EasiCool™ EZRE

Downflow and Upflow - Precision Air Conditioning

Chilled Water

6kW - 60kW

Technical Manual

ISO 9001 Quality Management FM00542

ISO 14001 Environmental Management EMS52086

Warranty, Commissioning & Maintenance

As standard, Airedale guarantees all non consumable parts only for a period of 12 months, variations tailored to suit product and application are also available; please contact Airedale for full terms and details.

To further protect your investment in Airedale products, Airedale can provide full commissioning services, comprehensive maintenance packages and service cover 24 hours a day, 365 days a year (UK mainland).
For a free quotation contact Airedale or your local Sales Engineer.

All Airedale products are designed in accordance with EU Directives regarding prevention of build up of water, associated with the risk of contaminants such as Legionella.

For effective prevention of such risk it is necessary that the equipment is maintained in accordance with Airedale recommendations.

SafeCool

In addition to commissioning, a 24 hour, 7 days a week on-call service is available throughout the year to UK mainland sites. This service will enable customers to contact a duty engineer outside normal working hours and receive assistance over the telephone. The duty engineer can, if necessary, attend site, usually within 24 hours or less.
Full details will be forwarded on acceptance of the maintenance agreement.

CAUTION
Warranty cover is not a substitute for maintenance. Warranty cover is conditional to maintenance being carried out in accordance with the recommendations provided during the warranty period. Failure to have the maintenance procedures carried out will invalidate the warranty and any liabilities by Airedale International Air Conditioning Ltd.

Spares

A spares list for 1, 3 and 5 years will be supplied with every unit and is also available from our Spares department on request.

Training

As well as our comprehensive range of products, Airedale offers a modular range of Refrigeration and Air Conditioning Training courses, for further information please contact Airedale.

Customer Services

For further assistance, please e-mail: enquiries@airedale.com or telephone:

UK Sales Enquiries	+ 44 (0) 113 239 1000	enquiries@airedale.com
International Enquiries	+ 44 (0) 113 239 1000	enquiries@airedale.com
Spares Hot Line	+ 44 (0) 113 238 7878	spares@airedale.com
Airedale Service	+ 44 (0) 113 239 1000	service@airedale.com
Technical Support	+ 44 (0) 113 239 1000	tech.support@airedale.com
Training Enquiries	+ 44 (0) 113 239 1000	marketing@airedale.com

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Health and Safety

IMPORTANT

The information contained in this manual is critical to the correct operation and maintenance of the unit and should be read by all persons responsible for the installation, commissioning and maintenance of the Airedale unit.

Safety

The equipment has been designed and manufactured to meet international safety standards but, like any mechanical/ electrical equipment, care must be taken if you are to obtain the best results.

CAUTION

When working with any air conditioning units ensure that the electrical isolator is switched off prior to servicing or repair work and that there is no power to any part of the equipment.
Also ensure that there are no other power feeds to the unit such as fire alarm circuits, BMS circuits etc.

Electrical installation commissioning and maintenance work on this equipment should be undertaken by competent and trained personnel in accordance with local relevant standards and codes of practice.

The refrigerant used in this range of products is classified under the COSHH regulations as an irritant, with set Workplace Exposure Levels (WEL) for consideration if this plant is installed in confined or poorly ventilated areas.

A full hazard data sheet in accordance with COSHH regulations is available should this be required.

Protective Personal Equipment

Airedale recommends that personal protective equipment is used whilst installing, maintaining and commissioning equipment.

Ecodesign Directive 2009/125/EC

The EasiCool range is exempt from Ecodesign when applied in process cooling applications (i.e. data centres). When the easiCool range is applied in comfort cooling applications above 12kW they are non-Ecodesign compliant. Please refer to your Airedale account manager for full details

Manual Handling

Some operations when servicing or maintaining the unit may require additional assistance with regard to manual handling. This requirement is down to the discretion of the engineer.

Remember do not perform a lift that exceeds your ability.

Environmental Considerations

Freeze Protection

Airedale recommends the following actions to help protect the unit during low temperature operation. This also includes the units subject to low ambient temperatures.

Units with supply water temperatures below +5°C

Glycol is recommended when a supply water temperature of +5°C or below is required or when static water can be exposed to freezing temperatures.

Units subject to ambient temperatures lower than 0°C

Glycol of an appropriate concentration (1) is used within the system to ensure adequate protection. Please ensure that the concentration is capable of protection at least 3°C lower than ambient.

Water / glycol solution is constantly circulated through all waterside pipe work and coils to avoid static water from freezing.

Ensure that pumps are started and running even during shut down periods, when the ambient is within 3°C of the solution freeze point (1) (i.e. if the solution freezes at 0°C, the pump must be operating at 3°C ambient).

(1) Refer to your glycol supplier for details

Environmental Policy

It is our policy to:

- Take a proactive approach to resolve environmental issues and ensure compliance with regulatory requirements.
- Train personnel in sound environmental practices.
- Pursue opportunities to conserve resources, prevent pollution and eliminate waste.
- Manufacture products in a responsible manner with minimum impact on the environment.
- Reduce our use of chemicals and minimise their release to the environment.
- Measure, control and verify environmental performance through internal and external audits.
- Continually improve our environmental performance.

CE Directive

Airedale certify that the equipment detailed in this manual conforms with the following EC Directives:

Electromagnetic Compatibility Directive (EMC)	2014/30/EU
Machinery Directive (MD)	89/392/EEC version 2006/42/EC
Pressure Equipment Directive (PED)	2014/68/EU

To comply with these directives appropriate national & harmonised standards have been applied. These are listed on the Declaration of Conformity, supplied with each product.

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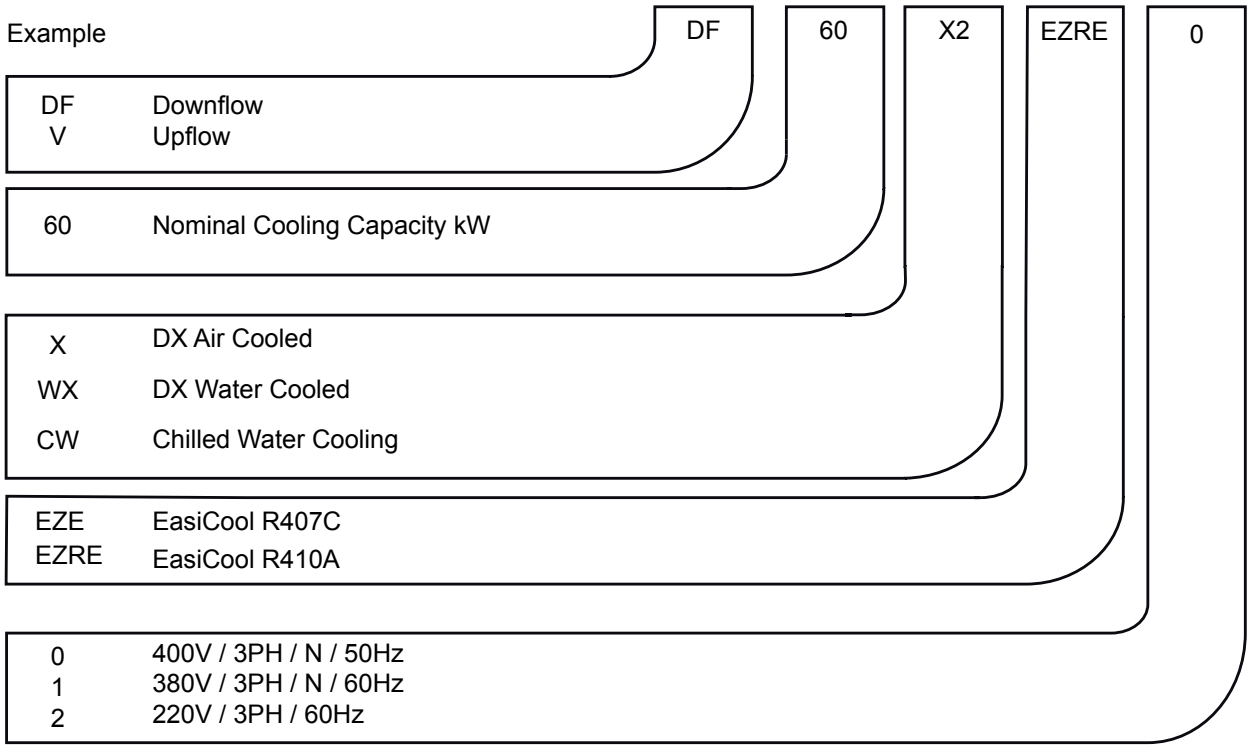
Specifiers Guide

Nomenclature



Introduction

Designed to provide environmental Precision air conditioning for applications such as Telecommunication Facilities, Computer Rooms, Data Centres, Clean Rooms and laboratories.

The EasiCool range comprises of:-
34 models as Single circuit chilled water. (Covered in this document).(-0, -1 and -2 ranges)
38 models as direct expansion air cooled and 38 models as water cooled (Seperate document) (-0 range)
23 Models as direct expansion air cooled and 23 models as water cooled (Seperate document) (-1 range)
36 Models as direct expansion air cooled and 36 models as water cooled (Seperate document) (-2 range)

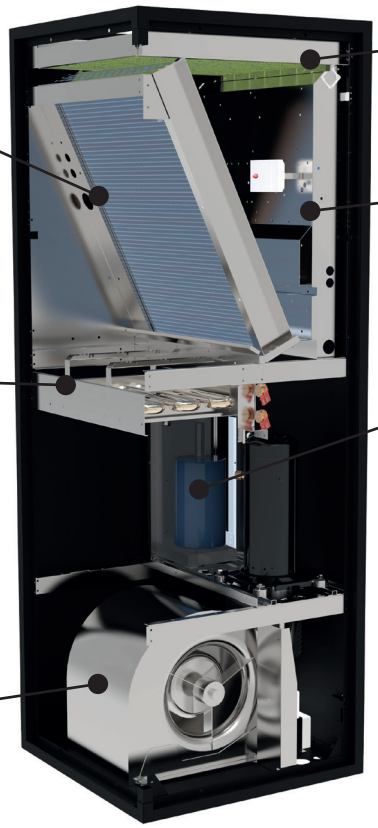
Full function units provide full control of temperature, humidification, de-humidification, heating and filtration.

The modular design of the EasiCool allows grouping of differing model types and capacities to be installed side by side. The flexibility of this type of installation provides for multi-circuit functionality.

A full range of air cooled condensers is available with the direct expansion indoor units to provide a matched system with optional performance upgrade.
Also available is a full range of Airedale water chillers to complement the chilled water indoor units.

Unit Overview

Downflow



Upflow

Construction

The cabinet comprises an anodised aluminium frame with black nylon corners and removable galvanised sheet steel panels. The unit panels are manufactured from galvanised sheet steel coated with epoxy baked powder paint to provide a durable finish.
Standard unit colour is Black Grey (RAL 7021). Optional Light Grey (RAL 7035).

Cabinets are lined internally with fire resistant foam (UL94 V0) thermal and acoustic insulation:

- 30mm deep for removable panels
- 12mm deep for remaining internal surfaces

The cabinet doors are full height, hinged and key lock secured. Hinge arrangement allows flexible door opening/removal for improved access.

Rubberised door seals reduce sound breakout and eradicate leakage.

Simple bolt on type doors are available as a cost effective option.

Unit design incorporates a series of M6 fixings to the top and bottom face for connecting to customer ductwork, please contact Airedale for further details.

Sizes 6 - 26
Dependent upon model type, components such as the expansion valve, compressor, humidifier and sight glass are contained within an acoustically lined enclosure to provide both ease of maintenance and to minimise sound emission.

Chilled Water Components

		System Configuration	
		Downflow	Upflow
Chilled Water	Hydrophilic Epoxy Coated RTPF Chilled Water Coil	●	●
	Chilled Water Regulating Valve (3 Way) Raise / Lower	●	●
	Chilled Water Regulating Valve (3 Way) 0-10 Volts	○	○
	Threaded Connections	○	○

● Standard Features ○ Optional Features ━ Feature Not Available

Chilled Water Coil

Large surface area coil shall be ideally positioned to optimise airflow and heat transfer, they shall be manufactured from refrigeration quality copper tubes with mechanically bonded aluminium fins. Fins shall be coated with a non-stick acrylic film (hydrophilic) to provide additional corrosion protection and efficient surface water removal for improved performance. Plain aluminium shall not be acceptable.

The cooling coil shall be mounted over a full width stainless steel condensate tray.

3 Port Chilled Water Regulating Valve (Raise/Lower)

For control of water flow, a 3 port, modulating mixing regulating valve shall be fitted as standard. Raise / Lower.

3 Port Chilled Water Regulating Valve (0-10 Volts)

For control of water flow, a 3 port, modulating mixing regulating valve shall be fitted with 0-10 Volts control.

The factory test pressure shall not be less than 20Bar and the maximum operating pressure shall not be less than 10 bar.
The shut off pressure of the valves is 13.6 Bar.

Sweat copper pipe for brazed connection shall be standard. Optional threaded connections shall be available.

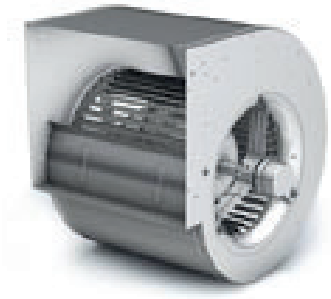
Threaded Water Pipe Connection

As an alternative to brazed water pipe connections, BSP brass male taper threaded connections shall be factory fitted.

Airflow Components

Pleated Disposable Panel Filter

EC Direct Drive Backward Curve Fan



EC Direct Drive Forward Curve fan

		System Configuration	
		Downflow	Upflow
Airflow Components	AC Fans*	●	●
	EC Fans*	●	●
	AC Larger Fan Motor*	○	○
	2 way Discharge Grille	▬	○
	3 Way Discharge Grille	▬	○
	Return Air Grille	○	○
	G4 Return Door Air Filter	○	○

● Standard Feature ○ Optional Feature ▬ Not Available

* Model Dependant

Airflow Switch

An adjustable differential pressure switch activates a visual alarm at the status panel and breaks the power supply in the event of a fan or motor failure.

Filters

Pleated disposable panel filters in a rigid frame. Conform to BS EN 779-G4.

Access and removal from unit front.

As standard the microprocessor provides an alarm following a preset run time limit being exceeded,

EC Motor Direct Drive(50Hz)

Sizes 6 - 26

(Direct Drive)

Units utilise a double inlet, forward curved, direct drive centrifugal fan with integral shaft mounted EC motor which is statically and dynamically balanced for quiet operation. Impellers and casings are galvanised for protection against corrosion. The integral motor runs in sealed for life, lubricated bearings and features automatic thermal overload protection.

Fan speed, airflow and external static pressure are controlled by the use of a manually adjustable voltage controller via the microprocessor display keypad which offers easy on site adjustment.

Adjustable by increments of 1% within + / - 10% of the set point.

Sizes 6 - 17

Units have a single fan and motor assembly.

Sizes 20 - 26

Units have 2 fan and motor assemblies.

AC Motors Direct Drive(60Hz)

Sizes 6 - 26

As above except with AC motors.

Sizes 6 - 17

As above except with AC motors.

Sizes 20 - 26

As above except with AC motors.

Sizes 28 - 60 (50Hz / 60Hz)

(Belt & Pulley)

Double inlet forward curved centrifugal fan(s) with galvanised impellers and casing.

Mild steel fan shaft with lifetime lubricated ball bearings.

Fan and drive assembly design is based on a minimum of 25,000 hours life expectancy.

Each fan assembly is separately driven by a high efficiency air cooled AC motor through a pulley and ‘V’ belt drive. The complete motor assembly is mounted on a fully adjustable platform for belt tensioning. Motor specification conforms to Efficiency Class 1(IE2).

With integrated plummer block bearings (4kW motors only).

Sizes 28 - 45

Units have a single fan and motor assembly.

Sizes 50 - 60

Units have 2 fan and motor assemblies.

Large AC fan motor options available to most sizes, refer to Mechanical Data.
Energy efficient Electronically Commutated (EC) fans are also available.

Fan & Motor Assembly Optional Features

Larger & Next Larger Fan Motor

(AC Fan Motors Only)
For applications where higher static air pressures are required, a larger fan and motor assembly size can be fitted to replace the standard assembly and is available to most models.

Electronically Commutated (EC) Fan Motor

Sizes 6 - 60

Backward curved impellers, direct drive centrifugal fan assemblies with integral rotor mounted motor which is statically and dynamically balanced for quiet operation.

Designed for high corrosion resistance, the impellers are laser welded aluminium with a galvanised rotor and die cast aluminium EC power module.

EC motors incorporate integrated electronics to convert AC power to DC for efficient and accurate speed control and are adjustable via the microprocessor display keypad.

The fans offer maximum airflow performance while keeping sound levels to a minimum.

The fans are mounted within a floorstand complete with adjustable feet, optional legs and floor tile lip.

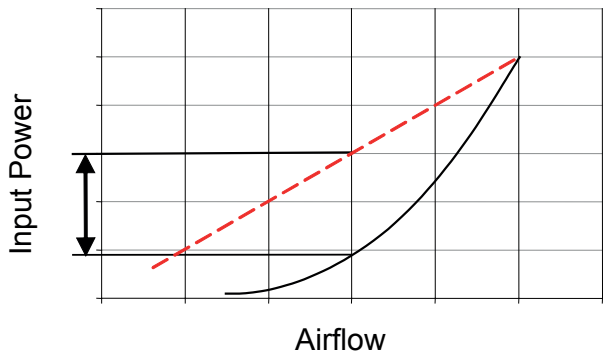
Electronically Commutated (EC) Fan Motor Option

EC motors are DC motors with integrated AC to DC conversion; this gives the flexibility of connecting to AC mains with the efficiency and simple speed control of a DC motor. The EC fan offers significant power reduction in comparison with equivalent AC fan at both full and modulated fan speeds. The inbuilt EC fan control module allows for fan speed modulation from 15-100%, a standard AC fans modulating range is typically 40 to 100% of full fan speed.

The EC fan presents superior energy efficiency at full and reduced fan speed compared to the equivalent AC fan motor.

Standard voltage regulated (VR) fan speed controllers offer a linear response. By comparison the EC fan is adjusted on demand via the unit microprocessor with precision, offering substantial energy savings.

The following illustration shows a comparison of the typical power input required by each method.



Key

EC (Electronically Commutated) Fan Speed Control

Regulated (VR) Fan Speed Control

Electrical Components

		System Configuration	
		Downflow	**Upflow**
Electrical	Electrical Switch Gear	●	●
	Door Electric Isolator	●	●
	Energy Manager	○	○
	Phase Rotation Monitoring	○	○
	Thyristor Controlled Electric Heat	○	○

● Standard Feature ○ Optional Feature ━ Not Available

Electrical
The control panel contains the necessary compressor starter contactors, transformer, sub circuit protection, volt free contacts for a common alarm and mains and inter-connecting terminals. The panel is situated within the cabinet and can be removed for essential maintenance of other components within the unit. The electrical control panels are wired to the latest European standards and codes of practice.

Sub Fusing
The electrical mains supply for the system's outdoor unit is supplied via the indoor unit.
MCBs are fitted for protection.

Main Electric Isolator
To ensure complete unit isolation of the electrical panel during adjustment and maintenance a door interlocking isolator is provided as standard.

Energy Manager
Analysis of system energy consumption can be monitored via a dedicated LCD display. Unit parameters can be adjusted via the unit microprocessor control to affect energy usage in line with the system need.

Heating and Humidification

		System Configuration	
		Downflow	Upflow
Heating	Electric Heat	○	○
	Hot gas Reheat	○	○
	Low Pressure Hot Water	○	○
Humidification	Humidifier	○	○
	Hot Water Condensate Pump	○	○
	Low Conductivity (Soft Water) Bottle	○	○
	Standard Conductivity (Moderate/Hard Water) Bottle	○	○
	High Conductivity (Very Hard Water) Bottle	○	○
	Cleanable Humidifier Bottle	○	○

● Standard Feature ○ Optional Feature ━ Not Available

Heating

Electric Heating

Multi-stage finned electric heating elements complete with auto and manual reset overheat cut-out protection.

Standard electric heating elements are phase balanced for increased efficiency.

Electric Heating Thyristor Control

In addition to the electric heat option a 0 – 100% Thyristor shall be provided to deliver accurate heating control.

Or

Low Pressure Hot Water

A low pressure hot water coil constructed of refrigeration quality copper tube and mechanically bonded aluminium fins can be factory fitted.

Frost protection is fitted to prevent freezing of the low pressure hot water coil assembly.
Proportional heating control is provided by a factory fitted 3 port, raise/lower type, modulating valve.

Access to the Right hand side of the unit is required to set up the regulating valve

Humidifier - Intelligent Modulation

Humidification is provided by an electrode boiler. The sealed humidifier design ensures that only clean sterile steam is supplied to the conditioned area and corrosive salts and minerals are held in the disposable bottle. The steam is distributed through a sparge pipe fitted to the coil assembly.

Featuring modulating capacity output control as standard, the system provides continuous modulation of steam output in response to a proportional control signal. The output control range is 20%-100% of the humidifier rated value and is designed to give an approximate steam output of +/- 3% at 25°C at the sensor, thus ensuring precise control of the conditioned space.

The cylinder operating life time is automatically optimised via the integrated water conductivity sensor, which combined with the controls monitors and regulates the water refill cycle to reduce excessive salt deposits and the progressive wear of the cylinder.

All humidifier parameters and alarms are accessible and adjustable via the microprocessor display keypad unit, main features include:

- Supply water conductivity (µS/cm)
- Actual steam output (kg/h)
- Required steam output (kg/h)
- Actual current rating (A)
- Required current rating (A)
- Status mode (Start Up, Running, Filling, Draining)

Water Conductivity & Cylinder TypeConductivity is a measure of the ability of water to pass an electric current, measured in micro Siemens / centimetre (µS/cm). 3 different cylinders are available which correspond to the supply water conductivity.

Matching the correct cylinder type with the conductivity of the supply water ensures optimum performance and increases the life span of the cylinder.

1	Low Conductivity (Soft Water)	100 to 350 µS/cm
2	Standard Conductivity (Moderate/Hard Water)	350 to 750 µS/cm
3	High Conductivity (Very Hard Water)	750 to 1250 µS/cm

As standard the humidifier is fitted with the standard conductivity cylinder which covers the majority of water supplies. Where the water conductivity is known, please specify at order. For further details please contact Airedale.

CAUTION ⚠

The supply water pressure to the humidifier assembly must be between 1 - 8 barg.

Humidification

Control Principles

In a humidifier with electrodes, steam shall be produced by passing a current between electrode plates to generate heat. The higher the current being passed between the electrodes, the greater the quantity of steam that is produced.
To modulate the rate of steam production, this system shall vary the level of water within the cylinder, thereby increasing the immersion level of the electrodes and the current being passed between them. The more conducting area that is available to pass current between the electrodes, the larger the amount of steam that shall be produced.

Modulated by the controller, the water level is varied so that the level of steam being produced ensures that the room humidity set-point is continually maintained within a tight tolerance.

Optimised Lifetime

The life span of the Airedale humidification system shall be optimised by the inclusion of a water conductivity sensor into the bottle feed. This sensor shal determine the conductivity level of the supply water and by using an algorithm embedded in the software, determines the frequency that the bottle should be drained.

Example: (Optimised Lifetime with High Water Conductivity Supply)
As liquid water is boiled off into steam, mineral deposits are left in solution increasing the conductivity of the water.
To counter this, the intelligent software increases the frequency of drain meaning that the replenishing supply water keeps the concentration of minerals diluted. By maintaining an acceptable mineral concentration, the bottle life span is maximised.

De-humidification

(With Electric Heating and Humidification only)
Controlled by the microprocessor the de-humidification feature reduces fan speeds by 20% (adjustable). The reduction of fan speed increases de-humidification which means that the time taken to reduce the room humidity to the required level is drastically decreased, along with the energy required to do so.

The return temperature is monitored during de-humidification to ensure that the temperature does not fall to a critical level. If the temperature reaches the low limit de-humidification is cancelled until the return air temperature increases.

Rapid De-humidification

Controlled by the microprocessor, electronic expansion valves are unlike their conventional thermostatic counterparts in that they can modulate independently of the suction line temperature. This unique feature allows the controller to raise the superheat set-point, in turn dropping the evaporating temperature to a point at which considerable de-humidification takes place.

Controls

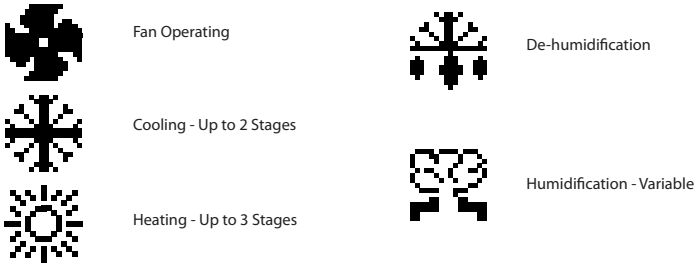
		System Configuration	
		Downflow	Upflow
Controls	Microprocessor Control	●	●
	Graphical Display	●	●
	Filter Change Monitoring	○	○
	Water Detection	○	○
	Fire / Smoke Detection	○	○

● Standard Feature ○ Optional Feature ━ Not Available

Units are fitted with the microprocessor controller which offers powerful analogue and digital control to meet a wide range of monitoring and control requirements. Includes a communication port plus networking and BMS connections. An 8 x 22 character, white backlit LCD door mounted display keypad assembly is used to view the unit status and allow operator adjustment. Using a combination of text and standard Icons, the unit display is easy to read and interpret.

The standard display keypad visually displays operating alarms by flashing the relevant icon, however, as an optional extra; a display keypad with audible alarms is available.
The default screen shows the unit status and room condition (°C/RH %) without the need for interrogation and an easy to navigate menu structure for further interrogation and adjustment.

Standard Icons



Controls

Temperature Control

A temperature sensor is mounted in the return air with an option for a humidity sensor on full function units.

The temperature sensor is a NTC type thermistor accurate up to +/- 0.25°C and the humidity sensor accurate to +/- 3% RH at 25°C at the sensor.

The microprocessor senses the return air conditions and maintains the return air temperature and humidity conditions by controlling cooling, heating, humidification and dehumidification outputs accordingly.

Monitoring

The microprocessor monitors and displays the following values:

- Return Air Temperature
- Return Air Humidity (Optional on Full Function units)
- Coil Temperature Sensor (Indoor)

The maintenance of key components such as compressors and air filters can be monitored via a service indicator which visually demonstrates the status relative to the component service intervals.

Alarm Log

The controller logs and allows viewing of the last 100 conditions recorded in descending chronological order through the keypad display.

The standard display keypad visually displays operating alarms, however, as an optional extra, a display keypad with audible alarms is available.

Modbus/Carel BMS Connection

The Airedale controllers shall be able to communicate directly using the Modbus® protocol.

The Modbus® card shall be a small PCB (60mm x 30mm), which can be plugged into the controller to provide it with the following protocol support

Modbus® - JBus slave
RTU mode (Remote Terminal Unit) with 8 bit encoding and error handling using 16 bit CRC
Communication standard connection options of RS485 (multipoint) or RS232 (point-point)
Maximum Baud Rate of 19200

The data communication shall be asynchronous serial, 8 data bits, 2 stop bits and no parity (in total 11 bits/datum).

The data/parameters from the controller shall be represented within Modbus® registers, each register containing information pertaining to temperatures, pressures, setpoint, status, etc and is available to the site integration company in a spreadsheet format

Controls

Alarm Handling

An alarm will be generated under the following conditions and will be visually displayed through the alarm log. In addition, under certain conditions the relevant Icon will flash repeatedly as indicated below:

Sizes 6 - 26

- Return air temperature high limit
- Return air temperature low limit
- Return air humidity high limit (Optional on Full Function units)
- Return air humidity low limit (Optional on Full Function units)
- Frost protection low limit (LPHW option only)
- Filter change alarm
- Manual override
- Common alarm
- Power fail reset
- Communications failure
- Maintenance - fan and compressor (once hours run limit exceeded)
- Airflow failure ( )
- Electric Heating Overheat cut-out ( )
- Humidifier alarm (Full Function units only) ( )

Sizes 28 - 60

- Return air temperature high limit
- Return air temperature low limit
- Return air humidity high limit (Optional on Full Function units)
- Return air humidity low limit (Optional on Full Function units)
- Frost protection low limit (LPHW option only)
- Filter change alarm
- Manual override
- Common alarm
- Power fail reset
- Communications failure
- Maintenance - fan and compressor (once hours run limit exceeded)
- Fire
- Flood
- Phase Failure
- Critical
- Non-critical
- Airflow failure ( )
- Electric Heating Overheat cut-out ( )
- Humidifier alarm (Full Function units only) ( )

Controls

Password Protection

The control system integrity can be maintained by restricting access with a password PIN number.

IMPORTANT

To change the PIN number, please contact Airedale at time of order with the preferred 4 digit number.

Remote On/Off

Terminals for interlocking are provided to enable or disable the unit remotely.

Fire Shut Down

Terminals for interlocking are provided to shut down the unit in the event of fire.

Evaporator Fan Hours Run Log & Reset

Allows the user to monitor the running times of the evaporator fans and reset after maintenance.
Hours run log or visual service indicator provided.

Filter Change Alarm

Filter change is managed by the AireTronix software, and is based on fan(s) hours run with an alarm being generated when the pre-set run time limit has been exceeded. The set-point value can be adjusted to suit each application and is factory set to 4000 hours.
Hours run log or visual service indicator provided.

Standard Network Features

As standard the AireTronix controller is capable of the providing a platform for the following and can be enabled on request for 2 to 8 units, please specify at order:

Networking

A Local Area Network can be used to connect up to 6 units to offer intercommunication and Duty/Standby control. This also allows the connection of computers, printers and modems on the same communications ring.
For further details, please contact Airedale Controls.

CAUTION

When adding to an existing network, please consult Airedale to ensure strategy compatibility.

Duty/Standby Operation

The controller enables units to operate in run/standby mode, with up to 6 units networked together, without the need for additional hardware or controllers. Standby units can be configured to start when the run unit has a critical alarm and/or a high/low return air temperature alarm.
During peak demand, the standby units can temperature assist.

Duty Rotation

Networked units can be configured to duty rotate, providing equal hours run of fans and compressors.

Audible Alarm

The display keypad can be upgraded to include audible alerts.
BMS Interface Card
Enables Controlled units to be interfaced with most BMS, factory fitted, please contact Airedale.
A wide range of protocols can be accommodated through the use of interface devices. Available as a standard option are: ModBus/Jbus, Carel and Trend.
For interfaces such as SNMP, LonWorks, Metasys and BACnet, please contact Airedale.
Also available is Airedale's own supervisory plug-in BMS card pCOWEB.
Based on Ethernet TCP/IP secure technology with SNMP features.
Requires no proprietary cabling or monitoring software and supplied pre programmed with an IP address for ease of set up.

Smoke Detector

Supplied loose for remote mounting to shut down the unit and activate the alarm upon sensing the presence of smoke.

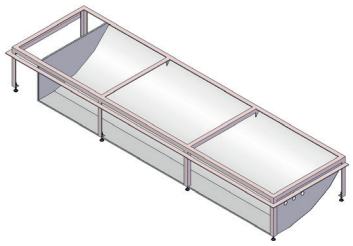
Firestat

Installed in the return air stream to shut down the unit in the event of an unusually high return air temperature.

Water Detector Installation Tape

Monitored by a sensing relay, the water detection tape will provide an alarm when in contact with several drops of conductive liquid. High humidity should normally not cause an alarm unless it results in condensation dripping on the tape surface or condensation present on the surface to which the tape is applied.

General Features



		System Configuration	
		Downflow	Upflow
	Secure Door Locks	●	●
	Return Air Grille	▬	▬
	Cold Water Condensate Pump	○	○
	Open Floorstand	○	○
	Enclosed Floorstand	○	○
	Ceiling Duct Extension	○	○

● Standard Feature ○ Optional Feature ▬ Not Available

Open & Enclosed Floorstand

Open or enclosed floorstands are available, complete with adjustable feet and floor tile lip. Enclosed floorstands incorporate an air turning vane. Height of the floorstand; please specify at order.

Discharge Air Configuration

Standard configuration is forward air discharge. Reverse air discharge is available, please specify at order.

Ceiling Duct Extension

Straight and 'L' shaped duct extensions up to a height of 1350 mm constructed and finished to match the unit are available.

For extensions greater than 1350 mm, please contact Airedale.

Height; please specify at order.

Services Side Access Gland Plate

As standard services can be routed through the gland plate in the base of the units. A gland plate can be optionally located to the lower left hand side face of the unit, if required.

Bolt on Doors

Simple bolt on cabinet doors can be factory fitted as a cost reduction option. The cabinet doors are full height and secured by M6 bolts, a 4 mm Allen key is provided for access.

Plain Doors - No Display Keypad

Networking is a standard option of the AireTronix microprocessor; refer to Controls, for full details. To reduce costs, the "slave" units can be supplied with plain doors (no display keypad), in all door types, please specify at order.

Threaded Water Pipe Connection

As an alternative to brazed water pipe connections, BSP brass male taper threaded connections can be factory fitted.

Export Packing

Units can be supplied packed inside a case to provide additional protection during transportation, (not required for container delivery).

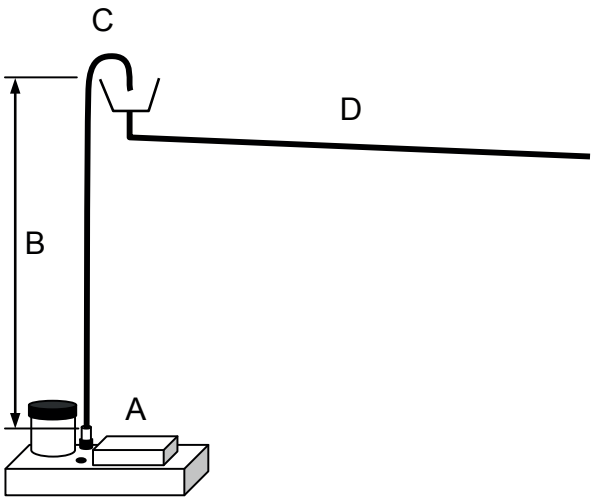
Standard construction material is solid wood.

Sterling Board LAT (Wooden Case) Packing

Units shall be supplied complete with additional LAT corner protection and cross braces to afford extra transit protection. Sterling board heat treated man made material shall be used (including pallet) to comply with phytosanity import regulations (please contact Airedale for this option).

Optional Extras General

Condensate Pump



A	Condensate Pump
B	Condensate pump discharge line; 10mm (3/8”) copper tube
C	Swan Neck with Tundish
D	Drain line from Tundish, > 10mm (3/8”) tube **(MUST BE copper tube when coupled with humidifier drain)**, minimum fall 1 : 20

Condensate and Humidifier

All drain trays are fitted with their own trap assembly.
Condensate drain may be run to waste via ordinary plastic waste pipe.
Humidifier drain may be run to waste via pipe suitable for liquid temperatures of 100°C.
All drain pipework operating under gravity should be sloped away from the equipment and the gradient should be made as steep as possible.
Suitable rodding positions should be incorporated particularly if the run is long.

Safe Operation of Humidifier

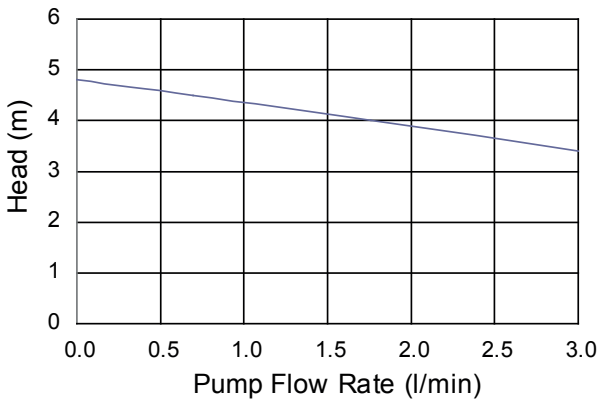
To protect the humidifier bottle from dangerous pressures in event of the steam supply pipe becoming blocked, a tundish is installed between the water inlet solenoid and the cylinder to act as a reservoir and to feed water to the humidifier inlet manifold as required.

CAUTION ⚠	An overflow weir is incorporated in the common fill/drain tundish. Any pressure build up in the cylinder would be allowed to vent through the tundish to atmosphere. It is MOST IMPORTANT that the steam distribution pipe is not damaged or kinked at any time to avoid the risk of unacceptably high pressure building up in the electrode bottle.

Condensate Pump

The following graphs illustrate the TOTAL static (head) pressure available. The system horizontal pipe losses and vertical lift should be factored in when calculating the condensate pump performance.

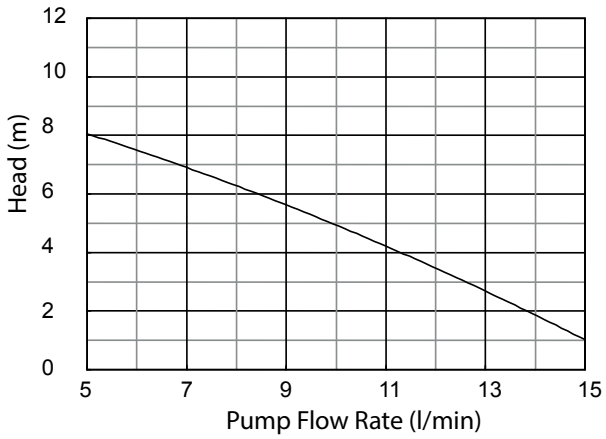
Cold Water Condensate Pump



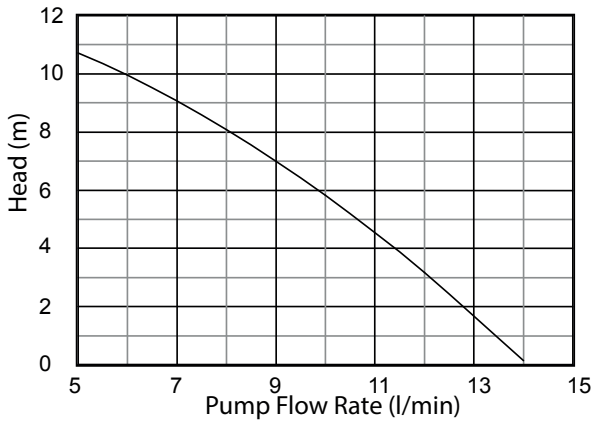
IMPORTANT ⚠	Use only 10mm (3/8”) copper tube when connecting the discharge stub to the condensate pump. The discharge line from the pump should rise no more than 4 metre before being interrupted with a swan neck air break and tundish.

Hot water Condensate Pump

6 - 26



28-60



Sizes 6 - 26
The condensate pump has a 3 litre reservoir with a capacity of 5 l/m at a head of 8m and is mounted in the unit base.

Sizes 28 - 60
The condensate pump has a 6 litre reservoir with a capacity of 5 l/m at a head of 10.8m and is mounted in the unit base.

IMPORTANT ⚠	Use only 10mm (3/8”) copper tube when connecting the discharge stub to the condensate pump. The discharge line from the pump should rise no more than 6 meters vertically and no more than 8 metres in total length before being interrupted with a swan neck air break and tundish.

Sound Measurement Method

Measurement Of Sound Power

All sound data quoted has been measured in the third-octave band limited values, using a Real Time Analyser calibrated sound intensity meter in accordance with BS EN ISO9614 Part 1 : 2009.

All Sound Power Levels quoted are calculated from measured sound intensity according to BS EN ISO9614 Part 1 : 2009.

Semi hemispherical

Sound Pressure Levels are calculated from sound power using the semi-hemispherical method where the noise source is in junction with 2 boundaries i.e. the floor and 1 wall.

Free field

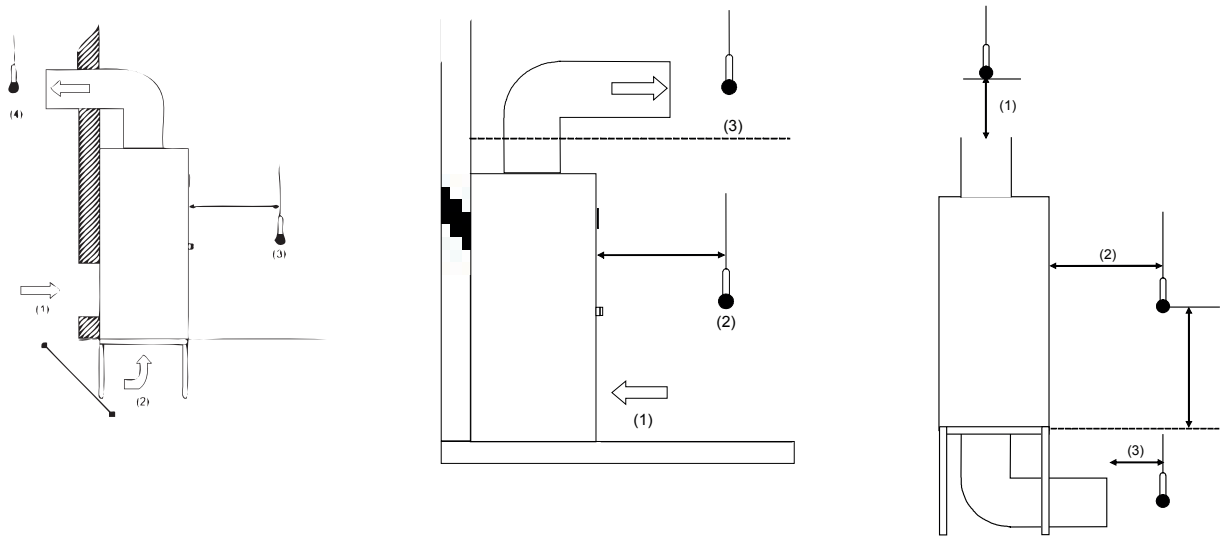
For comparison, the semi hemispherical figures can typically be reduced by 3dB to provide free field conditions.

IMPORTANT

The sound data quoted is based on the unit having a ducted return air, ducted (or underfloor) discharge air and standard forward curved fan and AC motors fitted, refer to illustration below. Case breakout sound data is therefore independent of the discharge air and return air sound data.

For non-ducted return air applications, the overall case breakout sound levels may increase, due to the return air sound being predominant.
Within the conditioned space, sound from in-room ducted discharge air grilles and other equipment will contribute to the overall sound level and should therefore be considered as part of sound calculations.

Specialist acoustic advice is recommended for noise critical applications.

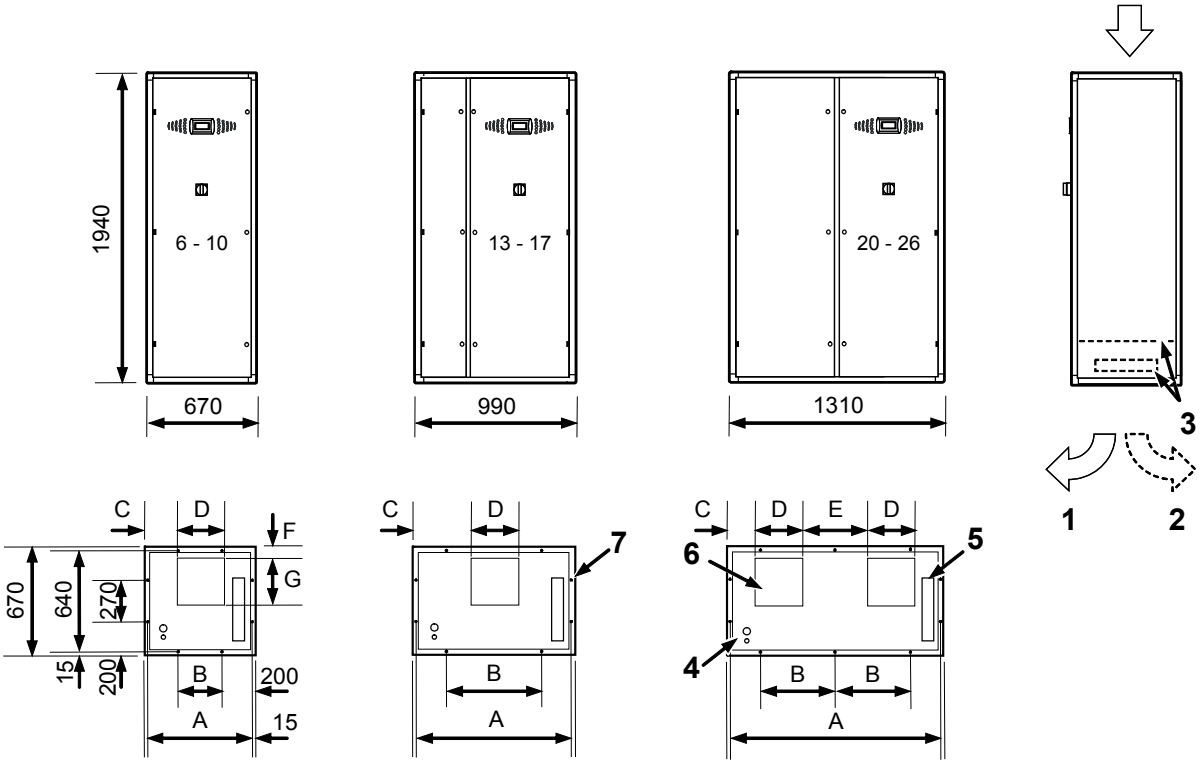


(1) Return Air
(2) Case Breakout
(3) Discharge Air

Dimensional & Installation Data

Dimensions

DF6 - DF26 - Standard Airflow Configuration (mm) with Standard EC Fan Motors



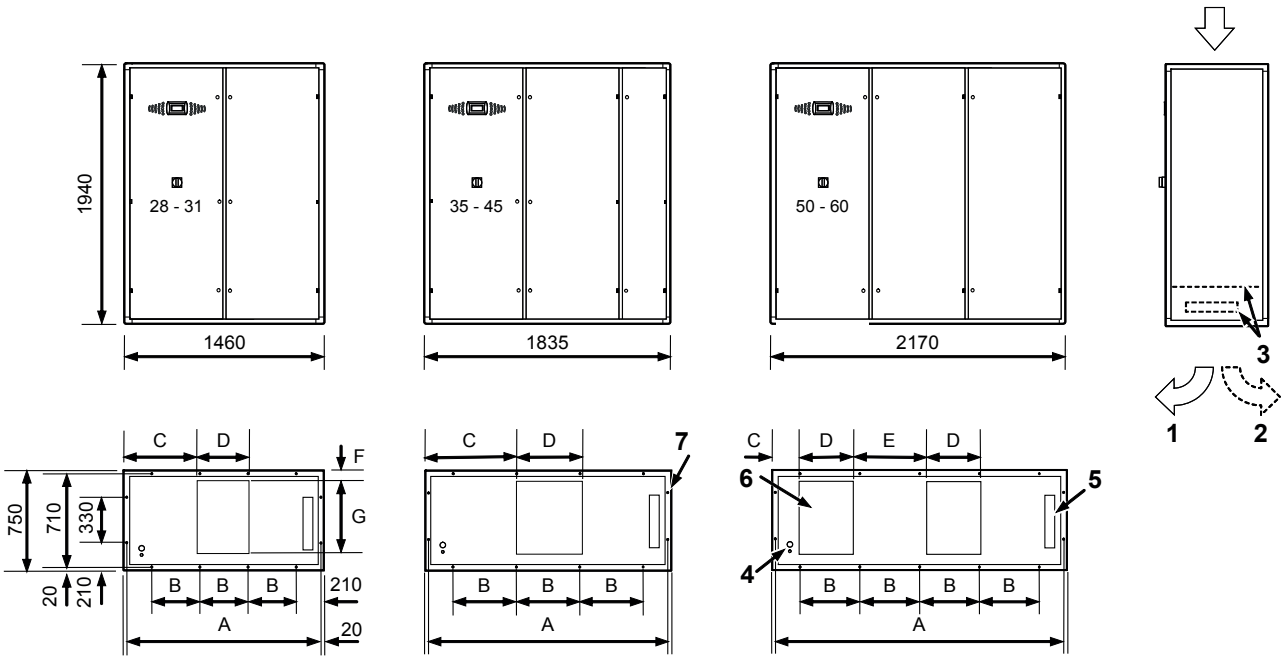
			W x D x H	A	B	C(8)	D(8)	E	F(9)	G(8)
DF6	**CW**	mm	670 x 670 x 1940	640	270	216 (183)	238 (304)	N/A	50 (157)	268 (268)
DF8	**CW**	mm	670 x 670 x 1940	640	270	183 (167)	304 (337)	N/A	50 (157)	268 (295)
DF10	**CW**	mm	670 x 670 x 1940	640	270	167 (N/A)	337 (N/A)	N/A	50 (186)	295 (N/A)
DF13	**CW**	mm	990 x 670 x 1940	960	590	326 (N/A)	337 (N/A)	N/A	50 (186)	295 (N/A)
DF15	**CW**	mm	990 x 670 x 1940	960	590	294 (N/A)	401 (N/A)	N/A	50 (210)	347 (N/A)
DF17	**CW**	mm	990 x 670 x 1940	960	590	294 (N/A)	401 (N/A)	N/A	50 (210)	347 (N/A)
DF20	**CW**	mm	1310 x 670 x 1940	1280	455	166 (N/A)	337 (N/A)	303	50 (186)	295 (N/A)
DF22	**CW**	mm	1310 x 670 x 1940	1280	455	166 (N/A)	337 (N/A)	303	50 (186)	295 (N/A)
DF26	**CW**	mm	1310 x 670 x 1940	1280	455	166 (N/A)	337 (N/A)	303	50 (186)	295 (N/A)

(1) Standard forward airflow direction.
(2) Optional reverse airflow direction.
(3) Optional gland plate and panel for side services access via the right side of unit. For services details contact Airedale.
(4) Base mains cable entry.
(5) Standard base gland plate entry for refrigeration/water services. For services details contact Airedale.
(6) Shaded area denotes fan discharge aperture. Optional EC fan motor discharge aperture provided with protective mesh, not shown.
(7) M6 fixing hole positions.
(8) Figures in brackets represent position of fan discharge aperture when larger AC fan motor option is fitted.
(9) Figures in brackets represent optional reverse air discharge configuration when fitted with standard AC fan motors.
(10) Units fitted with optional EC fan motors require a floorstand.

