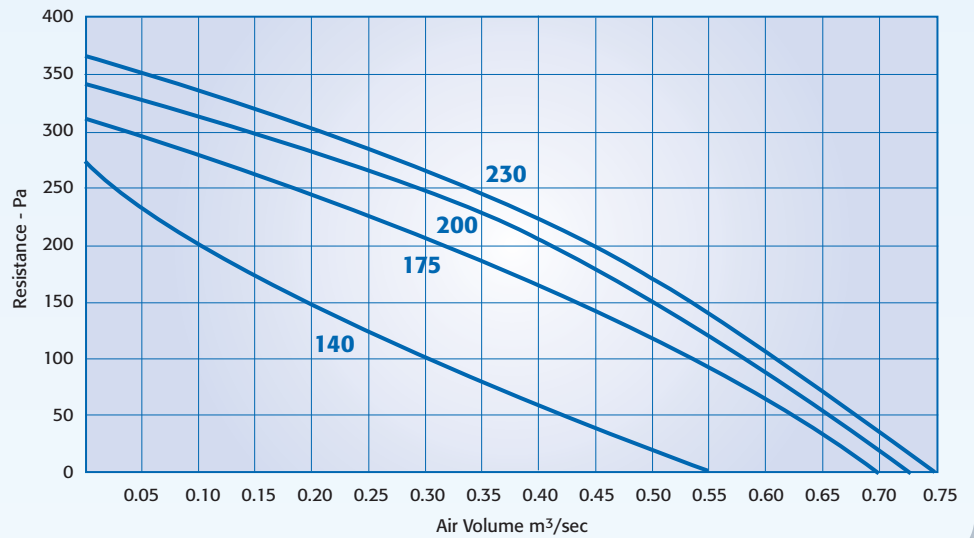
Technical details

| | | | |
|-------------------|--------------|----------------------|-----------|
| Motor size | 0.14 kW | Max. Operating Temp. | 60°C |
| Voltage | 230V 1 phase | Speed Controllers: | |
| Starting Current | 1.2 amps | Manual | T1 or VS2 |
| Full Load Current | 0.62 amps | Automatic | MS10 |
| Fan Speed | 1240 RPM | | |

DME355-1

Selection Curves

Selection Curve - Size 355-1



Sound Data

| Fan Voltage | T4 Speed Controller Setting | Sound Pressure Level - dBA | | Sound Power Level PWL, dB | | | | | | | |
|-------------|-----------------------------|----------------------------|------------|---------------------------------------|-----|-----|-----|----|----|----|----|
| | | @ 3 metres | @ 6 metres | Linear Spectrum Centre Frequency - Hz | | | | | | | |
| | | | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
| 140 | 2 | 39 | 29 | 58 | 58 | 55 | 51 | 44 | 43 | 49 | 27 |
| 175 | 3 | 45 | 35 | 65 | 64 | 58 | 57 | 50 | 48 | 54 | 42 |
| 200 | 4 | 46 | 36 | 64 | 64 | 59 | 59 | 52 | 50 | 53 | 48 |
| 230 | 5 | 47 | 37 | 65 | 66 | 61 | 59 | 53 | 51 | 53 | 51 |

Specific Fan Power - watts/litre/second

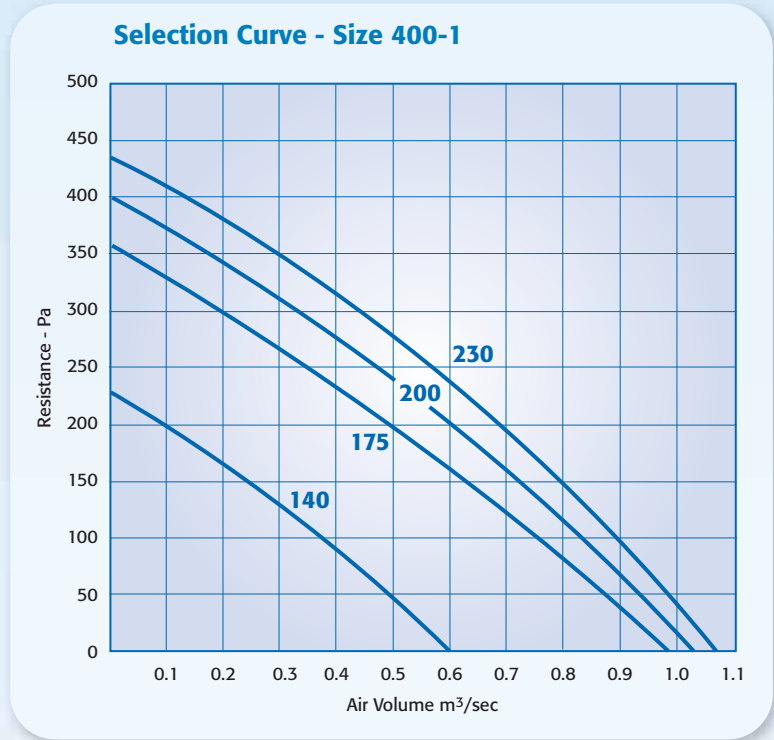
| Fan Voltage | Air Volume - m³/sec | | | | | |
|-------------|---------------------|------|------|------|------|------|
| | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 |
| 140 | 0.92 | 0.64 | 0.50 | 0.38 | - | - |
| 175 | 1.00 | 0.73 | 0.57 | 0.46 | 0.33 | 0.25 |
| 200 | 1.10 | 0.76 | 0.60 | 0.50 | 0.39 | 0.28 |
| 230 | 1.25 | 0.86 | 0.65 | 0.55 | 0.44 | 0.33 |

