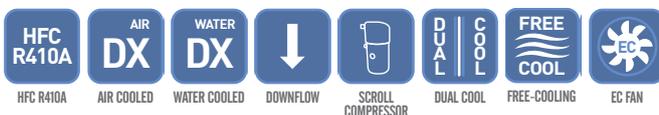




SmartCool™

16 - 140kW

- + Up to 46% more cooling kW/m²
 - + EER up to 34% more efficient*
- * Compared with our previous generation precision air conditioning units



Precision air conditioning

Taking efficiency even further

The SmartCool™ is a next generation, highly efficient, indoor packaged unit providing extremely precise, reliable climate control.

Applied cutting edge technology enables the SmartCool™ to quietly and precisely control room temperature, humidity and air quality to ensure efficient, reliable, 24/7 operation of sensitive systems in data centres and other critical applications.

Optimise your unit selection

The SmartCool™ gives you the flexibility to optimise unit selection to match the considerations of your specific project – whether a new or retrofit application or driven by cost, efficiency, space, noise, resilience and/or ambient conditions.

Choose from 100 downflow models available in:

- 8 system types
- 8 case sizes
- Single or dual circuit featuring:
 - DX air cooled (16 - 140kW)
 - DX air cooled with chilled water (60 - 127kW)
 - DX water cooled (60 - 127kW)
 - DX water cooled with glycol free-cooling (60 - 127kW)



16 - 140kW DX range
EER up to 34% more efficient*

Enhanced by tandem compressors; EC motors; electronic expansion valves and the latest EC plug fan technology

*compared with our previous generation precision air conditioning units



Tandem compressors

Staged cooling

Fixed speed tandem compressors offer four stages of cooling across four system configurations



Large surface area filters

Increased system efficiency

Reduced waterside pressure drops and improved airflow resulting in increased performance and reduced fan power usage



EC backward curved fans with composite impellers

Up to 70% more efficient

Particularly at part load between 30% and 100%; EC fans respond seamlessly to load fluctuations



Variable humidification

Up to 80% less power

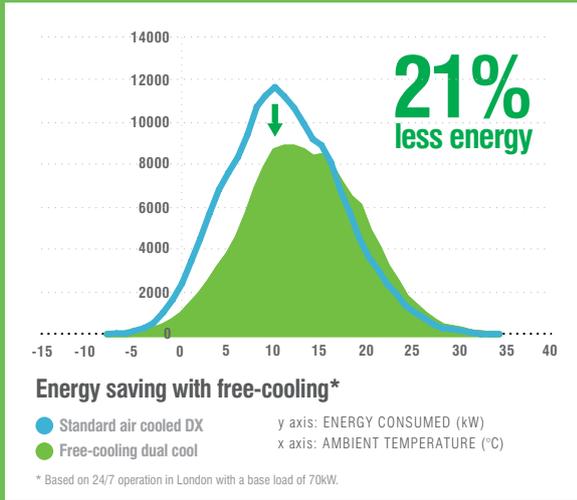
Efficient de-humidification uses less mechanical cooling and minimum re-heat whilst maintaining precise de-humidification control



Efficient slab coil design incorporating dual cool

2N redundancy and free-cooling variant

Two independent cooling mediums in the same case, with automatic changeover and duty share (option on 60 – 127kW models)



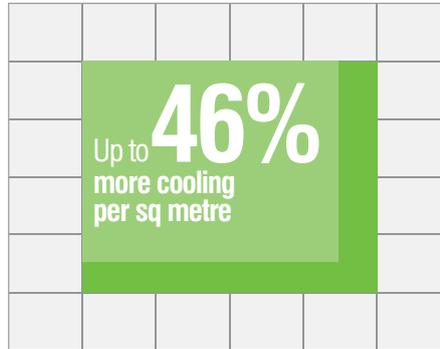
Free-cooling, dual cool SmartCool™

Saving up to £3,600/year more compared with our previous generation precision air conditioning units (£0.10/kWhr)

The SmartCool™ makes use of the ambient air for cooling whenever the outdoor temperature is lower than the room. High room temperatures and the large surface area coils of the SmartCool™ increase the opportunity for free-cooling.

Saving energy and carbon, reducing operating costs

Designed for maximum efficiency, SmartCool™ precision air conditioning pays for itself by reducing operating costs and carbon footprint. Whether the data centre is new and under-populated or density and heat loads are increasing, the SmartCool™ intelligently takes control, switching to the best operating mode and minimising energy consumption whilst maintaining a stable environment.



Less space claim

SmartCool™ 16 – 60kW DX models typically offer up to 46%* more cooling kW/m²

* than our previous generation precision air conditioning systems

Precise conditioning - true capacity and humidity match



Two stage vs four stage cooling – the energy saving benefits

- ◆ Two stage cooling
 - Four stage cooling
- y axis: ANNUAL RUNNING COST (£)
x axis: VARIABLE LOAD (kW)

* Based on a total load of 80kW with a variable load of up to 40kW, savings per annum would be £2,135.51 (11% less energy consumed)

Unlike many competitor units, the SmartCool™ offers four stage cooling resulting in increased energy saving benefits when variable load is increased.