Dimensional & Installation Data

Dimensions

DF28 - DF60 - Standard Airflow Configuration (mm) with Standard AC Fan Motors



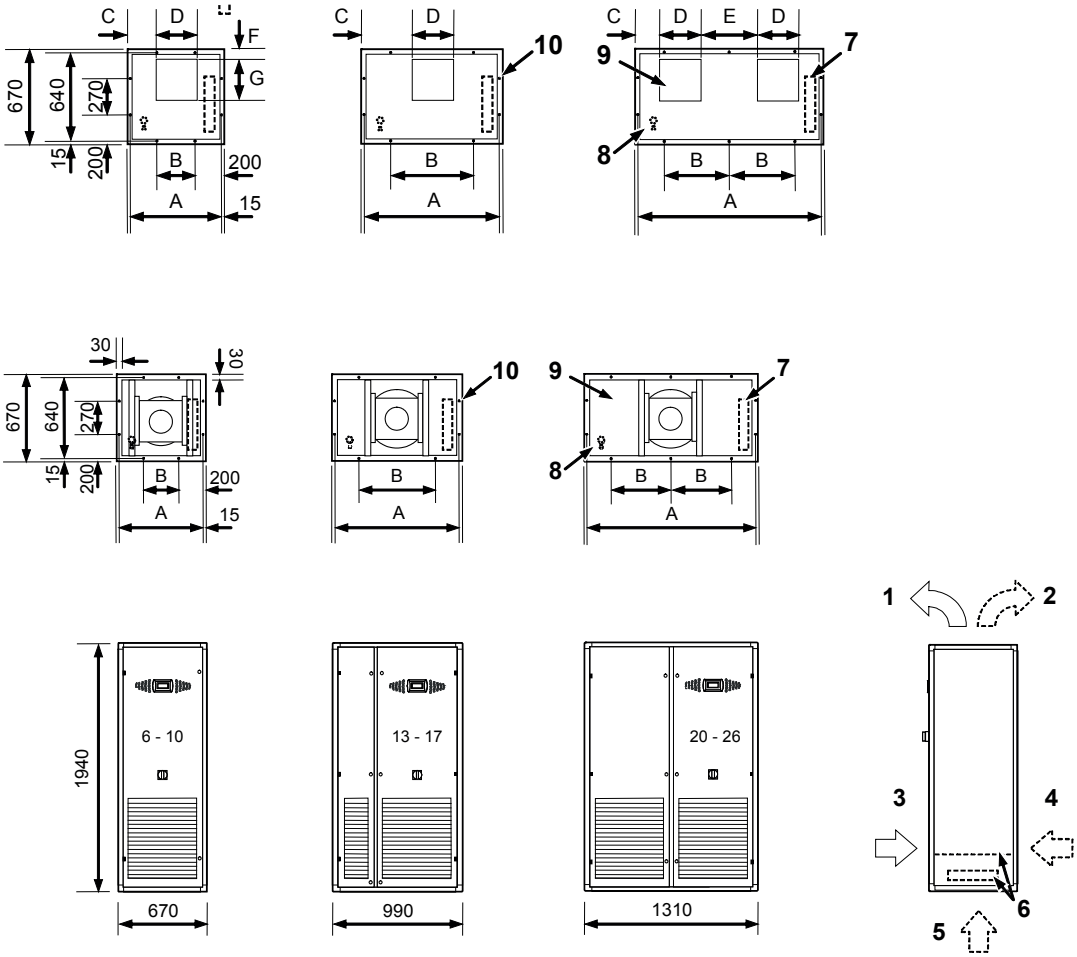
			W x D x H	A	B	C(8)	D(8)	E	F(9)	G(8)
DF28	CW	mm	1460 x 750 x 1940	1420	347	540	379	N/A	91 (113)	546
DF31	CW	mm	1460 x 750 x 1940	1420	347	540	379	N/A	91 (113)	546
DF35	CW	mm	1460 x 750 x 1940	1795	472	679	477	N/A	91 (113)	546
DF40	CW	mm	1835 x 750 x 1940	1795	472	679	477	N/A	91 (113)	546
DF45	CW	mm	1835 x 750 x 1940	1795	472	679	477	N/A	91 (113)	546
DF50	CW	mm	2170 x 750 x 1940	2130	438	206	401	543	76 (257)	345
DF55	CW	mm	2170 x 750 x 1940	2130	438	206	401	543	76 (257)	345
DF60	CW	mm	2170 x 750 x 1940	2130	438	206	401	543	76 (257)	345

(1) Standard forward airflow direction.
(2) Optional reverse airflow direction.
(3) Optional gland plate and panel for side services access via the right side of unit. For services details contact Airedale.
(4) Base mains cable entry.
(5) Standard base gland plate entry for refrigeration/water services. For services details contact Airedale.
(6) Shaded area denotes fan discharge aperture. Optional EC fan motor discharge aperture provided with protective mesh, not shown.
(7) M6 fixing hole positions.
(8) Figures in brackets represent position of fan discharge aperture when larger AC fan motor option is fitted.
(9) Figures in brackets represent optional reverse air discharge configuration when fitted with standard AC fan motors.
(10) Units fitted with optional EC fan motors require a floorstand.

Dimensional & Installation Data

Dimensions

V6 - V26 - Standard Airflow Configuration (mm) with Standard EC Fan Motors



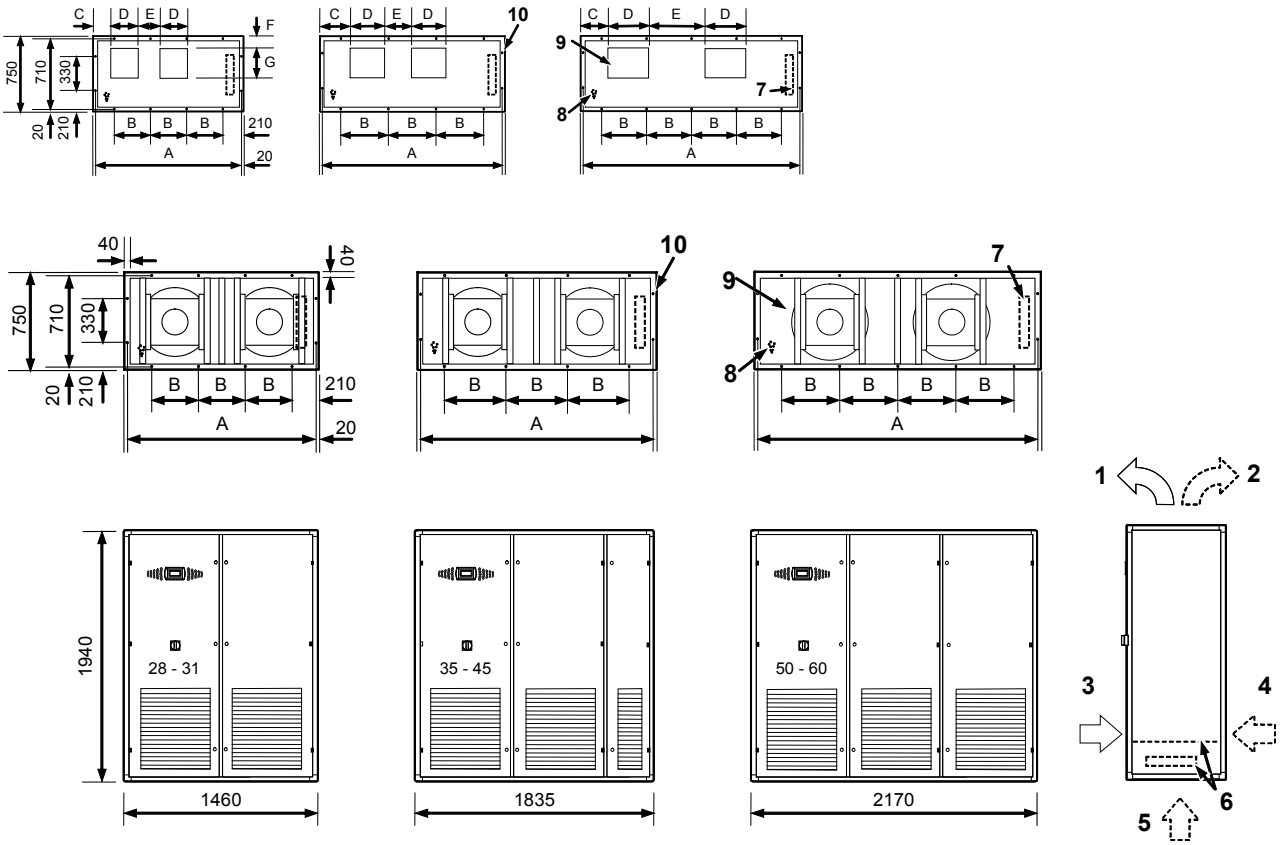
			W x D x H	A	B	C(10)	D(10)	E	F(11)	G(10)
V6	CW	mm	670 x 670 x 1940	640	270	216 (183)	238 (304)	N/A	50 (352)	268 (268)
V8	CW	mm	670 x 670 x 1940	640	270	183 (167)	304 (337)	N/A	50 (352)	268 (295)
V10	CW	mm	670 x 670 x 1940	640	270	167 (N/A)	337 (N/A)	N/A	50 (325)	295 (N/A)
V13	CW	mm	990 x 670 x 1940	960	590	387 (N/A)	337 (N/A)	N/A	50 (325)	295 (N/A)
V15	CW	mm	990 x 670 x 1940	960	590	355 (N/A)	401 (N/A)	N/A	50 (273)	347 (N/A)
V17	CW	mm	990 x 670 x 1940	960	590	355 (N/A)	401 (N/A)	N/A	50 (273)	347 (N/A)
V20	CW	mm	1310 x 670 x 1940	1280	455	166 (N/A)	337 (N/A)	303	50 (325)	295 (N/A)
V22	CW	mm	1310 x 670 x 1940	1280	455	166 (N/A)	337 (N/A)	303	50 (325)	295 (N/A)
V26	CW	mm	1310 x 670 x 1940	1280	455	166 (N/A)	337 (N/A)	303	50 (325)	295 (N/A)

(1) Standard forward airflow direction.
(2) Optional reverse airflow direction.
(3) Optional gland plate and panel for side services access via the right side of unit. For services details contact Airedale.
(4) Base mains cable entry.
(5) Standard base gland plate entry for refrigeration/water services. For services details contact Airedale.
(6) Shaded area denotes fan discharge aperture. Optional EC fan motor discharge aperture provided with protective mesh, not shown.
(7) M6 fixing hole positions.
(8) Figures in brackets represent position of fan discharge aperture when larger AC fan motor option is fitted.
(9) Figures in brackets represent optional reverse air discharge configuration when fitted with standard AC fan motors.
(10) Figures in brackets represent position of the Fan discharge aperture when larger fan motor option is fitted.
(11) Figures in brackets represent optional reverse air discharge configuration

Dimensional & Installation Data

Dimensions

V28 - V60 - Standard Airflow Configuration (mm) with Standard AC Fan Motors



			H x D x W	A	B	C	D	E	F(10)	G
V28	CW	mm	1940 x 750 x 1460	1420	347	175	271	208	123 (335)	292
V31	CW	mm	1940 x 750 x 1460	1420	347	175	271	208	123 (335)	292
V35	CW	mm	1940 x 750 x 1835	1795	472	304	337	258	123 (335)	292
V40	CW	mm	1940 x 750 x 1835	1795	472	304	337	258	123 (335)	292
V45	CW	mm	1940 x 750 x 1835	1795	472	304	337	258	123 (335)	292
V50	CW	mm	1940 x 750 x 2170	2130	438	277	401	544	78 (327)	345
V55	CW	mm	1940 x 750 x 2170	2130	438	277	401	544	78 (327)	345
V60	CW	mm	1940 x 750 x 2170	2130	438	277	401	544	78 (327)	345

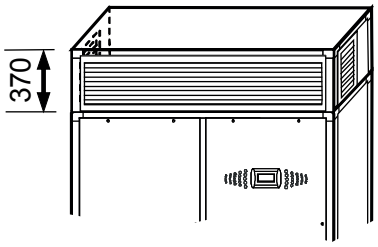
(1) Standard forward airflow direction.
(2) Optional reverse airflow direction.
(3) Optional gland plate and panel for side services access via the right side of unit. For services details contact Airedale.
(4) Base mains cable entry.
(5) Standard base gland plate entry for refrigeration/water services. For services details contact Airedale.
(6) Shaded area denotes fan discharge aperture. Optional EC fan motor discharge aperture provided with protective mesh, not shown.
(7) M6 fixing hole positions.
(8) Figures in brackets represent position of fan discharge aperture when larger AC fan motor option is fitted.
(9) Figures in brackets represent optional reverse air discharge configuration when fitted with standard AC fan motors.
(10) Figures in brackets represent position of the Fan discharge aperture when larger fan motor option is fitted.
(11) Figures in brackets represent optional reverse air discharge configuration

Dimensional & Installation Data

Upflow

Options

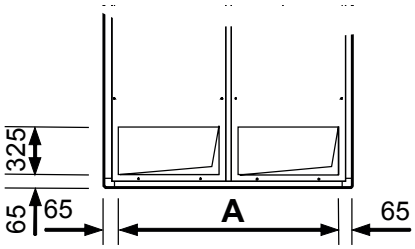
Discharge Air Plenum



1 Discharge air plenum shows as 3 way, also available is front discharge only

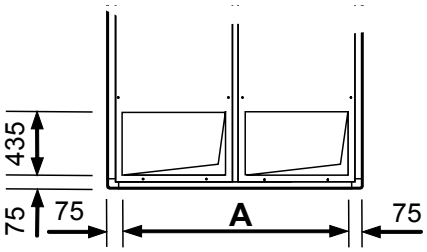
Rear Return Air Aperture (mm)

V6 - V26



			A
V6	CW	mm	540
V8	CW	mm	540
V10	CW	mm	540
V13	CW	mm	860
V15	CW	mm	860
V17	CW	mm	860
V20	CW	mm	1180
V22	CW	mm	1180
V26	CW	mm	1180

V28 - V60



			A
V28	CW	mm	1310
V31	CW	mm	1310
V35	CW	mm	1685
V40	CW	mm	1685
V45	CW	mm	1685
V50	CW	mm	3020
V55	CW	mm	3020
V60	CW	mm	3020

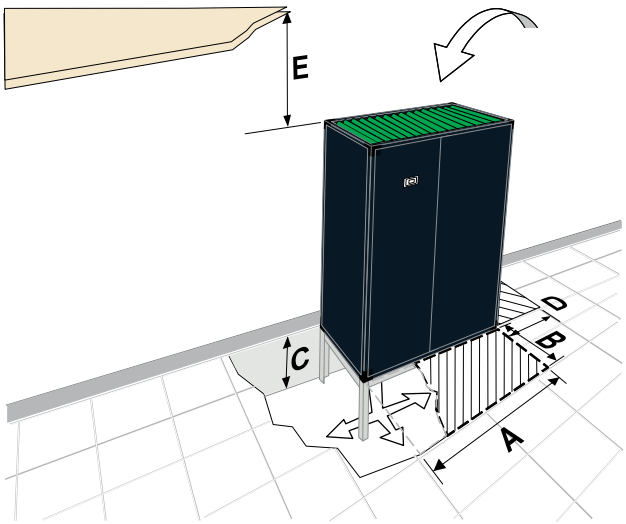
1 25 mm flange required to return air duct work, supplied by others.
2 M6 fixings holes required.

Dimensional & Installation Data

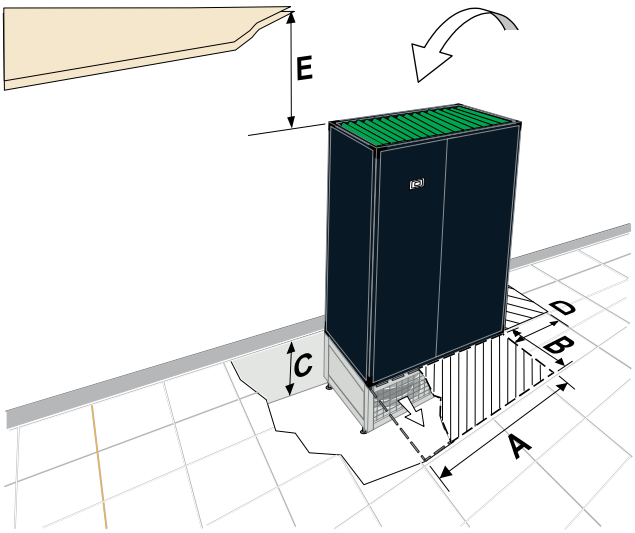
Positioning

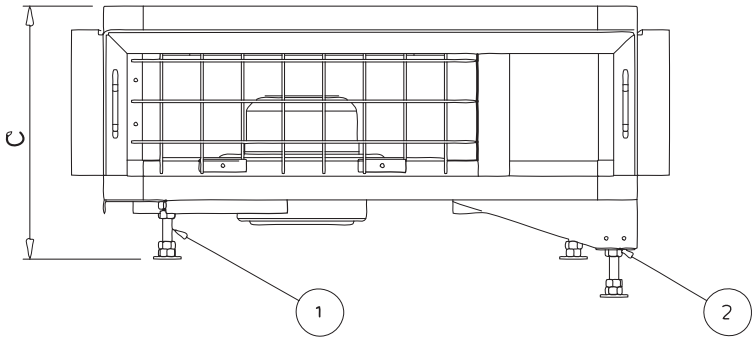
Downflow

Standard Return and EC Fan Motors



Standard Return and Optional EC Fan Motors





(1) With adjustable feet fitted
(2) With variable size leg and adjustable feet fitted

IMPORTANT ⚠
When placing the unit on the floorstand ensure appropriate air seal is used to prevent leakage at the join.
It is also important to place all locking bolts in place to secure the unit to its base (EC fan floorstands only).

Dimensional & Installation Data

Minimum Unit Clearances

Open & Enclosed Floorstands Option

		A	B	C - Floorstand(3)	D(4)
DF6 - DF10	mm	670	610	Min 200 - Max 750	Min 300
DF13 - DF17	mm	990	610	(+ 50mm Feet	Min 300
DF20 - DF26	mm	1310	610	Adjustable +/- 20mm)	Min 300
DF28 - DF31	mm	1460	700	Min 300 - Max 800	N/A
DF35 - DF45	mm	1835	700	(+ 50mm Feet	N/A
DF50 - DF60	mm	2170	700	Adjustable +/- 20mm)	N/A

EC Fan Motor Option

		A	B	C (3)				D(5)
				With Feet Only (4)		With Leg & Feet (4)		
				Min	Max	Min	Max	
DF6 - DF10	mm	670	610	284	329	604	1074	Min 300
DF13 - DF17	mm	990	610	362	407	697	1152	Min 300
DF20 - DF26	mm	1310	610	362	407	697	1152	Min 300
DF28 - DF31	mm	1460	700	356	401	686	1146	Min 300
DF35 - DF45	mm	1835	700	356	401	686	1146	Min 300
DF50 - DF60	mm	2170	700	356	401	686	1146	Min 300

Minimum Ceiling Clearance

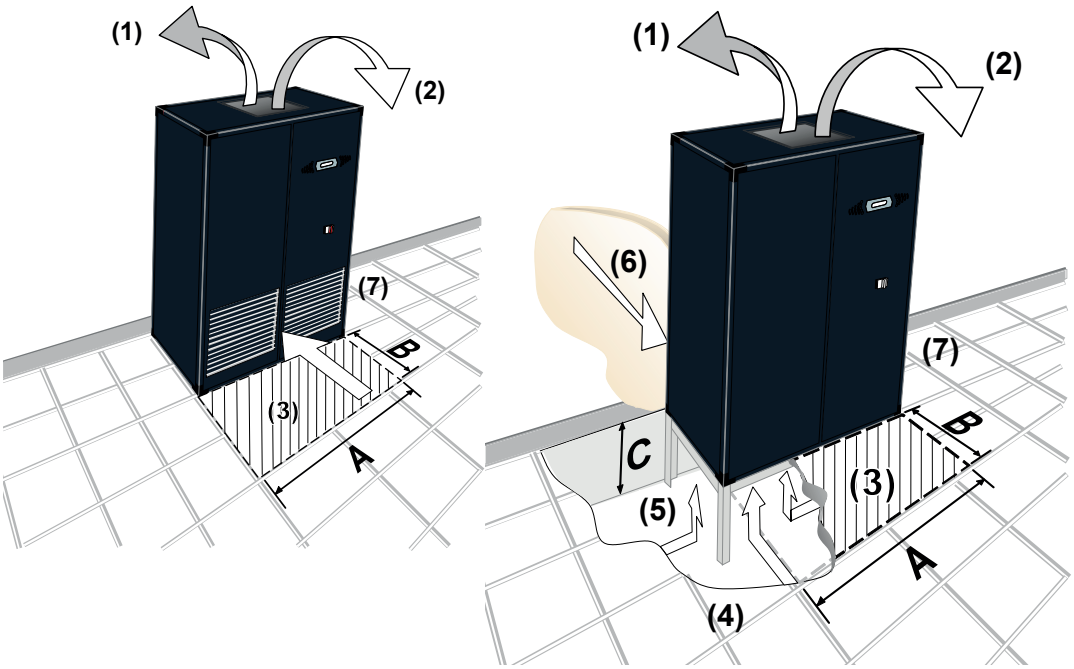
		E			
		Forward Only	Forward & 1 Side	Forward & 2 Sides	All Faces
DF6 - DF10	mm	470	240	160	120
DF13 - DF17	mm	550	330	240	170
DF20 - DF26	mm	560	370	280	190
DF28 - DF31	mm	620	410	310	210
DF35 - DF45	mm	640	450	350	230
DF50 - DF60	mm	640	480	380	240

(1) Shown with optional open floor stand.
(2) Shaded area indicates minimum service and maintenance requirements.
(3) Dimension C denotes recommended minimum/maximum floorstand height, refer to Airedale for special applications, please specify at order.
(4) Min = Threaded foot at minimum extension.
Max = Threaded foot at maximum extension.
(5) Dimension D refers to units fitted with LPHW which require access to the RHS of the unit to set up the regulating valve.
(6) SERVICES SIDE ACCESS GLAND PLATE, OPTIONAL POSITION; ensure appropriate clearance is available to the base of the RHS of the unit if this option is selected.

Dimensional & Installation Data

Positioning

Upflow



CAUTION ⚠	The unit is designed for use with either ducted discharge or a plenum. If neither is used, protection from rotating parts in the form of a grille must be used on the discharge air outlet. Placing objects near an unguarded fan may cause injury.

Minimum Unit Clearance

		A	B	C - Floorstand(3)
V6 - V10	mm	670	610	Min 200 - Max 750
V13 - V17	mm	990	610	(+ 50mm Feet
V20 - V26	mm	1310	610	Adjustable +/- 20mm)
V28 - V31	mm	1460	700	Min 300 - Max 800
V35 - V45	mm	1835	700	(+ 50mm Feet
V50 - V60	mm	2170	700	Adjustable +/- 20mm)

(1) Reversed discharge air.
(2) Forward discharge air.
(3) Shaded area indicates minimum service and maintenance requirements
(4) Shown with optional open floor stand.
(5) Optional base return.
(6) Optional rear return.
(7) SERVICES SIDE ACCESS GLAND PLATE, OPTIONAL POSITION; ensure appropriate clearance is available to the base of the RHS of the unit if this option is selected.

Dimensional & Installation Data

Weights

Downflow

		Standard Evaporator Fan - Fwd EC Motor		Optional Evaporator Fan - Bkwd EC Motor		
EZRE		Machine(1)	Operating(1)	Machine(1)	Operating(1)	Floorstand
DF6CW	kg	164		146		26
DF8CW	kg	167		151		26
DF10CW	kg	163		151		26
DF13CW	kg	190		179		29
DF15CW	kg	204		176		29
DF17CW	kg	204		176		29
DF20CW	kg	242		216		44
DF22CW	kg	242		216		44
DF26CW	kg	242		216		44
DF28CW	kg	351		317		125
DF31CW	kg	354		310		125
DF35CW	kg	410		363		128
DF40CW	kg	431		370		128
DF45CW	kg	442		381		128
DF50CW	kg	486		427		190
DF55CW	kg	499		440		190
DF60CW	kg	495		430		190

(1) Weights quoted for units fitted with the standard AC fan motor include the cooling fan weight within the unit cabinet (AHU).
(2) Weights quoted for units fitted with the optional EC fan motor exclude the cooling fan weight within the unit cabinet (AHU).
(3) Machine weight includes a refrigerant charge / Operating weight includes calculated water volume.

		Standard Evaporator Fan - Fwd EC Motor		Optional Evaporator Fan - Bkwd EC Motor	
EZRE		Machine(1)	Operating(1)	Machine(1)	Operating(1)
V6CW	kg	147		138	
V8CW	kg	149		142	
V10CW	kg	145		142	
V13CW	kg	185		187	
V15CW	kg	199		184	
V17CW	kg	199		184	
V20CW	kg	236		232	
V22CW	kg	236		232	
V26CW	kg	236		232	
V28CW	kg	349		352	
V31CW	kg	347		342	
V35CW	kg	408		399	
V40CW	kg	429		407	
V45CW	kg	440		418	
V50CW	kg	485		475	
V55CW	kg	498		488	
V60CW	kg	498		488	

(1) Machine weight includes a refrigerant charge / Operating weight includes calculated water volume.

Ethylene Glycol Correction Factors

For conditions outside those quoted, please refer to Airedale.

The Use of Glycol

Glycol is recommended when a supply water temperature of +5°C or below is required or when static water can be exposed to freezing temperatures.

The presence of glycol in the system has a direct effect upon the Cooling Duty, the Design Flow Rate and the unit Pressure Drop.

To approximate the effect of glycol on unit performance, the following correction factors when applied can be used as a guide.

Where:

$\dot{V}$ = Corrected Flow Rate
Q = Equivalent Cooling Duty (kW), refer to ***Cooling Duties*** ,
ΔT = Temperature difference between Water/Glycol Inlet/Outlet (°C).
ΔP = Maximum Water/ Glycol Pressure Drop for the indoor unit (kPa).
ΔP_W = Equivalent Water Pressure Drop for indoor unit (kPa), use the corrected flow rate $\dot{V}$.

						Ethylene Glycol (Volume) / Freezing Point °C			
						10% / -4°C	20% / -9°C	30% / -15°C	40% / -23°C
$\dot{V}$	Corrected Flow Rate	=	Q / ΔT	Flow Rate	x by	0.240	0.250	0.250	0.260
ΔP	Corrected Pressure Drop	=	ΔPw	Pressure Drop		1.041	1.083	1.133	1.200

Example: V26WX2-EZ Condensing Entering / Leaving at 30°C/35°C, Based on ΔT of 5°C, 24°C/45% RH Ambient, 20% Ethylene Glycol

						Ethylene Glycol (Volume) / Freezing Point °C			
						10% / -4°C	20% / -9°C	30% / -15°C	40% / -23°C
$\dot{V}$	1.76 l/s	=	Q (35.2) / ΔT (12 - 7 = 5ΔT) =	7.04	x by	0.240	0.250	0.250	0.260
ΔP	157Pa	=	ΔPw	145 kPa		1.041	1.083	1.133	1.200

Water Detector Tape Installation

Monitored by a sensing relay, the water detection tape will provide an alarm when in contact with several drops of conductive liquid. High humidity should normally not cause an alarm unless it results in condensation dripping on the tape surface or condensation present on the surface to which the tape is applied.

The recommended installation process is as follows:

- When applying to a surface such as concrete, the most popular method is to press the tape firmly onto a continuous film of approved adhesive or glue. When properly glued to the floor the tape lies flat on the floor avoiding “bridging” (where the detector lifts off the floor allowing water to run under the detector without detection) and avoids damage to the detector
- When applying the tape directly to the piping, the tape is simply strapped to the pipe
- Care should be taken to prevent the wire detectors in the tape from coming into contact with any electrically conductive material causing a “fault” condition. Anything used in applying the tape which interferes with the capability of the fleece substrate may adversely affect the detector’s function
- The tape should not be installed under piping or equipment that can condense liquid as the condensation could drip on the tape causing an alarm
- The tape should not be installed directly under an air handling unit, but around the unit
- In the sub-floor of a computer room the tape should be installed after the raised floor, conduit and piping are installed and the sub-floor cleaned and sealed

IMPORTANT ⚠	Any adhesive which alters the chemical composition of the tape must be avoided and any use thereof voids any warranty, expressed or implied. **3M Scotch-Weld™ 77 adhesive** is strongly recommended to ensure the warranty will be maintained. When adhesive is used, adhesive with an oily or greasy base MUST be avoided as this will affect the tape’s ability to detect moisture. When the use of an adhesive is not desirable or practical, staples, clips or other devices may be used. When applying the tape to piping a combination of glue and plastic or nylon straps or wire ties may be used. The straps or ties help to cut down installation time and secures the tape to the pipe while the adhesive cures and dries.

CAUTION ⚠	Any electrically conductive attachment devices used must not touch the wires that are within the tape fabric. The maximum length of a detector loop, including wire and detector tape is 50 metres. However, this tape length is not practical for most applications. Where the tape is concealed or not easily accessible, tape runs should be limited to no more than 30 metres, and 10 to 15 metres per zone is generally used. If the water detector tape is to be attached to or covered by a metallic or conductive surface, care should be taken not to short the conductors. When installing tape to any surface, be careful not to short circuit or ground out the conductors (such as over/under conduit or sharp edges of cable trays etc.). This also applies to any covering which may be applied over the tape. Before installing the tape, be sure to inspect areas where the tape is to be applied for presence of chemical materials that could create problems. If in doubt, it is recommended to clean the floor with a mild detergent.

For further information, please refer to Airedale’s Technical Bulletin and Loose Part Instruction Manual.

Interconnecting Wiring

CW Models

INDOOR UNIT		L1	O	←	Mains Incoming Supply 400V / 3PH + N / 50Hz
		L2	O	←	
		L3	O	←	
		N	O	←	
		PE	O	←	

Sizes 6-26

INDOOR UNIT		560	O	→	Common Alarm Normally Open
		561	O	←	Common
		562	O	→	Common Alarm Normally Closed
		583	O	←	Fire Detection
		502	O	→	24Vac

Sizes 28-60

INDOOR UNIT		560	O	→	Non-Critical Alarm Normally Open
		561	O	←	Common
		562	O	→	Non-Critical Alarm Normally Closed
		563	O	→	Critical Alarm Normally Open
		564	O	←	Common
		565	O	→	Critical Alarm Normally Closed
		583	O	←	Fire Detection
		502	O	→	24Vac

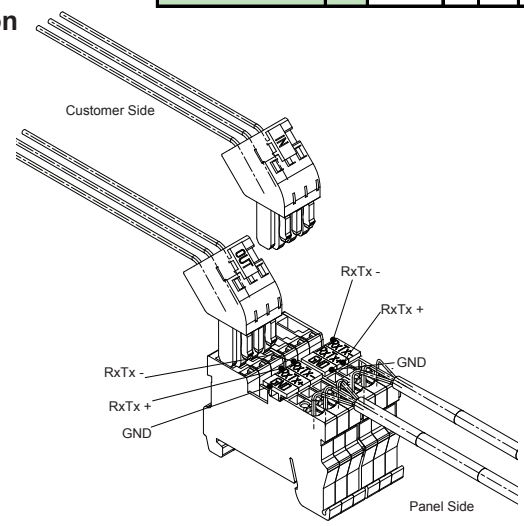
Remote On / Off

INDOOR UNIT		522	O	←	Remote On/Off
		502	O	→	24Vac

Network

INDOOR UNIT		Rx-Tx-	O	←	Network Connections (Inward connection)
		Rx+Tx+	O	←	
		GND	O	←	
		Rx-Tx-	O	→	Network Connections (Outward connection)
		Rx+Tx+	O	→	
		GND	O	→	

pLAN Termination



⚠ The plugged termination ensures that the connections are made simultaniously. Failure to attached the cables this this way may cause damage to the controller.

Humidifier Bottle Information

Limit Values for the supply water with Medium to High conductivity in an immersed electrode humidifier.

			Min	Max
Hydrogen ions		pH	7	8.5
Specific conductivity at 20°C	σR, 20°C	µS/cm	300	1250
Total dissolved solids	TDS	mg/l	(1)	(1)
Dry residue at 180°C	R180	mg/l	(1)	(1)
Total hardness TH		mg/l CaCO3	100(2)	400
Temporary hardness		mg/l CaCO3	60(3)	300
Iron + Manganese		mg/l Fe + Mn	0	0.2
Chlorides		ppm- Cl	0	30
Silica		mg/l SiO2	0	20
Residual chlorine		mg/l Cl	0	0.2
Calcium sulphate		mg/l CaSO4	0	100
Metallic impurities		mg/l	0	0
Solvents, diluents, soaps, lubricants		mg/l	0	0

(1) Values depending on specific conductivity; in general: TDS σ 0.93 * σ20; R180 ≅ 0.65 * σ20
(2) not lower than 200% of the chloride content in mg/l of Cl-
(3) not lower than 300% of the chloride content in mg/l of Cl-

Limit Values for the supply water with Medium to Low conductivity in an immersed electrode humidifier.

			Min	Max
Hydrogen ions		pH	7	8.5
Specific conductivity at 20°C	σR, 20°C	µS/cm	125	500
Total dissolved solids	TDS	mg/l	(1)	(1)
Dry residue at 180°C	R180	mg/l	(1)	(1)
Total hardness TH		mg/l CaCO3	50(2)	250
Temporary hardness		mg/l CaCO3	30(3)	150
Iron + Manganese		mg/l Fe + Mn	0	0.2
Chlorides		ppm- Cl	0	20
Silica		mg/l SiO2	0	20
Residual chlorine		mg/l Cl	0	0.2
Calcium sulphate		mg/l CaSO4	0	60
Metallic impurities		mg/l	0	0
Solvents, diluents, soaps, lubricants		mg/l	0	0

(1) Values depending on specific conductivity; in general: TDS σ 0.93 * σ20; R180 ≅ 0.65 * σ20

(2) not lower than 200% of the chloride content in mg/l of Cl-

(3) not lower than 300% of the chloride content in mg/l of Cl-

CAUTION ⚠ Warning: no relation can be demonstrated between water hardness and conductivity.

IMPORTANT ⚠ Do not treat water with softeners!
This could cause corrosion of the electrodes or the formation of foam, leading to potential operating problems or failures.

CAUTION ⚠ The water supply should conform to Local Water Regulations and within the following guidelines:
Supply water pressure between 1.0 barg to 8.0 barg, > 8.0 bar a pressure reducing valve should be fitted.
A minimum flow rate of 1.21 l/min is required.
The humidifier inlet is fitted with a braided flexible hose, having 3/4” BSPF connection.

IMPORTANT ⚠ Ensure the union between the humidifier assembly and supply hose is fully tightened. Any looseness, misalignment or damage to the union can lead to water leakage.

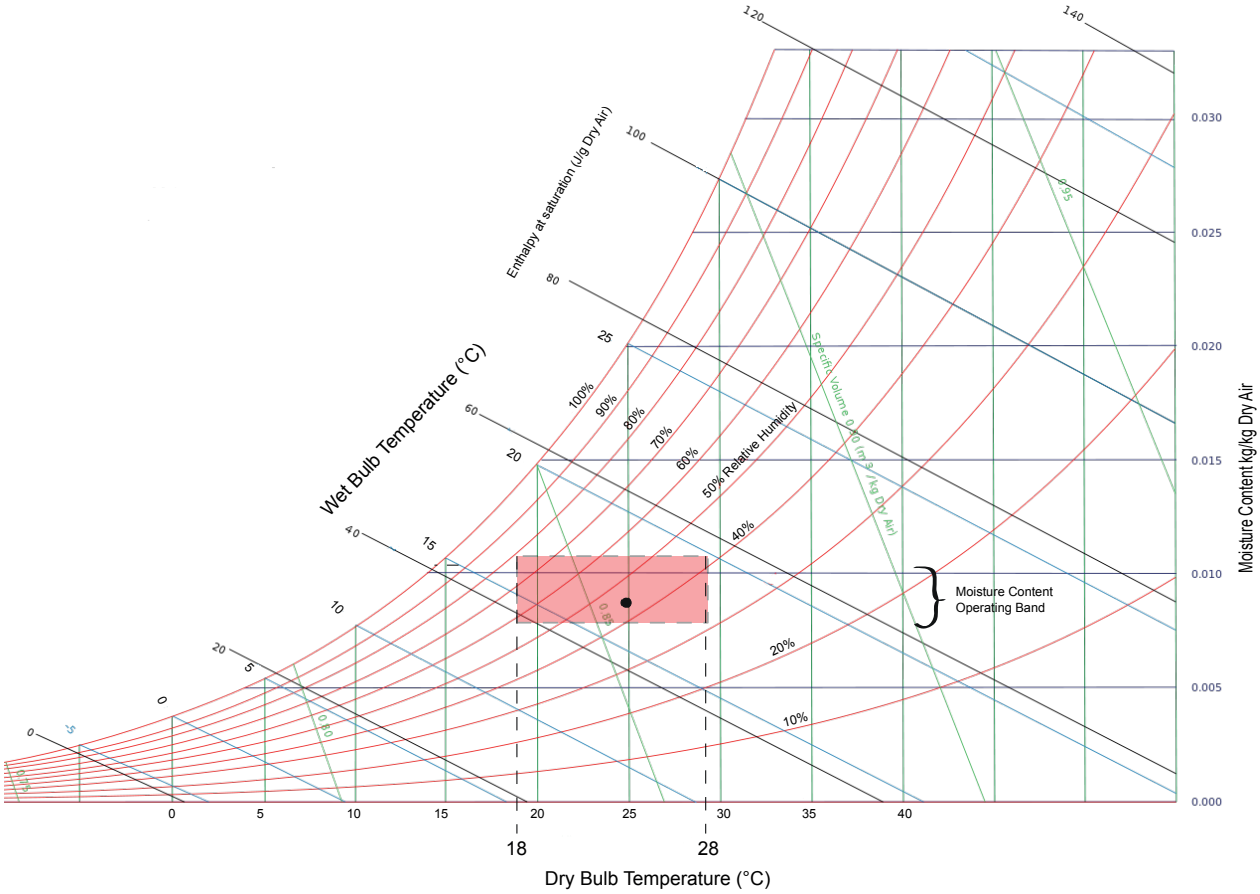
CAUTION ⚠ It is recommended that a shut off valve and a mechanical strainer be fitted to the water supply prior to the humidifier assembly.

Notes

Technical Data

Operating Limits

Indoor Air Temperature	+18°C to +28°C
Indoor RH%	+40% to +55% (Based upon 24°C Dry Bulb)
Water Entering Temperature	+5°C to +10°C
Water Leaving Temperature	+10°C to +16°C



● Nominal Design Operating Condition 24°C Dry Bulb 45% RH

IMPORTANT ⚠	Fan Power Input (Fan Gain) must be added to the room load to establish full gross cooling capacity requirements. Fan Power Input can be found in the mechanical data sections. Fan Power Input is taken at the operating conditions based on 25Pa ESP.

Technical Data Downflow

Performance Data

Cooling Capacity (1)		Chilled Water Inlet/Outlet °C							
	Air On	5/10°C		7/12°C		8/14°C		10/16°C	
	(DB°C/%RH)	TC (kW)	SC (kW)	TC (kW)	SC (kW)	TC (kW)	SC (kW)	TC (kW)	SC (kW)
DF6CW-EZRE	22/50	8.5	6.9	6.7	6.0	5.1	5.1	4.1	4.1
	24/45	9.8	8.1	8.0	7.1	6.3	6.3	5.3	5.3
	26/40	11.1	9.4	8.9	8.4	7.6	7.6	6.6	6.6
DF8CW-EZRE	22/50	10.6	8.9	7.7	7.7	6.6	6.6	5.3	5.3
	24/45	12.3	10.5	9.2	9.2	8.1	8.1	6.8	6.8
	26/40	13.9	12.2	10.9	10.9	9.8	9.8	8.4	8.4
DF10CW-EZRE	22/50	12.4	10.8	9.3	9.3	7.9	7.9	6.3	6.3
	24/45	14.6	12.9	11.1	11.1	9.8	9.8	8.1	8.1
	26/40	16.4	14.7	13.1	13.1	11.7	11.7	10.2	10.2
DF13CW-EZRE	22/50	16.2	13.0	12.4	11.3	9.7	9.7	7.7	7.7
	24/45	18.7	15.2	14.8	13.5	12.0	12.0	10.1	10.1
	26/40	21.2	17.6	17.2	15.8	14.4	14.4	12.4	12.4
DF15CW-EZRE	22/50	18.5	15.2	14.0	14.0	11.3	11.3	9.0	9.0
	24/45	21.4	17.7	17.5	15.6	13.9	13.9	11.7	11.7
	26/40	24.3	20.5	19.4	18.4	16.7	16.7	14.4	14.4
DF17CW-EZRE	22/50	20.7	17.2	15.0	15.0	12.9	12.9	10.2	10.2
	24/45	23.9	20.1	19.6	17.7	15.8	15.8	13.2	13.2
	26/40	27.2	23.3	21.9	21.1	19.0	19.0	16.4	16.4
DF20CW-EZRE	22/50	24.2	19.5	18.5	17.0	14.7	14.7	11.7	11.7
	24/45	28.0	22.6	22.1	20.2	18.0	18.0	15.1	15.1
	26/40	31.8	26.3	25.7	23.7	21.5	21.5	18.7	18.7
DF22CW-EZRE	22/50	26.0	21.3	20.5	18.5	15.9	15.9	12.7	12.7
	24/45	30.1	24.9	24.6	22.0	19.6	19.6	16.4	16.4
	26/40	34.2	29.0	27.5	26.1	23.6	23.6	20.3	20.3
DF26CW-EZRE	22/50	29.2	24.4	21.3	21.3	18.1	18.1	14.4	14.4
	24/45	33.8	28.6	27.8	25.1	22.3	22.3	18.7	18.7
	26/40	38.5	33.2	30.7	29.9	26.9	26.9	23.2	23.2

TC = Total Cooling SC = Sensible Cooling

(1) All data quoted is gross.

(2) Deduct fan motor gain for nett duties, refer to ***Mechanical Data***.

(3) Water flow rate (l/s) = TC ÷ (4.19 x ΔT) at 100% Water. For glycol use, refer to ***Ethylene Glycol Correction Factors***.

(4) Refer to ***Waterside Pressure Drop (kPa)***.

Operating Limits

Indoor Air Temperature	+18°C to +28°C
Indoor RH%	+40% to +55% (based upon 24°C Dry Bulb)
Water Entering Temperature	+5°C to +10°C
Water Leaving Temperature	+10°C to +16°C

(1) Conditions quoted at 100% Water.

(2) For conditions outside those quoted, please refer to Airedale.

Technical Data Downflow

Performance Data

Cooling Capacity (1)		Chilled Water Inlet/Outlet °C							
	Air On	5/10°C		7/12°C		8/14°C		10/16°C	
	(DB°C/%RH)	TC (kW)	SC (kW)	TC (kW)	SC (kW)	TC (kW)	SC (kW)	TC (kW)	SC (kW)
DF28CW-EZRE	22/50	37.8	30.2	29.1	26.3	23.2	23.2	18.7	18.7
	24/45	43.5	35.1	34.5	31.1	28.1	28.1	23.6	23.6
	26/40	49.2	40.6	39.8	36.4	33.5	33.5	29.1	29.1
DF31CW-EZRE	22/50	42.3	34.1	32.4	29.8	26.1	26.1	21.1	21.1
	24/45	48.6	39.8	38.4	35.3	31.8	31.8	26.8	26.8
	26/40	55.1	46.1	44.6	41.7	37.9	37.9	32.8	32.8
DF35CW-EZRE	22/50	49.4	40.5	39.1	35.1	30.6	30.6	24.5	24.5
	24/45	57.0	47.2	44.8	42.1	37.4	37.4	31.3	31.3
	26/40	64.8	54.9	52.2	49.5	44.8	44.8	38.7	38.7
DF40CW-EZRE	22/50	53.6	44.4	42.9	38.9	33.5	33.5	26.8	26.8
	24/45	61.8	51.9	50.8	45.8	40.9	40.9	34.3	34.3
	26/40	70.3	60.2	56.4	54.3	49.1	49.1	42.4	42.4
DF45CW-EZRE	22/50	58.9	47.1	45.1	41.0	35.7	35.7	28.6	28.6
	24/45	67.9	54.8	53.6	48.5	43.6	43.6	36.6	36.6
	26/40	77.7	68.2	61.5	61.5	55.1	55.1	47.4	47.4
DF50CW-EZRE	22/50	58.5	50.1	43.4	43.4	36.8	36.8	29.1	29.1
	24/45	68.1	58.6	51.9	51.9	45.6	45.6	37.9	37.9
	26/40	77.0	63.7	62.0	56.7	52.3	52.3	45.2	45.2
DF55CW-EZRE	22/50	65.1	53.1	45.9	45.9	39.5	39.5	31.2	31.2
	24/45	75.4	62.0	59.0	55.1	48.6	48.6	40.5	40.5
	26/40	85.0	71.6	64.8	64.8	58.6	58.6	50.4	50.4
DF60CW-EZRE	22/50	69.6	57.3	49.5	49.5	42.5	42.5	33.6	33.6
	24/45	80.7	66.9	59.2	59.2	52.4	52.4	43.8	43.8
	26/40	90.3	77.3	70.0	70.0	63.1	63.1	54.4	54.4

TC = Total Cooling SC = Sensible Cooling

(1) All data quoted is gross.

(2) Deduct fan motor gain for nett duties, refer to ***Mechanical Data***.

(3) Water flow rate (l/s) = TC ÷ (4.19 x ΔT) at 100% Water. For glycol use, refer to ***Ethylene Glycol Correction Factors***.

(4) Refer to ***Waterside Pressure Drop (kPa)***.

Operating Limits

Indoor Air Temperature	+18°C to +28°C
Indoor RH%	+40% to +55% (based upon 24°C Dry Bulb)
Water Entering Temperature	+5°C to +10°C
Water Leaving Temperature	+10°C to +16°C

(1) Conditions quoted at 100% Water.

(2) For conditions outside those quoted, please refer to Airedale.

Technical Data Downflow

Noise Data

Sound Measurement		Overall dB(A)	Frequency (Hz) dB							
			63	125	250	500	1000	2000	4000	8000
DF6CW	D A	71	65	69	67	67	67	66	58	54
	R A	62	68	68	66	59	54	51	49	39
	C B	57	64	66	58	54	51	47	43	37
	S @ 3m	43	50	51	43	40	36	32	29	23
DF8CW	D A	77	70	74	73	72	72	71	64	59
	R A	68	73	74	72	65	59	56	54	44
	C B	63	70	71	63	60	56	52	49	43
	S @ 3m	48	55	57	49	45	41	37	34	28
DF10CW	D A	80	73	77	76	75	75	74	67	62
	R A	71	76	77	75	68	62	59	57	47
	C B	66	73	74	66	63	59	55	52	46
	S @ 3m	51	58	60	52	48	44	40	37	31
DF13CW	D A	77	71	74	72	72	72	71	64	59
	R A	67	73	74	72	65	59	56	54	44
	C B	62	70	71	63	60	56	52	48	42
	S @ 3m	48	56	57	49	45	41	37	34	28
DF15CW	D A	73	70	75	72	69	68	67	62	57
	R A	66	73	74	71	62	55	52	53	42
	C B	61	70	72	63	57	52	48	47	40
	S @ 3m	46	55	57	48	42	37	33	32	26
DF17CW	D A	77	74	78	76	73	72	70	66	61
	R A	70	77	78	75	66	59	55	56	46
	C B	65	73	76	67	60	56	51	50	44
	S @ 3m	50	59	61	52	46	41	37	36	30
DF20CW	D A	81	74	78	77	76	77	75	68	63
	R A	72	77	78	76	69	63	60	59	48
	C B	67	74	76	68	64	60	56	53	47
	S @ 3m	52	59	61	53	49	46	41	38	32
DF22CW	D A	81	74	78	77	76	77	75	68	63
	R A	72	77	78	76	69	63	60	59	48
	C B	67	74	76	68	64	60	56	53	47
	S @ 3m	52	59	61	53	49	46	41	38	32
DF26CW	D A	85	79	83	81	80	81	79	72	67
	R A	76	81	82	80	73	67	64	63	52
	C B	71	78	80	72	68	64	60	57	51
	S @ 3m	56	64	65	57	54	50	46	42	36

Key:
D A = Discharge Air Sound Power
R A = Return Air Sound Power
C B = Case Breakout Sound Power
S @ 3m = Sound Pressure at 3m

(1) dB(A) is the overall sound level, measured on the A scale.
(2) All sound data measured at nominal conditions.