Technical details

| | | | |
|-------------------|--------------|----------------------|-----------|
| Motor size | 0.27 kW | Max. Operating Temp. | 60°C |
| Voltage | 230V 1 phase | Speed Controllers: | |
| Starting Current | 3.9 amps | Manual | T4 or VS2 |
| Full Load Current | 1.3 amps | Automatic | MS10 |
| Fan Speed | 1390 RPM | | |

DME400-1

Selection Curves



Sound Data

| Fan Voltage | T4 Speed Controller Setting | Sound Pressure Level - dBA | | Sound Power Level PWL, dB | | | | | | | |
|-------------|-----------------------------|----------------------------|------------|---------------------------------------|-----|-----|-----|----|----|----|----|
| | | @ 3 metres | @ 6 metres | Linear Spectrum Centre Frequency - Hz | | | | | | | |
| | | | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
| 140 | 2 | 40 | 30 | 60 | 63 | 55 | 51 | 46 | 45 | 43 | 44 |
| 175 | 3 | 45 | 35 | 60 | 65 | 59 | 57 | 51 | 48 | 44 | 50 |
| 200 | 4 | 47 | 37 | 62 | 66 | 64 | 60 | 53 | 50 | 45 | 51 |
| 230 | 5 | 49 | 39 | 62 | 67 | 67 | 61 | 54 | 51 | 46 | 53 |

Specific Fan Power - watts/litre/second

| Fan Voltage | Air Volume - m³/sec | | | | | | | | | |
|-------------|---------------------|------|------|------|------|------|------|------|------|--|
| | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 | |
| 140 | 1.40 | 0.96 | 0.74 | 0.59 | 0.49 | - | - | - | - | |
| 175 | 1.60 | 1.24 | 0.95 | 0.80 | 0.67 | 0.56 | 0.48 | - | - | |
| 200 | 1.86 | 1.32 | 1.01 | 0.84 | 0.74 | 0.62 | 0.54 | 0.45 | - | |
| 230 | 2.00 | 1.44 | 1.11 | 0.93 | 0.80 | 0.70 | 0.58 | 0.51 | 0.43 | |

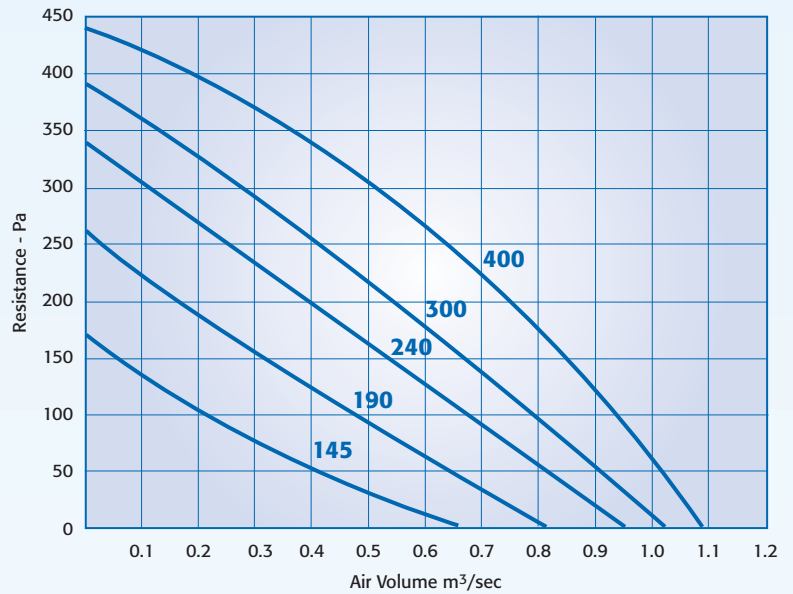
Technical details

| | | | |
|-------------------|--------------|----------------------|-----------|
| Motor size | 0.43 kW | Max. Operating Temp. | 60°C |
| Voltage | 230V 1 phase | Speed Controllers: | |
| Starting Current | 5.0 amps | Manual | T4 or VS6 |
| Full Load Current | 1.9 amps | Automatic | MS10 |
| Fan Speed | 1280 RPM | | |