Staged DX cooling

The SmartCool™ offers four stages of cooling across four system configurations via fixed speed tandem compressors.

Staged cooling continually utilises the maximum coil area within the space enabling capacity to more precisely match the application, reducing power input.

Balancing room temperature and humidity

The balance between temperature and relative humidity is intrinsically linked. By precisely controlling temperature, the SmartCool™ accurately controls humidity. Its control-led, advanced components work in harmony, simultaneously balancing temperature, humidity and air flow to precisely match the load.

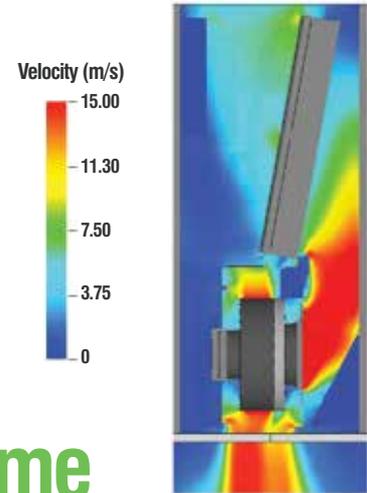
Optimised air flow

And pressure management

The SmartCool™ delivers cold air through floor-mounted grilles directly to the front of the server racks. By presenting the right amount of air flow, at the correct temperature to the server inlet, the SmartCool™ ensures optimum air flow management and eliminates hot spots. Further, water side pressure drops are reduced, and unit efficiency is increased, thanks to a new slab coil design.

Smartcool™ D16 - 140kW DX models

CFD analysis showing improved air flow path



Typically a 50% drop in air volume results in an 83% reduction in fan power input.

Reduced waterside pressure drops

Increases overall system efficiency. With plate condensers and free-cooling coils configured in parallel on the waterside, total unit pressure drop is reduced and efficiency is increased.

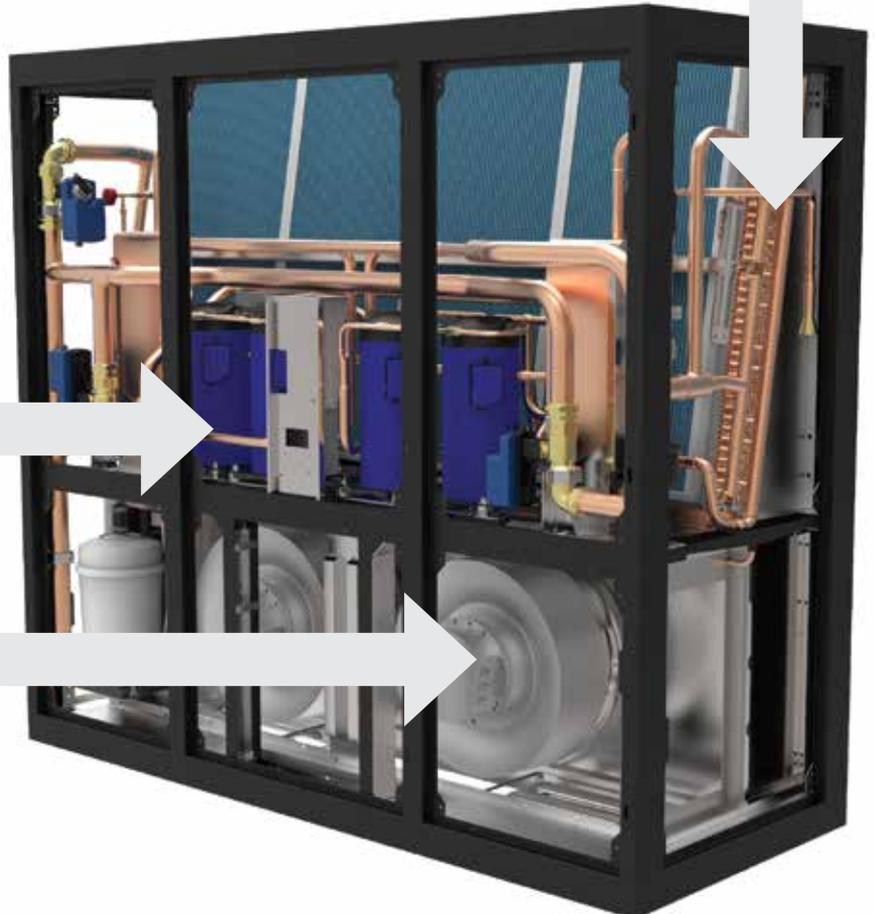
A bypass leg integral to the unit with its own control valve ensures that the unit pressure drop can be regulated at all times whether it is operating in free-cooling mode, concurrent cooling or full DX. Controlling to a fixed pressure drop ensures the system flow rate remains constant.

Large surface area filters

Improve air flow resulting in increased performance and reduced fan power usage.