The Sound Pressure data quoted is only valid where the unit is installed on a solid floor (Front and Rear return air only) or false floor (Base return air only) and against a rear wall. If the equipment is placed adjacent to any other vertical reflective walls, values may vary to those stated, typically increasing by 3dB for each side added. Values stated do not include for room reverberation conditions.

Technical Data Downflow

Noise Data

Sound Measurement		Overall dB(A)	Frequency (Hz) dB							
			63	125	250	500	1000	2000	4000	8000
DF28CW	D A	87	77	80	79	81	81	82	79	76
	R A	68	77	71	64	66	63	57	56	47
	C B	69	78	70	63	67	66	59	56	48
	S @ 3m	55	63	56	49	52	51	45	42	33
DF31CW	D A	91	78	84	83	85	84	85	83	80
	R A	71	77	75	67	69	66	60	60	52
	C B	73	78	74	67	70	69	62	60	52
	S @ 3m	58	64	59	52	55	55	48	46	38
DF35CW	D A	90	77	83	82	87	83	84	82	79
	R A	71	76	74	66	70	64	59	59	51
	C B	72	77	73	66	71	67	61	59	51
	S @ 3m	58	62	58	51	57	53	47	45	37
DF40CW	D A	92	80	86	85	89	86	86	85	81
	R A	73	78	76	68	73	67	61	62	53
	C B	74	79	75	68	74	70	63	62	54
	S @ 3m	60	64	61	54	59	55	49	47	40
DF45CW	D A	92	80	86	85	89	86	86	85	81
	R A	73	78	76	68	73	67	61	62	53
	C B	74	79	75	68	74	70	63	62	54
	S @ 3m	60	64	61	54	59	55	49	47	40
DF50CW	D A	89	78	84	86	82	83	84	81	76
	R A	69	76	75	70	66	64	59	57	48
	C B	71	77	74	69	67	67	61	58	49
	S @ 3m	56	63	59	55	53	53	46	43	34
DF55CW	D A	89	78	84	86	82	83	84	81	76
	R A	69	76	75	70	66	64	59	57	48
	C B	71	77	74	69	67	67	61	58	49
	S @ 3m	56	63	59	55	53	53	46	43	34
DF60CW	D A	91	80	85	89	84	85	86	83	79
	R A	71	78	76	73	68	66	61	60	51
	C B	73	79	75	73	69	69	63	60	51
	S @ 3m	58	65	60	58	55	54	49	45	37

Key:
D A = Discharge Air Sound Power
R A = Return Air Sound Power
C B = Case Breakout Sound Power
S @ 3m = Sound Pressure at 3m

(1) dB(A) is the overall sound level, measured on the A scale.
(2) All sound data measured at nominal conditions.

The Sound Pressure data quoted is only valid where the unit is installed on a solid floor (Front and Rear return air only) or false floor (Base return air only) and against a rear wall. If the equipment is placed adjacent to any other vertical reflective walls, values may vary to those stated, typically increasing by 3dB for each side added. Values stated do not include for room reverberation conditions.

Technical Data Downflow

DF6CW

Mechanical Data

			DF6CW-EZRE-0	DF6CW-EZRE-1	DF6CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	7.6	7.6	7.6
Fan Power Input (Fan Gain)	(2)	kW	0.25	1.50	1.50
Dimensions					
W x D x H		mm	670 x 670 x 1940	670 x 670 x 1940	670 x 670 x 1940
Weight					
Machine	(3)	kg	164	165	164
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor			Centrifugal Forward Curved - Designed to 25Pa ESP		
Motor Type			EC	AC	AC
Fan Transmission Type			Direct Drive		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Maximum ESP		Pa	328	196	196
Nominal Airflow		m³/s	0.55	0.55	0.55
Connections					
Inlet/Outlet		mm	22	22	22
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 50mm		
Quantity			1	1	1
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	7.5	7.5	7.5
Humidifier					
Capacity		kg/hr	0.6 - 3.0	0.6 - 3.0	0.6 - 3.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	8	8	8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity x Motor Size			1	1	1
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	1335 / 2215	1335 / 2215	1335 / 2215
Maximum ESP		Pa	475	475	475
Fan Power Input (Fan Gain)	(2)	kW	0.23	0.23	0.23
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	6.5	6.5	6.5
Water Flow (Nominal)		l/s	0.14	0.14	0.14
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	3/4	3/4	3/4

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Downflow

DF6CW

Electrical Data

		DF6CW-EZRE-0	DF6CW-EZRE-1	DF6CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	18.9	20.4	31.2
Maximum Start Amps	A	18.9	20.4	31.2
Recommended Mains Fuse Size	A	25	32	40
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	4.8	5.6	5.6
Maximum Start Amps	A	4.8	14	14
Recommended Mains Fuse Size	A	16	16	16
Max Mains Incoming Cable Size	mm²	6	6	35
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	1.1	1	1
Full Load Amps	A	4.8	5.6	5.6
Locked Rotor Amps	A	4.8	14	14
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		1	1	1
Number of Elements		3	3	3
Rating	kW	7.5	7.5	7.5
Curent per Phase	A	10.83	11.4	19.68
Humidifier				
Capacity	kg/hr	3	3	3
Rating	kW	2.25	2.25	2.25
Full Load Amps	A	3.25	3.42	5.9
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	N/A	1.6	1.6
Full Load Amps	A	N/A	6.8	6.8
Locked Rotor Amps	A	N/A	17	17
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	0.94	0.94	0.94
Full Load Amps	A	1.5	1.5	1.5

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Downflow

DF8CW

Mechanical Data

			DF8CW-EZRE-0	DF8CW-EZRE-1	DF8CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	9.7	9.2	9.2
Fan Power Input (Fan Gain)	(2)	kW	0.54	1.60	1.60
Dimensions					
W x D x H		mm	670 x 670 x 1940	670 x 670 x 1940	670 x 670 x 1940
Weight					
Machine	(3)	kg	167	165	167
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor			Centrifugal Forward Curved - Designed to 25Pa ESP		
Motor Type			EC	AC	AC
Fan Transmission Type			Direct Drive		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Maximum ESP		Pa	233	140	140
Nominal Airflow		m³/s	0.75	0.75	0.75
Connections					
Inlet/Outlet		mm	22	22	22
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 50mm		
Quantity			1	1	1
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	7.5	7.5	7.5
Humidifier					
Capacity		kg/hr	0.6 - 3.0	0.6 - 3.0	0.6 - 3.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	8	8	8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity x Motor Size			1	1	1
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	1705 / 2215	1705 / 2215	1705 / 2215
Maximum ESP		Pa	295	295	295
Fan Power Input (Fan Gain)	(2)	kW	0.43	0.43	0.43
Larger Fan Motor - AC Motor			Centrifugal Forward Curved Direct Drive AC - Designed to 25Pa ESP		
Quantity x Motor Size	(4)	kW	N/A	N/A	N/A
Speed @ Maximum ESP		rpm	N/A	N/A	N/A
Maximum ESP		Pa	N/A	N/A	N/A
Fan Power Input (Fan Gain)	(2)	kW	N/A	N/A	N/A
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	7.5	7.5	7.5
Water Flow (Nominal)		l/s	0.17	0.17	0.17
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	3/4	3/4	3/4

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Downflow

DF8CW

Electrical Data

		DF8CW-EZRE-0	DF8CW-EZRE-1	DF8CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	18.9	23.3	34.1
Maximum Start Amps	A	18.9	23.3	34.1
Recommended Mains Fuse Size	A	25	32	50
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	4.8	8.5	8.5
Maximum Start Amps	A	4.8	21.2	21.2
Recommended Mains Fuse Size	A	16	16	16
Max Mains Incoming Cable Size	mm²	6	6	35
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	1.1	1.6	1.6
Full Load Amps	A	4.8	8.5	8.5
Locked Rotor Amps	A	4.8	21.2	21.2
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		1	1	1
Number of Elements		3	3	3
Rating	kW	7.5	7.5	7.5
Curent per Phase	A	10.83	11.4	19.68
Humidifier				
Capacity	kg/hr	3	3	3
Rating	kW	2.25	2.25	2.25
Full Load Amps	A	3.25	3.42	5.9
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	N/A	2.2	2.2
Full Load Amps	A	N/A	9.1	9.1
Locked Rotor Amps	A	N/A	22.8	22.75
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	0.94	0.94	0.94
Full Load Amps	A	1.5	1.5	1.5

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Downflow

DF10CW

Mechanical Data

			DF10CW-EZRE-0	DF10CW-EZRE-1	DF10CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	11.7	11.2	11.2
Fan Power Input (Fan Gain)	(2)	kW	0.77	2.20	2.20
Dimensions					
W x D x H		mm	670 x 670 x 1940	670 x 670 x 1940	670 x 670 x 1940
Weight					
Machine	(3)	kg	163	168	163
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor			Centrifugal Forward Curved - Designed to 25Pa ESP		
Motor Type			EC	AC	AC
Fan Transmission Type			Direct Drive		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Maximum ESP		Pa	274	118	118
Nominal Airflow		m³/s	0.95	0.95	0.95
Connections					
Inlet/Outlet		mm	22	22	22
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 50mm		
Quantity			1	1	1
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	7.5	7.5	7.5
Humidifier					
Capacity		kg/hr	0.6 - 3.0	0.6 - 3.0	0.6 - 3.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	8	8	8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity x Motor Size			1	1	1
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	2145 / 2215	2145 / 2215	2145 / 2215
Maximum ESP		Pa	50	50	50
Fan Power Input (Fan Gain)	(2)	kW	0.77	0.77	0.77
Larger Fan Motor - AC Motor			Centrifugal Forward Curved Direct Drive AC - Designed to 25Pa ESP		
Quantity x Motor Size	(4)	kW	N/A	N/A	N/A
Speed @ Maximum ESP		rpm	N/A	N/A	N/A
Maximum ESP		Pa	N/A	N/A	N/A
Fan Power Input (Fan Gain)	(2)	kW	N/A	N/A	N/A
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	8.4	8.4	8.4
Water Flow (Nominal)		l/s	0.19	0.19	0.19
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	3/4	3/4	3/4

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Downflow

DF10CW

Electrical Data

		DF10CW-EZRE-0	DF10CW-EZRE-1	DF10CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	18.9	24.4	35.2
Maximum Start Amps	A	18.9	24.4	35.2
Recommended Mains Fuse Size	A	25	32	50
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	4.8	9.6	9.6
Maximum Start Amps	A	4.8	24	24
Recommended Mains Fuse Size	A	16	16	16
Max Mains Incoming Cable Size	mm²	6	6	35
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	1.1	2.2	2.2
Full Load Amps	A	4.8	9.6	9.6
Locked Rotor Amps	A	4.8	24	24
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		1	1	1
Number of Elements		3	3	3
Rating	kW	7.5	7.5	7.5
Curent per Phase	A	10.83	11.4	19.68
Humidifier				
Capacity	kg/hr	3	3	3
Rating	kW	2.25	2.25	2.25
Full Load Amps	A	3.25	3.42	5.9
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	N/A	N/A	N/A
Full Load Amps	A	N/A	N/A	N/A
Locked Rotor Amps	A	N/A	N/A	N/A
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	0.94	0.94	0.94
Full Load Amps	A	1.5	1.5	1.5

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Downflow

DF13CW

Mechanical Data

			DF13CW-EZRE-0	DF13CW-EZRE-1	DF13CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	14.7	14.7	14.7
Fan Power Input (Fan Gain)	(2)	kW	0.62	2.20	2.20
Dimensions					
W x D x H		mm	990 x 670 x 1940	990 x 670 x 1940	990 x 670 x 1940
Weight					
Machine	(3)	kg	190	195	190
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor			Centrifugal Forward Curved - Designed to 25Pa ESP		
Motor Type			EC	AC	AC
Fan Transmission Type			Direct Drive		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Maximum ESP		Pa	443	294	294
Nominal Airflow		m³/s	1.00	1.00	1.00
Connections					
Inlet/Outlet		mm	28	28	28
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 50mm		
Quantity			2	2	2
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	7.5	7.5	7.5
Humidifier					
Capacity		kg/hr	0.6 - 3.0	0.6 - 3.0	0.6 - 3.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	8	8	8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	1105 / 1560	1105 / 1560	1105 / 1560
Maximum ESP		Pa	310	310	310
Fan Power Input (Fan Gain)	(2)	kW	0.37	0.37	0.37
Larger Fan Motor - AC Motor			Centrifugal Forward Curved Direct Drive AC - Designed to 25Pa ESP		
Quantity x Motor Size	(4)	kW	N/A	N/A	N/A
Speed @ Maximum ESP		rpm	N/A	N/A	N/A
Maximum ESP		Pa	N/A	N/A	N/A
Fan Power Input (Fan Gain)	(2)	kW	N/A	N/A	N/A
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	11.5	11.5	11.5
Water Flow (Nominal)		l/s	0.26	0.26	0.26
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1	1	1

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Downflow

DF13CW

Electrical Data

		DF13CW-EZRE-0	DF13CW-EZRE-1	DF13CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	18.9	24.4	35.2
Maximum Start Amps	A	18.9	24.4	35.2
Recommended Mains Fuse Size	A	25	32	50
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	4.8	9.6	9.6
Maximum Start Amps	A	4.8	24	24
Recommended Mains Fuse Size	A	16	16	16
Max Mains Incoming Cable Size	mm²	6	6	35
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	1,1	2.2	2.2
Full Load Amps	A	4.8	9.6	9.6
Locked Rotor Amps	A	4.8	24	24
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		1	1	1
Number of Elements		3	3	3
Rating	kW	7.5	7.5	7.5
Curent per Phase	A	10.83	11.4	19.68
Humidifier				
Capacity	kg/hr	3	3	3
Rating	kW	2.25	2.25	2.25
Full Load Amps	A	3.25	3.42	5.9
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	N/A	N/A	N/A
Full Load Amps	A	N/A	N/A	N/A
Locked Rotor Amps	A	N/A	N/A	N/A
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	1	1	1
Full Load Amps	A	1.85	1.85	1.85

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Downflow

DF15CW

Mechanical Data

			DF15CW-EZRE-0	DF15CW-EZRE-1	DF15CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	16.6	16.6	16.6
Fan Power Input (Fan Gain)	(2)	kW	0.67	1.90	1.90
Dimensions					
W x D x H		mm	990 x 670 x 1940	990 x 670 x 1940	990 x 670 x 1940
Weight					
Machine	(3)	kg	204	200	204
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor			Centrifugal Forward Curved - Designed to 25Pa ESP		
Motor Type			EC	AC	AC
Fan Transmission Type			Direct Drive		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Maximum ESP		Pa	324	120	120
Nominal Airflow		m³/s	1.20	1.20	1.20
Connections					
Inlet/Outlet		mm	28	28	28
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 50mm		
Quantity			2	2	2
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	7.5	7.5	7.5
Humidifier					
Capacity		kg/hr	0.6 - 3.0	0.6 - 3.0	0.6 - 3.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	8	8	8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity			1	1	1
Motor Shaft Power	(3)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	1310 / 1560	1310 / 1560	1310 / 1560
Maximum ESP		Pa	195	195	195
Fan Power Input (Fan Gain)	(2)	kW	0.56	0.56	0.56
Larger Fan Motor - AC Motor			Centrifugal Forward Curved Direct Drive AC - Designed to 25Pa ESP		
Quantity x Motor Size	(3)	kW	N/A	N/A	N/A
Speed @ Maximum ESP		rpm	N/A	N/A	N/A
Maximum ESP		Pa	N/A	N/A	N/A
Fan Power Input (Fan Gain)	(2)	kW	N/A	N/A	N/A
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	12.5	12.5	12.5
Water Flow (Nominal)		l/s	0.28	0.28	0.28
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1	1	1

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Downflow

DF15CW

Electrical Data

		DF15CW-EZRE-0	DF15CW-EZRE-1	DF15CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	21.3	22.6	33.4
Maximum Start Amps	A	21.3	22.6	33.4
Recommended Mains Fuse Size	A	32	32	50
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	7.2	7.8	7.8
Maximum Start Amps	A	7.2	19.5	19.5
Recommended Mains Fuse Size	A	16	16	16
Max Mains Incoming Cable Size	mm²	6	6	35
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	1.6	1.9	1.9
Full Load Amps	A	7.2	7.8	7.8
Locked Rotor Amps	A	7.2	19.5	19.5
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		1	1	1
Number of Elements		3	3	3
Rating	kW	7.5	7.5	7.5
Curent per Phase	A	10.83	11.4	19.68
Humidifier				
Capacity	kg/hr	3	3	3
Rating	kW	2.25	2.25	2.25
Full Load Amps	A	3.25	3.42	5.9
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	N/A	N/A	N/A
Full Load Amps	A	N/A	N/A	N/A
Locked Rotor Amps	A	N/A	N/A	N/A
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	1	1	1
Full Load Amps	A	1.85	1.85	1.85

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Downflow

DF17CW

Mechanical Data

			DF17CW-EZRE-0	DF17CW-EZRE-1	DF17CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	18.1	18.1	18.1
Fan Power Input (Fan Gain)	(2)	kW	1.05	1.90	1.90
Dimensions					
W x D x H		mm	990 x 670 x 1940	990 x 670 x 1940	990 x 670 x 1940
Weight					
Machine	(3)	kg	204	200	204
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor			Centrifugal Forward Curved - Designed to 25Pa ESP		
Motor Type			EC	AC	AC
Fan Transmission Type			Direct Drive		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Maximum ESP		Pa	245	34	34
Nominal Airflow		m³/s	1.40	1.40	1.40
Connections					
Inlet/Outlet		mm	28	28	28
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 50mm		
Quantity			2	2	2
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	7.5	7.5	7.5
Humidifier					
Capacity		kg/hr	0.6 - 3.0	0.6 - 3.0	0.6 - 3.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	8	8	8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity			1	1	1
Motor Shaft Power	(3)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	1515 / 1560	1515 / 1560	1515 / 1560
Maximum ESP		Pa	45	45	45
Fan Power Input (Fan Gain)	(2)	kW	0.82	0.82	0.82
Larger Fan Motor - AC Motor			Centrifugal Forward Curved Direct Drive AC - Designed to 25Pa ESP		
Quantity x Motor Size	(3)	kW	N/A	N/A	N/A
Speed @ Maximum ESP		rpm	N/A	N/A	N/A
Maximum ESP		Pa	N/A	N/A	N/A
Fan Power Input (Fan Gain)	(2)	kW	N/A	N/A	N/A
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	13.3	13.3	13.3
Water Flow (Nominal)		l/s	0.3	0.3	0.3
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1	1	1

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Downflow

DF17CW

Electrical Data

		DF17CW-EZRE-0	DF17CW-EZRE-1	DF17CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	21.3	22.6	33.4
Maximum Start Amps	A	21.3	22.6	33.4
Recommended Mains Fuse Size	A	32	32	50
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	7.2	7.8	7.8
Maximum Start Amps	A	7.2	19.5	19.5
Recommended Mains Fuse Size	A	16	16	16
Max Mains Incoming Cable Size	mm²	6	6	35
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	1.6	1.9	1.9
Full Load Amps	A	7.2	7.8	7.8
Locked Rotor Amps	A	7.2	19.5	19.5
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		1	1	1
Number of Elements		3	3	3
Rating	kW	7.5	7.5	7.5
Curent per Phase	A	10.83	11.4	19.68
Humidifier				
Capacity	kg/hr	3	3	3
Rating	kW	2.25	2.25	2.25
Full Load Amps	A	3.25	3.42	5.9
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	N/A	N/A	N/A
Full Load Amps	A	N/A	N/A	N/A
Locked Rotor Amps	A	N/A	N/A	N/A
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	1	1	1
Full Load Amps	A	1.85	1.85	1.85

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Downflow

DF20CW

Mechanical Data

			DF20CW-EZRE-0	DF20CW-EZRE-1	DF20CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	21.8	21.8	21.8
Fan Power Input (Fan Gain)	(2)	kW	0.80	2.20	2.20
Dimensions					
W x D x H		mm	1310 x 670 x 1940	1310 x 670 x 1940	1310 x 670 x 1940
Weight					
Machine	(3)	kg	242	252	242
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor			Centrifugal Forward Curved - Designed to 25Pa ESP		
Motor Type			EC	AC	AC
Fan Transmission Type			Direct Drive		
Quantity			2	2	2
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Maximum ESP		Pa	404	260	260
Nominal Airflow		m³/s	1.50	1.50	1.50
Connections					
Inlet/Outlet		mm	28	28	28
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 50mm		
Quantity			3	3	3
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	15	15	15
Humidifier					
Capacity		kg/hr	0.6 - 3.0	0.6 - 3.0	0.6 - 3.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	8	8	8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity			1	1	1
Motor Shaft Power	(3)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	1745 / 2165	1745 / 2165	1745 / 2165
Maximum ESP		Pa	450	450	450
Fan Power Input (Fan Gain)	(2)	kW	0.48	0.48	0.48
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	16.1	16.1	16.1
Water Flow (Nominal)		l/s	0.36	0.36	0.36
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1	1	1

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Downflow

DF20CW

Electrical Data

		DF20CW-EZRE-0	DF20CW-EZRE-1	DF20CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	29.7	35.8	64.5
Maximum Start Amps	A	29.7	35.8	64.5
Recommended Mains Fuse Size	A	40	50	100
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	4.8	9.6	19.2
Maximum Start Amps	A	4.8	24	48
Recommended Mains Fuse Size	A	16	16	25
Max Mains Incoming Cable Size	mm²	35	35	35
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	1.1	2.2	2.2
Full Load Amps	A	4.8	9.6	9.6
Locked Rotor Amps	A	4.8	24	24
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		2	2	2
Number of Elements		6	6	6
Rating	kW	15	15	15
Curent per Phase	A	21.65	22.79	39.36
Humidifier				
Capacity	kg/hr	3	3	3
Rating	kW	2.25	2.25	2.25
Full Load Amps	A	3.25	3.42	5.9
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	N/A	N/A	N/A
Full Load Amps	A	N/A	N/A	N/A
Locked Rotor Amps	A	N/A	N/A	N/A
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	2.55	2.55	2.55
Full Load Amps	A	3.9	3.9	3.9

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Downflow

DF22CW

Mechanical Data

			DF22CW-EZRE-0	DF22CW-EZRE-1	DF22CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	23.4	23.4	23.4
Fan Power Input (Fan Gain)	(2)	kW	1.16	2.20	2.20
Dimensions					
W x D x H		mm	1310 x 670 x 1940	1310 x 670 x 1940	1310 x 670 x 1940
Weight					
Machine	(3)	kg	242	252	242
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor			Centrifugal Forward Curved - Designed to 25Pa ESP		
Motor Type			EC	AC	AC
Fan Transmission Type			Direct Drive		
Quantity			2	2	2
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Maximum ESP		Pa	342	194	194
Nominal Airflow		m³/s	1.70	1.70	1.70
Connections					
Inlet/Outlet		mm	28	28	28
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 50mm		
Quantity			3	3	3
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	15	15	15
Humidifier					
Capacity		kg/hr	0.6 - 3.0	0.6 - 3.0	0.6 - 3.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	8	8	8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity			1	1	1
Motor Shaft Power	(3)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	2055 / 2165	2055 / 2165	2055 / 2165
Maximum ESP		Pa	145	145	145
Fan Power Input (Fan Gain)	(2)	kW	0.79	0.79	0.79
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	16.1	16.1	16.1
Water Flow (Nominal)		l/s	0.36	0.36	0.36
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1	1	1

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Downflow

DF22CW

Electrical Data

		DF22CW-EZRE-0	DF22CW-EZRE-1	DF22CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	29.7	35.8	64.5
Maximum Start Amps	A	29.7	35.8	64.5
Recommended Mains Fuse Size	A	40	50	100
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	4.8	9.6	19.2
Maximum Start Amps	A	4.8	24	48
Recommended Mains Fuse Size	A	16	16	25
Max Mains Incoming Cable Size	mm²	35	35	35
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	1.1	2.2	2.2
Full Load Amps	A	4.8	9.6	9.6
Locked Rotor Amps	A	4.8	24	24
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		2	2	2
Number of Elements		6	6	6
Rating	kW	15	15	15
Curent per Phase	A	21.65	22.79	39.36
Humidifier				
Capacity	kg/hr	3	3	3
Rating	kW	2.25	2.25	2.25
Full Load Amps	A	3.25	3.42	5.9
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	N/A	N/A	N/A
Full Load Amps	A	N/A	N/A	N/A
Locked Rotor Amps	A	N/A	N/A	N/A
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	2.55	2.55	2.55
Full Load Amps	A	3.9	3.9	3.9

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Downflow

DF26CW

Mechanical Data

			DF26CW-EZRE-0	DF26CW-EZRE-1	DF26CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	25.6	25.6	25.6
Fan Power Input (Fan Gain)	(2)	kW	1.86	2.20	2.20
Dimensions					
W x D x H		mm	1310 x 670 x 1940	1310 x 670 x 1940	1310 x 670 x 1940
Weight					
Machine	(3)	kg	242	252	242
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor			Centrifugal Forward Curved - Designed to 25Pa ESP		
Motor Type			EC	AC	AC
Fan Transmission Type			Direct Drive		
Quantity			2	2	2
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Maximum ESP		Pa	192	43	43
Nominal Airflow		m³/s	2.00	2.00	2.00
Connections					
Inlet/Outlet		mm	28	28	28
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 50mm		
Quantity			3	3	3
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	15	15	15
Humidifier					
Capacity		kg/hr	0.6 - 3.0	0.6 - 3.0	0.6 - 3.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	8	8	8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity			1	1	1
Motor Shaft Power	(3)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	2055 / 2165	2055 / 2165	2055 / 2165
Maximum ESP		Pa	145	145	145
Fan Power Input (Fan Gain)	(2)	kW	0.79	0.79	0.79
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	16.6	16.6	16.6
Water Flow (Nominal)		l/s	0.37	0.37	0.37
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1	1	1

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Downflow

DF26CW

Electrical Data

		DF26CW-EZRE-0	DF26CW-EZRE-1	DF26CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	29.7	35.8	64.5
Maximum Start Amps	A	29.7	35.8	64.5
Recommended Mains Fuse Size	A	40	50	100
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	4.8	9.6	19.2
Maximum Start Amps	A	4.8	24	48
Recommended Mains Fuse Size	A	16	16	25
Max Mains Incoming Cable Size	mm²	35	35	35
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	1.1	2.2	2.2
Full Load Amps	A	4.8	9.6	9.6
Locked Rotor Amps	A	4.8	24	24
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		2	2	2
Number of Elements		6	6	6
Rating	kW	15	15	15
Curent per Phase	A	21.65	22.79	39.36
Humidifier				
Capacity	kg/hr	3	3	3
Rating	kW	2.25	2.25	2.25
Full Load Amps	A	3.25	3.42	5.9
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	N/A	N/A	N/A
Full Load Amps	A	N/A	N/A	N/A
Locked Rotor Amps	A	N/A	N/A	N/A
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	2.55	2.55	2.55
Full Load Amps	A	3.9	3.9	3.9

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Downflow

DF28CW

Mechanical Data

			DF28CW-EZRE-0	DF28CW-EZRE-1	DF28CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	34.2	34.2	34.2
Fan Power Input (Fan Gain)	(2)	kW	2.60	2.60	2.60
Dimensions					
W x D x H		mm	1460 x 750 x 1940	1460 x 750 x 1940	1460 x 750 x 1940
Weight					
Machine	(3)	kg	351	351	351
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	2.2	2.2	2.2
Speed @ 25Pa / Maximum ESP		rpm	871 / 909	871 / 909	871 / 909
Maximum ESP		Pa	75	75	75
Nominal Airflow		m³/s	2.40	2.40	2.40
Connections					
Inlet/Outlet		mm	42	42	42
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 75mm		
Quantity			3	3	3
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	20	20	20
Humidifier					
Capacity		kg/hr	1.6 - 8.0	1.6 - 8.0	1.6 - 8.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	10.8	10.8	10.8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Evaporator Fan Options:					
Larger Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	3.0 / 4.0	3.0 / 4.0	3.0 / 4.0
Speed @ Maximum ESP		rpm	1144 / 1439	1144 / 1439	1144 / 1439
Maximum ESP		Pa	362 / 722	362 / 722	362 / 722
Fan Power Input (Fan Gain)	(2)	kW	3.5 / 4.6	3.5 / 4.6	3.5 / 4.6
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity			2	2	2
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	1570 / 2165	1570 / 2165	1570 / 2165
Maximum ESP		Pa	595	595	595
Fan Power Input (Fan Gain)	(2)	kW	1.70	1.70	1.70
Larger Fan Motor - AC Motor			Centrifugal Forward Curved Direct Drive AC - Designed to 25Pa ESP		
Quantity x Motor Size	(4)	kW	N/A	N/A	N/A
Speed @ Maximum ESP		rpm	N/A	N/A	N/A
Maximum ESP		Pa	N/A	N/A	N/A
Fan Power Input (Fan Gain)	(2)	kW	N/A	N/A	N/A
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	21.3	21.3	21.3
Water Flow (Nominal)		l/s	0.48	0.48	0.48
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1 1/2	1 1/2	1 1/2

Mechanical

(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Downflow

DF28CW

Electrical Data

		DF28CW-EZRE-0	DF28CW-EZRE-1	DF28CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	46.3	48.6	83.7
Maximum Start Amps	A	46.3	48.6	83.7
Recommended Mains Fuse Size	A	63	63	125
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	5.1	5.3	8.9
Maximum Start Amps	A	33	34.3	59.1
Recommended Mains Fuse Size	A	16	16	16
Max Mains Incoming Cable Size	mm²	35	35	50
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	2.6	2.6	2.6
Full Load Amps	A	4.64	4.83	8.37
Locked Rotor Amps	A	32.5	33.81	58.59
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		3	3	3
Number of Elements		8	8	8
Rating	kW	20	20	20
Curent per Phase	A	32.48	34.19	59.05
Humidifier				
Capacity	kg/hr	8	8	8
Rating	kW	6	6	6
Full Load Amps	A	8.66	9.12	15.75
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	3.5	3.5	3.5
Full Load Amps	A	6.18	6.18	11.14
Locked Rotor Amps	A	43.3	43.3	77.98
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	2.55	2.55	2.55
Full Load Amps	A	3.9	3.9	3.9

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Downflow

Mechanical Data

DF31CW

			DF31CW-EZRE-0	DF31CW-EZRE-1	DF31CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	38.0	38.0	38.0
Fan Power Input (Fan Gain)	(2)	kW	4.60	4.60	4.60
Dimensions					
W x D x H		mm	1460 x 750 x 1940	1460 x 750 x 1940	1460 x 750 x 1940
Weight					
Machine	(3)	kg	354	354	354
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	4.0	4.0	4.0
Speed @ 25Pa / Maximum ESP		rpm	1008 / 1171	1008 / 1171	1008 / 1171
Maximum ESP		Pa	265	265	265
Nominal Airflow		m³/s	2.80	2.80	2.80
Connections					
Inlet/Outlet		mm	42	42	42
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 75mm		
Quantity			3	3	3
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	20	20	20
Humidifier					
Capacity		kg/hr	1.6 - 8.0	1.6 - 8.0	1.6 - 8.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	10.8	10.8	10.8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Evaporator Fan Options:					
Larger Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity			N/A	N/A	N/A
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ Maximum ESP		rpm	N/A	N/A	N/A
Maximum ESP		Pa	N/A	N/A	N/A
Fan Power Input (Fan Gain)	(2)	kW	N/A	N/A	N/A
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity			2	2	2
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	1775 / 2165	1775 / 2165	1775 / 2165
Maximum ESP		Pa	390	390	390
Fan Power Input (Fan Gain)	(2)	kW	2.50	2.50	2.50
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	22.7	22.7	22.7
Water Flow (Nominal)		l/s	0.51	0.51	0.51
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1 1/2	1 1/2	1 1/2

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Downflow

DF31CW

Electrical Data

		DF31CW-EZRE-0	DF31CW-EZRE-1	DF31CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	49.8	52.1	89.7
Maximum Start Amps	A	61.4	58.9	101.7
Recommended Mains Fuse Size	A	63	80	125
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	8.6	8.8	15
Maximum Start Amps	A	61.4	58.9	101.7
Recommended Mains Fuse Size	A	16	16	20
Max Mains Incoming Cable Size	mm²	35	35	50
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	4.6	4.6	4.6
Full Load Amps	A	8.12	8.34	14.45
Locked Rotor Amps	A	60.9	58.38	101.15
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		3	3	3
Number of Elements		8	8	8
Rating	kW	20	20	20
Curent per Phase	A	32.48	34.19	59.05
Humidifier				
Capacity	kg/hr	8	8	8
Rating	kW	6	6	6
Full Load Amps	A	8.66	9.12	15.75
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	N/A	N/A	N/A
Full Load Amps	A	N/A	N/A	N/A
Locked Rotor Amps	A	N/A	N/A	N/A
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	2.55	2.55	2.55
Full Load Amps	A	3.9	3.9	3.9

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Downflow

DF35CW

Mechanical Data

			DF35CW-EZRE-0	DF35CW-EZRE-1	DF35CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	43.7	43.7	43.7
Fan Power Input (Fan Gain)	(2)	kW	4.60	4.60	4.60
Dimensions					
Dimensions - W x D x H		mm	1835 x 750 x 1940	1835 x 750 x 1940	1835 x 750 x 1940
Weight					
Machine	(3)	kg	410	410	410
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	4.0	4.0	4.0
Speed @ 25Pa / Maximum ESP		rpm	980 / 1078	980 / 1078	980 / 1078
Maximum ESP		Pa	165	165	165
Nominal Airflow		m³/s	3.30	3.30	3.30
Connections					
Inlet/Outlet		mm	42	42	42
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 75mm		
Quantity			3	3	3
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	20	20	20
Humidifier					
Capacity		kg/hr	3.0 - 15.0	3.0 - 15.0	3.0 - 15.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	10.8	10.8	10.8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Evaporator Fan Options:					
Larger Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	5.50	5.50	5.50
Speed @ Maximum ESP		rpm	1196	1196	1196
Maximum ESP		Pa	322	322	322
Fan Power Input (Fan Gain)	(2)	kW	6.30	6.30	6.30
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity			2	2	2
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	1895 / 2165	1895 / 2165	1895 / 2165
Maximum ESP		Pa	285	285	285
Fan Power Input (Fan Gain)	(2)	kW	2.78	2.78	2.78
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	30.0	30.0	30.0
Water Flow (Nominal)		l/s	0.67	0.67	0.67
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1 1/2	1 1/2	1 1/2

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Downflow

DF35CW

Electrical Data

		DF35CW-EZRE-0	DF35CW-EZRE-1	DF35CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	57.3	60.1	103.5
Maximum Start Amps	A	61.4	60.1	103.5
Recommended Mains Fuse Size	A	80	80	160
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	8.6	8.8	15
Maximum Start Amps	A	61.4	58.9	101.7
Recommended Mains Fuse Size	A	16	16	20
Max Mains Incoming Cable Size	mm²	35	35	95
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	4.6	4.6	4.6
Full Load Amps	A	8.12	8.34	14.45
Locked Rotor Amps	A	60.9	58.38	101.15
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		3	3	3
Number of Elements		8	8	8
Rating	kW	20	20	20
Curent per Phase	A	32.48	34.19	59.05
Humidifier				
Capacity	kg/hr	15	15	15
Rating	kW	11.25	11.25	11.25
Full Load Amps	A	16.24	17.09	29.52
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	6.3	6.3	6.3
Full Load Amps	A	10.9	10.9	25.63
Locked Rotor Amps	A	69.8	69.8	197.35
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	2.55	2.55	2.55
Full Load Amps	A	3.9	3.9	3.9

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Downflow

DF40CW

Mechanical Data

			DF40CW-EZRE-0	DF40CW-EZRE-1	DF40CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	47.6	47.6	47.6
Fan Power Input (Fan Gain)	(2)	kW	6.30	6.30	6.30
Dimensions					
W x D x H		mm	1835 x 750 x 1940	1835 x 750 x 1940	1835 x 750 x 1940
Weight					
Machine	(3)	kg	431	431	431
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	5.50	5.50	5.50
Speed @ 25Pa / Maximum ESP		rpm	1094 / 1186	1094 / 1186	1094 / 1186
Maximum ESP		Pa	175	175	175
Nominal Airflow		m³/s	3.70	3.70	3.70
Connections					
Inlet/Outlet		mm	42	42	42
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 75mm		
Quantity			3	3	3
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	20	20	20
Humidifier					
Capacity		kg/hr	3.0 - 15.0	3.0 - 15.0	3.0 - 15.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	10.8	10.8	10.8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Evaporator Fan Options:					
Larger Fan Motor - AC Motor			Centrifugal Forward Curved Direct Drive AC - Designed to 25Pa ESP		
Quantity x Motor Size	(4)	kW	N/A	N/A	N/A
Speed @ Maximum ESP		rpm	N/A	N/A	N/A
Maximum ESP		Pa	N/A	N/A	N/A
Fan Power Input (Fan Gain)	(2)	kW	N/A	N/A	N/A
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity x Motor Size			2	2	2
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	2135 / 2165	2135 / 2165	2135 / 2165
Maximum ESP		Pa	70	70	70
Fan Power Input (Fan Gain)	(2)	kW	3.78	3.78	3.78
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(4)	kW	31.5	31.5	31.5
Water Flow (Nominal)		l/s	0.70	0.70	0.70
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1 1/2	1 1/2	1 1/2

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Downflow

DF40CW

Electrical Data

		DF40CW-EZRE-0	DF40CW-EZRE-1	DF40CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	60.1	63.6	109.5
Maximum Start Amps	A	70.3	91.7	158
Recommended Mains Fuse Size	A	80	80	160
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	11.4	12.3	21
Maximum Start Amps	A	70.3	91.7	158
Recommended Mains Fuse Size	A	16	16	32
Max Mains Incoming Cable Size	mm²	35	35	95
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	6.3	5.5	5.5
Full Load Amps	A	10.9	11.84	20.46
Locked Rotor Amps	A	69.8	91.2	157.5
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		3	3	3
Number of Elements		8	8	8
Rating	kW	20	20	20
Curent per Phase	A	32.48	34.19	59.05
Humidifier				
Capacity	kg/hr	15	15	15
Rating	kW	11.25	11.25	11.25
Full Load Amps	A	16.24	17.09	29.52
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	N/A	N/A	N/A
Full Load Amps	A	N/A	N/A	N/A
Locked Rotor Amps	A	N/A	N/A	N/A
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	2.55	2.55	2.55
Full Load Amps	A	3.9	3.9	3.9

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Downflow

DF45CW

Mechanical Data

			DF45CW-EZRE-0	DF45CW-EZRE-1	DF45CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	50.6	50.6	50.6
Fan Power Input (Fan Gain)	(2)	kW	5.50	5.50	5.50
Dimensions					
W x D x H		mm	1835 x 750 x 1940	1835 x 750 x 1940	1835 x 750 x 1940
Weight					
Machine	(3)	kg	442	442	442
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	5.50	5.50	5.50
Speed @ 25Pa / Maximum ESP		rpm	1094 / 1186	1094 / 1186	1094 / 1186
Maximum ESP		Pa	175	175	175
Nominal Airflow		m³/s	3.70	3.70	3.70
Connections					
Inlet/Outlet		mm	42	42	42
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 75mm		
Quantity			3	3	3
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	20	20	20
Humidifier					
Capacity		kg/hr	3.0 - 15.0	3.0 - 15.0	3.0 - 15.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	10.8	10.8	10.8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Evaporator Fan Options:					
Larger Fan Motor - AC Motor			Centrifugal Forward Curved Direct Drive AC - Designed to 25Pa ESP		
Quantity x Motor Size	(4)	kW	N/A	N/A	N/A
Speed @ Maximum ESP		rpm	N/A	N/A	N/A
Maximum ESP		Pa	N/A	N/A	N/A
Fan Power Input (Fan Gain)	(2)	kW	N/A	N/A	N/A
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity x Motor Size			2	2	2
Motor Shaft Power	(3)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	2135 / 2165	2135 / 2165	2135 / 2165
Maximum ESP		Pa	70	70	70
Fan Power Input (Fan Gain)	(2)	kW	3.78	3.78	3.78
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(4)	kW	31.5	31.5	31.5
Water Flow (Nominal)		l/s	0.70	0.70	0.70
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1 1/2	1 1/2	1 1/2

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Downflow

DF45CW

Electrical Data

		DF45CW-EZRE-0	DF45CW-EZRE-1	DF45CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	60.1	63.6	109.5
Maximum Start Amps	A	70.3	91.7	158
Recommended Mains Fuse Size	A	80	80	160
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	11.4	12.3	21
Maximum Start Amps	A	70.3	91.7	158
Recommended Mains Fuse Size	A	16	16	32
Max Mains Incoming Cable Size	mm²	35	35	95
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	6.3	5.5	5.5
Full Load Amps	A	10.9	11.84	20.46
Locked Rotor Amps	A	69.8	91.2	157.5
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		3	3	3
Number of Elements		8	8	8
Rating	kW	20	20	20
Curent per Phase	A	32.48	34.19	59.05
Humidifier				
Capacity	kg/hr	15	15	15
Rating	kW	11.25	11.25	11.25
Full Load Amps	A	16.24	17.09	29.52
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	N/A	N/A	N/A
Full Load Amps	A	N/A	N/A	N/A
Locked Rotor Amps	A	N/A	N/A	N/A
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	2.55	2.55	2.55
Full Load Amps	A	3.9	3.9	3.9

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Downflow

DF50CW

Mechanical Data

			DF50CW-EZRE-0	DF50CW-EZRE-1	DF50CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	51.3	51.3	51.3
Fan Power Input (Fan Gain)	(2)	kW	5.20	5.20	5.20
Dimensions					
W x D x H		mm	2170 x 750 x 1940	2170 x 750 x 1940	2170 x 750 x 1940
Weight					
Machine	(3)	kg	486	486	486
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity			2	2	2
Motor Shaft Power	(4)	kW	2.20	2.20	2.20
Speed @ 25Pa / Maximum ESP		rpm	1167 / 1170	1167 / 1170	1167 / 1170
Maximum ESP		Pa	35	35	35
Nominal Airflow		m³/s	4.20	4.20	4.20
Connections					
Inlet/Outlet		mm	42	42	42
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 75mm		
Quantity			4	4	4
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	30	30	30
Humidifier					
Capacity		kg/hr	3.0 - 15.0	3.0 - 15.0	3.0 - 15.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	10.8	10.8	10.8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Evaporator Fan Options:					
Larger Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity x Motor Size			2	2	2
Motor Shaft Power	(4)	kW	3.0 / 4.0	3.0 / 4.0	3.0 / 4.0
Speed @ Maximum ESP		rpm	1448 / 1498	1448 / 1498	1448 / 1498
Maximum ESP		Pa	310 / 360	310 / 360	310 / 360
Fan Power Input (Fan Gain)	(2)	kW	7.0 / 9.2	7.0 / 9.2	7.0 / 9.2
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity x Motor Size			2	2	2
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	1265 / 1510	1265 / 1510	1265 / 1510
Maximum ESP		Pa	320	320	320
Fan Power Input (Fan Gain)	(2)	kW	3.78	3.78	3.78
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	38.3	38.3	38.3
Water Flow (Nominal)		l/s	0.85	0.85	0.85
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1 1/2	1 1/2	1 1/2

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Downflow

DF50CW

Electrical Data

		DF50CW-EZRE-0	DF50CW-EZRE-1	DF50CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	69.3	72.8	125.5
Maximum Start Amps	A	69.3	72.8	125.5
Recommended Mains Fuse Size	A	100	100	160
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	9.8	10.2	17.2
Maximum Start Amps	A	65.5	68.1	117.7
Recommended Mains Fuse Size	A	16	16	25
Max Mains Incoming Cable Size	mm²	35	35	185
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	2.6	2.6	2.6
Full Load Amps	A	4.64	4.83	8.37
Locked Rotor Amps	A	32.5	33.81	58.59
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		3	3	3
Number of Elements		12	12	12
Rating	kW	30	30	30
Curent per Phase	A	43.3	45.58	78.73
Humidifier				
Capacity	kg/hr	15	15	15
Rating	kW	11.25	11.25	11.25
Full Load Amps	A	16.24	17.09	29.52
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	3.5	3.5	3.5
Full Load Amps	A	6.18	6.18	11.14
Locked Rotor Amps	A	43.3	43.3	77.98
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	3.1	3.1	3.1
Full Load Amps	A	4.8	4.8	4.8

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Downflow

DF55CW

Mechanical Data

			DF55CW-EZRE-0	DF55CW-EZRE-1	DF55CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	58.5	58.5	58.5
Fan Power Input (Fan Gain)	(2)	kW	5.20	5.20	5.20
Dimensions					
W x D x H		mm	2170 x 750 x 1940	2170 x 750 x 1940	2170 x 750 x 1940
Weight					
Machine	(3)	kg	499	499	499
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity			2	2	2
Motor Shaft Power	(4)	kW	2.20	2.20	2.20
Speed @ 25Pa / Maximum ESP		rpm	1167 / 1170	1167 / 1170	1167 / 1170
Maximum ESP		Pa	35	35	35
Nominal Airflow		m³/s	4.20	4.20	4.20
Connections					
Inlet/Outlet		mm	42	42	42
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 75mm		
Quantity			4	4	4
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	30	30	30
Humidifier					
Capacity		kg/hr	3.0 - 15.0	3.0 - 15.0	3.0 - 15.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	10.8	10.8	10.8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Evaporator Fan Options:					
Larger Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity x Motor Size			2	2	2
Motor Shaft Power	(4)	kW	3.0 / 4.0	3.0 / 4.0	3.0 / 4.0
Speed @ Maximum ESP		rpm	1448 / 1498	1448 / 1498	1448 / 1498
Maximum ESP		Pa	310 / 360	310 / 360	310 / 360
Fan Power Input (Fan Gain)	(2)	kW	7.0 / 9.2	7.0 / 9.2	7.0 / 9.2
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity x Motor Size			2	2	2
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	1265 / 1510	1265 / 1510	1265 / 1510
Maximum ESP		Pa	320	320	320
Fan Power Input (Fan Gain)	(2)	kW	3.78	3.78	3.78
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	38.3	38.3	38.3
Water Flow (Nominal)		l/s	0.85	0.85	0.85
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1 1/2	1 1/2	1 1/2

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Downflow

DF55CW

Electrical Data

		DF55CW-EZRE-0	DF55CW-EZRE-1	DF55CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	69.3	72.8	125.5
Maximum Start Amps	A	69.3	72.8	125.5
Recommended Mains Fuse Size	A	100	100	160
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	9.8	10.2	17.2
Maximum Start Amps	A	65.5	68.1	117.7
Recommended Mains Fuse Size	A	16	16	25
Max Mains Incoming Cable Size	mm²	35	35	185
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	2.6	2.6	2.6
Full Load Amps	A	4.64	4.83	8.37
Locked Rotor Amps	A	32.5	33.81	58.59
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		3	3	3
Number of Elements		12	12	12
Rating	kW	30	30	30
Curent per Phase	A	43.3	45.58	78.73
Humidifier				
Capacity	kg/hr	15	15	15
Rating	kW	11.25	11.25	11.25
Full Load Amps	A	16.24	17.09	29.52
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	3.5	3.5	3.5
Full Load Amps	A	6.18	6.18	11.14
Locked Rotor Amps	A	43.3	43.3	77.98
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	3.1	3.1	3.1
Full Load Amps	A	4.8	4.8	4.8

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Downflow

DF60CW

Mechanical Data

			DF60CW-EZRE-0	DF60CW-EZRE-1	DF60CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	62.3	62.3	62.3
Fan Power Input (Fan Gain)	(2)	kW	7.00	7.00	7.00
Dimensions					
W x D x H		mm	2170 x 750 x 1940	2170 x 750 x 1940	2170 x 750 x 1940
Weight					
Machine	(3)	kg	495	495	495
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity			2.00	2.00	2.00
Motor Shaft Power	(4)	kW	3.00	3.00	3.00
Speed @ 25Pa / Maximum ESP		rpm	1307 / 1311	1307 / 1311	1307 / 1311
Maximum ESP		Pa	75	75	75
Nominal Airflow		m³/s	4.60	4.60	4.60
Connections					
Inlet/Outlet		mm	42	42	42
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 75mm		
Quantity			4	4	4
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	30	30	30
Humidifier					
Capacity		kg/hr	3.0 - 15.0	3.0 - 15.0	3.0 - 15.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	10.8	10.8	10.8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Evaporator Fan Options:					
Larger Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity x Motor Size			2	2	2
Motor Shaft Power	(4)	kW	4.00	4.00	4.00
Speed @ Maximum ESP		rpm	1497	1497	1497
Maximum ESP		Pa	275	275	275
Fan Power Input (Fan Gain)	(2)	kW	9.20	9.20	9.20
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity x Motor Size			2	2	2
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	1390 / 1510	1390 / 1510	1390 / 1510
Maximum ESP		Pa	185	185	185
Fan Power Input (Fan Gain)	(2)	kW	4.92	4.92	4.92
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	39.8	39.8	39.8
Water Flow (Nominal)		l/s	0.89	0.89	0.89
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1 1/2	1 1/2	1 1/2

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Downflow

DF60CW

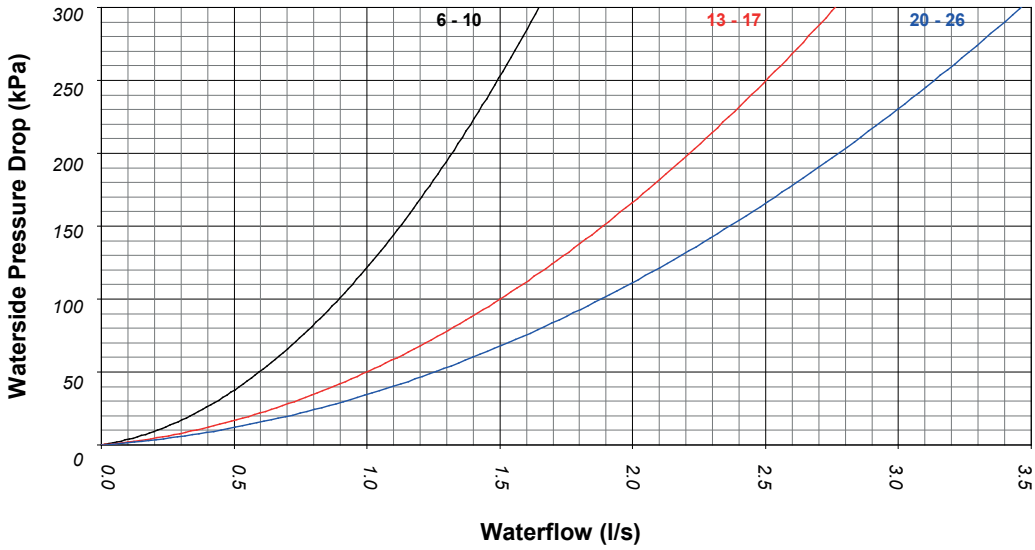
Electrical Data

		DF60CW-EZRE-0	DF60CW-EZRE-1	DF60CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	72.4	76	131
Maximum Start Amps	A	87.1	90.5	156.5
Recommended Mains Fuse Size	A	100	100	200
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	12.9	13.4	22.8
Maximum Start Amps	A	87.1	90.5	156.5
Recommended Mains Fuse Size	A	20	20	32
Max Mains Incoming Cable Size	mm²	35	35	185
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	3.5	3.5	3.5
Full Load Amps	A	6.18	6.43	11.14
Locked Rotor Amps	A	43.3	45.01	77.98
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		3	3	3
Number of Elements		12	12	12
Rating	kW	30	30	30
Curent per Phase	A	43.3	45.58	78.73
Humidifier				
Capacity	kg/hr	15	15	15
Rating	kW	11.25	11.25	11.25
Full Load Amps	A	16.24	17.09	29.52
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	4.6	4.6	4.6
Full Load Amps	A	8.12	8.12	14.45
Locked Rotor Amps	A	60.9	60.9	101.15
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	3.1	3.1	3.1
Full Load Amps	A	4.8	4.8	4.8

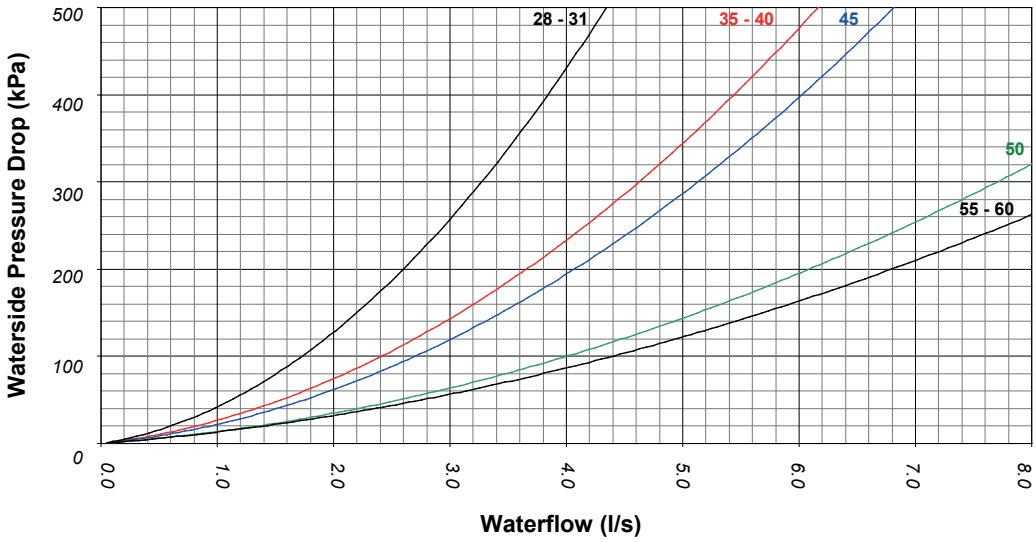
Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Downflow
Chilled Water Pressure Drop

DF6CW - DF26CW



DF28CW - DF60CW



(1) Includes coil, 3 port valve and pipework.