DME400-3

Selection Curves

Selection Curve - Size 400-3



Sound Data

| Fan Voltage | Fan Speed | Inverter Setting Hz | Sound Pressure Level - dBA | | Sound Power Level PWL, dB | | | | | | | |
|-------------|-----------|---------------------|----------------------------|------------|---------------------------------------|-----|-----|-----|----|----|----|----|
| | | | @ 3 metres | @ 6 metres | Linear Spectrum Centre Frequency - Hz | | | | | | | |
| | | | | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
| 145 | 642 | 22.5 | 36 | 26 | 54 | 48 | 56 | 43 | 40 | 39 | 38 | 21 |
| 190 | 840 | 30 | 40 | 30 | 60 | 53 | 54 | 52 | 44 | 45 | 49 | 28 |
| 240 | 1006 | 36.5 | 44 | 34 | 57 | 63 | 57 | 58 | 49 | 47 | 50 | 39 |
| 300 | 1202 | 45 | 47 | 37 | 60 | 64 | 60 | 62 | 52 | 49 | 46 | 49 |
| 400 | 1324 | 50 | 49 | 39 | 62 | 68 | 62 | 62 | 56 | 52 | 47 | 52 |

Specific Fan Power - watts/litre/second

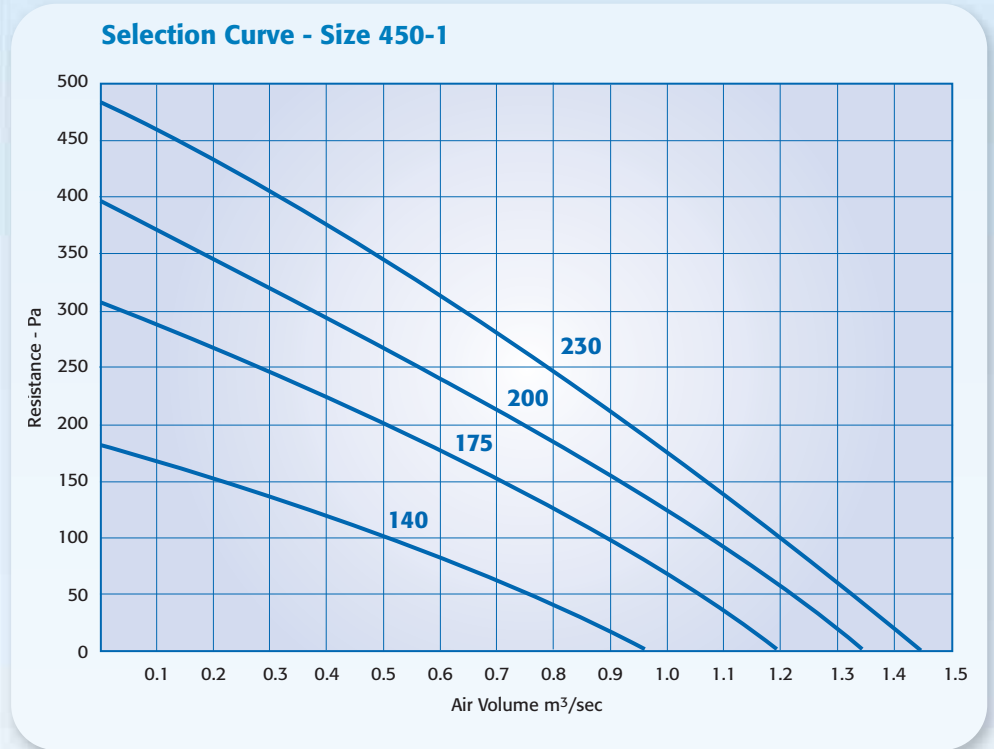
| Fan Voltage | Air Volume - m³/sec | | | | | | | | | |
|-------------|---------------------|------|------|------|------|------|------|------|------|--|
| | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 | |
| 145 | 0.93 | 0.63 | 0.47 | 0.37 | - | - | - | - | - | |
| 190 | 1.10 | 0.78 | 0.61 | 0.49 | 0.40 | 0.34 | - | - | - | |
| 240 | 1.40 | 0.91 | 0.70 | 0.60 | 0.49 | 0.42 | 0.35 | - | - | |
| 300 | 1.81 | 1.23 | 0.96 | 0.76 | 0.63 | 0.53 | 0.49 | 0.39 | 0.33 | |
| 400 | 2.00 | 1.34 | 1.00 | 0.82 | 0.69 | 0.61 | 0.53 | 0.47 | 0.40 | |

Technical details

| | | | |
|-------------------|--------------|----------------------|------------------------|
| Motor size | 0.44 kW | Max. Operating Temp. | 60°C |
| Voltage | 400. 3 phase | Speed Controllers: | |
| Starting Current | 2.7 amps | Manual | SC303 |
| Full Load Current | 0.8 amps | Inverter IP 21: | IN03/3434-0037/GN/IP21 |
| Fan Speed | 1340 RPM | Inverter IP 54: | IN03/3434-0037/GN/IP54 |