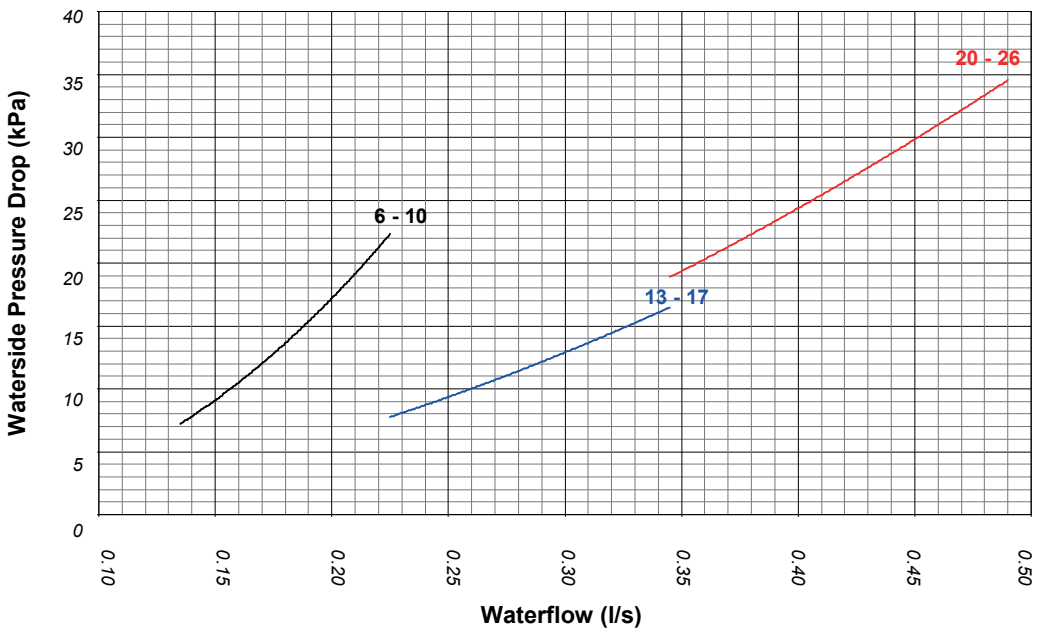
(2) To calculate 3 port valve pressure drop

ΔP valve = $\left(\frac{Q}{M}\right)^2$ where ΔP = Pressure Drop in kPa, Q = Water Flow Rate in l/s and M = $\left(\frac{Kv}{36}\right)$

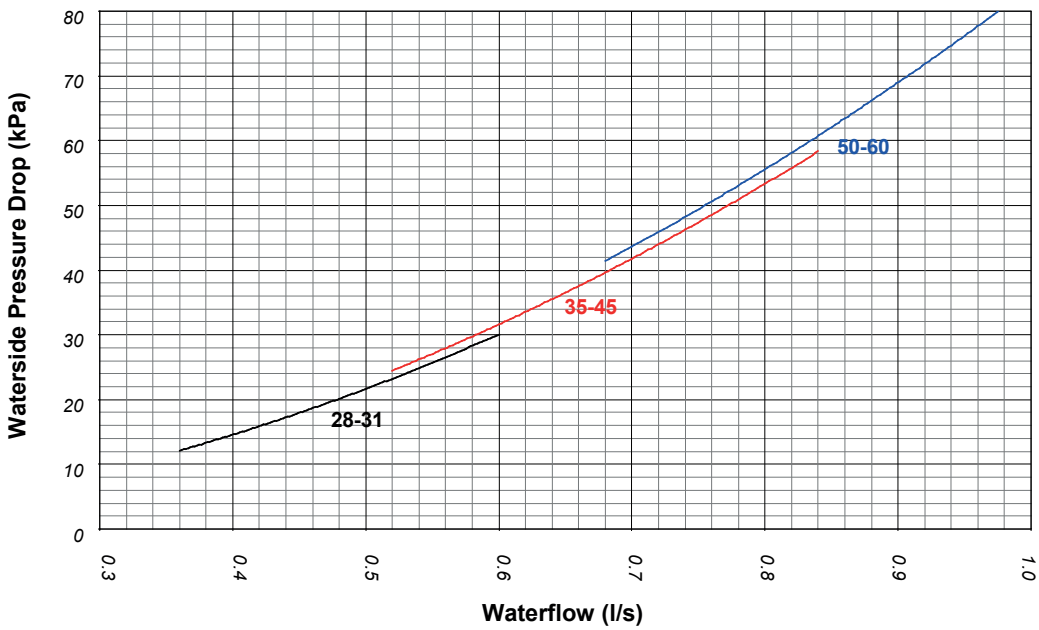
(3) Fluid 100% water, for glycol use, refer to ***Ethylene Glycol Correction Factors***.

Technical Data Downflow
Hydronic Data Low Pressure Hot Water

DF6CW - DF26CW



DF28CW - DF60CW



(1) Includes coil, 3 port valve and pipework.

(2) To calculate 3 port valve pressure drop

ΔP valve = $\left(\frac{Q}{M}\right)^2$ where ΔP = Pressure Drop in kPa, Q = Water Flow Rate in l/s and M = $\left(\frac{Kv}{36}\right)$

(3) Fluid 100% water, for glycol use, refer to ***Ethylene Glycol Correction Factors***.

Technical Data Upflow

Performance Data

Cooling Duties: V CW

Cooling Capacity (1)		Chilled Water Inlet/Outlet °C							
	Air On	5/10°C		7/12°C		8/14°C		10/16°C	
	(DB°C/%RH)	TC (kW)	SC (kW)	TC (kW)	SC (kW)	TC (kW)	SC (kW)	TC (kW)	SC (kW)
V6CW-EZRE	22/50	8.3	6.8	6.5	5.9	5.0	5.0	4.0	4.0
	24/45	9.6	8.0	7.8	7.0	6.2	6.2	5.2	5.2
	26/40	10.9	9.2	8.8	8.2	7.5	7.5	6.4	6.4
V8CW-EZRE	22/50	10.3	8.7	7.6	7.6	6.5	6.5	5.2	5.2
	24/45	12.0	10.3	9.0	9.0	8.0	8.0	6.6	6.6
	26/40	13.7	11.9	10.6	10.6	9.6	9.6	8.2	8.2
V10CW-EZRE	22/50	12.1	10.6	9.1	9.1	7.8	7.8	6.1	6.1
	24/45	14.3	12.7	10.8	10.8	9.6	9.6	8.0	8.0
	26/40	16.1	14.4	12.9	12.9	11.5	11.5	10.0	10.0
V13CW-EZRE	22/50	15.8	12.8	12.1	11.1	9.5	9.5	7.6	7.6
	24/45	18.3	14.9	14.5	13.3	11.8	11.8	9.9	9.9
	26/40	20.8	17.3	16.8	15.5	14.1	14.1	12.2	12.2
V15CW-EZRE	22/50	18.1	14.9	13.7	13.7	11.1	11.1	8.8	8.8
	24/45	21.0	17.3	17.1	15.3	13.7	13.7	11.4	11.4
	26/40	23.9	20.1	19.2	18.1	16.4	16.4	14.2	14.2
V17CW-EZRE	22/50	20.3	16.9	14.7	14.7	12.6	12.6	10.0	10.0
	24/45	23.4	19.7	19.2	17.4	15.5	15.5	12.9	12.9
	26/40	26.7	22.8	21.5	20.6	18.6	18.6	16.1	16.1
V20CW-EZRE	22/50	23.8	19.1	18.1	16.6	14.4	14.4	11.5	11.5
	24/45	27.4	22.2	21.7	19.8	17.6	17.6	14.8	14.8
	26/40	31.2	25.8	25.2	23.3	21.1	21.1	18.3	18.3
V22CW-EZRE	22/50	25.5	20.9	20.1	18.1	15.6	15.6	12.4	12.4
	24/45	29.5	24.4	24.1	21.6	19.2	19.2	16.1	16.1
	26/40	33.6	28.4	26.9	25.6	23.1	23.1	19.9	19.9
V26CW-EZRE	22/50	28.6	23.9	20.9	20.9	17.8	17.8	14.1	14.1
	24/45	33.1	28.0	27.2	24.6	21.9	21.9	18.3	18.3
	26/40	37.8	32.5	30.1	29.3	26.4	26.4	22.8	22.8

TC = Total Cooling SC = Sensible Cooling

(1) All data quoted is gross.
(2) Deduct fan motor gain for nett duties, refer to ***Mechanical Data***.
(3) Water flow rate (l/s) = TC ÷ (4.19 x ΔT) at 100% Water. For glycol use, refer to ***Ethylene Glycol Correction Factors***.
(4) Refer to ***Waterside Pressure Drop (kPa)***.

Operating Limits

Indoor Air Temperature	+18°C to +28°C
Indoor RH%	+40% to +55%
Water Entering Temperature	+5°C to +10°C
Water Leaving Temperature	+10°C to +16°C

(1) Conditions quoted at 100% Water.
(2) For conditions outside those quoted, please refer to Airedale.

Technical Data Upflow

Performance Data

Cooling Duties: V CW

Cooling Capacity (1)		Chilled Water Inlet/Outlet °C							
	Air On	5/10°C		7/12°C		8/14°C		10/16°C	
	(DB°C/%RH)	TC (kW)	SC (kW)	TC (kW)	SC (kW)	TC (kW)	SC (kW)	TC (kW)	SC (kW)
V28CW-EZRE	22/50	37.1	29.6	28.5	25.8	22.7	22.7	18.3	18.3
	24/45	42.7	34.4	33.9	30.5	27.6	27.6	23.2	23.2
	26/40	48.2	39.8	39.1	35.7	32.9	32.9	28.5	28.5
V31CW-EZRE	22/50	41.5	33.5	31.8	29.2	25.6	25.6	20.7	20.7
	24/45	47.6	39.0	37.7	34.6	31.1	31.1	26.3	26.3
	26/40	54.0	45.2	43.7	40.9	37.2	37.2	32.2	32.2
V35CW-EZRE	22/50	48.5	39.8	38.4	34.4	30.0	30.0	24.0	24.0
	24/45	55.9	46.3	43.9	41.2	36.7	36.7	30.7	30.7
	26/40	63.5	53.8	51.2	48.5	44.0	44.0	37.9	37.9
V40CW-EZRE	22/50	52.5	43.6	42.1	38.1	32.8	32.8	26.3	26.3
	24/45	60.6	50.9	49.8	44.9	40.1	40.1	33.6	33.6
	26/40	68.9	59.1	55.3	53.3	48.2	48.2	41.6	41.6
V45CW-EZRE	22/50	57.8	46.1	44.2	40.2	35.0	35.0	28.0	28.0
	24/45	66.6	53.8	52.6	47.5	42.7	42.7	35.9	35.9
	26/40	76.1	66.9	60.3	60.3	54.0	54.0	46.4	46.4
V50CW-EZRE	22/50	57.4	49.1	42.6	42.6	36.1	36.1	28.5	28.5
	24/45	66.8	57.5	50.9	50.9	44.7	44.7	37.2	37.2
	26/40	75.5	62.5	60.8	55.6	51.3	51.3	44.3	44.3
V55CW-EZRE	22/50	63.8	52.0	45.0	45.0	38.7	38.7	30.6	30.6
	24/45	74.0	60.8	57.9	54.0	48.7	47.7	39.8	39.8
	26/40	83.3	70.2	63.6	63.6	57.4	57.4	49.4	49.4
V60CW-EZRE	22/50	68.3	56.2	48.5	48.5	41.7	41.7	33.0	33.0
	24/45	79.2	65.6	58.0	58.0	51.4	51.4	42.9	42.9
	26/40	88.6	75.8	68.6	68.6	61.9	61.9	53.3	53.3

TC = Total Cooling SC = Sensible Cooling

(1) All data quoted is gross.
(2) Deduct fan motor gain for nett duties, refer to ***Mechanical Data***.
(3) Water flow rate (l/s) = TC ÷ (4.19 x ΔT) at 100% Water. For glycol use, refer to ***Ethylene Glycol Correction Factors***.
(4) Refer to ***Waterside Pressure Drop (kPa)***.

Operating Limits

Indoor Air Temperature	+18°C to +28°C
Indoor RH%	+40% to +55%
Water Entering Temperature	+5°C to +10°C
Water Leaving Temperature	+10°C to +16°C

(1) Conditions quoted at 100% Water.
(2) For conditions outside those quoted, please refer to Airedale.

Technical Data Upflow

Noise Data

Sound Measurement		Overall dB(A)	Frequency (Hz) dB 63	125	250	500	1000	2000	4000	8000
V6CW	D A	72	66	70	68	68	68	67	59	55
	R A	53	63	64	55	49	47	42	36	26
	C B	53	63	64	55	49	47	42	36	26
	S @ 3m	39	49	50	40	34	32	27	22	11
V8CW	D A	78	71	75	74	73	73	72	65	60
	R A	59	68	70	60	54	52	47	42	31
	C B	59	68	70	60	54	52	47	42	31
	S @ 3m	44	54	55	45	40	38	32	27	17
V10CW	D A	81	74	78	77	76	76	75	68	63
	R A	62	71	73	63	57	55	50	45	34
	C B	62	71	73	63	57	55	50	45	34
	S @ 3m	47	57	58	48	43	41	35	30	20
V13CW	D A	78	72	75	73	73	73	72	65	60
	R A	59	69	70	60	54	52	47	41	31
	C B	59	69	70	60	54	52	47	41	31
	S @ 3m	44	54	55	45	39	38	32	27	17
V15CW	D A	74	71	76	73	70	69	68	63	58
	R A	57	68	70	60	51	48	43	40	29
	C B	57	68	70	60	51	48	43	40	29
	S @ 3m	43	54	56	45	37	34	28	25	14
V17CW	D A	78	75	79	77	74	73	71	67	62
	R A	61	72	74	63	55	52	46	43	33
	C B	61	72	74	63	55	52	46	43	33
	S @ 3m	47	58	59	49	40	37	32	29	18
V20CW	D A	82	75	79	78	77	78	76	69	64
	R A	63	73	74	64	58	56	51	46	35
	C B	63	73	74	64	58	56	51	46	35
	S @ 3m	48	58	59	50	44	42	37	31	21
V22CW	D A	82	75	79	78	77	78	76	69	64
	R A	63	73	74	64	58	56	51	46	35
	C B	63	73	74	64	58	56	51	46	35
	S @ 3m	48	58	59	50	44	42	37	31	21
V26CW	D A	86	80	84	82	81	82	80	73	68
	R A	67	77	78	68	62	61	55	50	40
	C B	67	77	78	68	62	61	55	50	40
	S @ 3m	53	62	64	54	48	46	41	35	25

Key:
D A = Discharge Air Sound Power
R A = Return Air Sound Power
C B = Case Breakout Sound Power
S @ 3m = Sound Pressure at 3m

(1) dB(A) is the overall sound level, measured on the A scale.
(2) All sound data measured at nominal conditions.

The Sound Pressure data quoted is only valid where the unit is installed on a solid floor (Front and Rear return air only) or false floor (Base return air only) and against a rear wall. If the equipment is placed adjacent to any other vertical reflective walls, values may vary to those stated, typically increasing by 3dB for each side added. Values stated do not include for room reverberation conditions.

Technical Data Upflow

Noise Data

Sound Measurement		Overall dB(A)	Frequency (Hz) dB 63	125	250	500	1000	2000	4000	8000
V28CW	D A	90	102	95	86	84	85	81	81	78
	R A	77	87	80	79	74	73	66	60	53
	C B	77	87	80	79	74	73	66	60	53
	S @ 3m	63	73	65	64	60	59	52	46	39
V31CW	D A	93	105	96	89	86	88	84	84	82
	R A	80	90	80	81	76	76	69	63	57
	C B	80	90	80	81	76	76	69	63	57
	S @ 3m	65	75	65	66	62	61	55	48	42
V35CW	D A	92	111	98	90	87	82	82	83	80
	R A	80	96	82	83	78	71	68	63	56
	C B	80	96	82	83	78	71	68	63	56
	S @ 3m	65	81	67	68	64	56	53	48	41
V40CW	D A	94	113	99	92	89	84	85	85	83
	R A	81	98	83	84	80	72	70	65	58
	C B	81	98	83	84	80	72	70	65	58
	S @ 3m	67	83	69	70	65	58	55	50	44
V45CW	D A	94	113	99	92	89	84	85	85	83
	R A	81	98	83	84	80	72	70	65	58
	C B	81	98	83	84	80	72	70	65	58
	S @ 3m	67	83	69	70	65	58	55	50	44
V50CW	D A	97	115	109	95	92	84	86	84	80
	R A	83	98	93	85	82	73	70	63	55
	C B	83	98	93	85	82	73	70	63	55
	S @ 3m	69	84	78	71	67	59	56	49	40
V55CW	D A	97	115	109	95	92	84	86	84	80
	R A	83	98	93	85	82	73	70	63	55
	C B	83	98	93	85	82	73	70	63	55
	S @ 3m	69	84	78	71	67	59	56	49	40
V60CW	D A	98	116	110	97	93	86	87	86	82
	R A	85	101	94	89	84	74	72	66	58
	C B	85	101	94	89	84	74	72	66	58
	S @ 3m	71	86	79	74	69	60	58	51	43

Key:
D A = Discharge Air Sound Power
R A = Return Air Sound Power
C B = Case Breakout Sound Power
S @ 3m = Sound Pressure at 3m

(1) dB(A) is the overall sound level, measured on the A scale.
(2) All sound data measured at nominal conditions.

The Sound Pressure data quoted is only valid where the unit is installed on a solid floor (Front and Rear return air only) or false floor (Base return air only) and against a rear wall. If the equipment is placed adjacent to any other vertical reflective walls, values may vary to those stated, typically increasing by 3dB for each side added. Values stated do not include for room reverberation conditions.

Technical Data Upflow

V6CW

Mechanical Data

			V6CW-EZRE-0	V6CW-EZRE-1	V6CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	7.6	7.6	7.6
Fan Power Input (Fan Gain)	(2)	kW	0.22	1.50	1.50
Dimensions					
W x D x H		mm	670 x 670 x 1940	670 x 670 x 1940	670 x 670 x 1940
Weight					
Machine	(3)	kg	147	138	147
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor			Centrifugal Forward Curved EC - Designed to 25Pa ESP		
Motor Type			EC	AC	AC
Fan Transmission Type			Direct Drive		
Quantity			1 x 0.56	1 x 0.30	1 x 0.30
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Maximum ESP		Pa	369	237	237
Nominal Airflow		m³/s	0.55	0.55	0.55
Connections					
Inlet/Outlet		mm	22	22	22
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 50mm		
Quantity			1	1	1
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	7.5	7.5	7.5
Humidifier					
Capacity		kg/hr	0.6 - 3.0	0.6 - 3.0	0.6 - 3.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	8	8	8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity x Motor Size			1	1	1
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	1340 / 2215	1340 / 2215	1340 / 2215
Maximum ESP		Pa	350	350	350
Fan Power Input (Fan Gain)	(2)	kW	0.19	0.19	0.19
Larger Fan Motor - AC Motor			Centrifugal Forward Curved Direct Drive AC - Designed to 25Pa ESP		
Quantity x Motor Size	(4)	kW	N/A	N/A	N/A
Speed @ Maximum ESP		rpm	N/A	N/A	N/A
Maximum ESP		Pa	N/A	N/A	N/A
Fan Power Input (Fan Gain)	(2)	kW	N/A	N/A	N/A
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	6.6	6.6	6.6
Water Flow (Nominal)		l/s	0.15	0.15	0.15
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	3/4	3/4	3/4

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Upflow

Electrical Data

V6CW

		V6CW-EZRE-0	V6CW-EZRE-1	V6CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	18.9	20.4	31.2
Maximum Start Amps	A	18.9	20.4	31.2
Recommended Mains Fuse Size	A	25	32	40
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	4.8	5.6	5.6
Maximum Start Amps	A	4.8	14	14
Recommended Mains Fuse Size	A	16	16	16
Max Mains Incoming Cable Size	mm²	6	6	35
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	1.1	1	1
Full Load Amps	A	4.8	5.6	5.6
Locked Rotor Amps	A	4.8	14	14
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		1	1	1
Number of Elements		3	3	3
Rating	kW	7.5	7.5	7.5
Curent per Phase	A	10.83	11.4	19.68
Humidifier				
Capacity	kg/hr	3	3	3
Rating	kW	2.25	2.25	2.25
Full Load Amps	A	3.25	3.42	5.9
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	N/A	1.6	1.6
Full Load Amps	A	N/A	6.8	6.8
Locked Rotor Amps	A	N/A	17	17
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	0.94	0.94	0.94
Full Load Amps	A	1.5	1.5	1.5

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Upflow

V8CW

Mechanical Data

			V8CW-EZRE-0	V8CW-EZRE-1	V8CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	9.2	9.2	9.2
Fan Power Input (Fan Gain)	(2)	kW	0.48	1.60	1.60
Dimensions					
H x D x W		mm	1940 x 670 x 670	1940 x 670 x 670	1940 x 670 x 670
Weight					
Machine	(3)	kg	149	147	149
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor			Centrifugal Forward Curved EC - Designed to 25Pa ESP		
Motor Type			EC	AC	AC
Fan Transmission Type			Direct Drive		
Quantity			1 x 0.56	1 x 0.55	1 x 0.55
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Maximum ESP		Pa	303	209	209
Nominal Airflow		m³/s	0.75	0.75	0.75
Connections					
Inlet/Outlet		mm	22	22	22
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 50mm		
Quantity			1	1	1
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	7.5	7.5	7.5
Humidifier					
Capacity		kg/hr	0.6 - 3.0	0.6 - 3.0	0.6 - 3.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	8	8	8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity x Motor Size			1	1	1
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	1705 / 2215	1705 / 2215	1705 / 2215
Maximum ESP		Pa	220	220	220
Fan Power Input (Fan Gain)	(2)	kW	0.36	0.36	0.36
Larger Fan Motor - AC Motor			Centrifugal Forward Curved Direct Drive AC - Designed to 25Pa ESP		
Quantity x Motor Size	(4)	kW	N/A	N/A	N/A
Speed @ Maximum ESP		rpm	N/A	N/A	N/A
Maximum ESP		Pa	N/A	N/A	N/A
Fan Power Input (Fan Gain)	(2)	kW	N/A	N/A	N/A
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	7.9	7.9	7.9
Water Flow (Nominal)		l/s	0.18	0.18	0.18
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	3/4	3/4	3/4

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Upflow

V8CW

Electrical Data

		V8CW-EZRE-0	V8CW-EZRE-1	V8CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	18.9	23.3	34.1
Maximum Start Amps	A	18.9	23.3	34.1
Recommended Mains Fuse Size	A	25	32	50
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	4.8	8.5	8.5
Maximum Start Amps	A	4.8	21.2	21.2
Recommended Mains Fuse Size	A	16	16	16
Max Mains Incoming Cable Size	mm²	6	6	35
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	1.1	0,55	1.6
Full Load Amps	A	4.8	6,8	8.5
Locked Rotor Amps	A	4.8	17	21.2
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		1	1	1
Number of Elements		3	3	3
Rating	kW	7.5	7.5	7.5
Curent per Phase	A	10.83	11.4	19.68
Humidifier				
Capacity	kg/hr	3	3	3
Rating	kW	2.25	2.25	2.25
Full Load Amps	A	3.25	3.42	5.9
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	N/A	2.2	2.2
Full Load Amps	A	N/A	9.1	9.1
Locked Rotor Amps	A	N/A	22.8	22.75
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	0.94	0.94	0.94
Full Load Amps	A	1.5	1.5	1.5

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Upflow

V10CW

Mechanical Data

			V10CW-EZRE-0	V10CW-EZRE-1	V10CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	11.2	11.2	11.2
Fan Power Input (Fan Gain)	(2)	kW	0.65	2.20	2.20
Dimensions					
H x D x W		mm	1940 x 670 x 670	1940 x 670 x 670	1940 x 670 x 670
Weight					
Machine	(3)	kg	145	150	145
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor			Centrifugal Forward Curved EC - Designed to 25Pa ESP		
Motor Type			EC	AC	AC
Fan Transmission Type			Direct Drive		
Quantity			1 x 0.56	1 x 0.60	1 x 0.60
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Maximum ESP		Pa	378	199	199
Nominal Airflow		m³/s	0.95	0.95	0.95
Connections					
Inlet/Outlet		mm	22	22	22
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 50mm		
Quantity			1	1	1
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	7.5	7.5	7.5
Humidifier					
Capacity		kg/hr	0.6 - 3.0	0.6 - 3.0	0.6 - 3.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	8	8	8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity x Motor Size			1	1	1
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	2140 / 2215	2140 / 2215	2140 / 2215
Maximum ESP		Pa	45	45	45
Fan Power Input (Fan Gain)	(2)	kW	0.62	0.62	0.62
Larger Fan Motor - AC Motor			Centrifugal Forward Curved Direct Drive AC - Designed to 25Pa ESP		
Quantity x Motor Size	(4)	kW	N/A	N/A	N/A
Speed @ Maximum ESP		rpm	N/A	N/A	N/A
Maximum ESP		Pa	N/A	N/A	N/A
Fan Power Input (Fan Gain)	(2)	kW	N/A	N/A	N/A
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	8.9	8.9	8.9
Water Flow (Nominal)		l/s	0.2	0.2	0.2
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	3/4	3/4	3/4

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Upflow

V10CW

Electrical Data

		V10CW-EZRE-0	V10CW-EZRE-1	V10CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	18.9	24.4	35.2
Maximum Start Amps	A	18.9	24.4	35.2
Recommended Mains Fuse Size	A	25	32	50
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	4.8	9.6	9.6
Maximum Start Amps	A	4.8	24	24
Recommended Mains Fuse Size	A	16	16	16
Max Mains Incoming Cable Size	mm²	6	6	35
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	1,1	2.2	2.2
Full Load Amps	A	4.8	9.6	9.6
Locked Rotor Amps	A	4.8	24	24
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		1	1	1
Number of Elements		3	3	3
Rating	kW	7.5	7.5	7.5
Curent per Phase	A	10.83	11.4	19.68
Humidifier				
Capacity	kg/hr	3	3	3
Rating	kW	2.25	2.25	2.25
Full Load Amps	A	3.25	3.42	5.9
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	N/A	N/A	N/A
Full Load Amps	A	N/A	N/A	N/A
Locked Rotor Amps	A	N/A	N/A	N/A
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	0.94	0.94	0.94
Full Load Amps	A	1.5	1.5	1.5

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Upflow

V13CW

Mechanical Data

			V13CW-EZRE-0	V13CW-EZRE-1	V13CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	14.7	14.7	14.7
Fan Power Input (Fan Gain)	(2)	kW	0.61	2.20	2.20
Dimensions					
W x D x H		mm	990 x 670 x 1940	990 x 670 x 1940	990 x 670 x 1940
Weight					
Machine	(3)	kg	185	190	185
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor - EC Motor			Centrifugal Forward Curved EC - Designed to 25Pa ESP		
Motor Type			EC	AC	AC
Fan Transmission Type			Direct Drive		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Maximum ESP		Pa	448	266	266
Nominal Airflow		m³/s	1.00	1.00	1.00
Connections					
Inlet/Outlet		mm	28	28	28
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 50mm		
Quantity			2	2	2
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	7.5	7.5	7.5
Humidifier					
Capacity		kg/hr	0.6 - 3.0	0.6 - 3.0	0.6 - 3.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	8	8	8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	1125 / 1560	1125 / 1560	1125 / 1560
Maximum ESP		Pa	275	275	275
Fan Power Input (Fan Gain)	(2)	rpm	0.36	0.36	0.36
Larger Fan Motor - AC Motor			Centrifugal Forward Curved Direct Drive AC - Designed to 25Pa ESP		
Quantity x Motor Size	(4)	kW	N/A	N/A	N/A
Speed @ Maximum ESP		rpm	N/A	N/A	N/A
Maximum ESP		Pa	N/A	N/A	N/A
Fan Power Input (Fan Gain)	(2)	kW	N/A	N/A	N/A
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	11.5	11.5	11.5
Water Flow (Nominal)		l/s	0.26	0.26	0.26
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1	1	1

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Upflow

V13CW

Electrical Data

		V13CW-EZRE-0	V13CW-EZRE-1	V13CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	18.9	24.4	35.2
Maximum Start Amps	A	18.9	24.4	35.2
Recommended Mains Fuse Size	A	25	32	50
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	4.8	9.6	9.6
Maximum Start Amps	A	4.8	24	24
Recommended Mains Fuse Size	A	16	16	16
Max Mains Incoming Cable Size	mm²	6	6	35
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	1,1	2.2	2.2
Full Load Amps	A	4.8	9.6	9.6
Locked Rotor Amps	A	4.8	24	24
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		1	1	1
Number of Elements		3	3	3
Rating	kW	7.5	7.5	7.5
Curent per Phase	A	10.83	11.4	19.68
Humidifier				
Capacity	kg/hr	3	3	3
Rating	kW	2.25	2.25	2.25
Full Load Amps	A	3.25	3.42	5.9
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	N/A	N/A	N/A
Full Load Amps	A	N/A	N/A	N/A
Locked Rotor Amps	A	N/A	N/A	N/A
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	1	1	1
Full Load Amps	A	1.85	1.85	1.85

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Upflow

V15CW

Mechanical Data

			V15CW-EZRE-0	V15CW-EZRE-1	V15CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	16.6	16.6	16.6
Fan Power Input (Fan Gain)	(2)	kW	0.66	1.90	1.90
Dimensions					
H x D x W		mm	1940 x 670 x 990	1940 x 670 x 990	1940 x 670 x 990
Weight					
Machine	(3)	kg	199	195	199
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor - EC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Motor Type			EC	AC	AC
Fan Transmission Type			Direct Drive		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Maximum ESP		Pa	331	127	127
Nominal Airflow		m³/s	1.20	1.20	1.20
Connections					
Inlet/Outlet		mm	28	28	28
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 50mm		
Quantity			2	2	2
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	7.5	7.5	7.5
Humidifier					
Capacity		kg/hr	0.6 - 3.0	0.6 - 3.0	0.6 - 3.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	8	8	8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	1330 / 1560	1330 / 1560	1330 / 1560
Maximum ESP		Pa	165	165	165
Fan Power Input (Fan Gain)	(2)	rpm	0.54	0.54	0.54
Larger Fan Motor - AC Motor			Centrifugal Forward Curved Direct Drive AC - Designed to 25Pa ESP		
Quantity x Motor Size	(4)	kW	N/A	N/A	N/A
Speed @ Maximum ESP		rpm	N/A	N/A	N/A
Maximum ESP		Pa	N/A	N/A	N/A
Fan Power Input (Fan Gain)	(2)	kW	N/A	N/A	N/A
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	12.7	12.7	12.7
Water Flow (Nominal)		l/s	0.28	0.28	0.28
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1	1	1

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Upflow

V15CW

Electrical Data

		V15CW-EZRE-0	V15CW-EZRE-1	V15CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	21.3	22.6	33.4
Maximum Start Amps	A	21.3	22.6	33.4
Recommended Mains Fuse Size	A	32	32	50
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	7.2	7.8	7.8
Maximum Start Amps	A	7.2	19.5	19.5
Recommended Mains Fuse Size	A	16	16	16
Max Mains Incoming Cable Size	mm²	6	6	35
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	1.6	1.9	1.9
Full Load Amps	A	7.2	7.8	7.8
Locked Rotor Amps	A	7.2	19.5	19.5
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		1	1	1
Number of Elements		3	3	3
Rating	kW	7.5	7.5	7.5
Curent per Phase	A	10.83	11.4	19.68
Humidifier				
Capacity	kg/hr	3	3	3
Rating	kW	2.25	2.25	2.25
Full Load Amps	A	3.25	3.42	5.9
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	N/A	N/A	N/A
Full Load Amps	A	N/A	N/A	N/A
Locked Rotor Amps	A	N/A	N/A	N/A
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	1	1	1
Full Load Amps	A	1.85	1.85	1.85

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Upflow

V17CW

Mechanical Data

			V17CW-EZRE-0	V17CW-EZRE-1	V17CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	18.1	18.1	18.1
Fan Power Input (Fan Gain)	(2)	kW	1.03	1.90	1.90
Dimensions					
H x D x W		mm	1940 x 670 x 990	1940 x 670 x 990	1940 x 670 x 990
Weight					
Machine	(3)	kg	199	195	199
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor - EC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Motor Type			EC	AC	AC
Fan Transmission Type			Direct Drive		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Maximum ESP		Pa	253	42	42
Nominal Airflow		m³/s	1.40	1.40	1.40
Connections					
Inlet/Outlet		mm	28	28	28
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 50mm		
Quantity			2	2	2
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	7.5	7.5	7.5
Humidifier					
Capacity		kg/hr	0.6 - 3.0	0.6 - 3.0	0.6 - 3.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	8	8	8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	1560 / 1560	1560 / 1560	1560 / 1560
Maximum ESP		Pa	25	25	25
Fan Power Input (Fan Gain)	(2)	rpm	0.79	0.79	0.79
Larger Fan Motor - AC Motor			Centrifugal Forward Curved Direct Drive AC - Designed to 25Pa ESP		
Quantity x Motor Size	(4)	kW	N/A	N/A	N/A
Speed @ Maximum ESP		rpm	N/A	N/A	N/A
Maximum ESP		Pa	N/A	N/A	N/A
Fan Power Input (Fan Gain)	(2)	kW	N/A	N/A	N/A
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	13.7	13.7	13.7
Water Flow (Nominal)		l/s	0.31	0.31	0.31
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1	1	1

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Upflow

V17CW

Electrical Data

		V17CW-EZRE-0	V17CW-EZRE-1	V17CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	21.3	22.6	33.4
Maximum Start Amps	A	21.3	22.6	33.4
Recommended Mains Fuse Size	A	32	32	50
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	7.2	7.8	7.8
Maximum Start Amps	A	7.2	19.5	19.5
Recommended Mains Fuse Size	A	16	16	16
Max Mains Incoming Cable Size	mm²	6	6	35
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	1.6	1.9	1.9
Full Load Amps	A	7.2	7.8	7.8
Locked Rotor Amps	A	7.2	19.5	19.5
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		1	1	1
Number of Elements		3	3	3
Rating	kW	7.5	7.5	7.5
Curent per Phase	A	10.83	11.4	19.68
Humidifier				
Capacity	kg/hr	3	3	3
Rating	kW	2.25	2.25	2.25
Full Load Amps	A	3.25	3.42	5.9
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	N/A	N/A	N/A
Full Load Amps	A	N/A	N/A	N/A
Locked Rotor Amps	A	N/A	N/A	N/A
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	1	1	1
Full Load Amps	A	1.85	1.85	1.85

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Upflow

V20CW

Mechanical Data

			V20CW-EZRE-0	V20CW-EZRE-1	V20CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	21.8	21.8	21.8
Fan Power Input (Fan Gain)	(2)	kW	0.80	4.40	4.40
Dimensions					
W x D x H		mm	1310 x 670 x 1940	1310 x 670 x 1940	1310 x 670 x 1940
Weight					
Machine	(3)	kg	236	246	236
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor - EC Motor			Centrifugal Forward Curved EC - Designed to 25Pa ESP		
Motor Type			EC	AC	AC
Fan Transmission Type			Direct Drive		
Quantity			2	2	2
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Maximum ESP		Pa	411	245	245
Nominal Airflow		m³/s	1.50	1.50	1.50
Connections					
Inlet/Outlet		mm	28	28	28
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 50mm		
Quantity			3	3	3
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	15	15	15
Humidifier					
Capacity		kg/hr	0.6 - 3.0	0.6 - 3.0	0.6 - 3.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	8	8	8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Optional Fan - EC Motor			Centrifugal Backward Curved DD EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	1830 / 2165	1830 / 2165	1830 / 2165
Maximum ESP		Pa	285	285	285
Fan Power Input (Fan Gain)	(2)	kW	0.47	0.47	0.47
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	19.2	19.2	19.2
Water Flow (Nominal)		l/s	0.43	0.43	0.43
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1	1	1

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Upflow

V20CW

Electrical Data

		V20CW-EZRE-0	V20CW-EZRE-1	V20CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	29.7	35.8	64.5
Maximum Start Amps	A	29.7	35.8	64.5
Recommended Mains Fuse Size	A	40	50	100
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	4.8	9.6	19.2
Maximum Start Amps	A	4.8	24	48
Recommended Mains Fuse Size	A	16	16	25
Max Mains Incoming Cable Size	mm²	35	35	35
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	1.1	2.2	2.2
Full Load Amps	A	4.8	9.6	9.6
Locked Rotor Amps	A	4.8	24	24
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		2	2	2
Number of Elements		6	6	6
Rating	kW	15	15	15
Curent per Phase	A	21.65	22.79	39.36
Humidifier				
Capacity	kg/hr	3	3	3
Rating	kW	2.25	2.25	2.25
Full Load Amps	A	3.25	3.42	5.9
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	N/A	N/A	N/A
Full Load Amps	A	N/A	N/A	N/A
Locked Rotor Amps	A	N/A	N/A	N/A
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	2.55	2.55	2.55
Full Load Amps	A	3.9	3.9	3.9

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Upflow

Mechanical Data

V22CW

			V22CW-EZRE-0	V22CW-EZRE-2	V22CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	23.4	23.4	23.4
Fan Power Input (Fan Gain)	(2)	kW	1.13	4.40	4.40
Dimensions					
W x D x H		mm	1310 x 670 x 1940	1310 x 670 x 1940	1310 x 670 x 1940
Weight					
Machine	(3)	kg	236	246	236
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor - EC Motor			Centrifugal Forward Curved EC - Designed to 25Pa ESP		
Motor Type			EC	AC	AC
Fan Transmission Type			Direct Drive		
Quantity			2	2	2
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Maximum ESP		Pa	350	203	203
Nominal Airflow		m³/s	1.70	1.70	1.70
Connections					
Inlet/Outlet		mm	28	28	28
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 50mm		
Quantity			3	3	3
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	15	15	15
Humidifier					
Capacity		kg/hr	0.6 - 3.0	0.6 - 3.0	0.6 - 3.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	8	8	8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Optional Fan - EC Motor			Centrifugal Backward Curved DD EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	2165 / 2165	2165 / 2165	2165 / 2165
Maximum ESP		Pa	25	25	25
Fan Power Input (Fan Gain)	(2)	kW	0.79	0.79	0.79
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	19.2	19.2	19.2
Water Flow (Nominal)		l/s	0.43	0.43	0.43
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1	1	1

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Upflow

V22CW

Electrical Data

		V22CW-EZRE-0	V22CW-EZRE-1	V22CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	29.7	35.8	64.5
Maximum Start Amps	A	29.7	35.8	64.5
Recommended Mains Fuse Size	A	40	50	100
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	4.8	9.6	19.2
Maximum Start Amps	A	4.8	24	48
Recommended Mains Fuse Size	A	16	16	25
Max Mains Incoming Cable Size	mm²	35	35	35
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	1.1	2.2	2.2
Full Load Amps	A	4.8	9.6	9.6
Locked Rotor Amps	A	4.8	24	24
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		2	2	2
Number of Elements		6	6	6
Rating	kW	15	15	15
Curent per Phase	A	21.65	22.79	39.36
Humidifier				
Capacity	kg/hr	3	3	3
Rating	kW	2.25	2.25	2.25
Full Load Amps	A	3.25	3.42	5.9
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	N/A	N/A	N/A
Full Load Amps	A	N/A	N/A	N/A
Locked Rotor Amps	A	N/A	N/A	N/A
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	2.55	2.55	2.55
Full Load Amps	A	3.9	3.9	3.9

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Upflow

V26CW

Mechanical Data

			V26CW-EZRE-0	V26CW-EZRE-1	V26CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	25.6	25.6	25.6
Fan Power Input (Fan Gain)	(2)	kW	1.82	4.40	4.40
Dimensions					
W x D x H		mm	1310 x 670 x 1940	1310 x 670 x 1940	1310 x 670 x 1940
Weight					
Machine	(3)	kg	236	246	236
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor - EC Motor			Centrifugal Forward Curved EC - Designed to 25Pa ESP		
Motor Type			EC	AC	AC
Fan Transmission Type			Direct Drive		
Quantity			2	2	2
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Maximum ESP		Pa	204	55	55
Nominal Airflow		m³/s	2.00	2.00	2.00
Connections					
Inlet/Outlet		mm	28	28	28
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 50mm		
Quantity			3	3	3
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	15	15	15
Humidifier					
Capacity		kg/hr	0.6 - 3.0	0.6 - 3.0	0.6 - 3.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	8	8	8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Optional Fan - EC Motor			Centrifugal Backward Curved DD EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	2165 / 2165	2165 / 2165	2165 / 2165
Maximum ESP		Pa	25	25	25
Fan Power Input (Fan Gain)	(2)	kW	0.79	0.79	0.79
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	19.9	19.9	19.9
Water Flow (Nominal)		l/s	0.44	0.44	0.44
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1	1	1

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Upflow

V26CW

Electrical Data

		V26CW-EZRE-0	V26CW-EZRE-1	V26CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	29.7	35.8	64.5
Maximum Start Amps	A	29.7	35.8	64.5
Recommended Mains Fuse Size	A	40	50	100
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	4.8	9.6	19.2
Maximum Start Amps	A	4.8	24	48
Recommended Mains Fuse Size	A	16	16	25
Max Mains Incoming Cable Size	mm²	35	35	35
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	1.1	2.2	2.2
Full Load Amps	A	4.8	9.6	9.6
Locked Rotor Amps	A	4.8	24	24
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		2	2	2
Number of Elements		6	6	6
Rating	kW	15	15	15
Curent per Phase	A	21.65	22.79	39.36
Humidifier				
Capacity	kg/hr	3	3	3
Rating	kW	2.25	2.25	2.25
Full Load Amps	A	3.25	3.42	5.9
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	N/A	N/A	N/A
Full Load Amps	A	N/A	N/A	N/A
Locked Rotor Amps	A	N/A	N/A	N/A
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	2.55	2.55	2.55
Full Load Amps	A	3.9	3.9	3.9