DME450-1

Selection Curves



Sound Data

| Fan Voltage | T4 Speed Controller Setting | Sound Pressure Level - dBA | | Sound Power Level PWL, dB | | | | | | | |
|-------------|-----------------------------|----------------------------|------------|---------------------------------------|-----|-----|-----|----|----|----|----|
| | | @ 3 metres | @ 6 metres | Linear Spectrum Centre Frequency - Hz | | | | | | | |
| | | | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
| 140 | 2 | 38 | 28 | 62 | 61 | 54 | 51 | 45 | 42 | 36 | 27 |
| 175 | 3 | 45 | 35 | 66 | 67 | 61 | 58 | 51 | 47 | 44 | 37 |
| 200 | 4 | 49 | 39 | 68 | 68 | 66 | 62 | 55 | 51 | 47 | 45 |
| 230 | 5 | 52 | 42 | 68 | 71 | 71 | 64 | 57 | 53 | 49 | 51 |

Specific Fan Power - watts/litre/second

| Fan Voltage | Air Volume - m³/sec | | | | | | | | | | |
|-------------|---------------------|------|------|------|------|------|------|------|------|------|------|
| | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 | 1.1 | 1.2 | 1.3 | 1.4 |
| 140 | 0.90 | 0.73 | 0.60 | 0.51 | 0.46 | - | - | - | - | - | - |
| 175 | 1.15 | 0.99 | 0.84 | 0.72 | 0.62 | 0.54 | 0.48 | 0.43 | 0.37 | - | - |
| 200 | 1.29 | 1.10 | 0.97 | 0.84 | 0.71 | 0.63 | 0.56 | 0.51 | 0.44 | 0.38 | - |
| 230 | 1.43 | 1.20 | 1.04 | 0.92 | 0.81 | 0.72 | 0.65 | 0.57 | 0.50 | 0.46 | 0.41 |

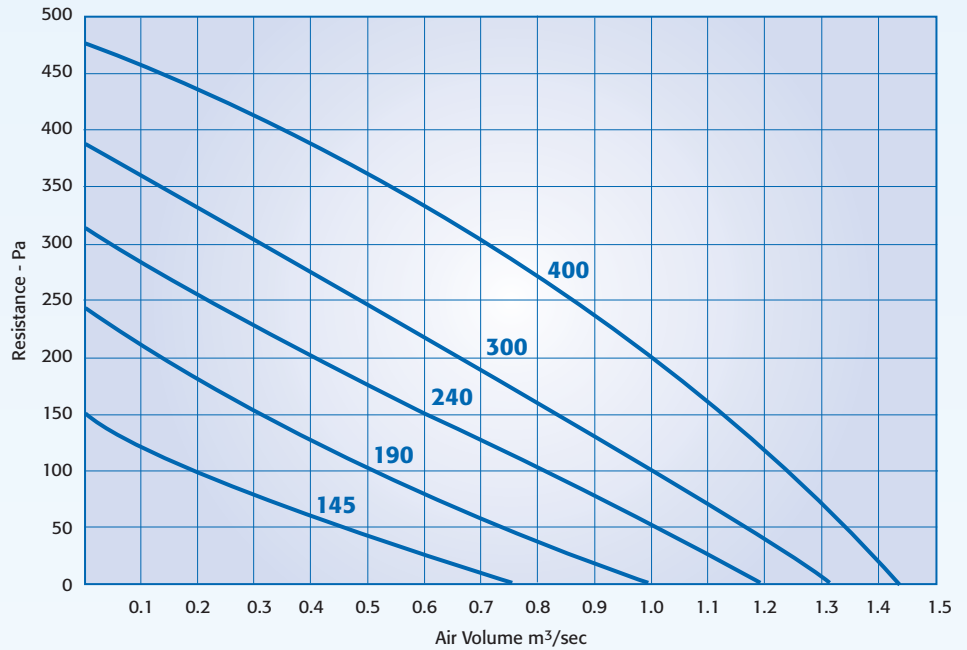
Technical details

| | | | |
|-------------------|--------------|----------------------|-----------|
| Motor size | 0.62 kW | Max. Operating Temp. | 60°C |
| Voltage | 230V 1 phase | Speed Controllers: | |
| Starting Current | 7.0 amps | Manual | T4 or VS6 |
| Full Load Current | 2.8 amps | Automatic | MS10 |
| Fan Speed | 1230 RPM | | |

DME450-3

Selection Curves

Selection Curve - Size 450-3



Sound Data

| Fan Voltage | Fan Speed | Inverter Setting Hz | Sound Pressure Level - dBA | | Sound Power Level PWL, dB | | | | | | | |
|-------------|-----------|---------------------|----------------------------|------------|---------------------------------------|-----|-----|-----|----|----|----|----|
| | | | @ 3 metres | @ 6 metres | Linear Spectrum Centre Frequency - Hz | | | | | | | |
| | | | | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
| 145 | 576 | 20.5 | 31 | 21 | 58 | 53 | 47 | 43 | 38 | 32 | 25 | 24 |
| 190 | 740 | 27 | 38 | 28 | 63 | 59 | 54 | 50 | 44 | 40 | 34 | 27 |
| 240 | 887 | 34 | 41 | 31 | 65 | 62 | 58 | 54 | 48 | 44 | 41 | 32 |
| 300 | 1083 | 43 | 48 | 38 | 68 | 70 | 64 | 60 | 54 | 50 | 47 | 42 |
| 400 | 1246 | 50 | 50 | 40 | 69 | 74 | 66 | 64 | 57 | 53 | 49 | 54 |

Specific Fan Power - watts/litre/second

| Fan Voltage | Air Volume - m³/sec | | | | | | | | | | |
|-------------|---------------------|------|------|------|------|------|------|------|------|------|------|
| | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 | 1.1 | 1.2 | 1.3 |
| 145 | 0.71 | 0.54 | 0.42 | 0.36 | 0.31 | - | - | - | - | - | - |
| 190 | 0.95 | 0.74 | 0.60 | 0.49 | 0.42 | 0.36 | 0.31 | - | - | - | - |
| 240 | 1.19 | 0.94 | 0.77 | 0.66 | 0.51 | 0.48 | 0.42 | 0.37 | 0.33 | - | - |
| 300 | 1.60 | 1.25 | 1.03 | 0.85 | 0.68 | 0.59 | 0.49 | 0.41 | 0.36 | 0.34 | - |
| 400 | 1.90 | 1.45 | 1.20 | 1.05 | 0.94 | 0.81 | 0.71 | 0.65 | 0.57 | 0.51 | 0.45 |

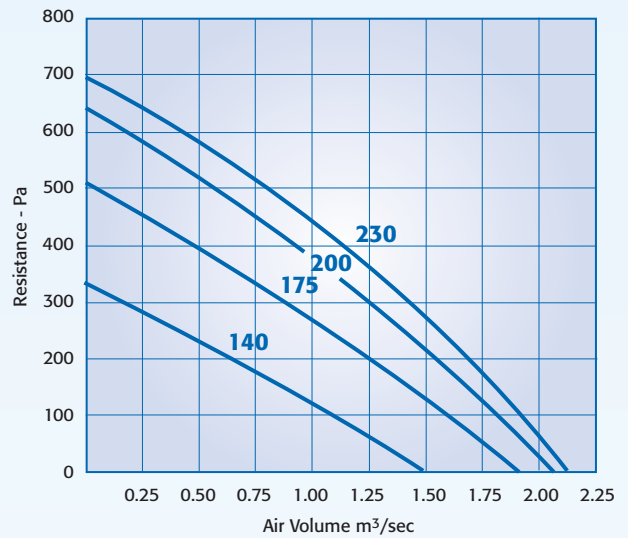
Technical details

| | | | |
|-------------------|--------------|----------------------|------------------------|
| Motor size | 0.65 kW | Max. Operating Temp. | 55°C |
| Voltage | 400V 3 phase | Speed Controllers: | |
| Starting Current | 3.4 amps | Manual | SC303 |
| Full Load Current | 1.30 amps | Inverter IP 21: | IN03/3434-0055/GN/IP21 |
| Fan Speed | 1250 RPM | Inverter IP 54: | IN03/3434-0055/GN/IP54 |

DME500-1

Selection Curves

Selection Curve - Size 500-1



Sound Data

| Fan Voltage | T4 Speed Controller Setting | Sound Pressure Level - dBA | | Sound Power Level PWL, dB | | | | | | | |
|-------------|-----------------------------|----------------------------|------------|---------------------------------------|-----|-----|-----|----|----|----|----|
| | | @ 3 metres | @ 6 metres | Linear Spectrum Centre Frequency - Hz | | | | | | | |
| | | | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
| 140 | 2 | 46 | 36 | 70 | 73 | 61 | 58 | 52 | 48 | 50 | 45 |
| 175 | 3 | 53 | 43 | 71 | 76 | 67 | 64 | 59 | 55 | 51 | 58 |
| 200 | 4 | 55 | 45 | 71 | 77 | 70 | 68 | 62 | 58 | 55 | 59 |
| 230 | 5 | 58 | 48 | 72 | 78 | 72 | 70 | 64 | 59 | 57 | 61 |