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Upflow

Mechanical Data

V28CW

			V28CW-EZRE-0	V28CW-EZRE-1	V28CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	34.2	34.2	34.2
Fan Power Input (Fan Gain)	(2)	kW	3.50	3.50	3.50
Dimensions					
W x D x H		mm	1460 x 750 x 1940	1460 x 750 x 1940	1460 x 750 x 1940
Weight					
Machine	(3)	kg	349	349	349
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	3.0	3.0	3.0
Speed @ 25Pa / Maximum ESP		rpm	1420 / 1552	1600 / 1612	1420 / 1552
Maximum ESP		Pa	160	160	160
Nominal Airflow		m³/s	2.4	2.40	2.40
Connections					
Inlet/Outlet		mm	42	42	42
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 75mm		
Quantity			3	3	3
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	22.5	20	20
Humidifier					
Capacity		kg/hr	1.6 - 8.0	1.6 - 8.0	1.6 - 8.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	10.8	10.8	10.8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Evaporator Fan Options:					
Larger Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	4.00	4.00	4.00
Speed @ Maximum ESP		rpm	1910	1910	1910
Maximum ESP		Pa	470	470	470
Fan Power Input (Fan Gain)	(2)	kW	4.60	4.60	4.60
Optional Fan - EC Motor			Centrifugal Backward Curved DD EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity			2	2	2
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	1700 / 2165	1700 / 2165	1700 / 2165
Maximum ESP		Pa	440	440	440
Fan Power Input (Fan Gain)	(2)	kW	2.02	5.26	5.26
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	21.7	23.2	21.7
Water Flow (Nominal)		l/s	0.48	0.52	0.48
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1 1/2	1 1/2	1 1/2

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Upflow

Electrical Data

V28CW

		V28CW-EZRE-0	V28CW-EZRE-1	V28CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	47.8	50.2	86.4
Maximum Start Amps	A	47.8	50.2	86.4
Recommended Mains Fuse Size	A	63	63	125
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	6.7	6.9	11.6
Maximum Start Amps	A	43.8	45.5	78.5
Recommended Mains Fuse Size	A	16	16	16
Max Mains Incoming Cable Size	mm²	35	35	50
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	3.5	3.5	3.5
Full Load Amps	A	6.18	6.43	11.14
Locked Rotor Amps	A	43.3	45.01	77.98
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		3	3	3
Number of Elements		9	9	9
Rating	kW	22.5	22.5	22.5
Curent per Phase	A	32.48	34.19	59.05
Humidifier				
Capacity	kg/hr	8	8	8
Rating	kW	6	6	6
Full Load Amps	A	8.66	9.12	15.75
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	3.5	3.5	3.5
Full Load Amps	A	6.18	6.18	11.14
Locked Rotor Amps	A	43.3	43.3	77.98
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	2.55	2.55	2.55
Full Load Amps	A	3.9	3.9	3.9

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Upflow

Mechanical Data

V31CW

			V31CW-EZRE-0	V31CW-EZRE-1	V31CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	38.0	38.0	38.0
Fan Power Input (Fan Gain)	(2)	kW	4.60	4.60	4.60
Dimensions					
W x D x H		mm	1460 x 750 x 1940	1460 x 750 x 1940	1460 x 750 x 1940
Weight					
Machine	(3)	kg	347	347	347
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor - AC Motor			Centrifugal Forward Curved Belt & Pulley AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	4.0	4.0	4.0
Speed @ 25Pa / Maximum ESP		rpm	1600 / 1612	1600 / 1612	1600 / 1612
Maximum ESP		Pa	35	35	35
Nominal Airflow		m³/s	2.8	2.8	2.8
Connections					
Inlet/Outlet		mm	42	42	42
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 75mm		
Quantity			3	3	3
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	22.5	22.5	22.5
Humidifier					
Capacity		kg/hr	1.6 - 8.0	1.6 - 8.0	1.6 - 8.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	10.8	10.8	10.8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Evaporator Fan Options:					
Larger Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity			N/A	N/A	N/A
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ Maximum ESP		rpm	N/A	N/A	N/A
Maximum ESP		Pa	N/A	N/A	N/A
Fan Power Input (Fan Gain)	(2)	kW	N/A	N/A	N/A
Optional Fan - EC Motor			Centrifugal Backward Curved DD EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity			2	2	2
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	1935 / 2165	1935 / 2165	1935 / 2165
Maximum ESP		Pa	225	225	225
Fan Power Input (Fan Gain)	(2)	kW	3.02	3.02	3.02
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	23.2	23.2	23.2
Water Flow (Nominal)		l/s	0.52	0.52	0.52
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1 1/2	1 1/2	1 1/2

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Upflow

V31CW

Electrical Data

		V31CW-EZRE-0	V31CW-EZRE-1	V31CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	49.8	52.1	89.7
Maximum Start Amps	A	61.4	58.9	101.7
Recommended Mains Fuse Size	A	63	80	125
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	8.6	8.8	15
Maximum Start Amps	A	61.4	58.9	101.7
Recommended Mains Fuse Size	A	16	16	20
Max Mains Incoming Cable Size	mm²	35	35	50
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	4.6	4.6	4.6
Full Load Amps	A	8.12	8.34	14.45
Locked Rotor Amps	A	60.9	58.38	101.15
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		3	3	3
Number of Elements		9	9	9
Rating	kW	22.5	22.5	22.5
Curent per Phase	A	32.48	34.19	59.05
Humidifier				
Capacity	kg/hr	8	8	8
Rating	kW	6	6	6
Full Load Amps	A	8.66	9.12	15.75
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	N/A	N/A	N/A
Full Load Amps	A	N/A	N/A	N/A
Locked Rotor Amps	A	N/A	N/A	N/A
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	2.55	2.55	2.55
Full Load Amps	A	3.9	3.9	3.9

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Upflow

Mechanical Data

V35CW

			V35CW-EZRE-0	V35CW-EZRE-1	V35CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	43.7	43.7	43.7
Fan Power Input (Fan Gain)	(2)	kW	4.60	4.60	4.60
Dimensions					
W x D x H		mm	1835 x 750 x 1940	1835 x 750 x 1940	1835 x 750 x 1940
Weight					
Machine	(3)	kg	408	408	408
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	4.0	4.0	4.0
Speed @ 25Pa / Maximum ESP		rpm	1440 / 1468	1440 / 1468	1440 / 1468
Maximum ESP		Pa	35	35	35
Nominal Airflow		m³/s	3.3	3.3	3.3
Connections					
Inlet/Outlet		mm	42	42	42
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 75mm		
Quantity			4	4	4
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	30	30	30
Humidifier					
Capacity		kg/hr	3.0 - 15.0	3.0 - 15.0	3.0 - 15.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	10.8	10.8	10.8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Evaporator Fan Options:					
Larger Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	5.50	5.50	5.50
Speed @ Maximum ESP		rpm	1695	1695	1695
Maximum ESP		Pa	240	240	240
Fan Power Input (Fan Gain)	(2)	kW	6.30	6.30	6.30
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity			2	2	2
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	1935 / 2165	1935 / 2165	1935 / 2165
Maximum ESP		Pa	260	260	260
Fan Power Input (Fan Gain)	(2)	kW	3.08	3.08	3.08
Larger Fan Motor - AC Motor			Centrifugal Forward Curved Direct Drive AC - Designed to 25Pa ESP		
Quantity x Motor Size	(4)	kW	N/A	N/A	N/A
Speed @ Maximum ESP		rpm	N/A	N/A	N/A
Maximum ESP		Pa	N/A	N/A	N/A
Fan Power Input (Fan Gain)	(2)	kW	N/A	N/A	N/A
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	29.9	29.9	29.9
Water Flow (Nominal)		l/s	0.67	0.67	0.67
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1 1/2	1 1/2	1 1/2

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Upflow

V35CW

Electrical Data

		V35CW-EZRE-0	V35CW-EZRE-1	V35CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	68.2	71.5	123.2
Maximum Start Amps	A	68.2	71.5	123.2
Recommended Mains Fuse Size	A	100	100	160
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	8.6	8.8	15
Maximum Start Amps	A	61.4	58.9	101.7
Recommended Mains Fuse Size	A	16	16	20
Max Mains Incoming Cable Size	mm²	35	35	185
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	4.6	4.6	4.6
Full Load Amps	A	8.12	8.34	14.45
Locked Rotor Amps	A	60.9	58.38	101.15
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		3	3	3
Number of Elements		12	12	12
Rating	kW	30	30	30
Current per Phase	A	43.3	45.58	78.73
Humidifier				
Capacity	kg/hr	15	15	15
Rating	kW	11.25	11.25	11.25
Full Load Amps	A	16.24	17.09	29.52
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	6.3	6.3	6.3
Full Load Amps	A	10.9	10.9	25.63
Locked Rotor Amps	A	69.8	69.8	197.35
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	2.55	2.55	2.55
Full Load Amps	A	3.9	3.9	3.9

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Upflow

V40CW

Mechanical Data

			V40CW-EZRE-0	V40CW-EZRE-1	V40CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	47.6	47.6	47.6
Fan Power Input (Fan Gain)	(2)	kW	6.30	6.30	6.30
Dimensions					
W x D x H		mm	1835 x 750 x 1940	1835 x 750 x 1940	1835 x 750 x 1940
Weight					
Machine	(3)	kg	429	429	429
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	5.5	5.5	5.5
Speed @ 25Pa / Maximum ESP		rpm	1620 / 1622	1620 / 1622	1620 / 1622
Maximum ESP		Pa	25	25	25
Nominal Airflow		m³/s	3.7	3.7	3.7
Connections					
Inlet/Outlet		mm	42	42	42
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 75mm		
Quantity			4	4	4
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	30	30	30
Humidifier					
Capacity		kg/hr	3.0 - 15.0	3.0 - 15.0	3.0 - 15.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	10.8	10.8	10.8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Evaporator Fan Options:					
Larger Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity			N/A	N/A	N/A
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ Maximum ESP		rpm	N/A	N/A	N/A
Maximum ESP		Pa	N/A	N/A	N/A
Fan Power Input (Fan Gain)	(2)	kW	N/A	N/A	N/A
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity			2	2	2
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	2165 / 2165	2165 / 2165	2165 / 2165
Maximum ESP		Pa	25	25	25
Fan Power Input (Fan Gain)	(2)	kW	4.24	4.24	4.24
Larger Fan Motor - AC Motor			Centrifugal Forward Curved Direct Drive AC - Designed to 25Pa ESP		
Quantity x Motor Size	(4)	kW	N/A	N/A	N/A
Speed @ Maximum ESP		rpm	N/A	N/A	N/A
Maximum ESP		Pa	N/A	N/A	N/A
Fan Power Input (Fan Gain)	(2)	kW	N/A	N/A	N/A
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	31.5	31.5	31.5
Water Flow (Nominal)		l/s	0.70	0.70	0.70
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1 1/2	1 1/2	1 1/2

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Upflow

V40CW

Electrical Data

		V40CW-EZRE-0	V40CW-EZRE-1	V40CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	70.9	75	129.2
Maximum Start Amps	A	70.9	91.7	158
Recommended Mains Fuse Size	A	100	100	200
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	11.4	12.3	21
Maximum Start Amps	A	70.3	91.7	158
Recommended Mains Fuse Size	A	16	16	32
Max Mains Incoming Cable Size	mm²	35	35	185
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	6.3	5.5	5.5
Full Load Amps	A	10.9	11.84	20.46
Locked Rotor Amps	A	69.8	91.2	157.5
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		3	3	3
Number of Elements		12	12	12
Rating	kW	30	30	30
Curent per Phase	A	43.3	45.58	78.73
Humidifier				
Capacity	kg/hr	15	15	15
Rating	kW	11.25	11.25	11.25
Full Load Amps	A	16.24	17.09	29.52
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	N/A	N/A	N/A
Full Load Amps	A	N/A	N/A	N/A
Locked Rotor Amps	A	N/A	N/A	N/A
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	2.55	2.55	2.55
Full Load Amps	A	3.9	3.9	3.9

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Upflow

V45CW

Mechanical Data

			V45CW-EZRE-0	V45CW-EZRE-1	V45CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	50.6	50.6	50.6
Fan Power Input (Fan Gain)	(2)	kW	6.30	6.30	6.30
Dimensions					
W x D x H		mm	1835 x 750 x 1940	1835 x 750 x 1940	1835 x 750 x 1940
Weight					
Machine	(3)	kg	440	440	440
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity			1	1	1
Motor Shaft Power	(4)	kW	5.5	5.5	5.5
Speed @ 25Pa / Maximum ESP		rpm	1620 / 1622	1620 / 1622	1620 / 1622
Maximum ESP		Pa	25	25	25
Nominal Airflow		m³/s	3.7	3.7	3.7
Connections					
Inlet/Outlet		mm	42	42	42
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 75mm		
Quantity			4	4	4
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	30	30	30
Humidifier					
Capacity		kg/hr	3.0 - 15.0	3.0 - 15.0	3.0 - 15.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	10.8	10.8	10.8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Evaporator Fan Options:					
Larger Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity			N/A	N/A	N/A
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ Maximum ESP		rpm	N/A	N/A	N/A
Maximum ESP		Pa	N/A	N/A	N/A
Fan Power Input (Fan Gain)	(2)	kW	N/A	N/A	N/A
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity			2	2	2
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	2165 / 2165	2165 / 2165	2165 / 2165
Maximum ESP		Pa	25	25	25
Fan Power Input (Fan Gain)	(2)	kW	4.24	4.24	4.24
Larger Fan Motor - AC Motor			Centrifugal Forward Curved Direct Drive AC - Designed to 25Pa ESP		
Quantity x Motor Size	(4)	kW	N/A	N/A	N/A
Speed @ Maximum ESP		rpm	N/A	N/A	N/A
Maximum ESP		Pa	N/A	N/A	N/A
Fan Power Input (Fan Gain)	(2)	kW	N/A	N/A	N/A
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	31.5	31.5	31.5
Water Flow (Nominal)		l/s	0.70	0.70	0.70
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1 1/2	1 1/2	1 1/2

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Upflow

V45CW

Electrical Data

		V45CW-EZRE-0	V45CW-EZRE-1	V45CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	70.9	75	129.2
Maximum Start Amps	A	70.9	91.7	158
Recommended Mains Fuse Size	A	100	100	200
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	11.4	12.3	21
Maximum Start Amps	A	70.3	91.7	158
Recommended Mains Fuse Size	A	16	16	32
Max Mains Incoming Cable Size	mm²	35	35	185
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	6.3	5.5	5.5
Full Load Amps	A	10.9	11.84	20.46
Locked Rotor Amps	A	69.8	91.2	157.5
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		3	3	3
Number of Elements		12	12	12
Rating	kW	30	30	30
Curent per Phase	A	43.3	45.58	78.73
Humidifier				
Capacity	kg/hr	15	15	15
Rating	kW	11.25	11.25	11.25
Full Load Amps	A	16.24	17.09	29.52
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	N/A	N/A	N/A
Full Load Amps	A	N/A	N/A	N/A
Locked Rotor Amps	A	N/A	N/A	N/A
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	2.55	2.55	2.55
Full Load Amps	A	3.9	3.9	3.9

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Upflow

V50CW

Mechanical Data

			V50CW-EZRE-0	V50CW-EZRE-1	V50CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	51.3	51.3	51.3
Fan Power Input (Fan Gain)	(2)	kW	7.00	7.00	7.00
Dimensions					
W x D x H		mm	2170 x 750 x 1940	2170 x 750 x 1940	2170 x 750 x 1940
Weight					
Machine	(3)	kg	485	485	485
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity			2	2	2
Motor Shaft Power	(4)	kW	3.0	3.0	3.0
Speed @ 25Pa / Maximum ESP		rpm	1243 / 1447	1243 / 1447	1243 / 1447
Maximum ESP		Pa	255	255	255
Nominal Airflow		m³/s	4.2	4.2	4.2
Connections					
Inlet/Outlet		mm	42	42	42
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 75mm		
Quantity			5	5	5
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	30	30	30
Humidifier					
Capacity		kg/hr	3.0 - 15.0	3.0 - 15.0	3.0 - 15.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	10.8	10.8	10.8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Evaporator Fan Options:					
Larger Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity			2	2	2
Motor Shaft Power	(4)	kW	4.0	4.0	4.0
Speed @ Maximum ESP		rpm	1495	1495	1495
Maximum ESP		Pa	305	305	305
Fan Power Input (Fan Gain)	(2)	kW	9.20	9.20	9.20
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity			2	2	2
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	1370 / 1510	1370 / 1510	1370 / 1510
Maximum ESP		Pa	165	165	165
Fan Power Input (Fan Gain)	(2)	kW	4.18	4.18	4.18
Larger Fan Motor - AC Motor			Centrifugal Forward Curved Direct Drive AC - Designed to 25Pa ESP		
Quantity x Motor Size	(4)	kW	N/A	N/A	N/A
Speed @ Maximum ESP		rpm	N/A	N/A	N/A
Maximum ESP		Pa	N/A	N/A	N/A
Fan Power Input (Fan Gain)	(2)	kW	N/A	N/A	N/A
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	37.7	37.7	37.7
Water Flow (Nominal)		l/s	0.84	0.84	0.84
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1 1/2	1 1/2	1 1/2

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Upflow

V50CW

Electrical Data

		V50CW-EZRE-0	V50CW-EZRE-1	V50CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	72.4	76	131
Maximum Start Amps	A	87.1	90.5	156.5
Recommended Mains Fuse Size	A	100	100	200
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	12.9	13.4	22.8
Maximum Start Amps	A	87.1	90.5	156.5
Recommended Mains Fuse Size	A	20	20	32
Max Mains Incoming Cable Size	mm²	35	35	185
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	3.5	3.5	3.5
Full Load Amps	A	6.18	6.43	11.14
Locked Rotor Amps	A	43.3	45.01	77.98
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		3	3	3
Number of Elements		12	12	12
Rating	kW	30	30	30
Curent per Phase	A	43.3	45.58	78.73
Humidifier				
Capacity	kg/hr	15	15	15
Rating	kW	11.25	11.25	11.25
Full Load Amps	A	16.24	17.09	29.52
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	3.5	3.5	3.5
Full Load Amps	A	6.18	6.18	11.14
Locked Rotor Amps	A	43.3	43.3	77.98
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	3.1	3.1	3.1
Full Load Amps	A	4.8	4.8	4.8

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Upflow

V55CW

Mechanical Data

			V55CW-EZRE-0	V55CW-EZRE-1	V55CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	58.5	58.5	58.5
Fan Power Input (Fan Gain)	(2)	kW	7.00	7.00	7.00
Dimensions					
W x D x H		mm	2170 x 750 x 1940	2170 x 750 x 1940	2170 x 750 x 1940
Weight					
Machine	(3)	kg	498	498	498
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity			2	2	2
Motor Shaft Power	(4)	kW	3.0	3.0	3.0
Speed @ 25Pa / Maximum ESP		rpm	1243 / 1447	1243 / 1447	1243 / 1447
Maximum ESP		Pa	255	255	255
Nominal Airflow		m³/s	4.2	4.2	4.2
Connections					
Inlet/Outlet		mm	42	42	42
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 75mm		
Quantity			5	5	5
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	30	30	30
Humidifier					
Capacity		kg/hr	3.0 - 15.0	3.0 - 15.0	3.0 - 15.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	10.8	10.8	10.8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Evaporator Fan Options:					
Larger Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity			2	2	2
Motor Shaft Power	(4)	kW	4.0	4.0	4.0
Speed @ Maximum ESP		rpm	1495	1495	1495
Maximum ESP		Pa	305	305	305
Fan Power Input (Fan Gain)	(2)	kW	9.20	9.20	9.20
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity			2	2	2
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	1370 / 1510	1370 / 1510	1370 / 1510
Maximum ESP		Pa	165	165	165
Fan Power Input (Fan Gain)	(2)	kW	4.18	4.18	4.18
Larger Fan Motor - AC Motor			Centrifugal Forward Curved Direct Drive AC - Designed to 25Pa ESP		
Quantity x Motor Size	(4)	kW	N/A	N/A	N/A
Speed @ Maximum ESP		rpm	N/A	N/A	N/A
Maximum ESP		Pa	N/A	N/A	N/A
Fan Power Input (Fan Gain)	(2)	kW	N/A	N/A	N/A
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	37.7	37.7	37.7
Water Flow (Nominal)		l/s	0.84	0.84	0.84
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1 1/2	1 1/2	1 1/2

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Upflow

V55CW

Electrical Data

		V55CW-EZRE-0	V55CW-EZRE-1	V55CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	72.4	76	131
Maximum Start Amps	A	87.1	90.5	156.5
Recommended Mains Fuse Size	A	100	100	200
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	12.9	13.4	22.8
Maximum Start Amps	A	87.1	90.5	156.5
Recommended Mains Fuse Size	A	20	20	32
Max Mains Incoming Cable Size	mm²	35	35	185
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	3.5	3.5	3.5
Full Load Amps	A	6.18	6.43	11.14
Locked Rotor Amps	A	43.3	45.01	77.98
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		3	3	3
Number of Elements		12	12	12
Rating	kW	30	30	30
Curent per Phase	A	43.3	45.58	78.73
Humidifier				
Capacity	kg/hr	15	15	15
Rating	kW	11.25	11.25	11.25
Full Load Amps	A	16.24	17.09	29.52
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	3.5	3.5	3.5
Full Load Amps	A	6.18	6.18	11.14
Locked Rotor Amps	A	43.3	43.3	77.98
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	3.1	3.1	3.1
Full Load Amps	A	4.8	4.8	4.8

Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Upflow

Mechanical Data

V60CW

			V60CW-EZRE-0	V60CW-EZRE-1	V60CW-EZRE-2
Capacity					
Nom Cooling (Gross)	(1)	kW	62.3	62.3	62.3
Fan Power Input (Fan Gain)	(2)	kW	7.00	7.00	7.00
Dimensions					
W x D x H		mm	2170 x 750 x 1940	2170 x 750 x 1940	2170 x 750 x 1940
Weight					
Machine	(3)	kg	498	498	498
Construction			Panels: Galvanised Sheet Steel, Epoxy Baked Powder Paint - Black, (RAL7021)		
Material/Colour			Frame: Aluminium Frame with Aluminium Corners		
Cooling Coil			Copper Tube/Turbulated Hydrophilic Coated Aluminium Fins		
Cooling/Dehum Stages			1 (Modulated) / 1		
Evaporator Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity			2	2	2
Motor Shaft Power	(4)	kW	3.0	3.0	3.0
Speed @ 25Pa / Maximum ESP		rpm	1278 / 1324	1278 / 1324	1278 / 1324
Maximum ESP		Pa	35	35	35
Nominal Airflow		m³/s	4.6	4.6	4.6
Connections					
Inlet/Outlet		mm	42	42	42
Condensate Drain Hose		mm	19	19	19
Filtration			Disposable to BS EN 779 - G4 - 75mm		
Quantity			5	5	5
OPTIONAL EXTRAS					
Electric Heating (Total)		kW	30	30	30
Humidifier					
Capacity		kg/hr	3.0 - 15.0	3.0 - 15.0	3.0 - 15.0
Feed/Drain			3/4" BSPF Braided Flexible Hose / 19mm Hose Connection		
Condensate Pump					
Head		m	10.8	10.8	10.8
Flow		l/m	5	5	5
Drain			10mm Stainless Steel Stub Connection		
Evaporator Fan Options:					
Larger Fan Motor - AC Motor			Centrifugal Forward Curved AC - Designed to 25Pa ESP		
Fan Transmission Type			Belt and Pulley		
Quantity			2	2	2
Motor Shaft Power	(4)	kW	4.0	4.0	4.0
Speed @ Maximum ESP		rpm	1499	1499	1499
Maximum ESP		Pa	230	230	230
Fan Power Input (Fan Gain)	(2)	kW	9.20	9.20	9.20
Optional Fan - EC Motor			Centrifugal Backward Curved EC - Designed to 25Pa ESP		
Fan Transmission Type			Direct Drive		
Quantity			2	2	2
Motor Shaft Power	(4)	kW	N/A	N/A	N/A
Speed @ 25Pa / Maximum ESP		rpm	1510 / 1510	1510 / 1510	1510 / 1510
Maximum ESP		Pa	25	25	25
Fan Power Input (Fan Gain)	(2)	kW	4.18	4.18	4.18
Larger Fan Motor - AC Motor			Centrifugal Forward Curved Direct Drive AC - Designed to 25Pa ESP		
Quantity x Motor Size	(4)	kW	N/A	N/A	N/A
Speed @ Maximum ESP		rpm	N/A	N/A	N/A
Maximum ESP		Pa	N/A	N/A	N/A
Fan Power Input (Fan Gain)	(2)	kW	N/A	N/A	N/A
Low Pressure Hot Water			Copper Tube/Aluminium Fin		
Capacity Gross	(5)	kW	39.2	39.2	39.2
Water Flow (Nominal)		l/s	0.87	0.87	0.87
LPHW Connection Sizes		mm	22	22	22
Threaded Connections					
Brass Male Taper		in	1 1/2	1 1/2	1 1/2

Mechanical
(1) Entering air 24°C/45% RH chilled water in / out: 7°C/12°C.
(2) Fan Gain / Fan power input based upon fan operating with design airflow at 25Pa ESP, These values may change with different ESP.
(3) With Standard forward curved fan motors; Machine weight includes a refrigerant charge /Operating weight includes calculated water volume.
(4) Backward curved EC fan options quote electrical power. All other options quote shaft power.
(5) Based upon low pressure hot water 82°C inlet / 71°C outlet. Air on 20°C. Refer to ***Low Pressure Hot Water (Optional Extra) - X & WX Models***.

Technical Data Upflow

Electrical Data

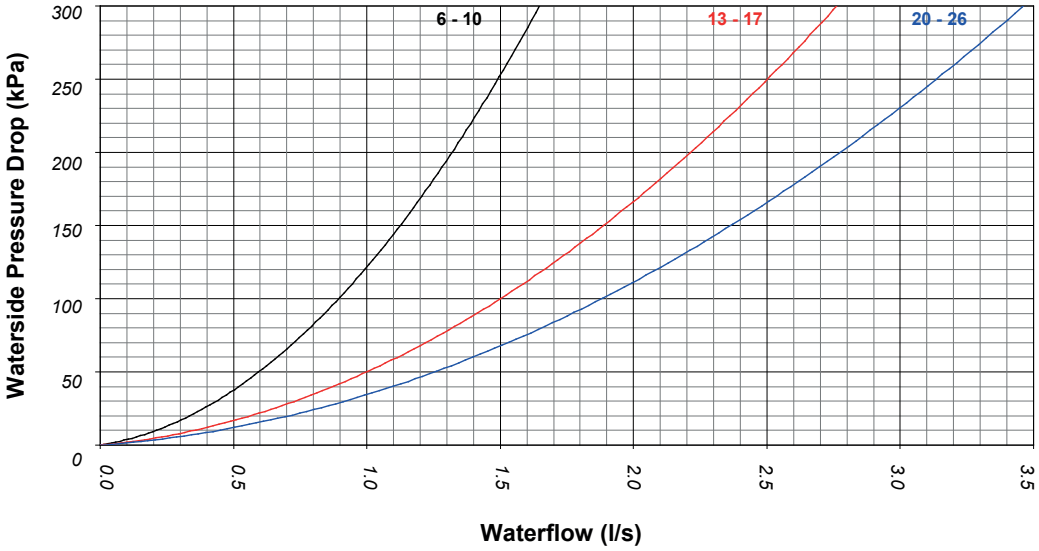
V60CW

		V60CW-EZRE-0	V60CW-EZRE-1	V60CW-EZRE-2
Unit Data Full Function - CW (1)				
Nominal Run Amps	A	72.4	76	131
Maximum Start Amps	A	87.1	90.5	156.5
Recommended Mains Fuse Size	A	100	100	200
Unit Data Cooling Only - CW				
Nominal Run Amps (2)	A	12.9	13.4	22.8
Maximum Start Amps	A	87.1	90.5	156.5
Recommended Mains Fuse Size	A	20	20	32
Max Mains Incoming Cable Size	mm²	35	35	185
Mains Supply	V	400V / 3PH + N / 50HZ	380V / 3PH + N / 60HZ	220V / 3PH / 60HZ
Control Circuit	VAC	24	24	24
Evaporator Fan - EC Motor Per Fan				
Electrical Input Power (3)	kW	3.5	3.5	3.5
Full Load Amps	A	6.18	6.43	11.14
Locked Rotor Amps	A	43.3	45.01	77.98
OPTIONAL EXTRAS				
Electric Heating				
Stage of Reheat		3	3	3
Number of Elements		12	12	12
Rating	kW	30	30	30
Curent per Phase	A	43.3	45.58	78.73
Humidifier				
Capacity	kg/hr	15	15	15
Rating	kW	11.25	11.25	11.25
Full Load Amps	A	16.24	17.09	29.52
Evaporator Fan Options				
Larger Fan Motor - AC Motor - Per Fan				
Electrical Input Power (3)	kW	4.6	4.6	4.6
Full Load Amps	A	8.12	8.12	14.45
Locked Rotor Amps	A	60.9	60.9	101.15
Standard Size Motor - EC Motor - Per Fan				
Electrical Input Power (3)	kW	3.1	3.1	3.1
Full Load Amps	A	4.8	4.8	4.8

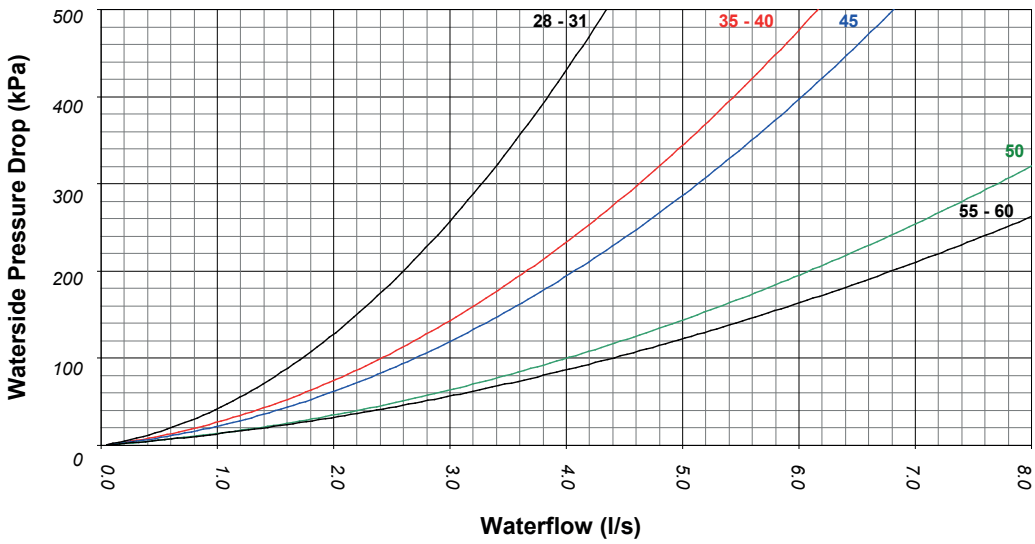
Electrical
(1) Values given for full function units (incl. electric heating, humidification) with standard forward curved fan motors, for optional data, please contact Airedale.
(2) Values given for Cooling only units incl. evaporator fan for optional data, please contact Airedale.
(3) Electrical input power relates to the maximum absorbed electrical power. Actual operating fan power input is shown in the mechanical data tables.

Technical Data Downflow
Chilled Water Pressure Drop

V6CW - V26CW



V28CW - V60CW



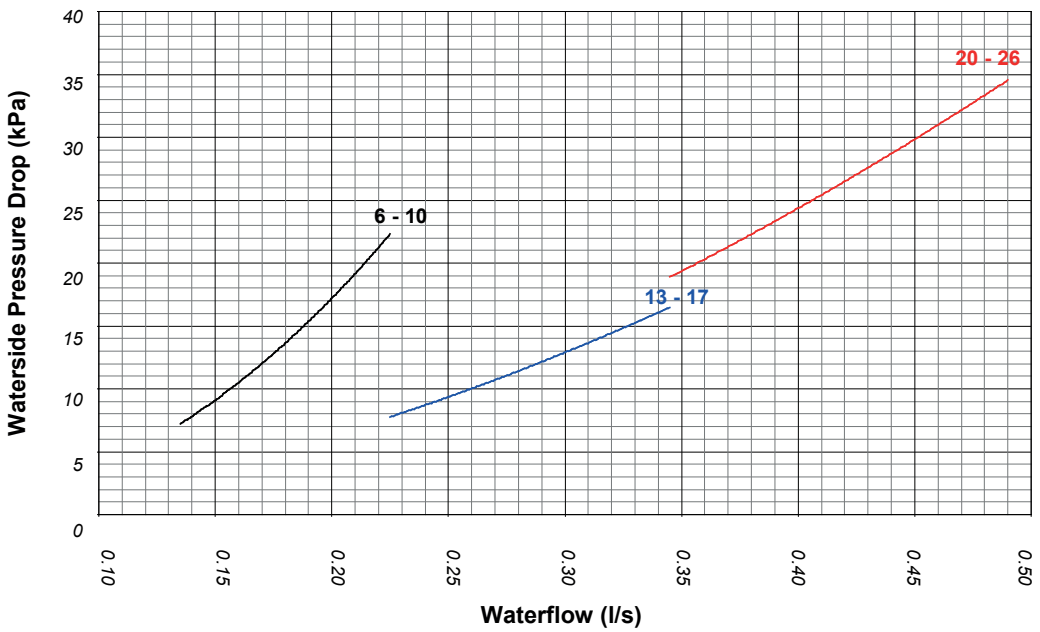
(1) Includes coil, 3 port valve and pipework.
(2) To calculate 3 port valve pressure drop:

ΔP valve = $\left(\frac{Q}{M}\right)^2$ where ΔP = Pressure Drop in kPa, Q = Water Flow Rate in l/s and $M = \left(\frac{Kv}{36}\right)$

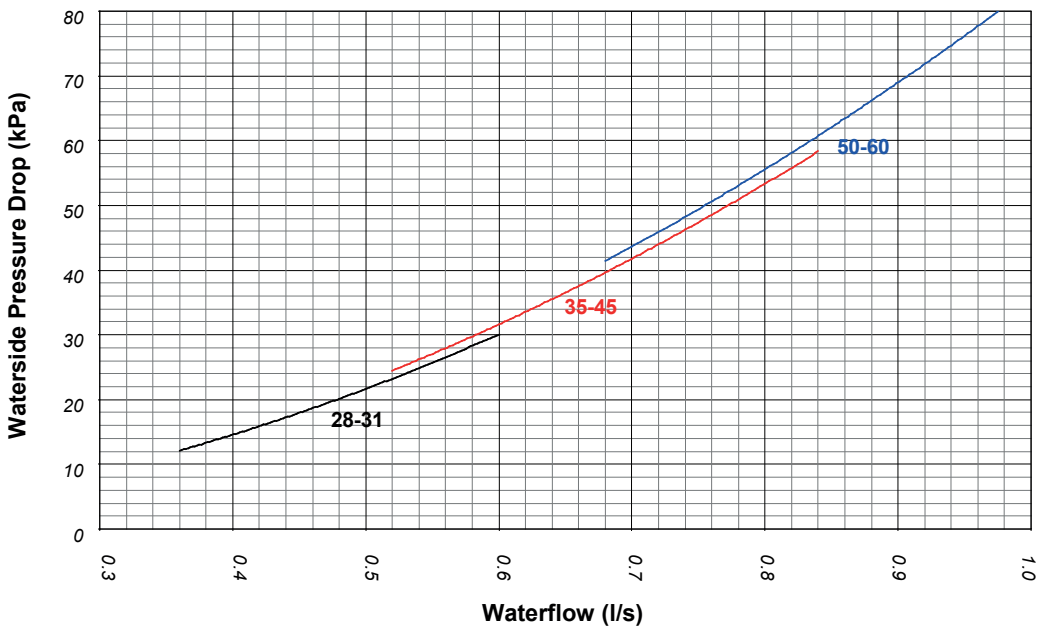
(3) Fluid 100% water, for glycol use, refer to Ethylene Glycol Correction Factors.

Technical Data Downflow
Hydronic Data Low Pressure Hot Water

V6CW - V26CW



V28CW - V60CW



(1) Includes coil, 3 port valve and pipework.

(2) To calculate 3 port valve pressure drop

ΔP valve = $\left(\frac{Q}{M}\right)^2$ where ΔP = Pressure Drop in kPa, Q = Water Flow Rate in l/s and M = $\left(\frac{Kv}{36}\right)$

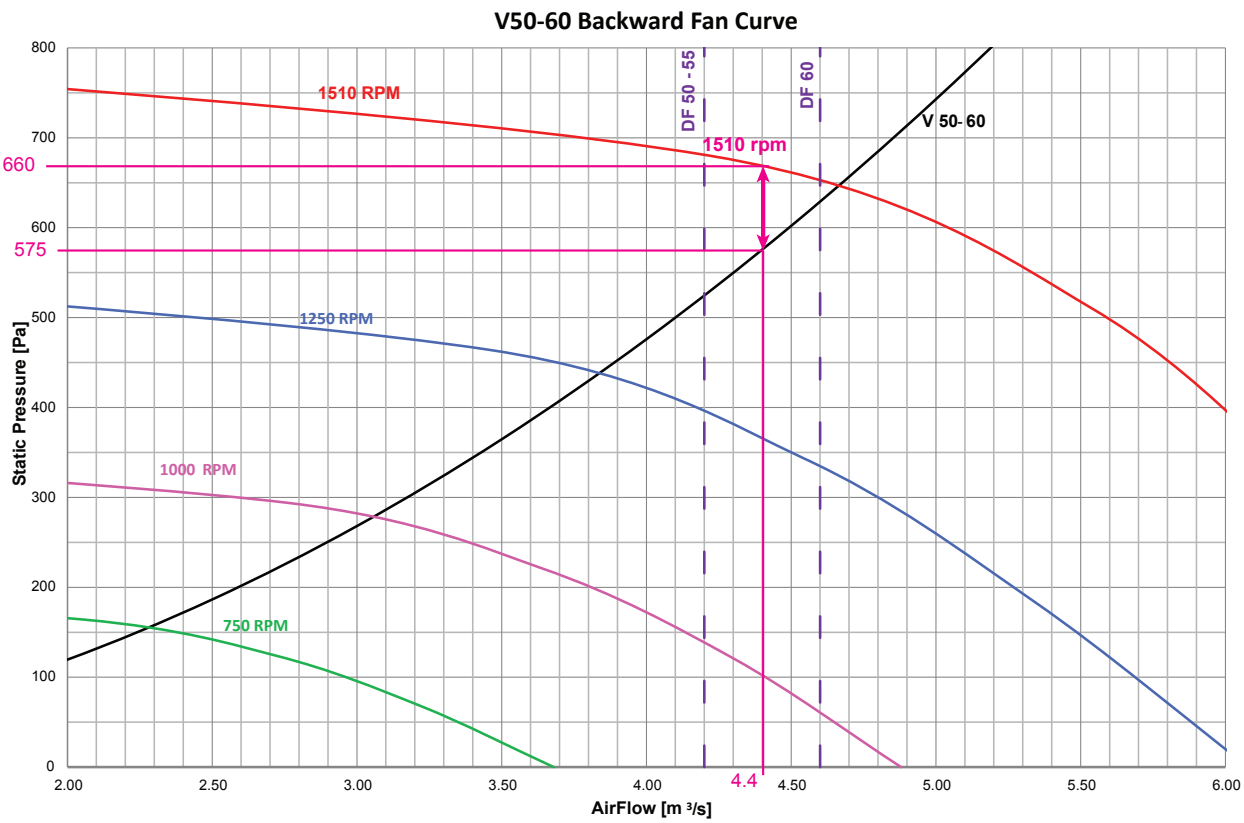
(3) Fluid 100% water, for glycol use, refer to ***Ethylene Glycol Correction Factors***.

Fan Data

Calculating Total Static Pressure

Example
Indoor Unit Model Ref = V50-CW-EZRE-2
Design Air Volume = 4.4m³/s
Design External Static Pressure (ESP) = 85Pa

- Plot the Design Air Volume from the X Axis vertically.
- Where the X Axis and the System Curve intersect, plot a line to the Y Axis, to establish the Internal Static Pressure (ISP)
- Calculate the Total Static Pressure (TSP) of the system thus:
  ISP + ESP = TSP
- Using the TSP, plot a line from the Y Axis to intersect with the Design Air Volume line. Where the line intersects, an approximate Input Voltage can be estimated between those noted on the graphs.

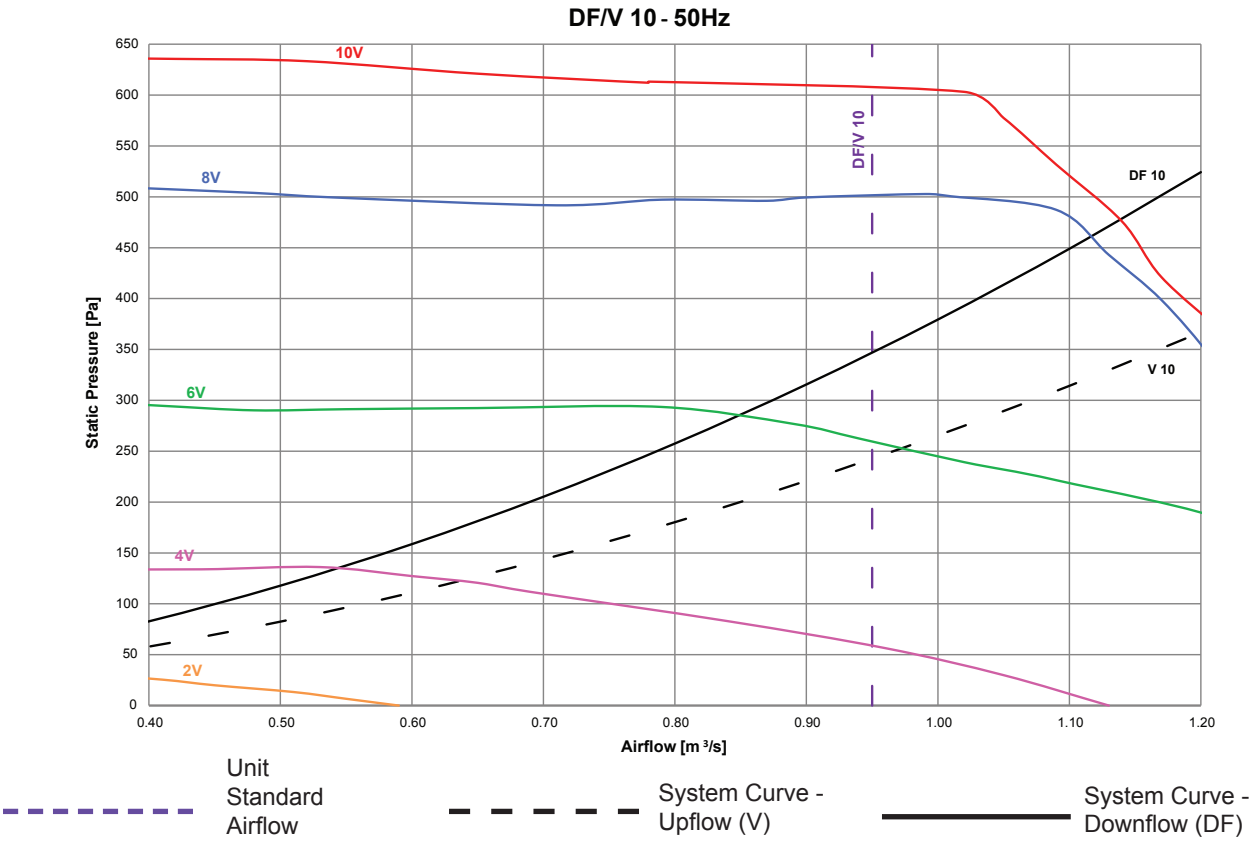


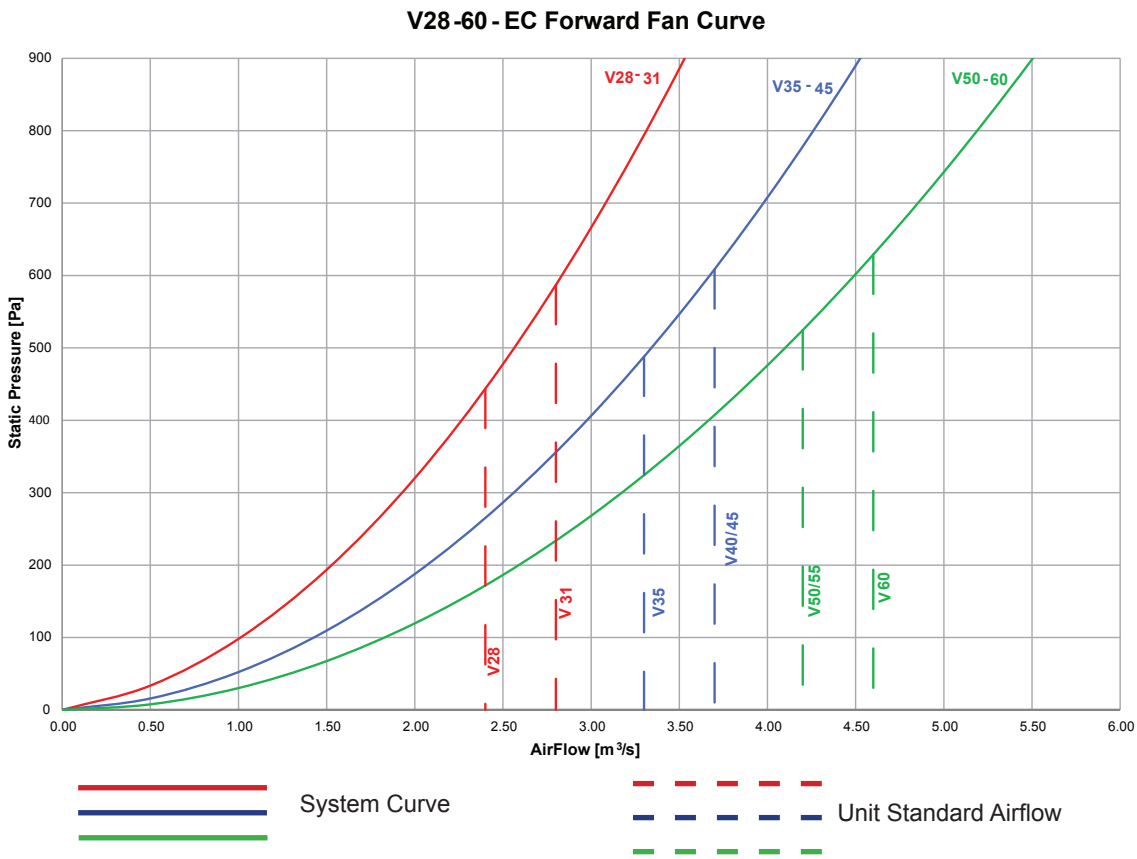
Internal Static Pressure + External Static Pressure = Total Static Pressure

e.g. 575+85 = 660

Fan Speed Data

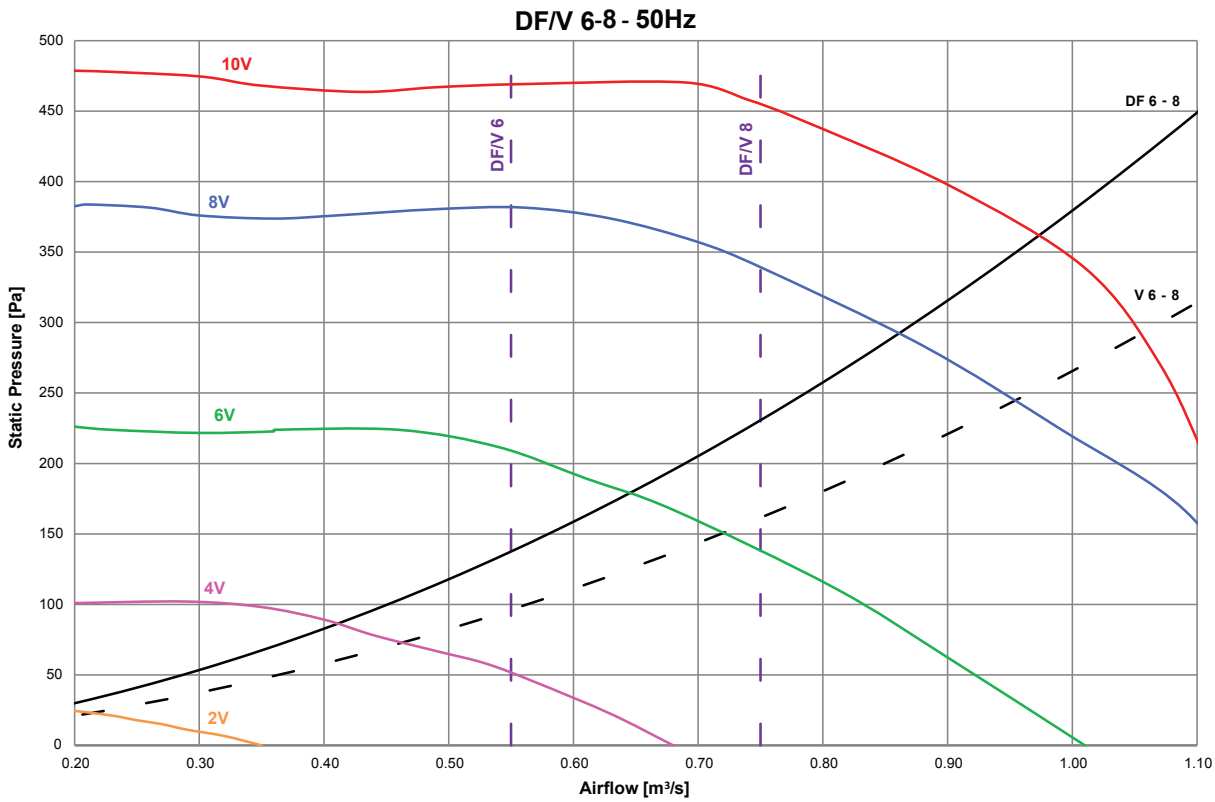
Key



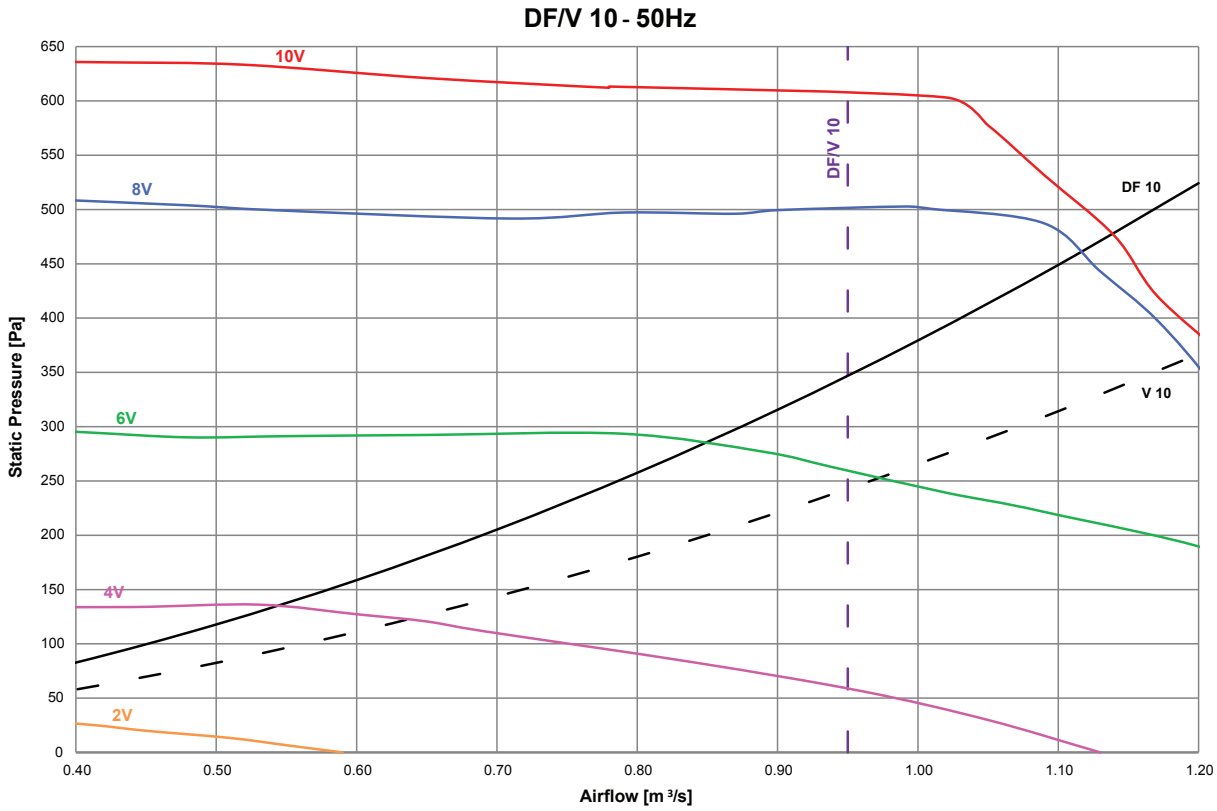


EZRE Chilled Water 400V 50Hz (-0)