Specific Fan Power - watts/litre/second

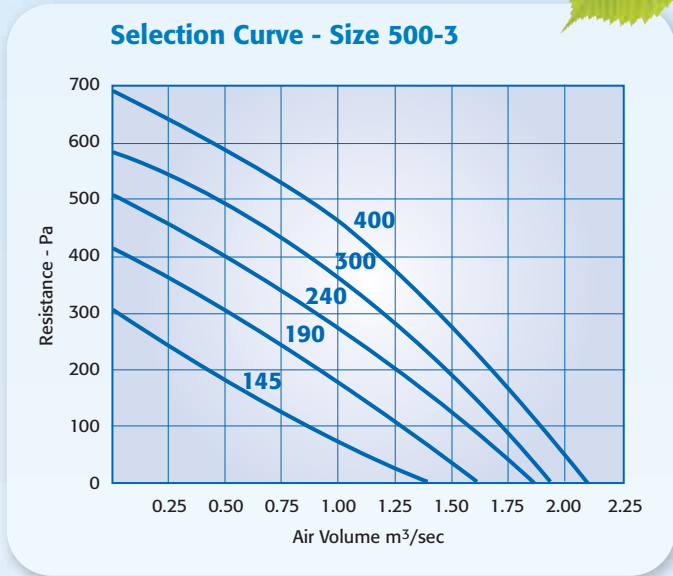
| Fan Voltage | Air Volume - m³/sec | | | | | | |
|-------------|---------------------|------|------|------|------|------|------|
| | 0.50 | 0.75 | 1.00 | 1.25 | 1.50 | 1.75 | 2.00 |
| 140 | 1.50 | 1.02 | 0.75 | 0.60 | 0.48 | - | - |
| 175 | 1.80 | 1.37 | 1.07 | 0.84 | 0.67 | 0.51 | - |
| 200 | 1.92 | 1.41 | 1.20 | 0.96 | 0.77 | 0.61 | 0.48 |
| 230 | 2.15 | 1.66 | 1.31 | 1.05 | 0.84 | 0.68 | 0.52 |

Technical details

| | | | |
|-------------------|--------------|----------------------|-----------|
| Motor size | 1.30 kW | Max. Operating Temp. | 60°C |
| Voltage | 230V 1 phase | Speed Controllers: | |
| Starting Current | 15.0 amps | Manual | T8 or VS6 |
| Full Load Current | 5.8 amps | Automatic | MS10 |
| Fan Speed | 1340 RPM | | |

DME500-3

Selection Curves



Sound Data

| Fan Voltage | Fan Speed | Inverter Setting Hz | Sound Pressure Level - dBA | | Sound Power Level PWL, dB | | | | | | | |
|-------------|-----------|---------------------|----------------------------|------------|---------------------------------------|-----|-----|-----|----|----|----|----|
| | | | @ 3 metres | @ 6 metres | Linear Spectrum Centre Frequency - Hz | | | | | | | |
| | | | | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
| 145 | 702 | 25 | 42 | 32 | 67 | 59 | 54 | 54 | 49 | 42 | 38 | 31 |
| 190 | 885 | 32 | 50 | 40 | 68 | 66 | 61 | 65 | 53 | 48 | 45 | 40 |
| 240 | 1040 | 37.5 | 52 | 42 | 70 | 72 | 65 | 67 | 57 | 52 | 48 | 51 |
| 300 | 1211 | 45 | 55 | 45 | 73 | 75 | 69 | 67 | 61 | 56 | 53 | 55 |
| 400 | 1330 | 50 | 61 | 51 | 75 | 77 | 72 | 69 | 73 | 59 | 55 | 58 |

Specific Fan Power - watts/litre/second

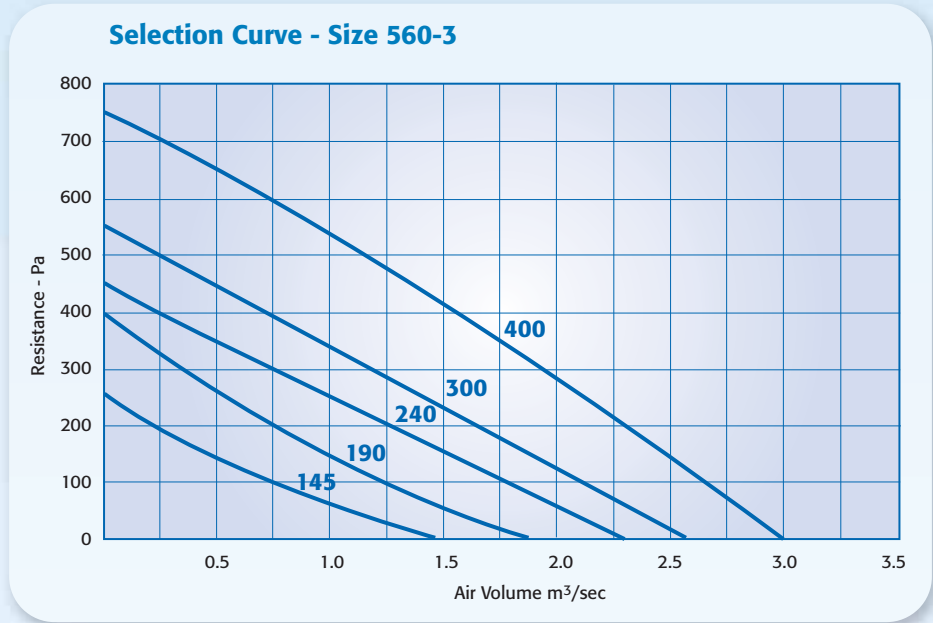
| Fan Voltage | Air Volume - m³/sec | | | | | | | | |
|-------------|---------------------|------|------|------|------|------|------|------|---|
| | 0.6 | 0.8 | 1.0 | 1.2 | 1.4 | 1.6 | 1.8 | 2.0 | |
| 145 | 0.74 | 0.56 | 0.43 | 0.35 | - | - | - | - | - |
| 190 | 0.94 | 0.73 | 0.58 | 0.48 | 0.39 | 0.32 | - | - | - |
| 240 | 1.07 | 0.87 | 0.72 | 0.60 | 0.49 | 0.44 | 0.34 | - | - |
| 300 | 1.33 | 1.07 | 0.88 | 0.76 | 0.60 | 0.50 | 0.43 | - | - |
| 400 | 1.54 | 1.20 | 1.05 | 0.89 | 0.75 | 0.63 | 0.54 | 0.44 | - |

Technical details

| | | | |
|-------------------|--------------|----------------------|------------------------|
| Motor size | 1.20 kW | Max. Operating Temp. | 55°C |
| Voltage | 400V 3 phase | Speed Controllers: | |
| Starting Current | 8.6 amps | Manual | SC303 |
| Full Load Current | 2.2 amps | Inverter IP 21: | IN03/3434-0075/GN/IP21 |
| Fan Speed | 1330 RPM | Inverter IP 54: | IN03/3434-0075/GN/IP54 |

DME560-3

Selection Curves



Sound Data

| Fan Voltage | Fan Speed | Inverter Setting Hz | Sound Pressure Level - dBA | | Sound Power Level PWL, dB | | | | | | | |
|-------------|-----------|---------------------|----------------------------|------------|---------------------------------------|-----|-----|-----|----|----|----|----|
| | | | @ 3 metres | @ 6 metres | Linear Spectrum Centre Frequency - Hz | | | | | | | |
| | | | | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
| 145 | 525 | 19 | 37 | 27 | 64 | 61 | 50 | 47 | 43 | 42 | 38 | 27 |
| 190 | 670 | 25 | 43 | 33 | 68 | 67 | 58 | 53 | 48 | 43 | 48 | 32 |
| 240 | 800 | 30.5 | 47 | 37 | 68 | 67 | 61 | 58 | 54 | 47 | 50 | 43 |
| 300 | 1000 | 40 | 52 | 42 | 69 | 75 | 69 | 62 | 59 | 53 | 52 | 57 |
| 400 | 1190 | 50 | 57 | 47 | 70 | 80 | 73 | 68 | 63 | 58 | 56 | 62 |

Specific Fan Power - watts/litre/second

| Fan Voltage | Air Volume - m³/sec | | | | | | | | | |
|-------------|---------------------|------|------|------|------|------|------|------|------|--|
| | 0.50 | 0.75 | 1.00 | 1.25 | 1.50 | 1.75 | 2.00 | 2.25 | 2.50 | |
| 145 | 0.86 | 0.58 | 0.43 | 0.34 | 0.29 | - | - | - | - | |
| 190 | 1.15 | 0.82 | 0.62 | 0.49 | 0.41 | 0.34 | - | - | - | |
| 240 | 1.60 | 1.10 | 0.82 | 0.67 | 0.56 | 0.47 | 0.40 | 0.36 | - | |
| 300 | 1.87 | 1.29 | 1.02 | 0.84 | 0.71 | 0.63 | 0.56 | 0.45 | - | |
| 400 | 2.40 | 1.79 | 1.37 | 1.12 | 0.96 | 0.85 | 0.72 | 0.63 | 0.55 | |

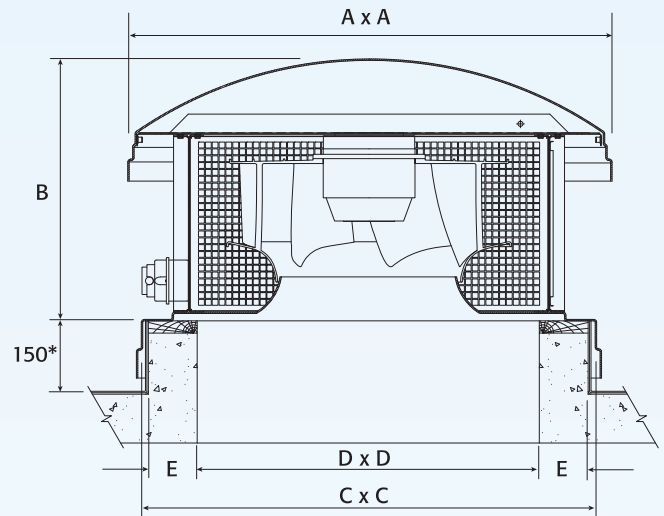
Technical details

| | | | |
|-------------------|--------------|----------------------|------------------------|
| Motor size | 1.70 kW | Max. Operating Temp. | 50°C |
| Voltage | 400V 3 phase | Speed Controller: | |
| Starting Current | 10.0 amps | Manual | SC305 |
| Full Load Current | 3.3 amps | Inverter IP 21: | IN03/3434-0150/GN/IP21 |
| Fan Speed | 1190 RPM | Inverter IP 54: | IN03/3434-0150/GN/IP54 |