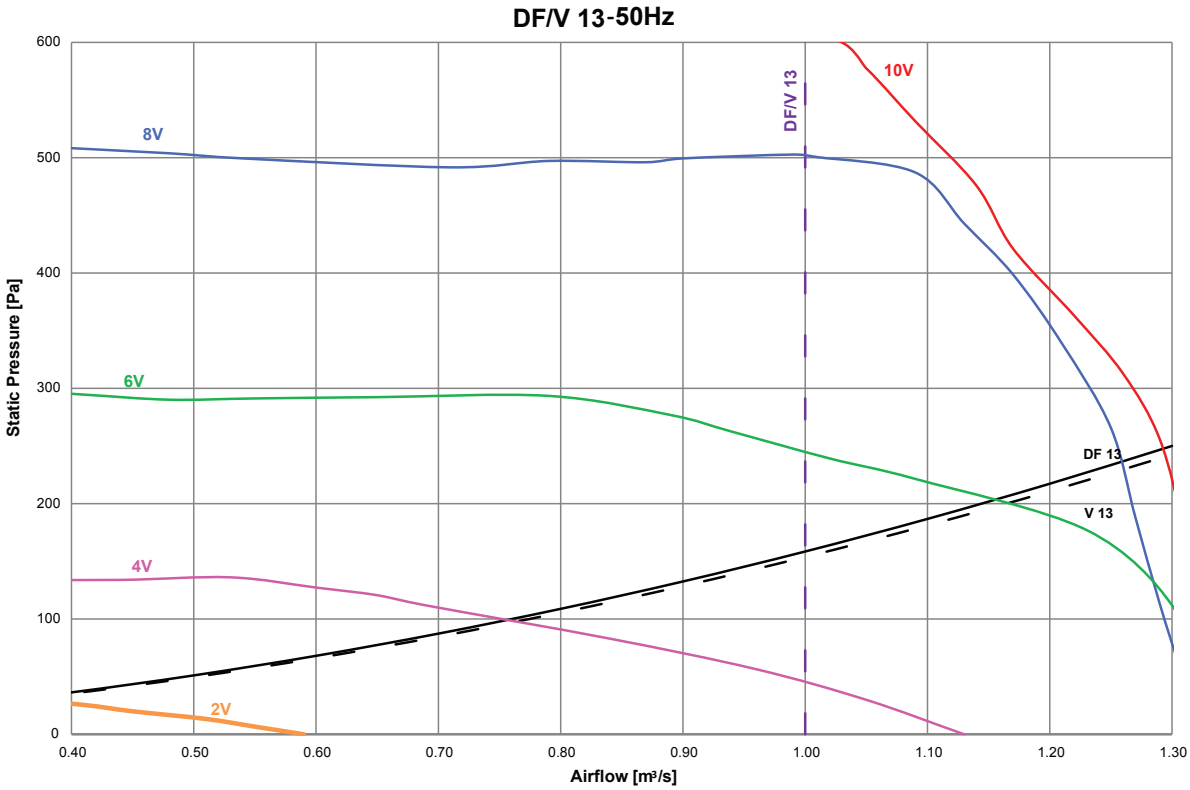
DF/V 6-8 - 50Hz



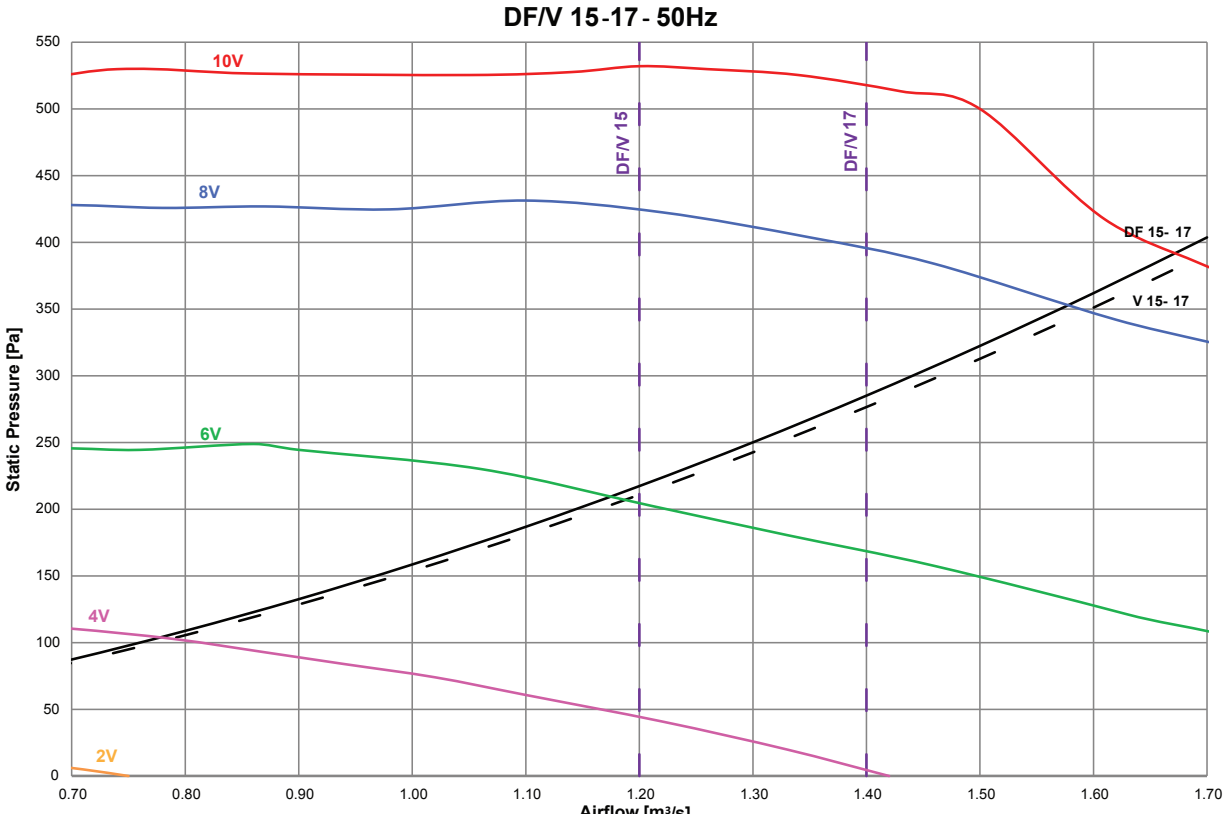
DF/V 10 - 50Hz



EZRE Chilled Water 400V 50Hz (-0)
DF/V 13 - 50Hz

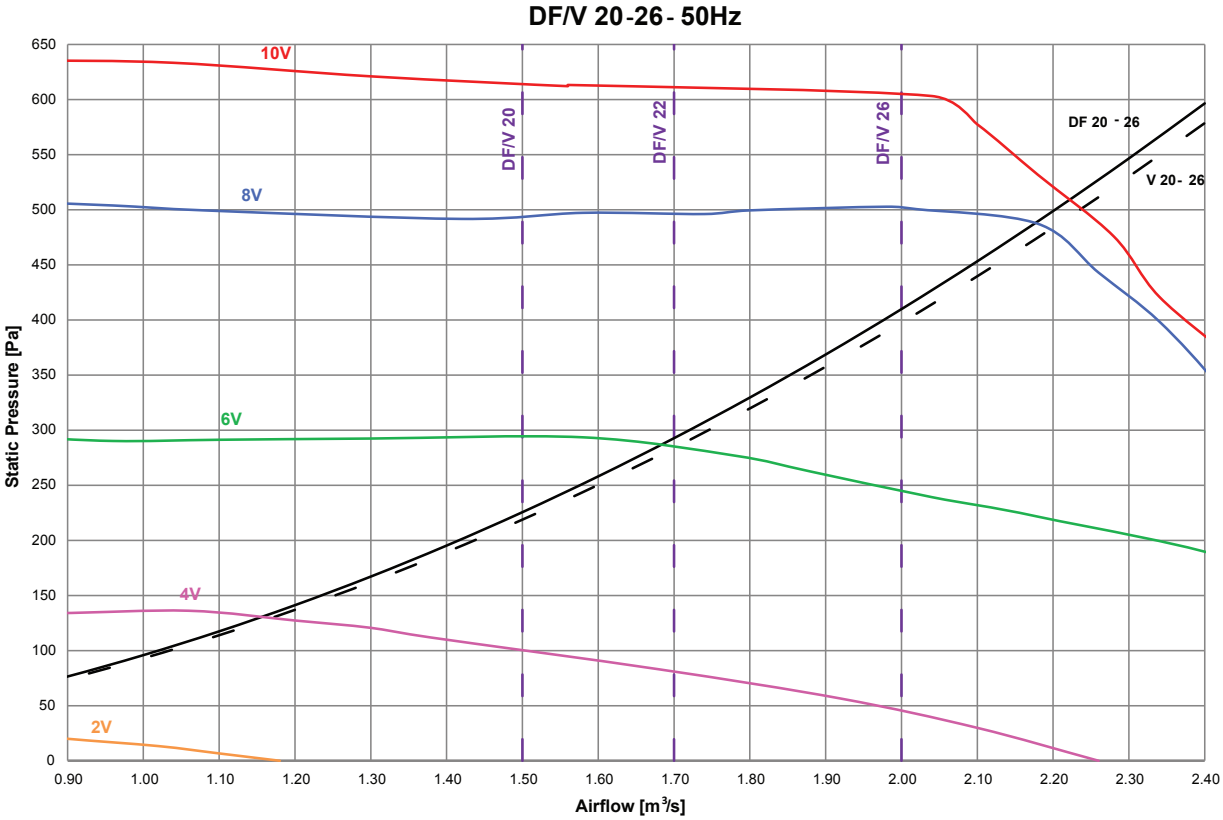


DF/V 15 - 17 - 50Hz

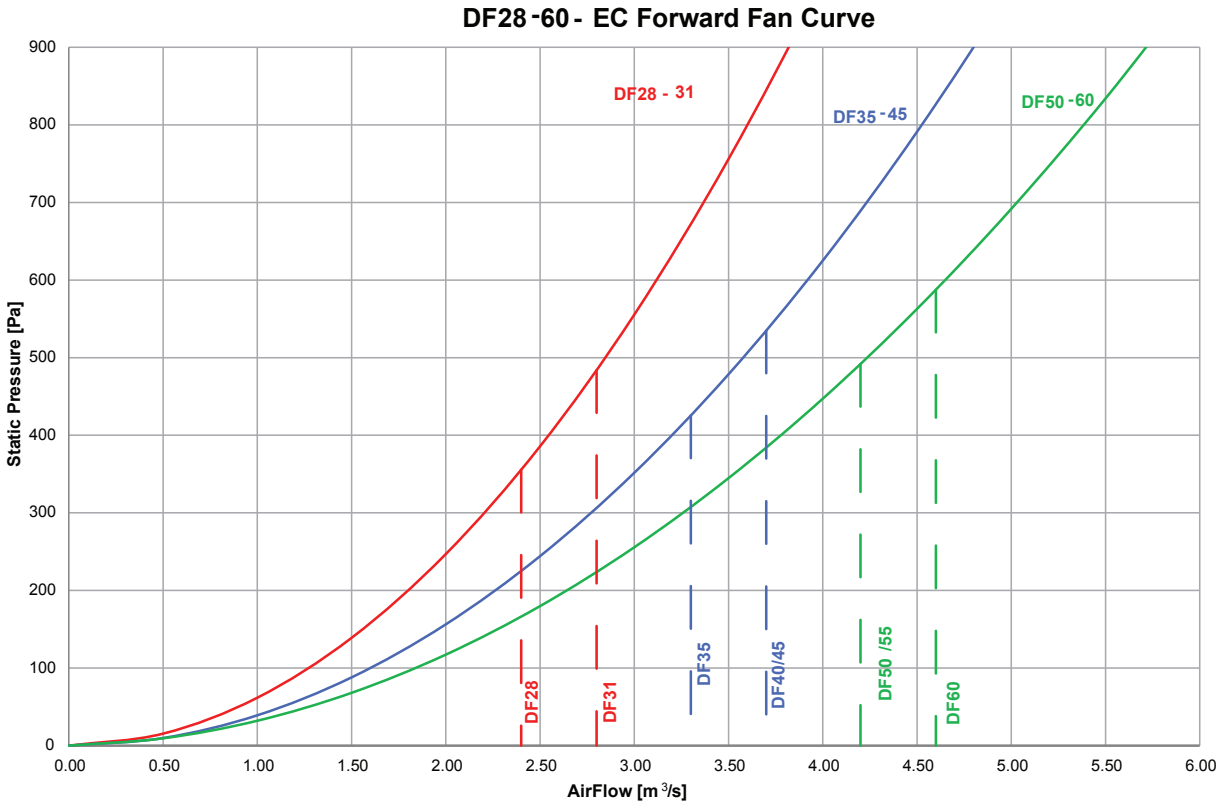


EZRE Chilled Water 400V 50Hz (-0)

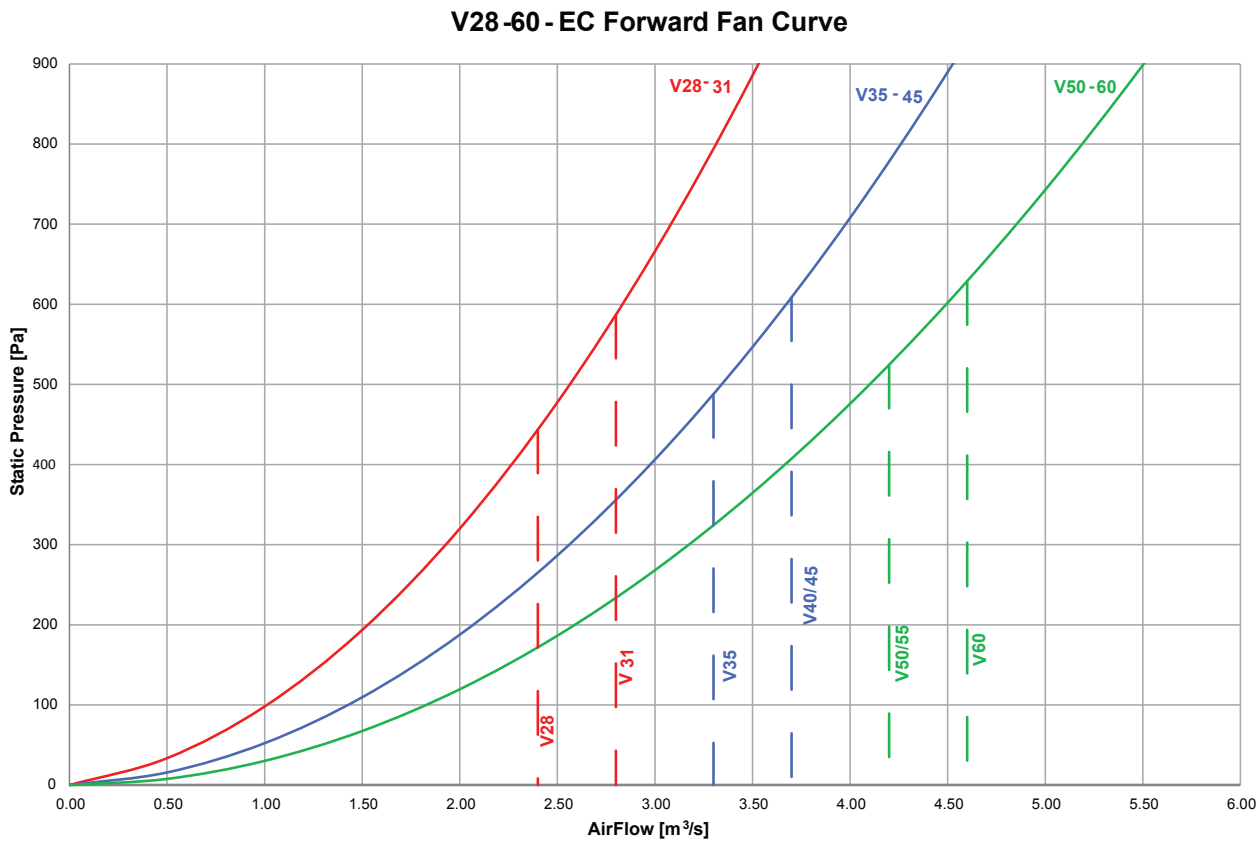
DF/V 20 - 26 - 50Hz



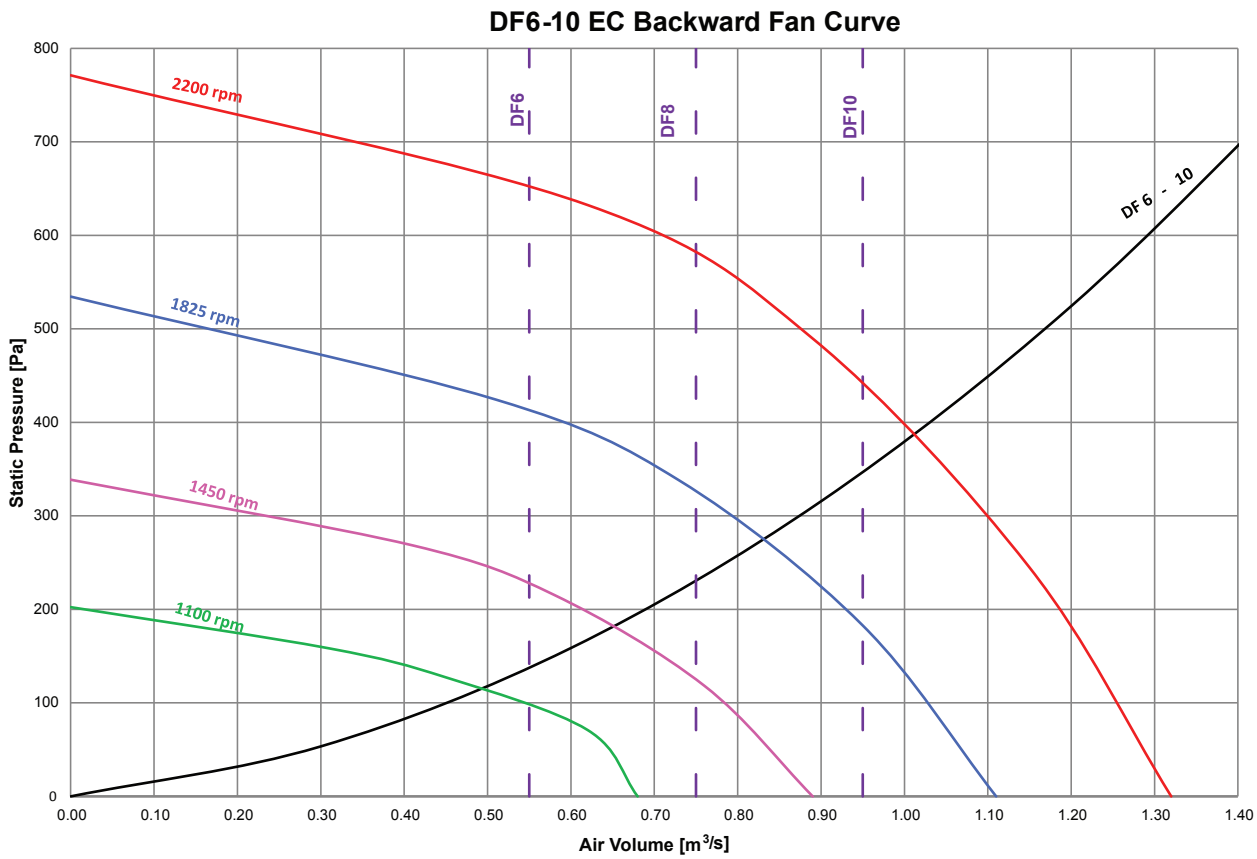
DF/V 28- 60 - EC Forward Fan Curve



EZRE Chilled Water 400V 50Hz (-0)
V28 - 60 - EC Forward Fan Curve

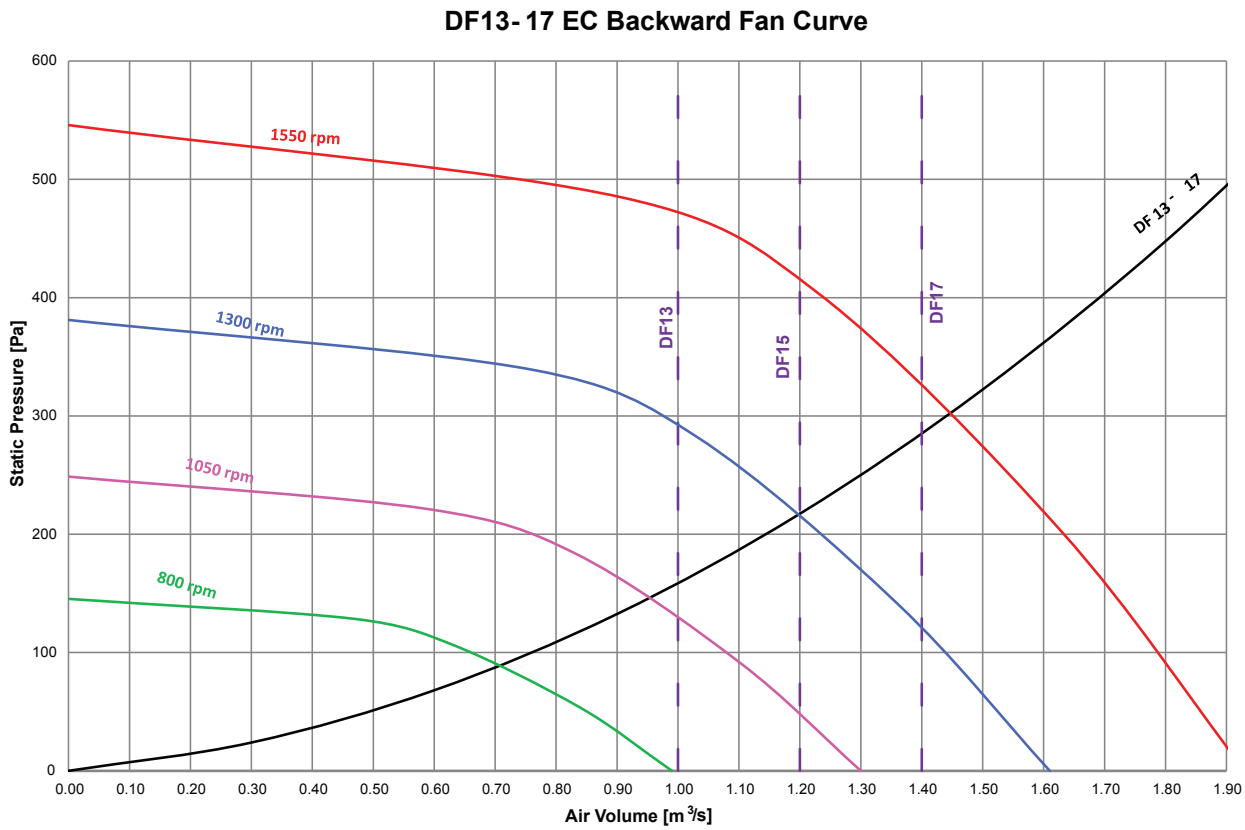


DF6 - 10 - EC Backward Fan Curve

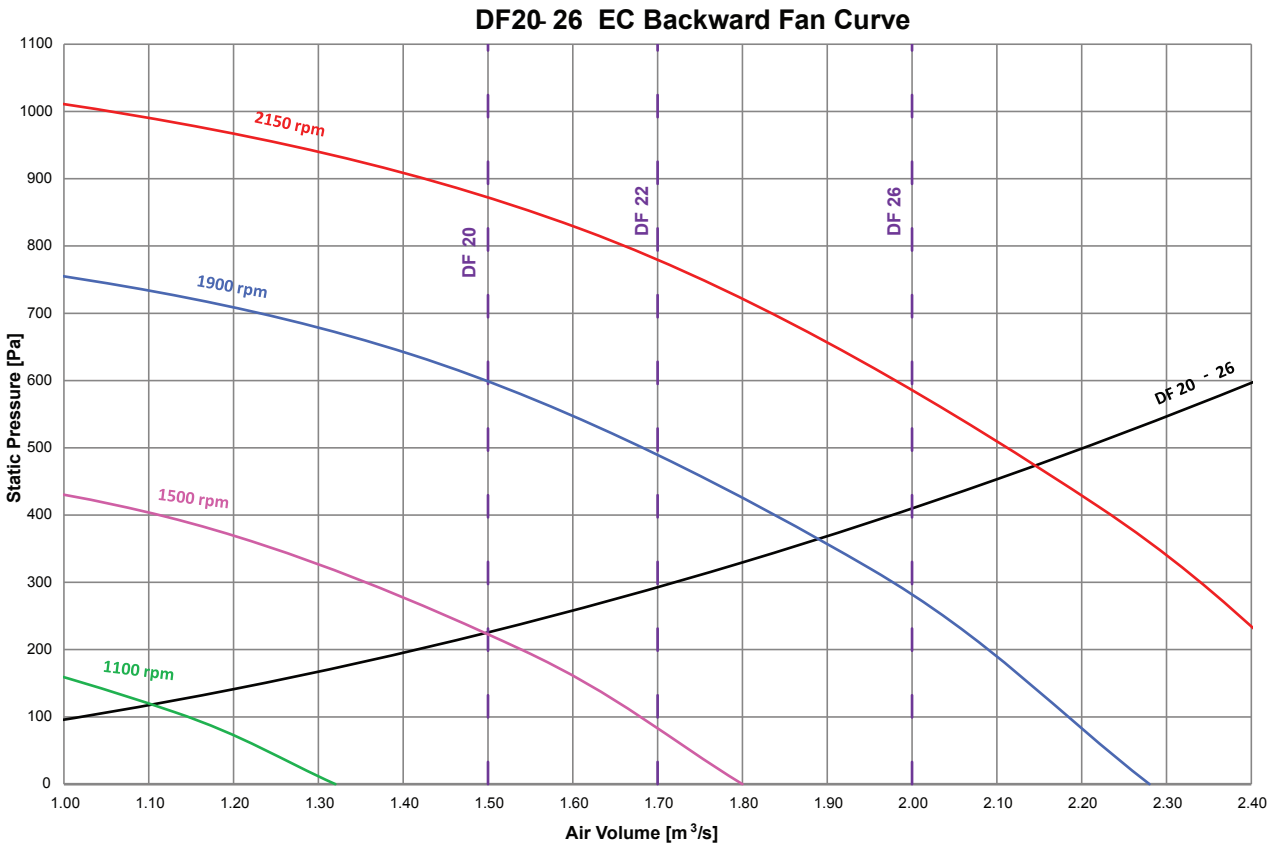


EZRE Chilled Water 400V 50Hz (-0)

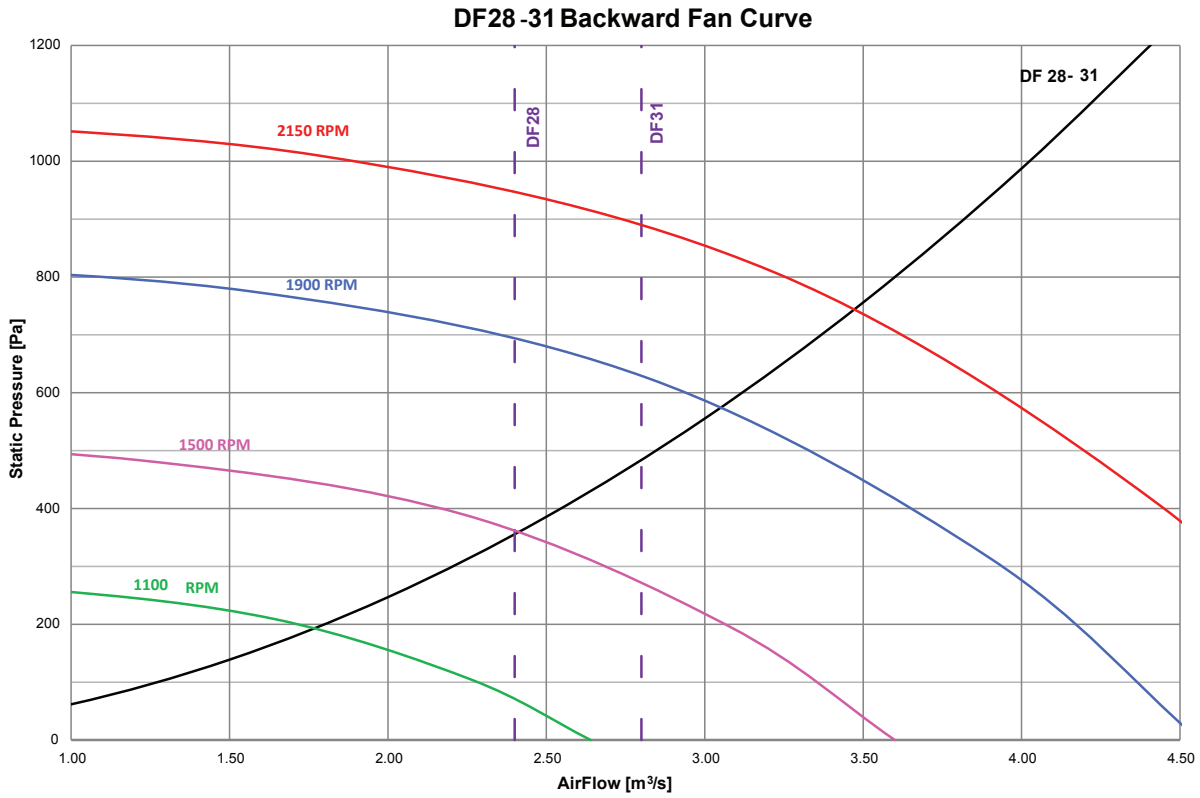
DF13 - 17 - EC Backward Fan Curve



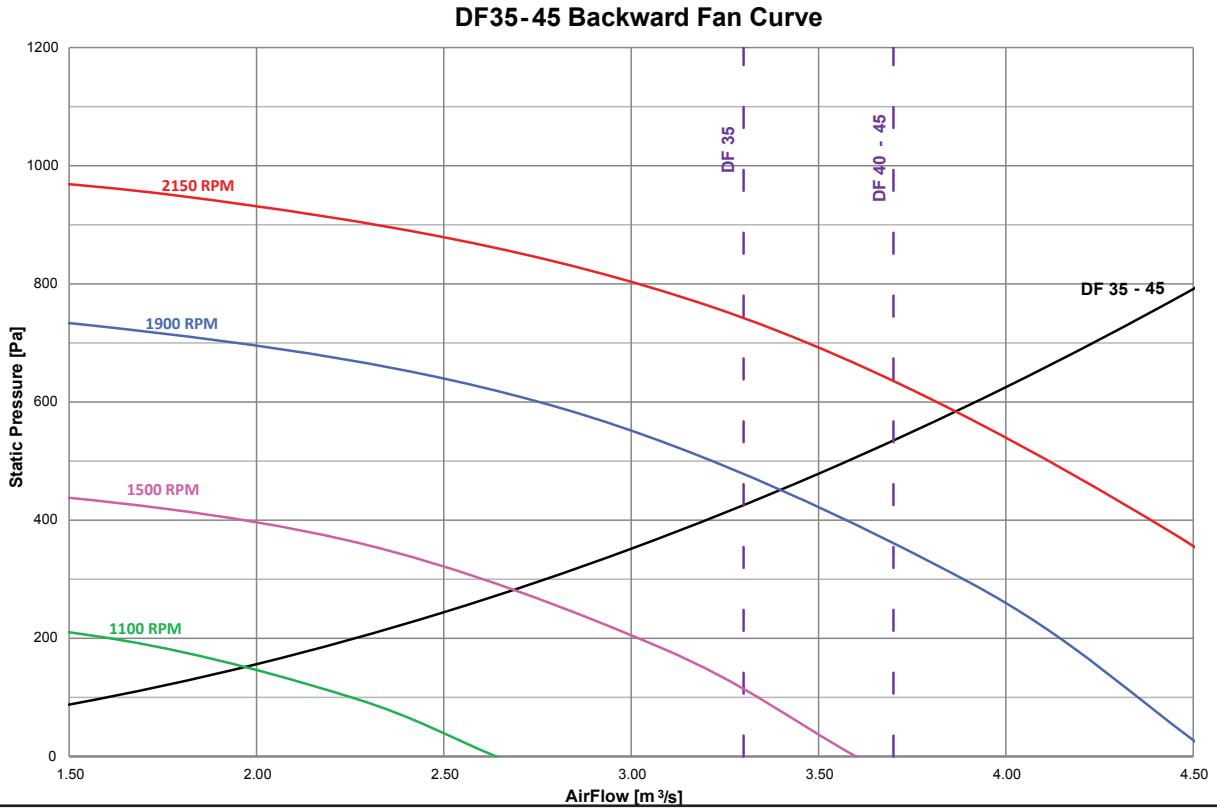
DF20 - 26 - EC Backward Fan Curve



EZRE Chilled Water 400V 50Hz (-0)
DF28 - 31 - Backward Fan Curve

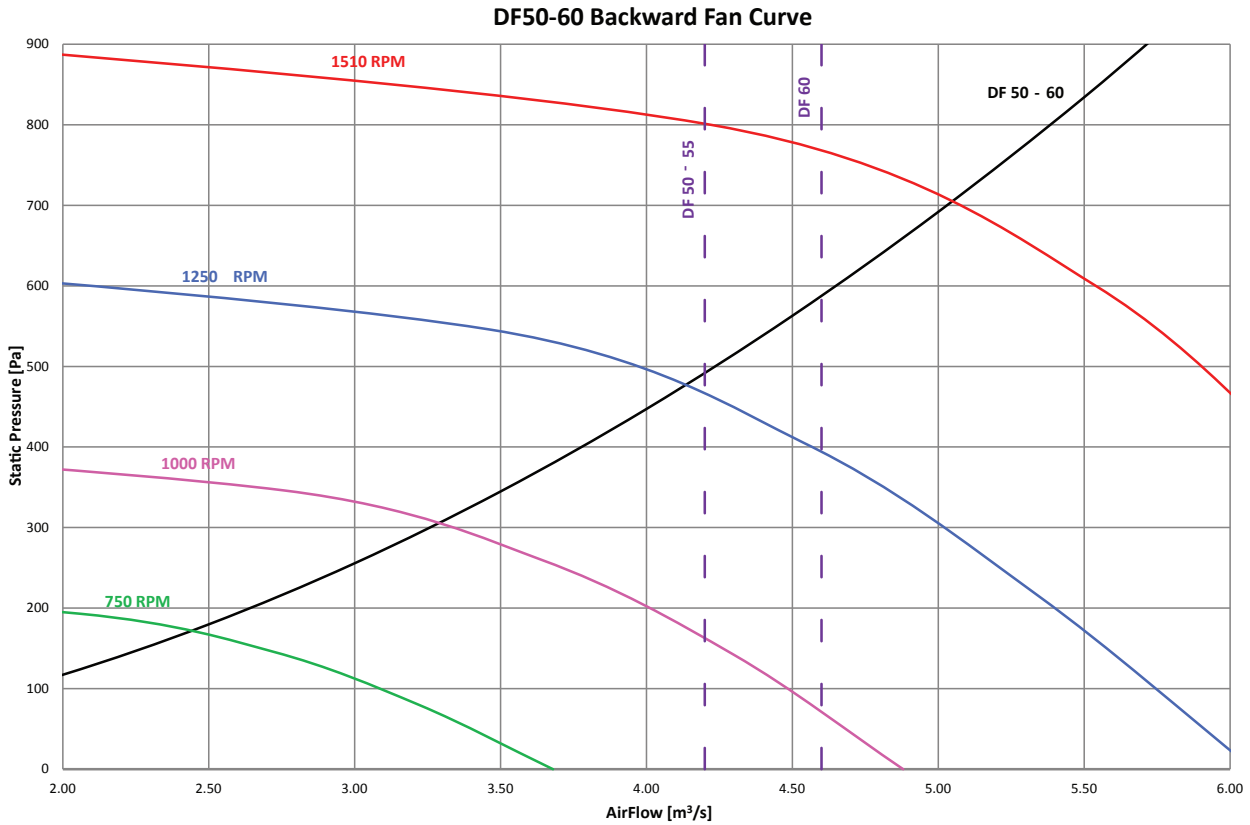


DF35 - 45 Backward Fan Curve

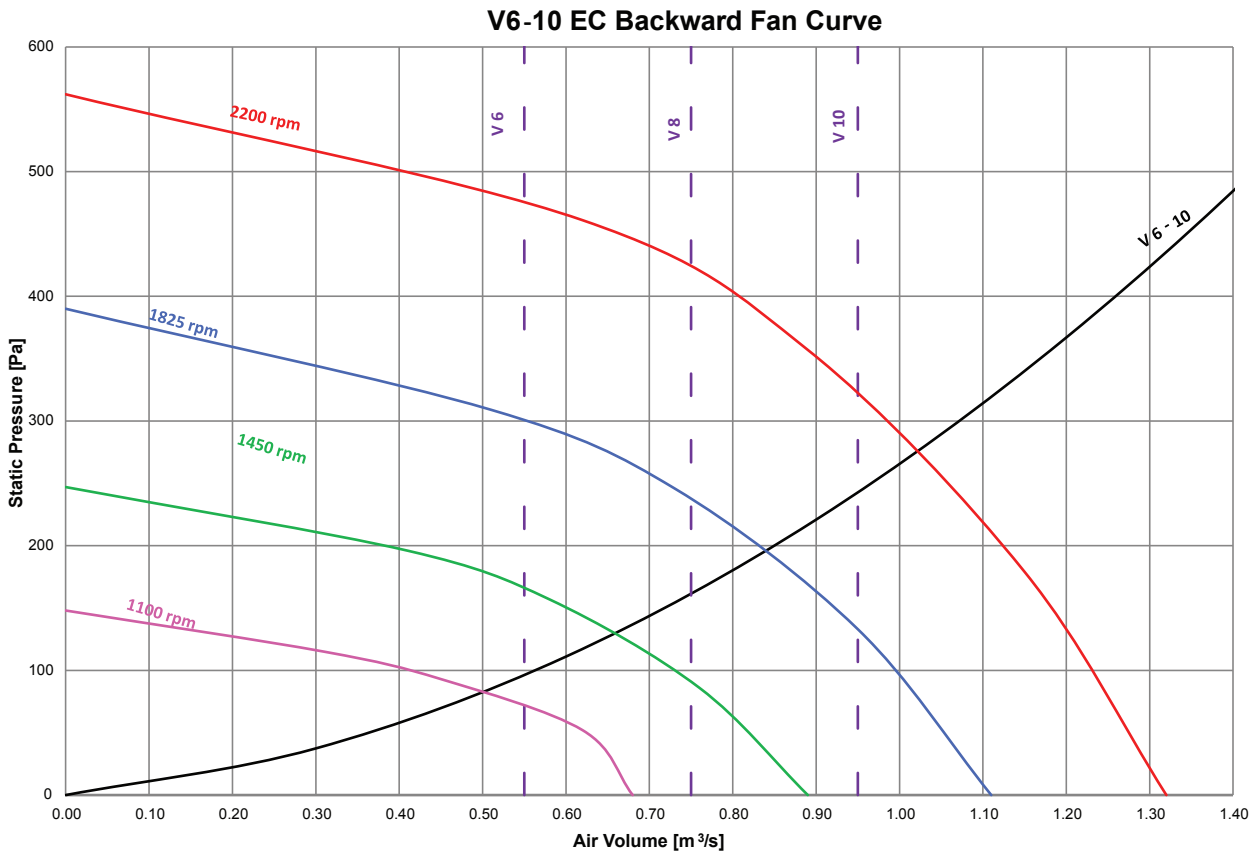


EZRE Chilled Water 400V 50Hz (-0)