Dome

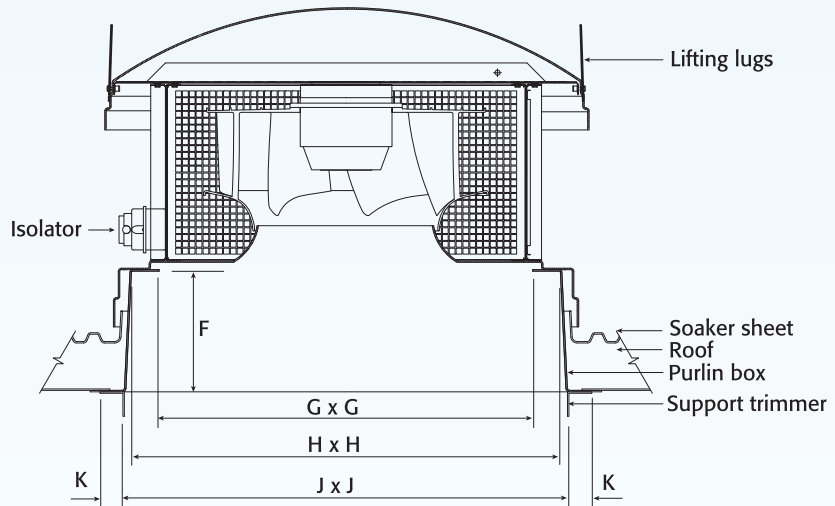
Dimensions

Curb mounting



*Recommended height of curb

Pitched roof mounting with soaker sheet and purlin box



Notes:

- ▶ For ducted applications, duct flange should sit on top of curb or purlin box.
- ▶ The soaker sheet upstand must not be used for roof unit support.
- ▶ Remove lifting lugs after installation.
- ▶ Ensure isolator faces prevailing weather direction.

Dimensions - mm

| Model | A | B | C | D | E | F | G | H | J | K | Weight kgs |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|------------|
| 315-1 | 556 | 308 | 530 | 400 | 50 | 220 | 350 | 440 | 510 | 50 | 17 |
| 355-1 | 676 | 360 | 662 | 450 | 75 | 240 | 400 | 620 | 680 | 50 | 27 |
| 400-1 | 761 | 390 | 765 | 500 | 100 | 240 | 510 | 720 | 780 | 50 | 28 |
| 400-3 | 761 | 390 | 765 | 500 | 100 | 240 | 510 | 720 | 780 | 50 | 29 |
| 450-1 | 761 | 418 | 765 | 550 | 75 | 240 | 510 | 720 | 780 | 50 | 31 |
| 450-3 | 761 | 418 | 765 | 550 | 75 | 240 | 510 | 720 | 780 | 50 | 33 |
| 500-1 | 991 | 490 | 926 | 700 | 100 | 250 | 620 | 860 | 900 | 70 | 50 |
| 500-3 | 991 | 490 | 926 | 700 | 100 | 250 | 620 | 860 | 900 | 70 | 52 |
| 560-3 | 991 | 536 | 926 | 700 | 100 | 250 | 620 | 860 | 900 | 70 | 60 |

3 phase speed control using inverters

Option 1



The benefits include 0-100% stepless control from a wide range of input signals. Inverters are genuine energy saving devices, and under the Energy Technology List ECA Scheme, the client can claim back 100% tax relief for inverters in the first year. See www.eca.gov.uk for details. Please note that inverters can cause interference to nearby electronic equipment and must be installed correctly to avoid this happening.

Inverter with comprehensive range of functions and IP54 enclosure.

- ▶ Sized to match Dome 3 phase motor.
- ▶ Complete with operational keypad.
- ▶ Optional advanced keypad with built-in time clock.
- ▶ IP54 protection for indoor or external use.
- ▶ Features include BMS control, remote pot, temperature, constant pressure, humidity and CO₂/VOC control.
- ▶ Main isolating switch with lockable handle.
- ▶ Panel live indicator.
- ▶ Damper control.
- ▶ Volt free run and trip indication.
- ▶ Connections for motor thermal cutout safety interlock.
- ▶ Easy customer installation.

Option 2



Low cost inverter with IP21 enclosure. Suitable for internal location.

- ▶ Sized to match Dome 3 phase motor.
- ▶ Complete with operational keypad.
- ▶ IP21/NEMA1 protection for indoor use.
- ▶ Features include on/off control at inverter pad with built-in pot for easy adjustment, and BMS control. Remote pot control available (CFSC1).

Single phase automatic speed controller type MS10

The MS 10 speed controller will operate on 0-10 volt providing automatic fan speed control via a signal from BMS, ie air quality or temperature sensor.



Manual speed controllers

1 phase:

Tapped transformer type in five steps and off, or electronic variable speed type. They also provide proportional energy saving as the fan speed is reduced.

3 phase:

Stepped variable speed electronic type.



Single phase variable



Single phase stepped



Three phase stepped

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