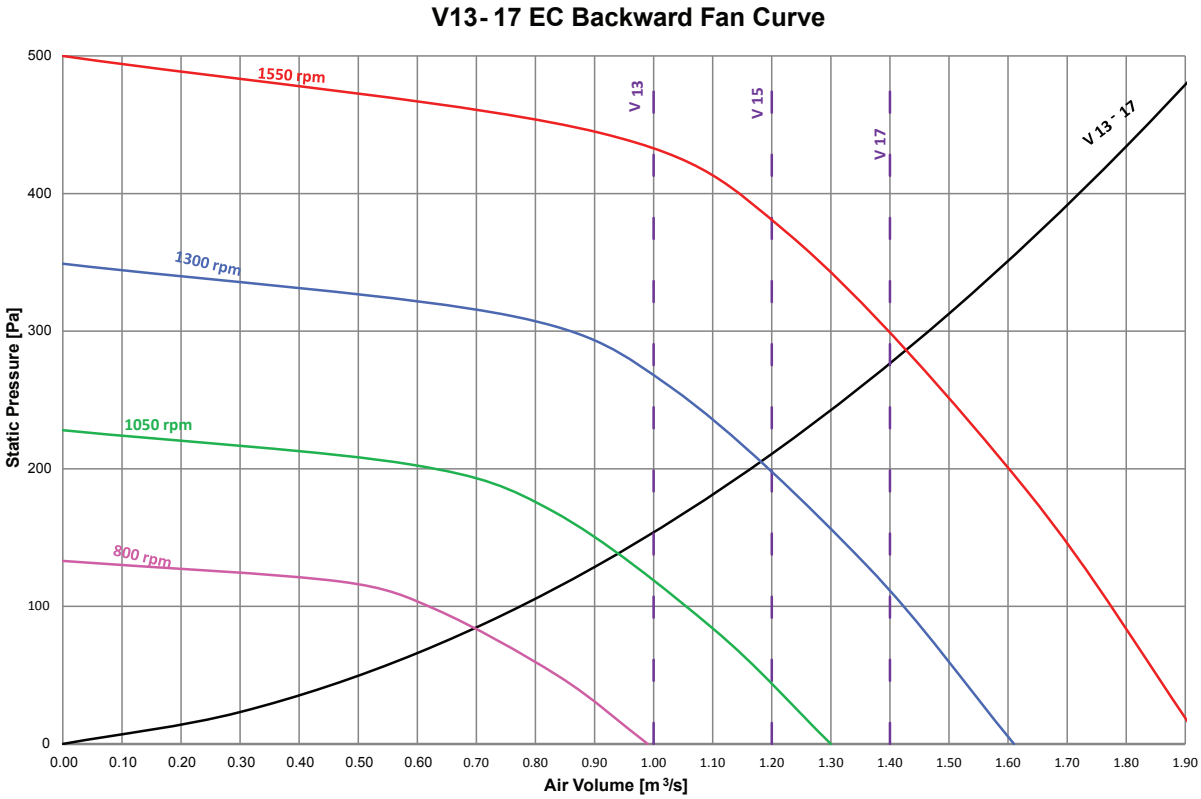
DF50 - 60 Backward Fan Curve



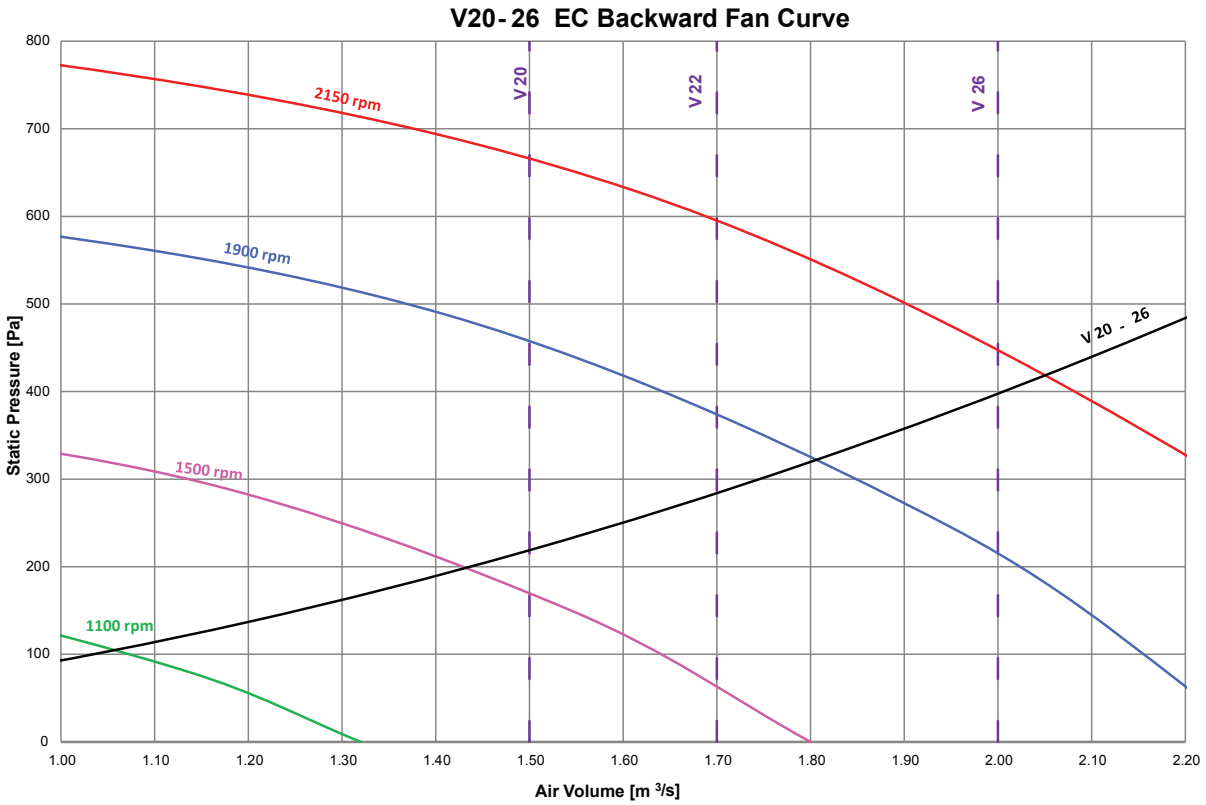
V6 - 10 EC Backward Fan Curve



EZRE Chilled Water 400V 50Hz (-0)
V13 - 17 EC Backward Fan Curve

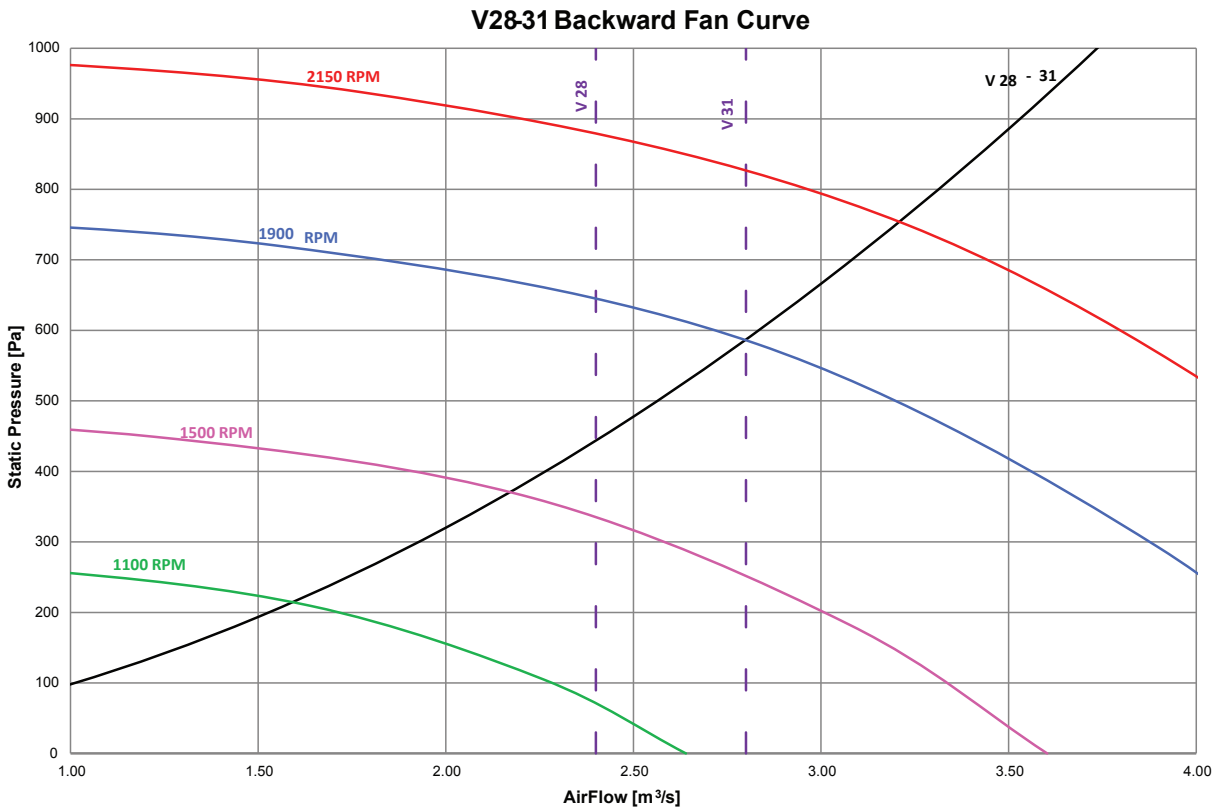


V20 - 26 - EC Backward Fan Curve

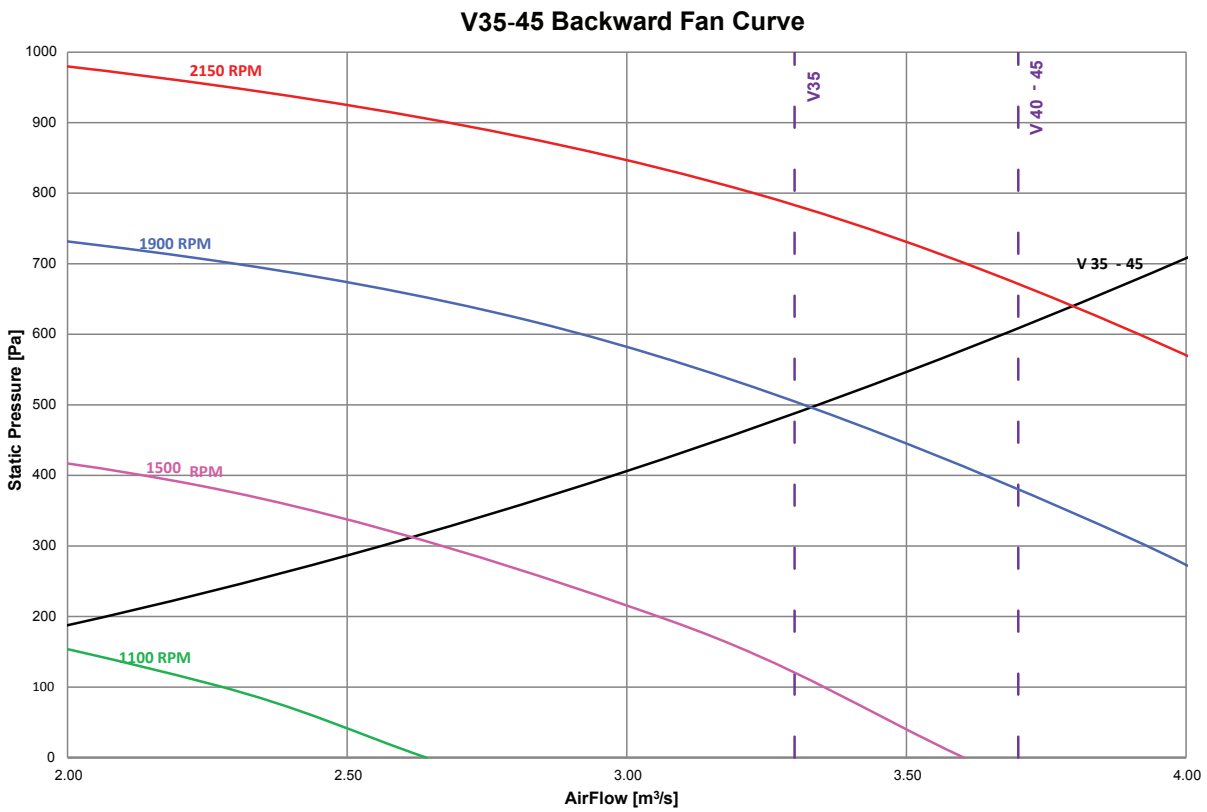


EZRE Chilled Water 400V 50Hz (-0)

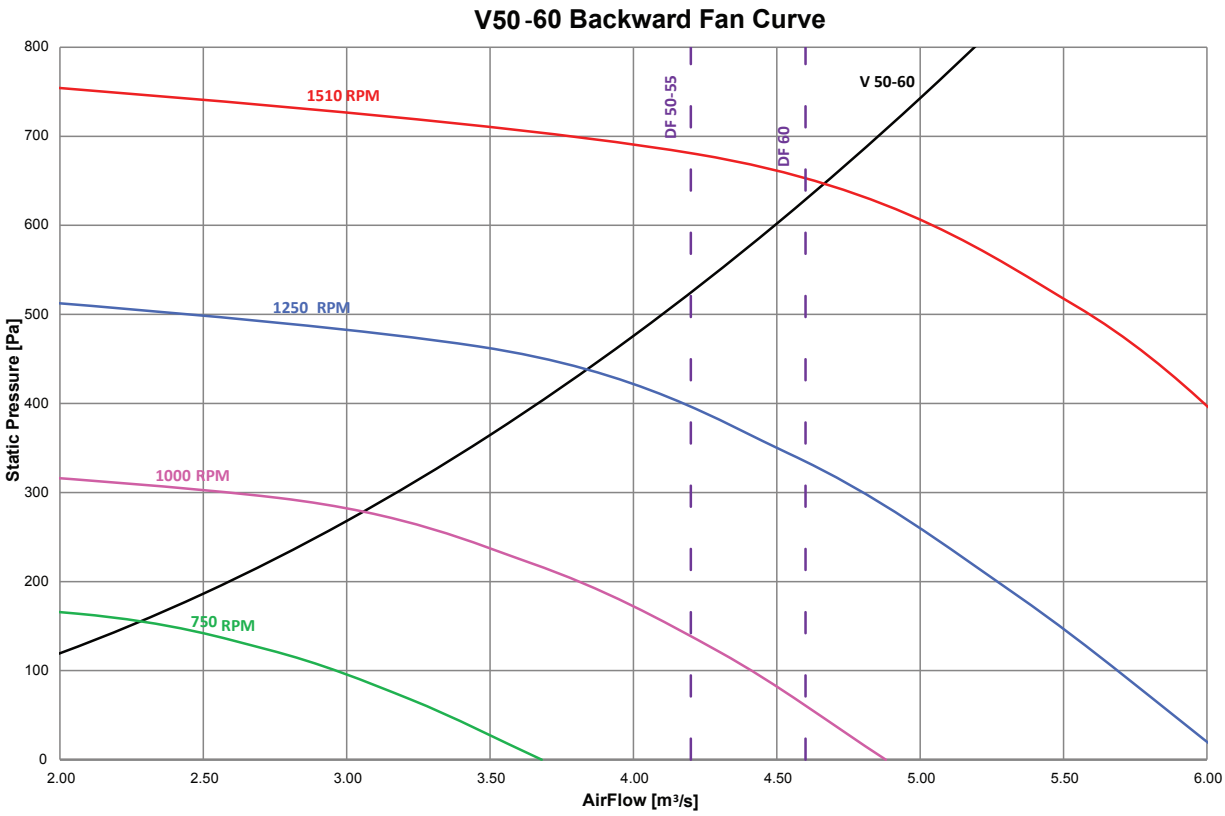
V28 - 31 Backward Fan Curve



V35 - 45 Backward Fan Curve

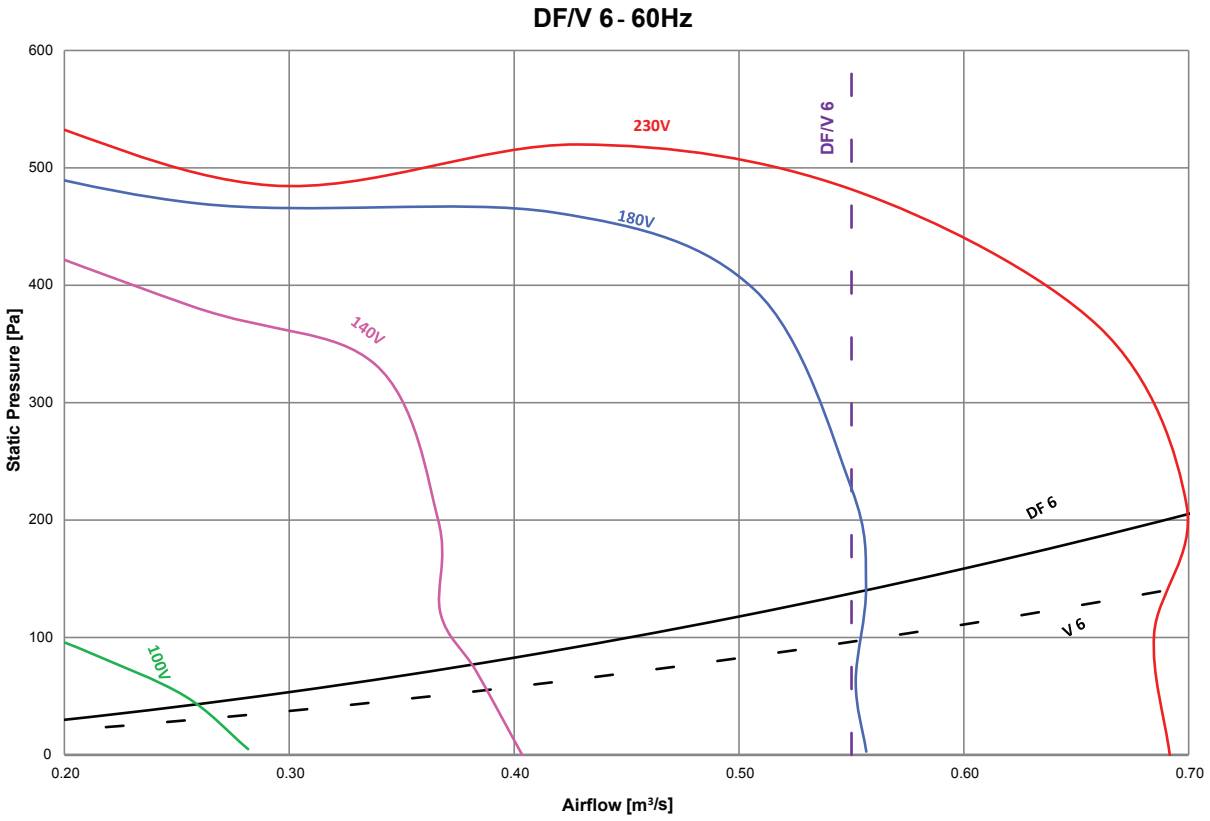


EZRE Chilled Water 400V 50Hz (-0)
V50 - 60 Backward Fan Curve

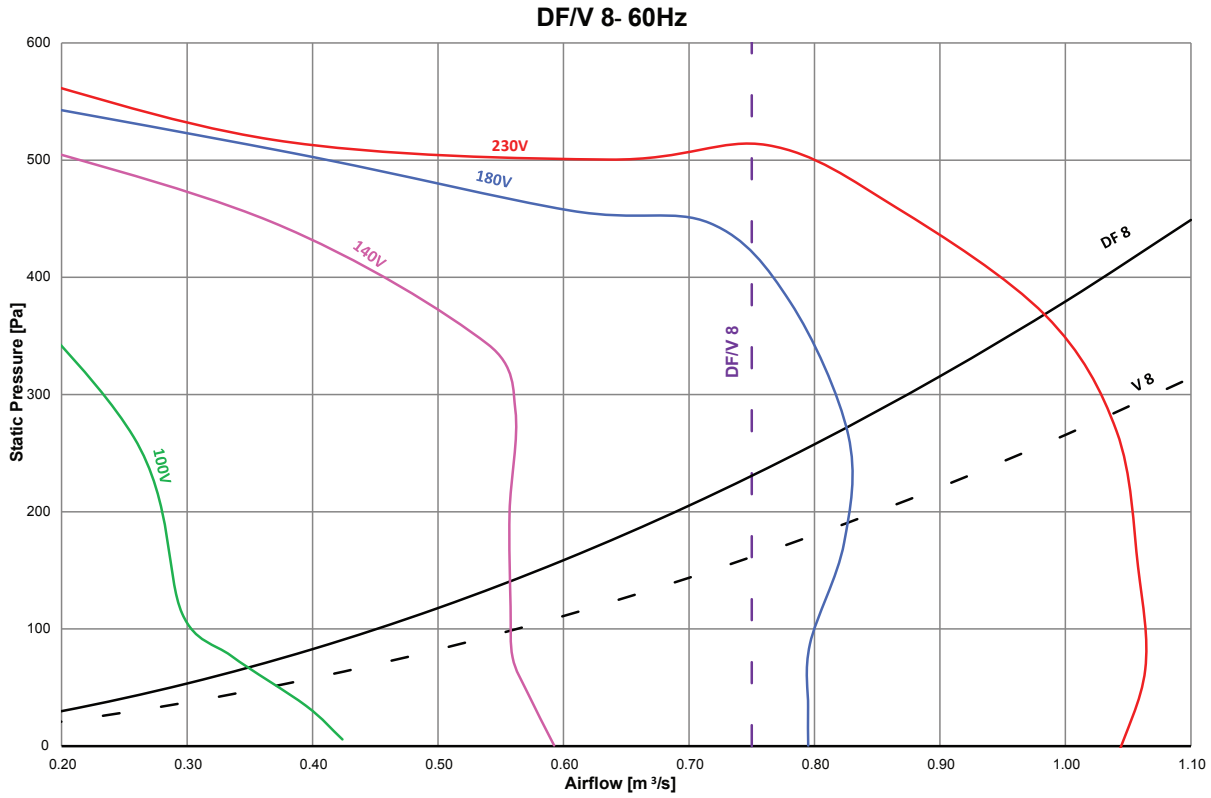


EZRE Chilled Water 380V 60Hz (-1)

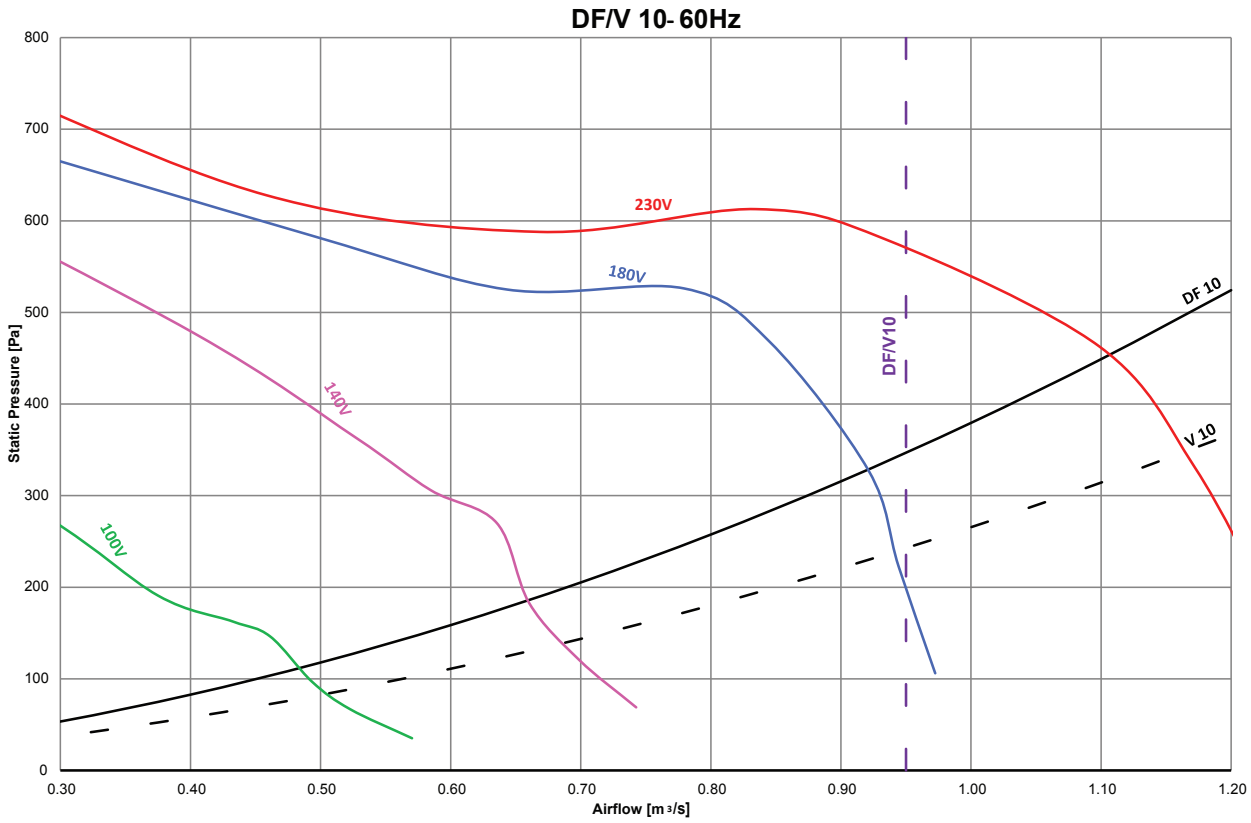
DF/V 6 - 60Hz



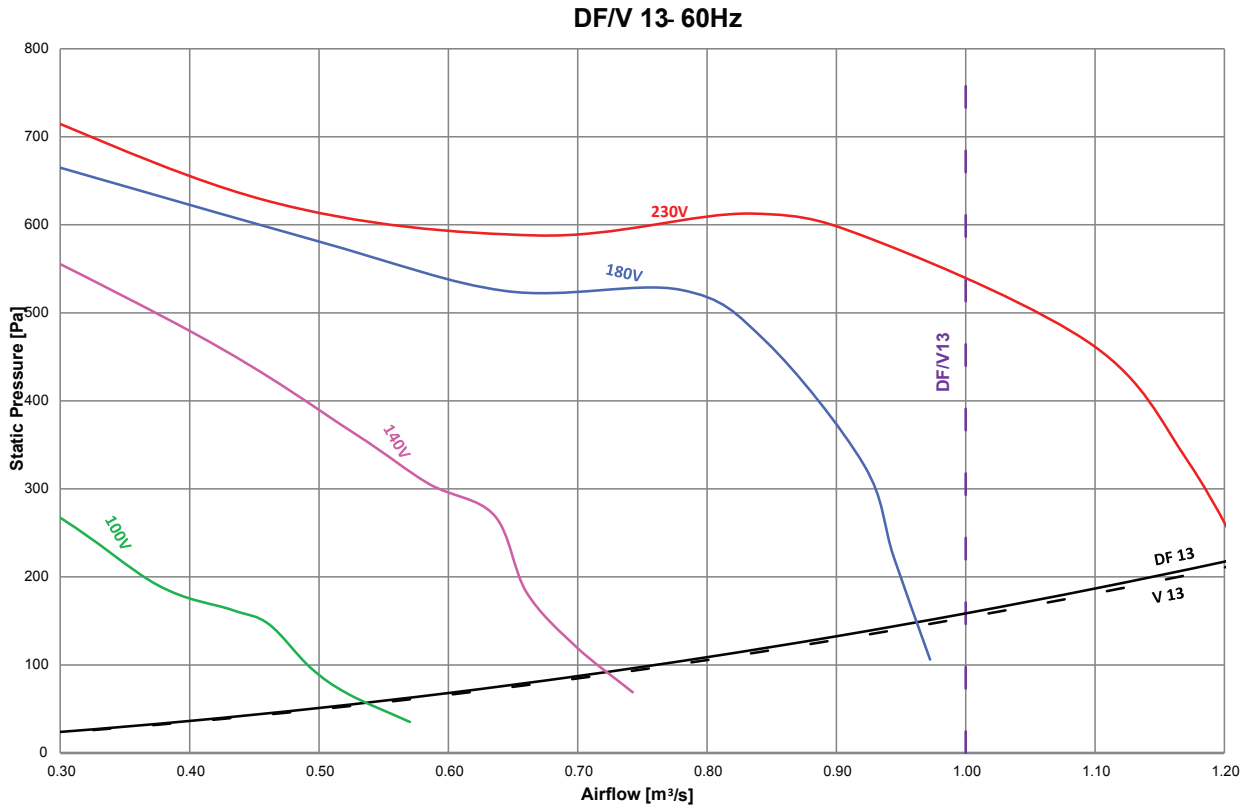
DF/V8 - 60Hz



EZRE Chilled Water 380V 60Hz (-1)
DF/V10 - 60Hz

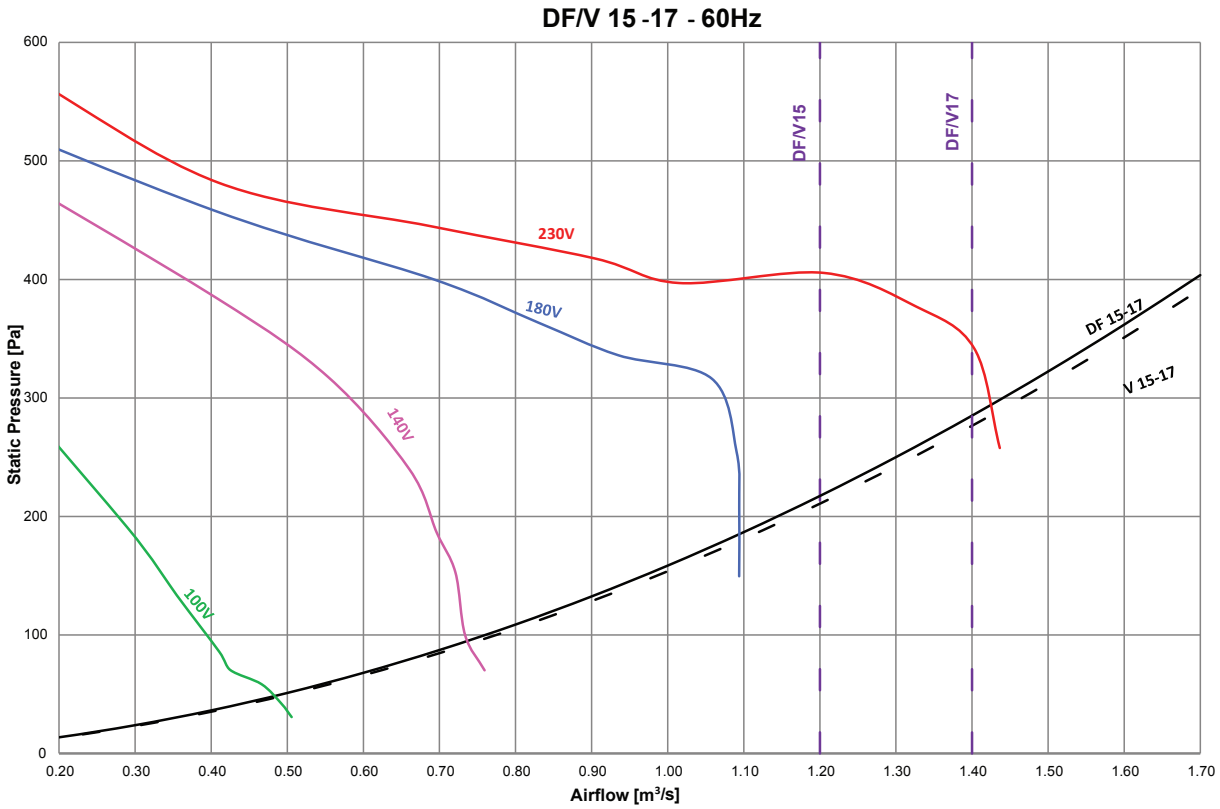


DF/V13 - 60Hz

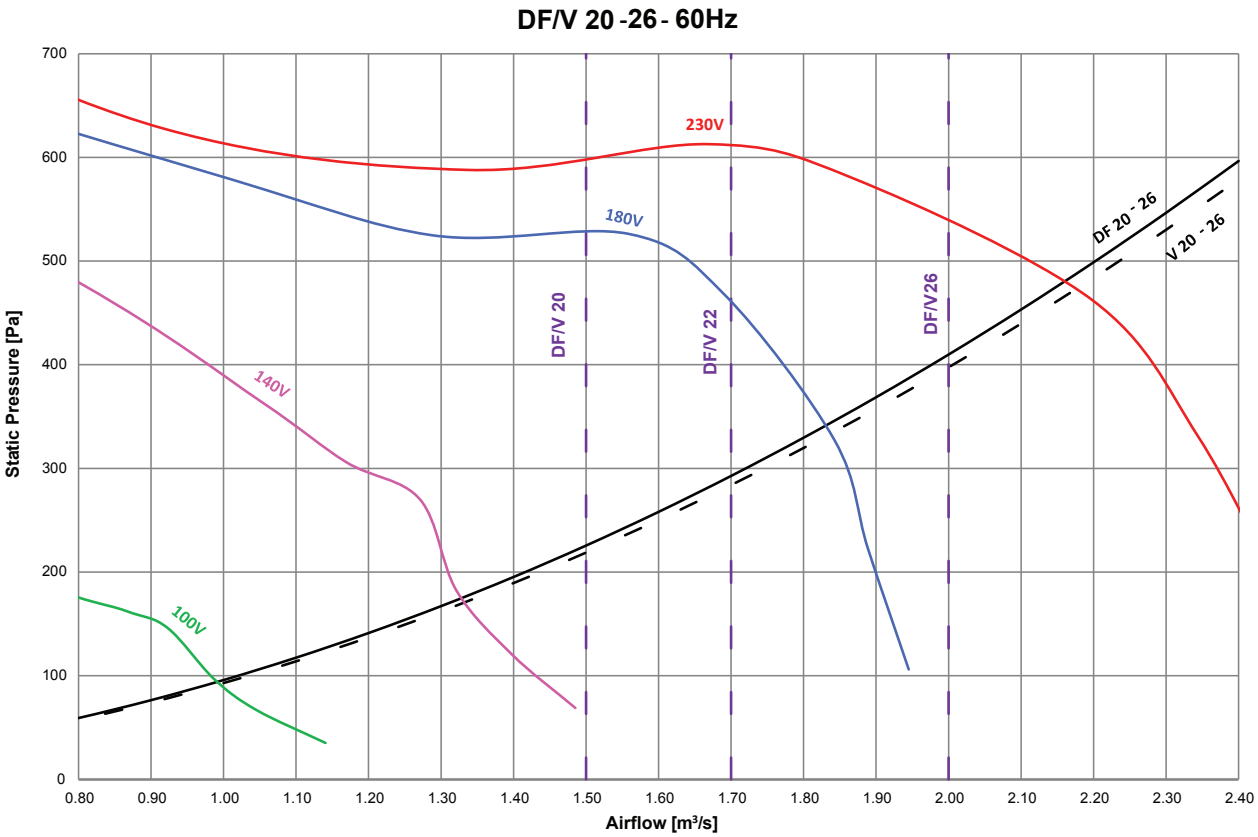


EZRE Chilled Water 380V 60Hz (-1)

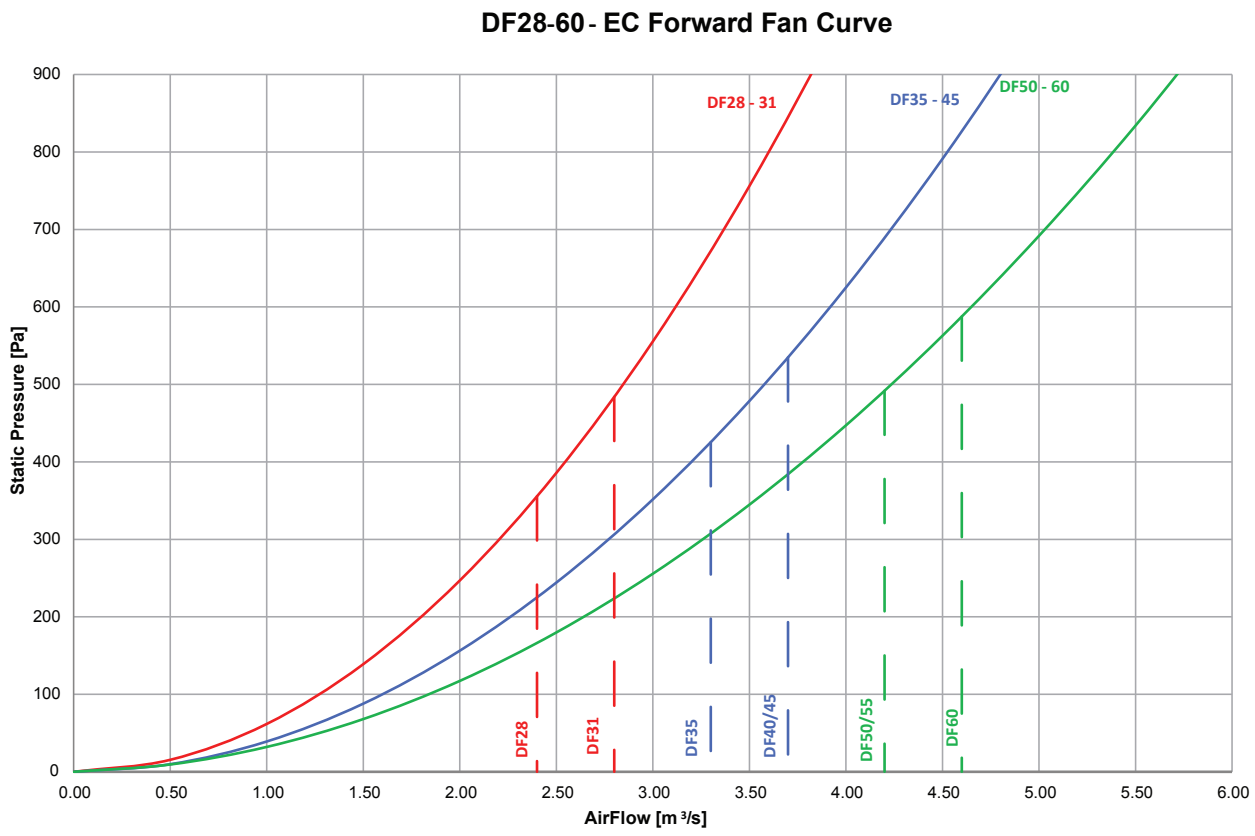
DF/V15 - 17 - 60Hz



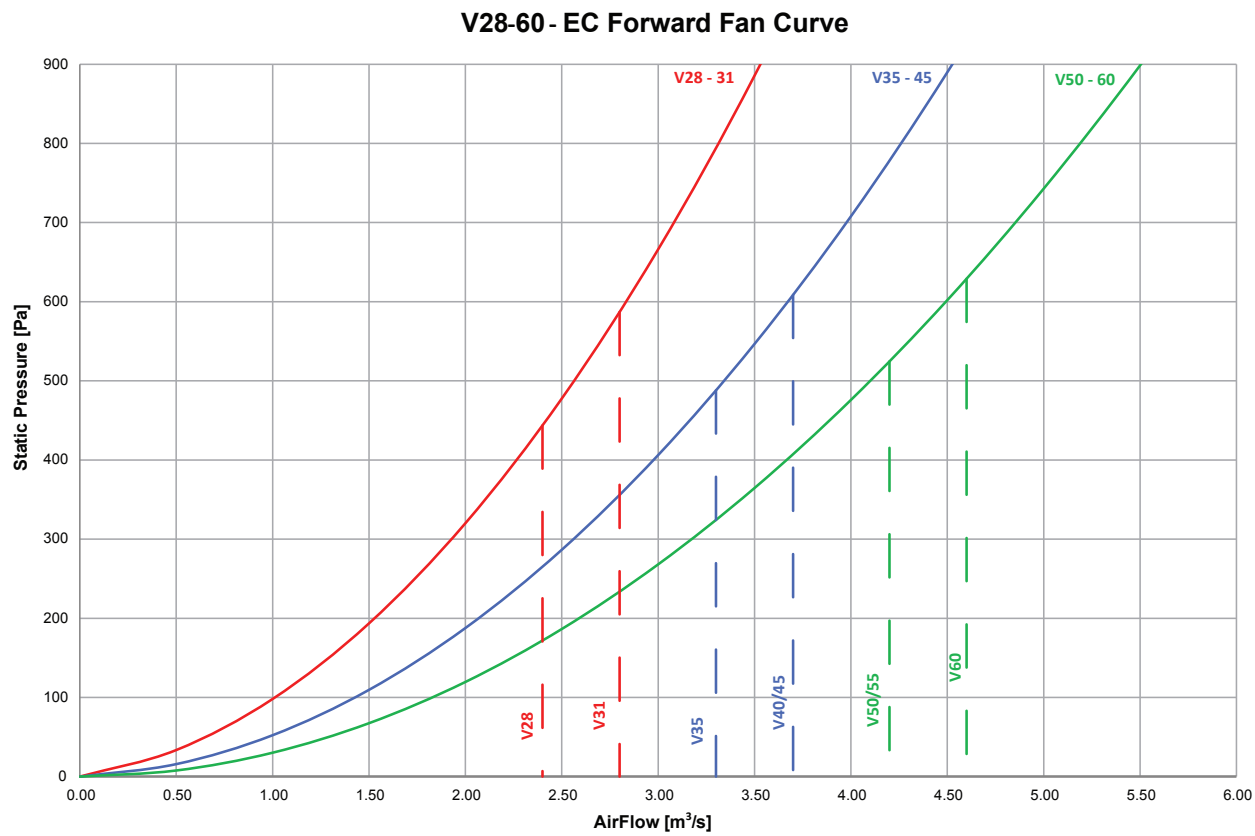
DF/V20 - 26 - 60Hz



EZRE Chilled Water 380V 60Hz (-1)
DF28 - 60 - EC Forward Fan Curve

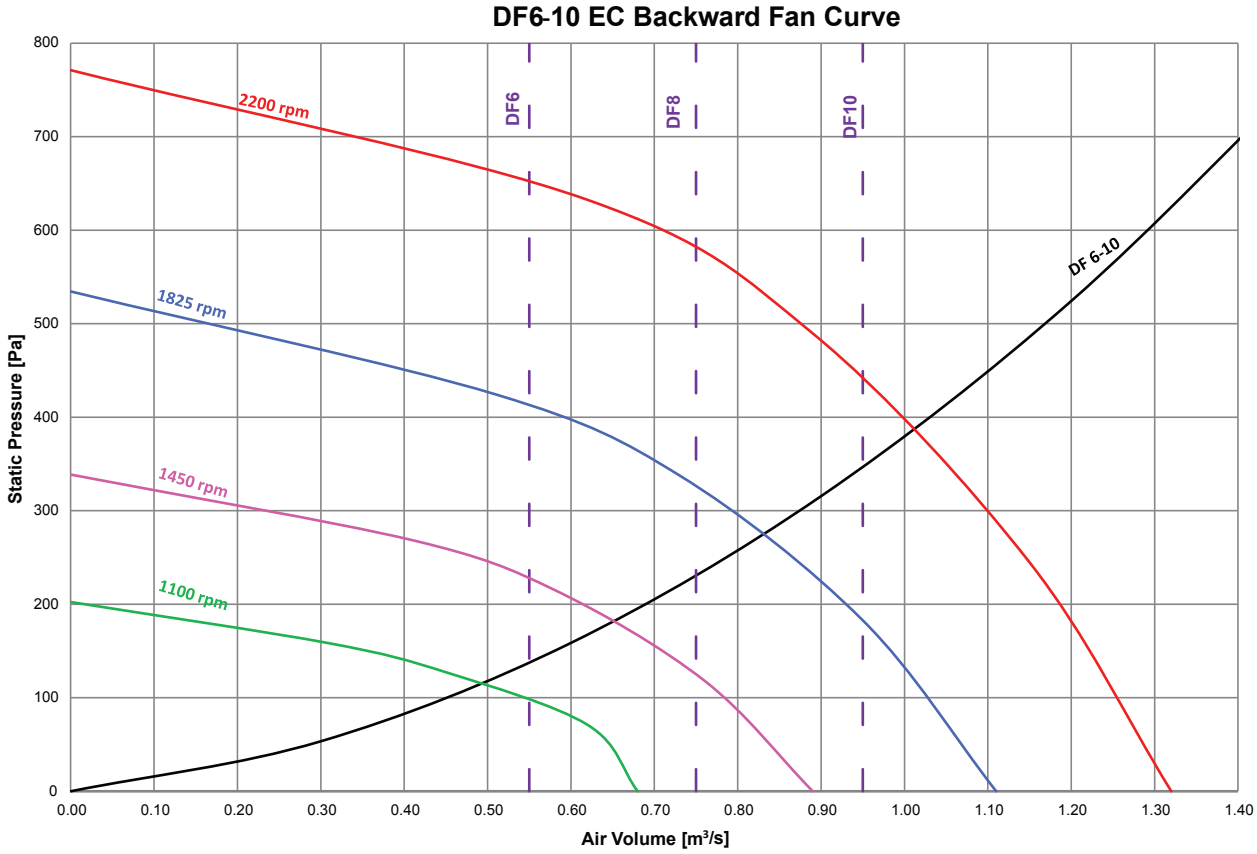


V28 - 60 - EC Forward Fan Curve

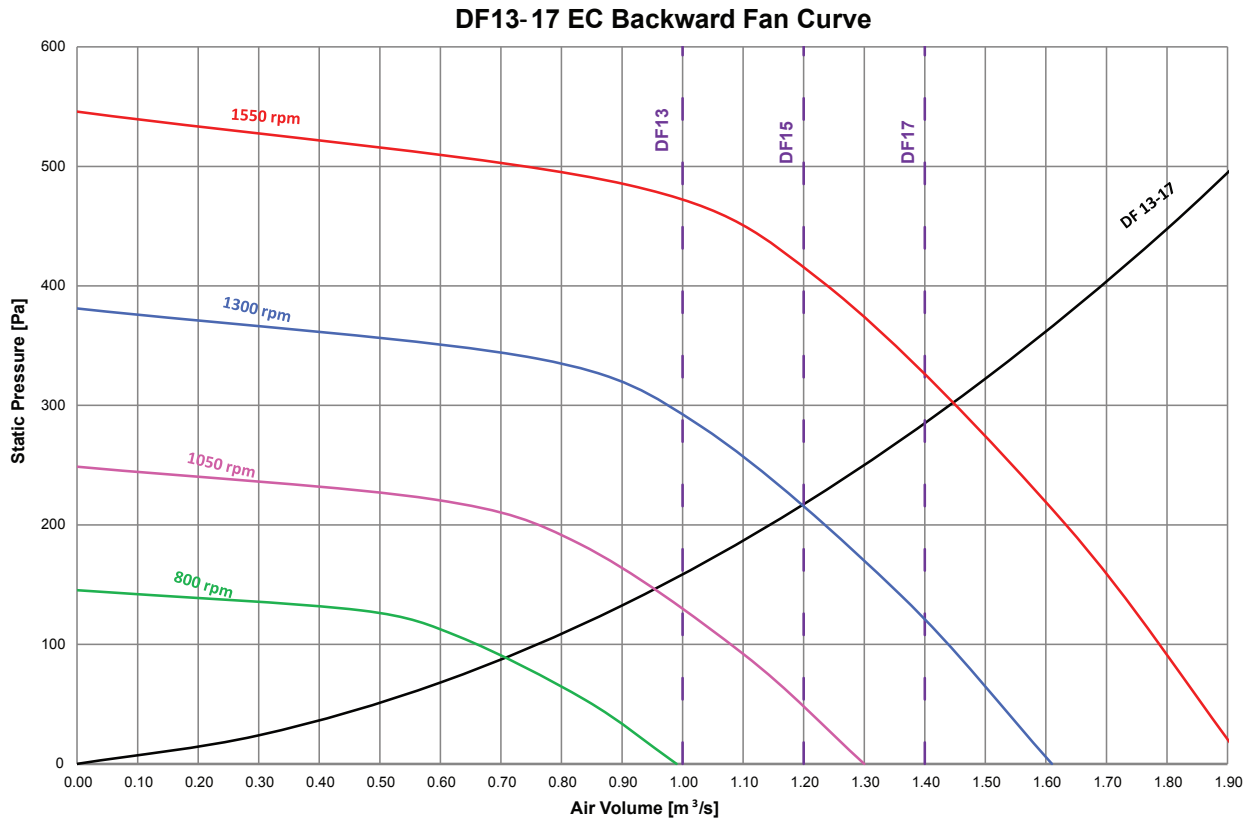


EZRE Chilled Water 380V 60Hz (-1)

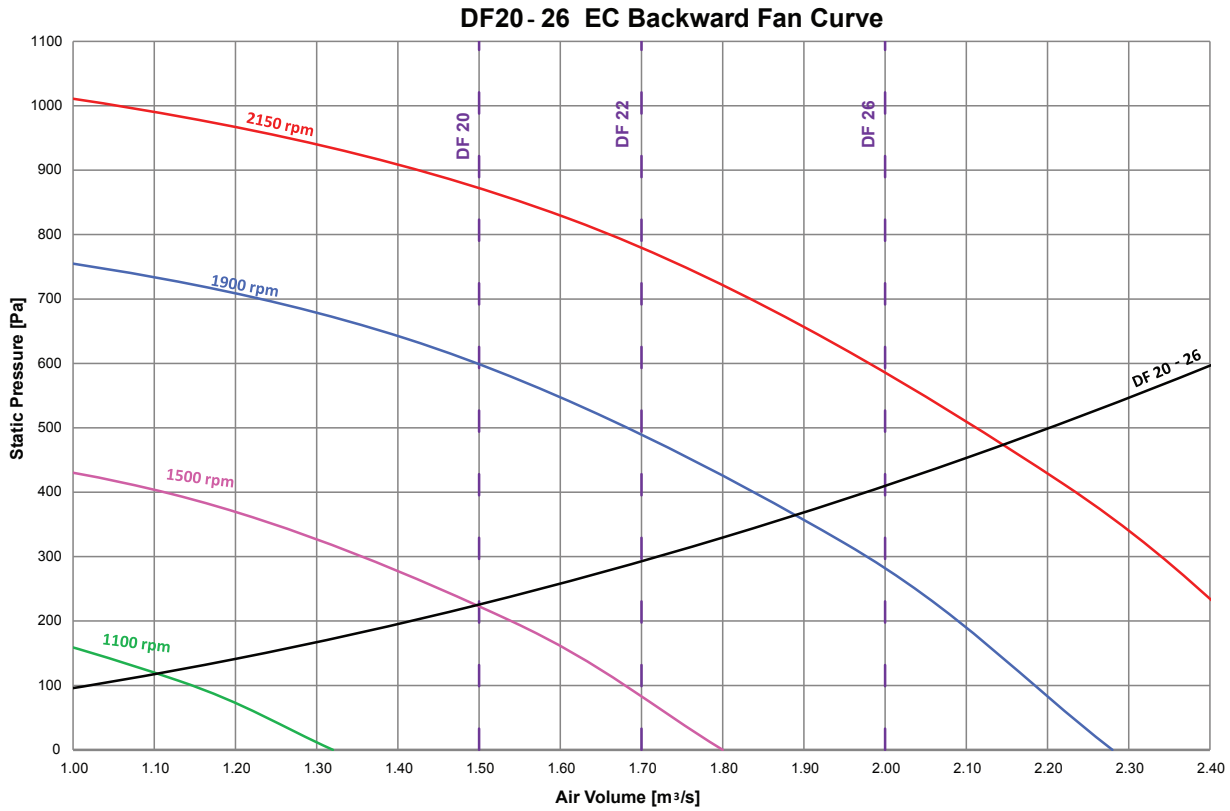
DF6 - 10 - EC Backward Fan Curve



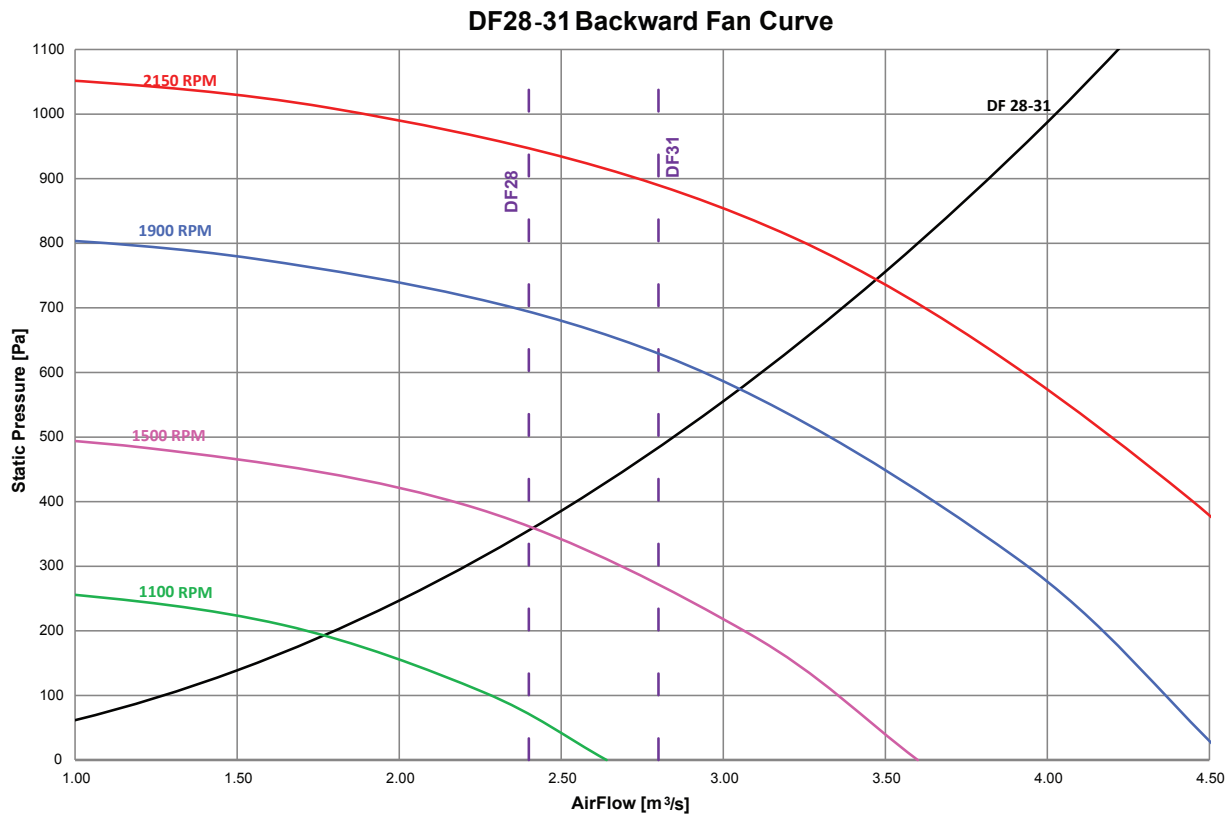
DF13 - 17 - EC Backward Fan Curve



EZRE Chilled Water 380V 60Hz (-1)
DF20 - 26 - EC Backward Fan Curve

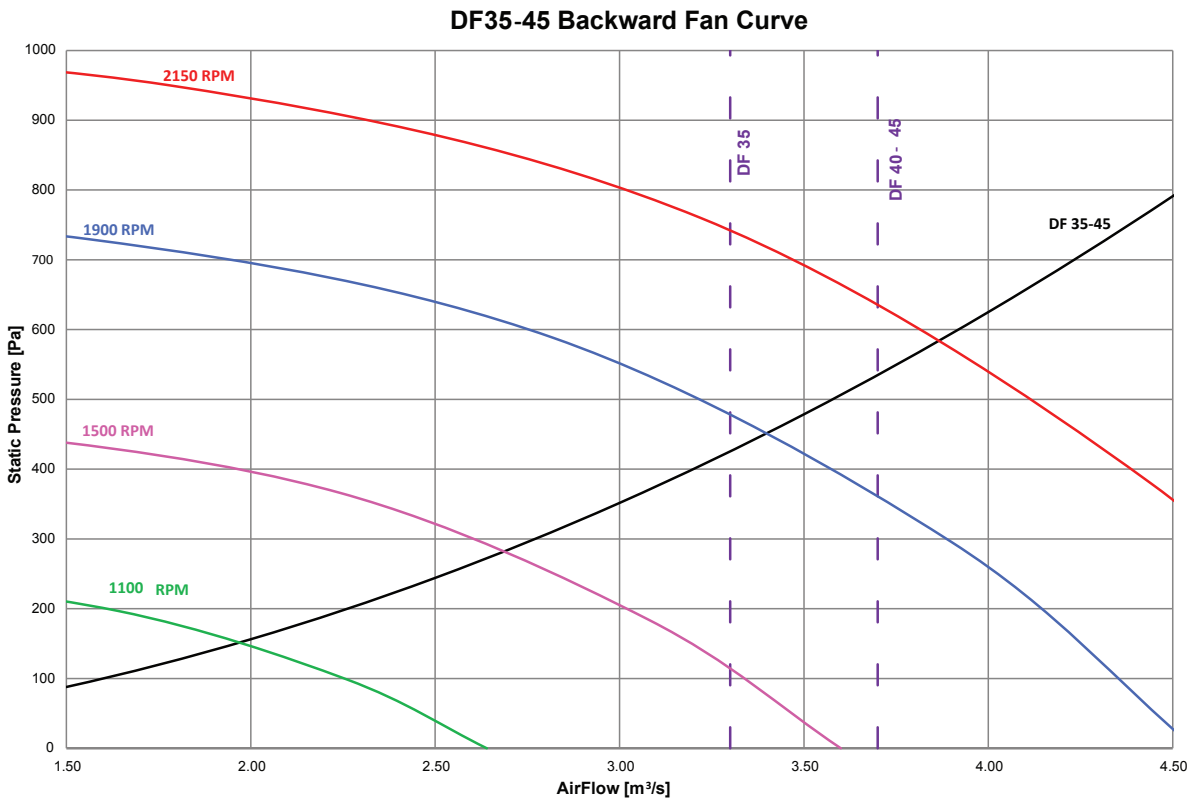


DF28 - 31 - Backward Fan Curve

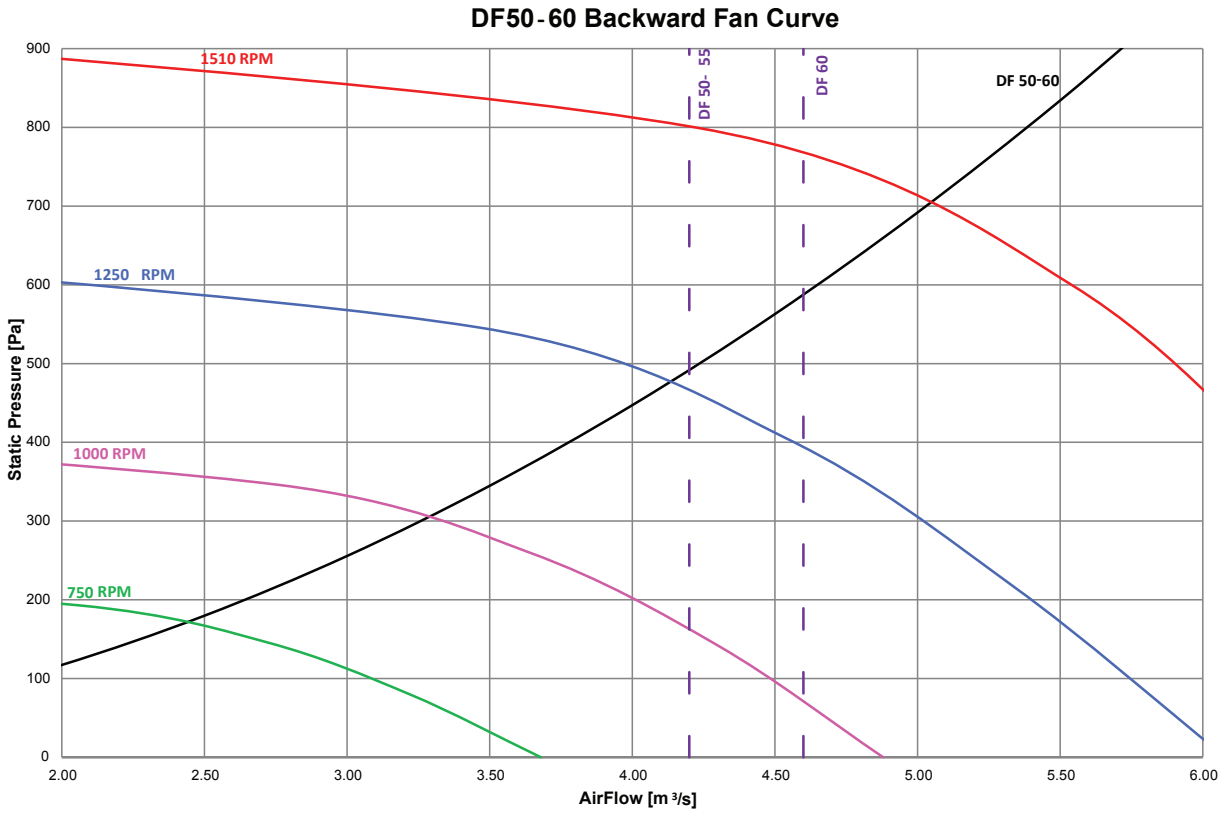


EZRE Chilled Water 380V 60Hz (-1)

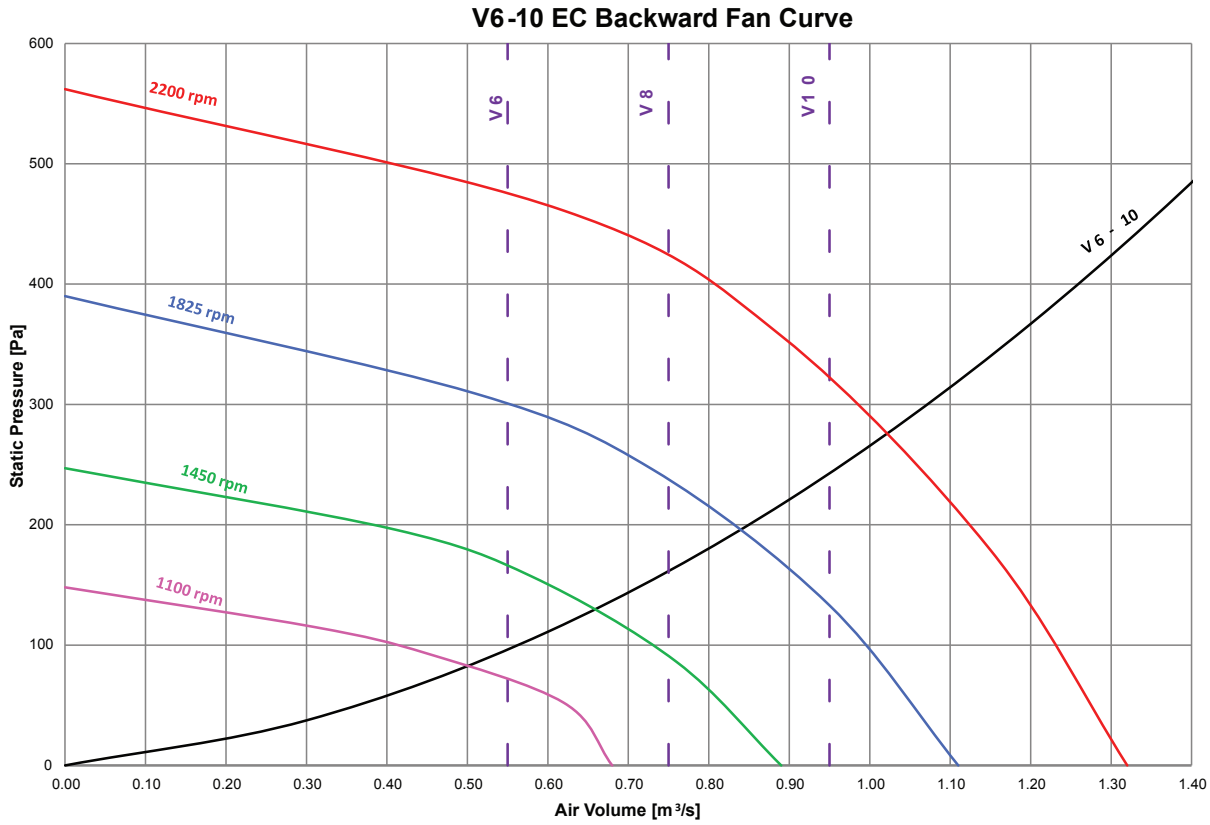
DF35 - 45 - Backward Fan Curve



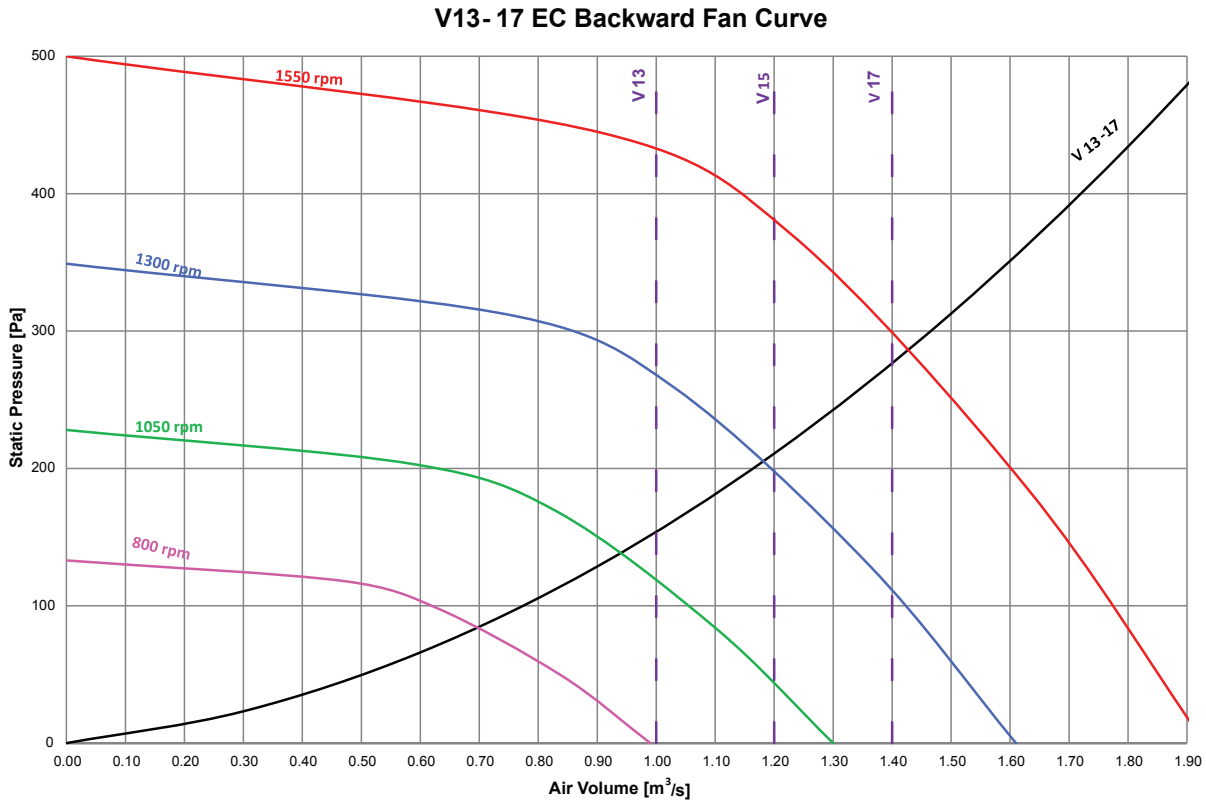
DF50 - 60 - Backward Fan Curve



EZRE Chilled Water 380V 60Hz (-1)
V6 - 10 - EC Backward Fan Curve

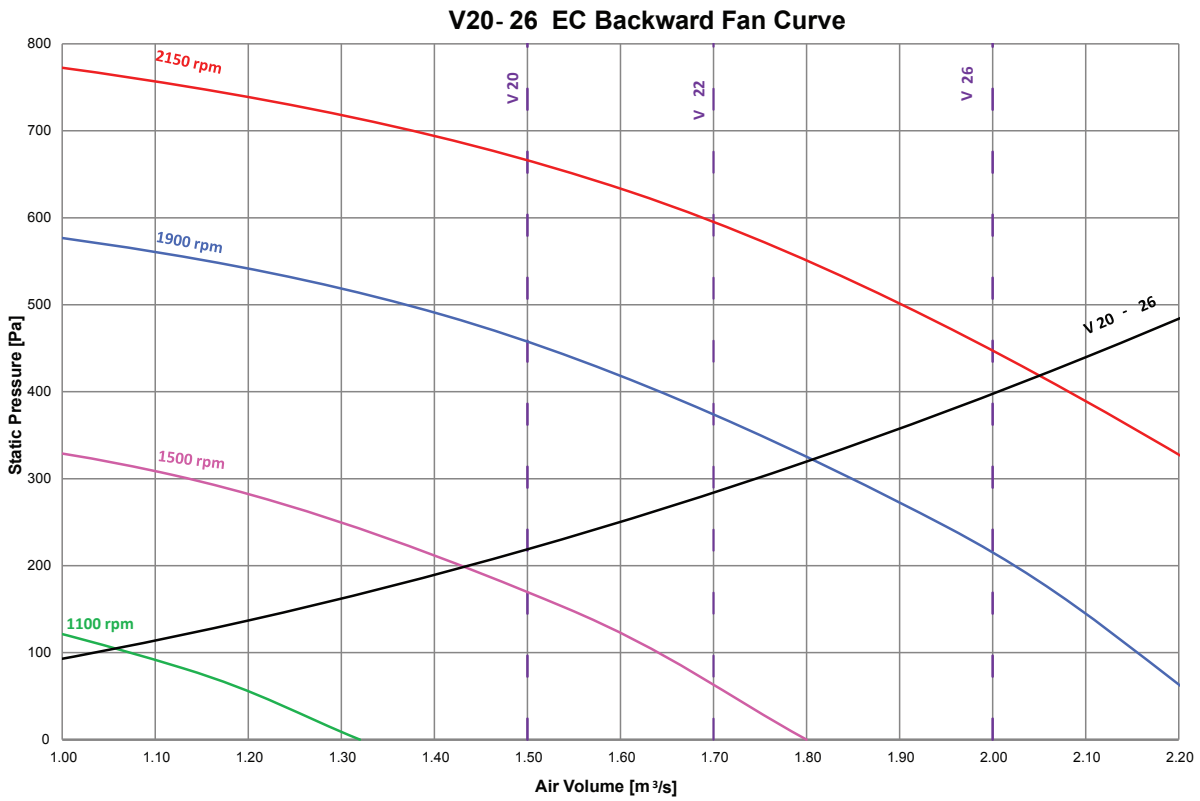


V13 - 17 - EC Backward Fan Curve

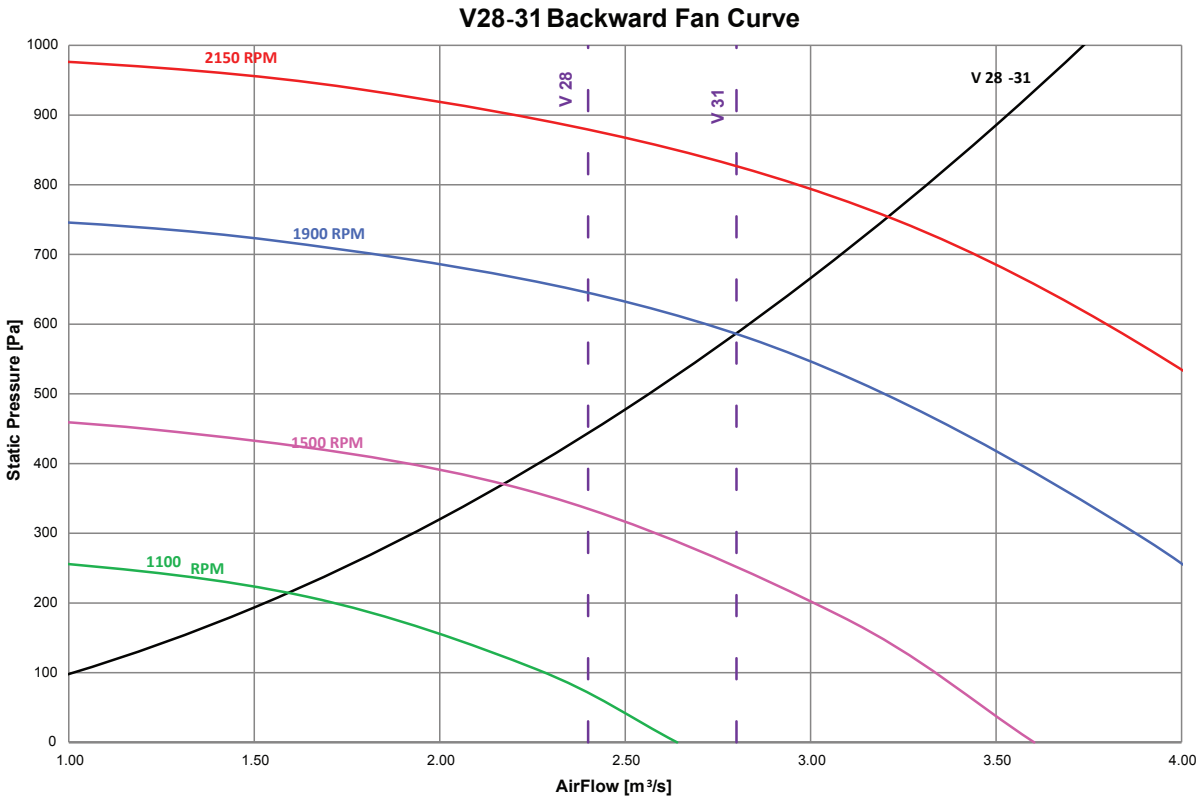


EZRE Chilled Water 380V 60Hz (-1)

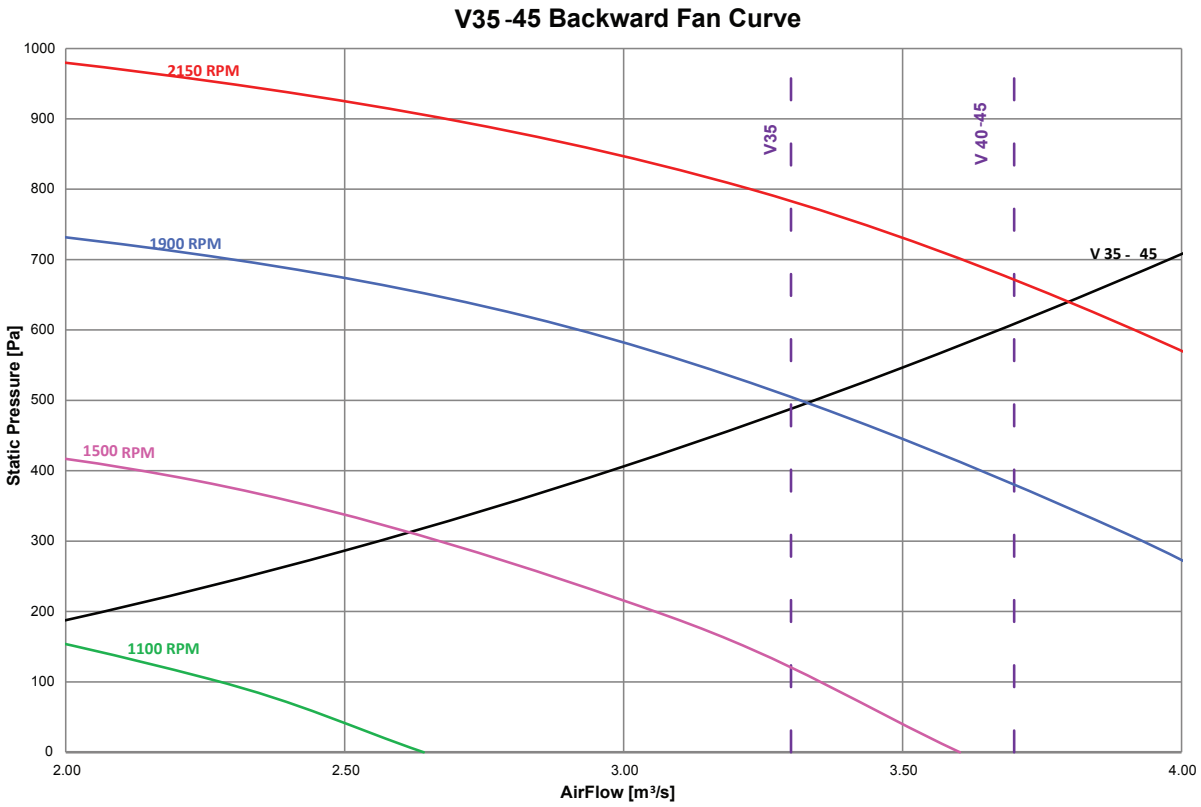
V20 - 26 - EC Backward Fan Curve



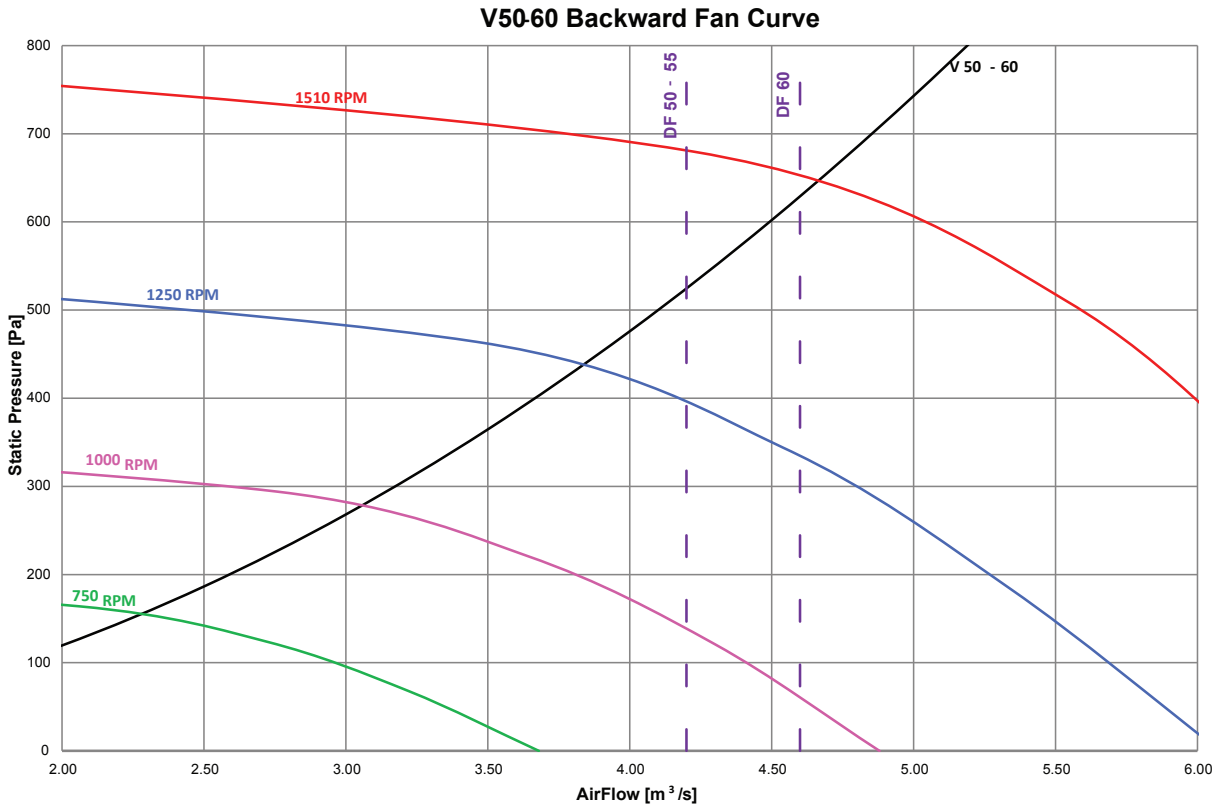
V28 - 31 - Backward Fan Curve



EZRE Chilled Water 380V 60Hz (-1)
V35 - 45 - Backward Fan Curve

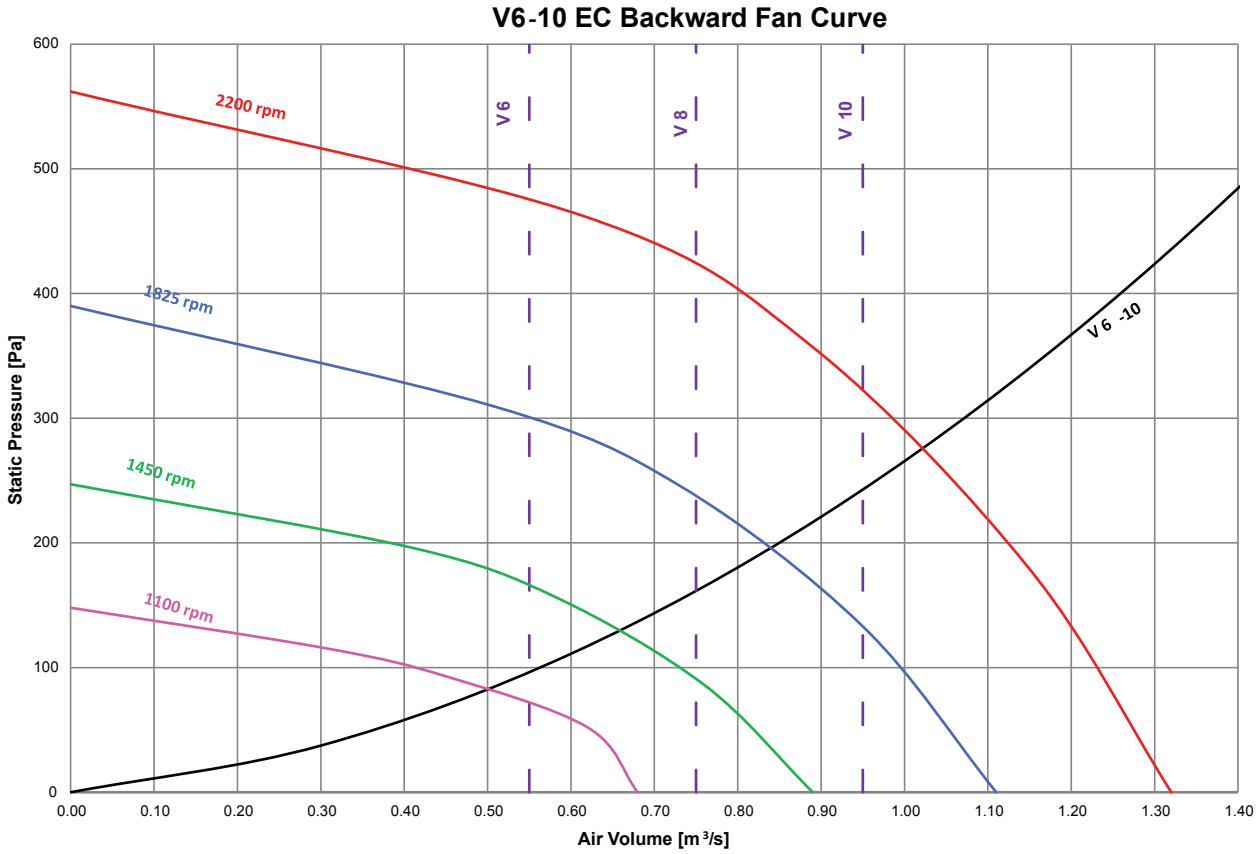


V50 - 60 - Backward Fan Curve

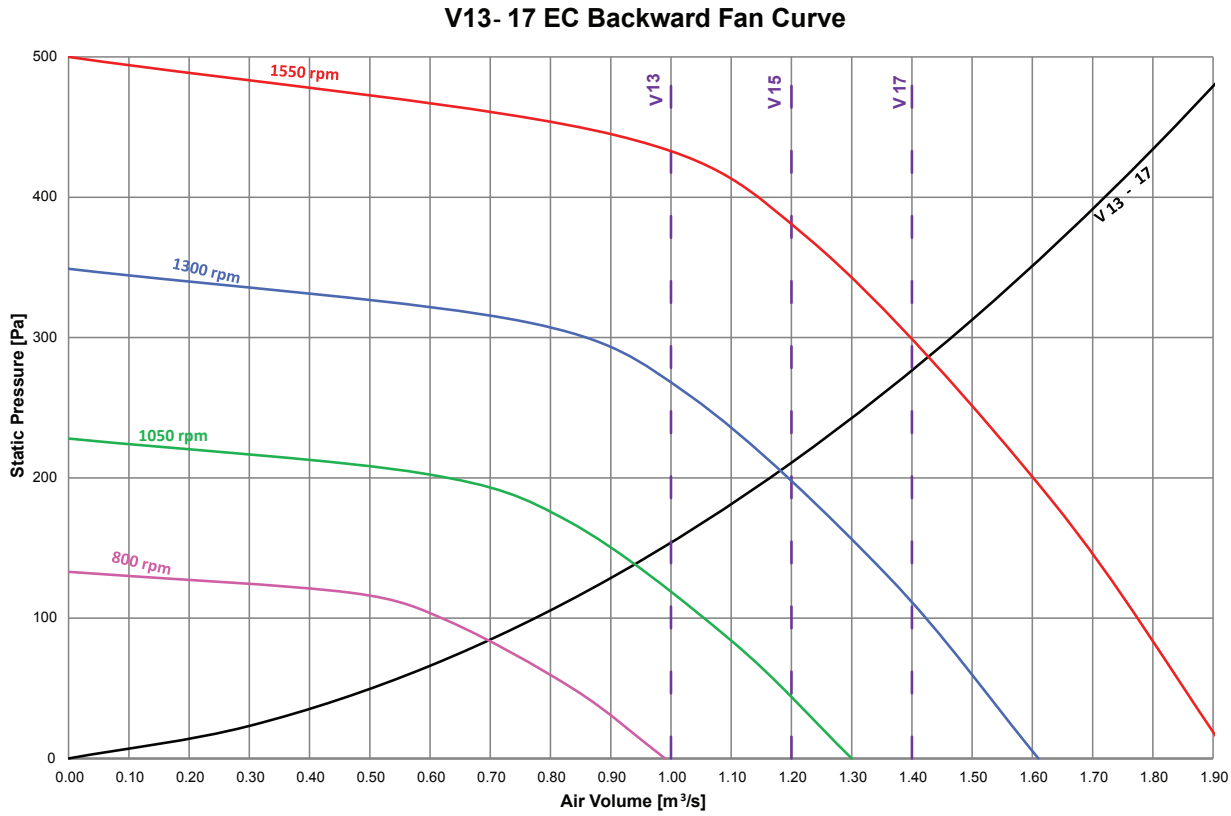


EZRE Chilled Water 220V 60Hz (-2)

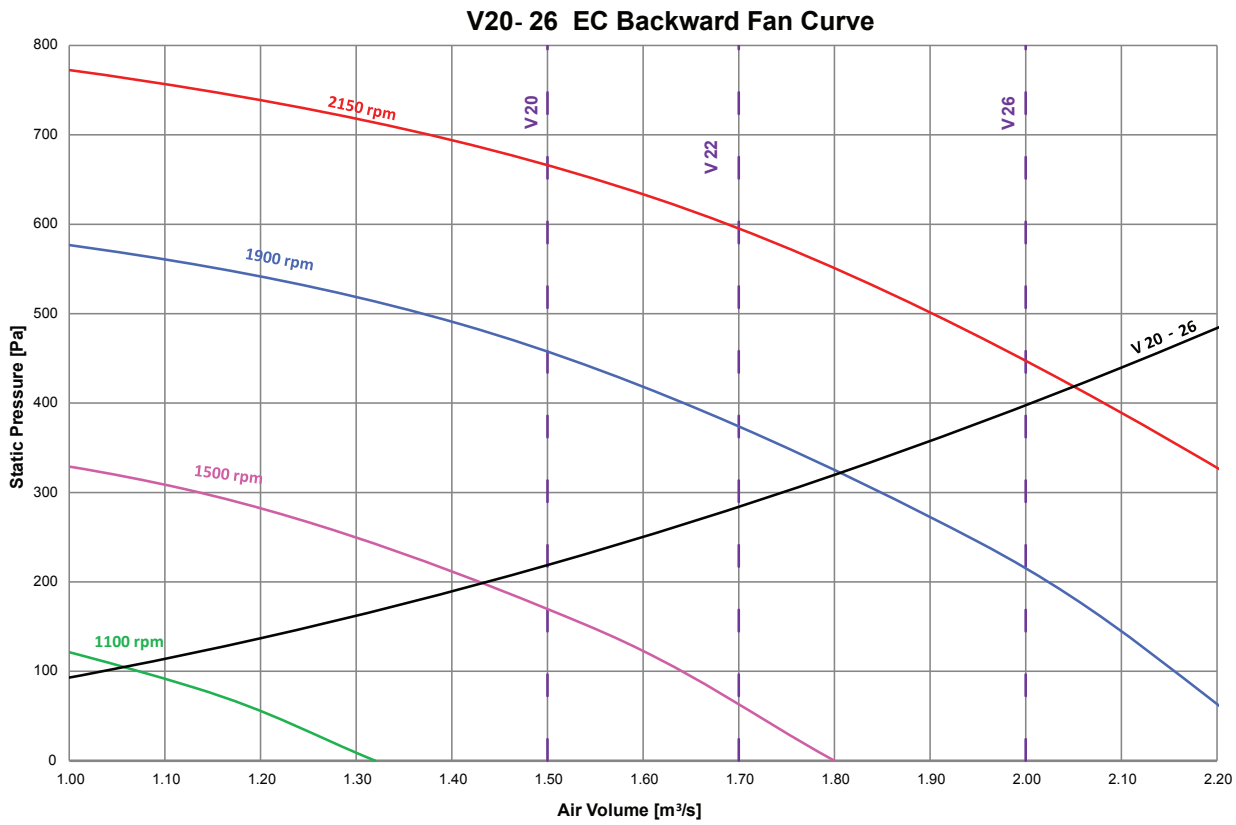
V6 - 10 - EC Backward Fan Curve



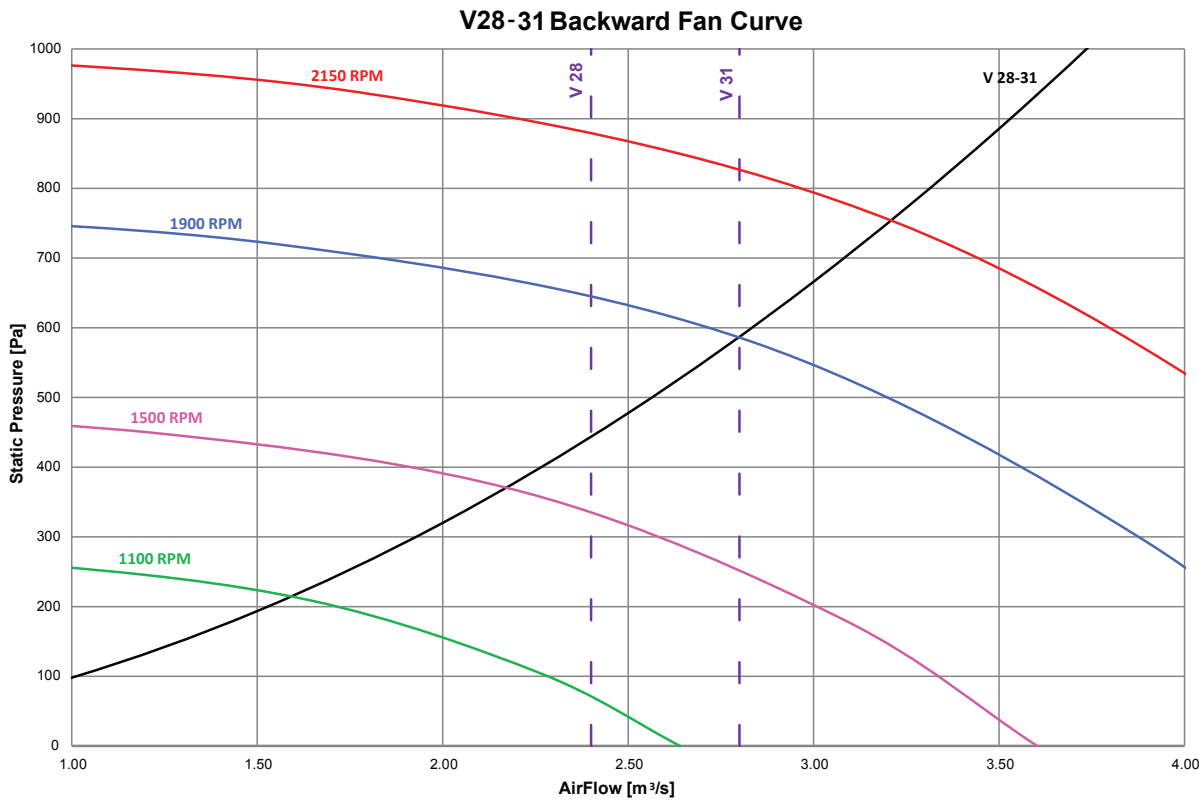
V13 - 17 - EC Backward Fan Curve



EZRE Chilled Water 220V 60Hz (-2)
V20 - 26 - EC Backward Fan Curve

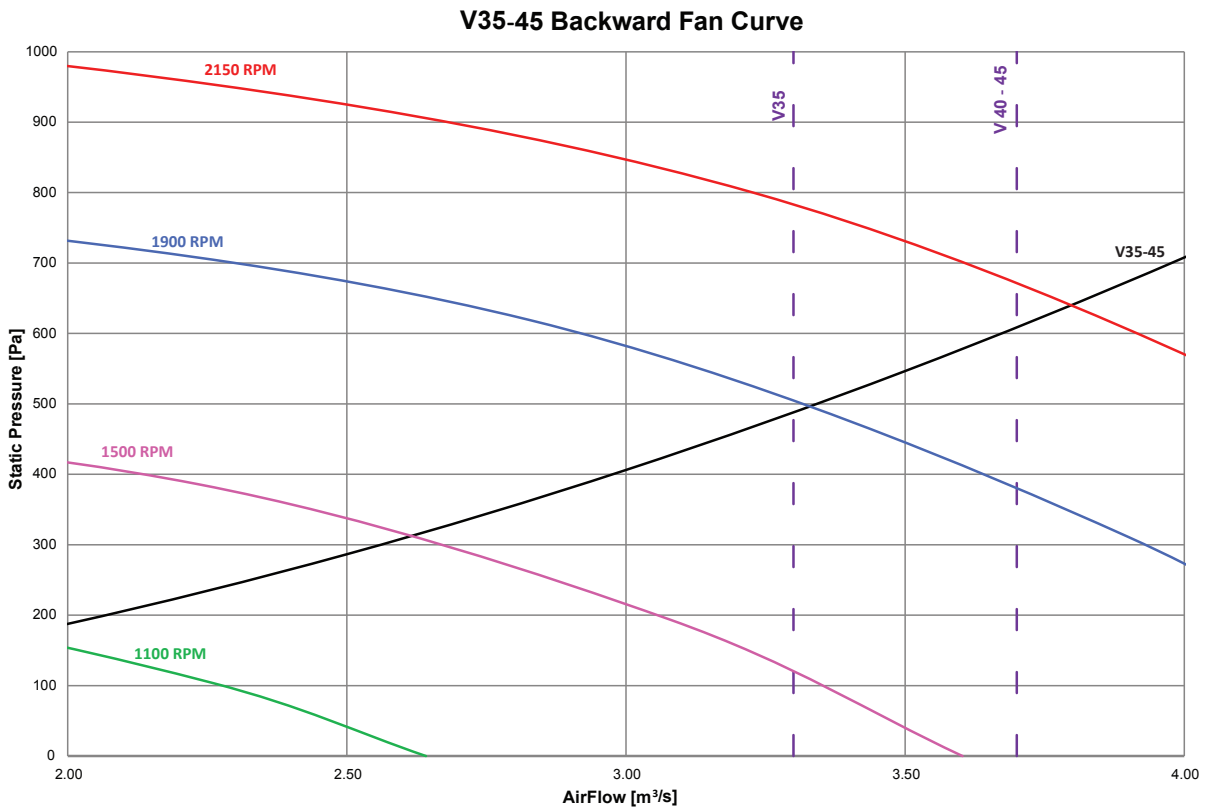


V28 - 31 - Backward Fan Curve

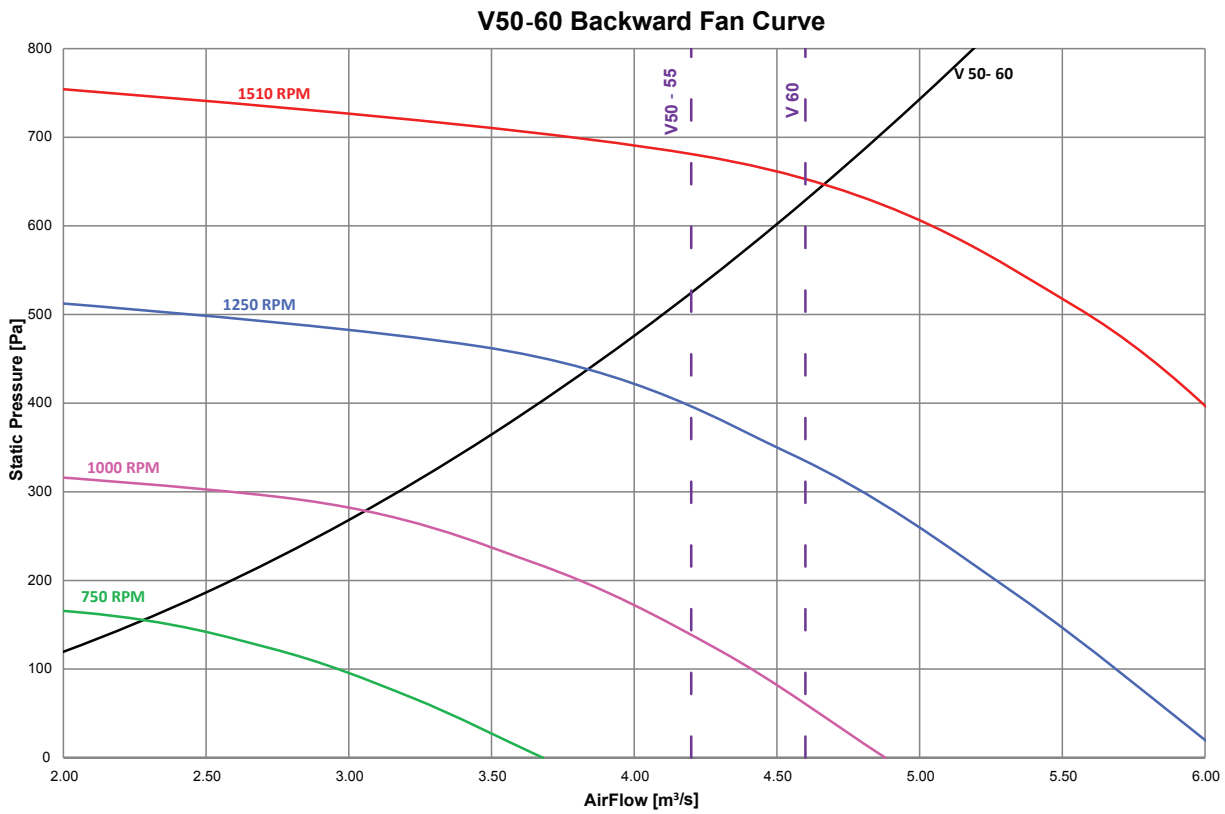


EZRE Chilled Water 220V 60Hz (-2)

V35 - 45 - Backward Fan Curve



V50 - 60 - Backward Fan Curve



After Sales

Warranty

All Airedale products or parts (non consumable) supplied for installation within the UK mainland and commissioned by an Airedale engineer, carry a full Parts & Labour warranty for a period of 12 months from the date of commissioning or 18 months from the date of despatch, whichever is the sooner.
Parts or Equipment supplied by Airedale for installation within the UK or for Export that are properly commissioned in accordance with Airedale standards and specification, not commissioned by an Airedale engineer; carry a 12 month warranty on non consumable Parts only from the date of commissioning or 18 months from the date of despatch, whichever is the sooner.
Parts or equipment installed or commissioned not to acceptable Airedale standards or specification invalidate all warranty.

Warranty is only valid in the event that

In the period between delivery and commissioning the equipment:

- is properly protected & serviced as per the Airedale installation & maintenance manual provided
- where applicable the glycol content is maintained to the correct level.

In the event of a problem being reported and once warranty is confirmed* as valid under the given installation and operating conditions, the Company will provide the appropriate warranty coverage (as detailed above) attributable to the rectification of any affected Airedale equipment supplied (excluding costs for any specialist access or lifting equipment that must be ordered by the customer).

*Once warranty is confirmed, maintenance must be continued to validate the warranty period.

Any spare part supplied by Airedale under warranty shall be warranted for the unexpired period of the warranty or 3 months from delivery, whichever period is the longer. To be read in conjunction with the Airedale Conditions of Sale - Warranty and Warranty Procedure, available upon request.

Procedure

When a component part fails, a replacement part should be obtained through our Spares department. If the part is considered to be under warranty, the following details are required to process this requirement. Full description of part required, including Airedale's part number, if known. The original equipment serial number. An appropriate purchase order number.
A spares order will be raised under our warranty system and the replacement part will be despatched, usually within 24 hours should they be in stock. When replaced, the faulty part must be returned to Airedale with a suitably completed and securely attached "Faulty Component Return" (FCR) tag. FCR tags are available from Airedale and supplied with each Warranty order.
On receipt of the faulty part, suitably tagged, Airedale will pass to its Warranty department, where it will be fully inspected and tested in order to identify the reason for failure, identifying at the same time whether warranty is justified or not.
On completion of the investigation of the returned part, a full "Report on Goods Returned" will be issued. On occasion the release of this complete report may be delayed as component manufacturers become involved in the investigation. When warranty is allowed, a credit against the Warranty invoice will be raised. Should warranty be refused the Warranty invoice becomes payable on normal terms.

Exclusions

Warranty may be refused for the following reasons.

- Misapplication of product or component
- Incorrect site installation
- Incomplete commissioning documentation
- Inadequate site installation
- Inadequate site maintenance
- Damage caused by mishandling
- Replaced part being returned damaged without explanation
- Unnecessary delays incurred in return of defective component

Returns analysis

All faulty components returned under warranty are analysed on a monthly basis as a means of verifying component and product reliability as well as supplier performance. It is important that all component failures are reported correctly.

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Web www.airedale.com

TM_EASICOOL_EZRE_CHILLED_WATER_7535768_v1.12.0_04_2018