Constant air volume control (option)

Controls air flow through the unit: EC fans speed up to prevent system performance dropping off due to resistance such as dirty filters or ductwork extensions.



Smart accessories

For a wide range of applications

Smart Ambient Cooling Kit



Smart Ambient Cooling Kits are the perfect solution for units which will be operating under extreme conditions.

Although our standard units are suitable down to -20°C our Smart Ambient Kits ensure systems can maintain the same level of precise temperature and humidity control across a wide range of outdoor ambient temperatures.

Our Smart Ambient Cooling Kits:

- Prevent loss of cooling to the application
- Ensure continued operation and system protection
- Provide a robust and safe solution
- Optimise efficiency during low ambient temperature operation
- Increase system reliability
- Protect against the risk of flooded starts

Low Ambient Kit (for temperatures down to -32°C)

- AC fans supported only
- Shut-off valves
- Ultracapacitor
- Low ambient compatible isolator

Extra Low Ambient Kit (for temperatures down to -40°C)

- Liquid receiver (pressure relief valve and changeover device for pressure relief valve maintenance)
- Non-return valve
- Head pressure control valve
- New control strategy for extra low ambient conditions

SPECIFICATIONS

Smart Hydronics Kit



The Smart Hydronics Kit is an all in one pump package, specifically designed to provide the

required flow to all SmartCool units, for the full range of water temperatures and ambient temperatures.

Cost-effective and compact, the Smart Hydronics Kit can operate effectively across a wide range of applications with the many options available. Options include a pressurisation unit, expansion vessel and glycol dosing pot.



- 10 different pumps
- Available in run/standby or standalone configuration
- Available in fixed speed or variable configuration
- IE3 motors as standard
- Suitable for both indoor or outdoor application
- BMS compatibility
- Low glycol concentration alarm
- Flanged, threaded, grooved or brazed connections available
- Propylene and Ethylene glycol compatible
- Available in 2 case sizes: HY11 (794mm x 1247mm x 1110mm), HY15 (794mm x 1247mm x 1490mm)
- Both case sizes fit through a standard door or into a lift
- Option for 2n redundancy
- Fully removable panels - easy access for maintenance
- Independently maintainable strainers

SPECIFICATIONS

Flexible systems

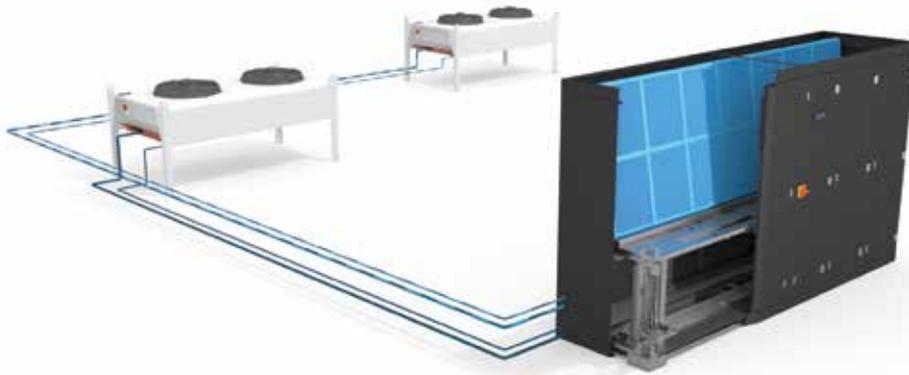
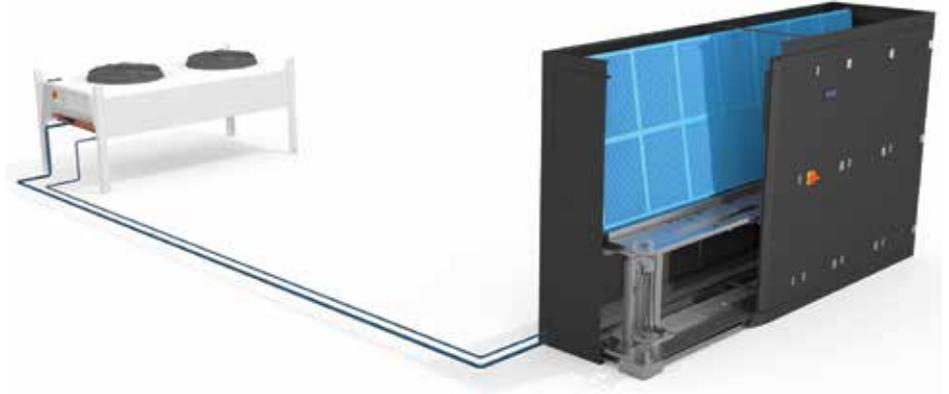
Air Cooled Solutions

To fit your specific operation

Single circuit

DX Air Cooled (X100, X200)

The SmartCool™ X100/X200 is an air cooled, direct expansion (DX), single circuit system linked to a separate, remotely mounted air cooled condenser. Optimised for heat transfer using energy efficient refrigerant R410A in each circuit, the SmartCool™ system is located within the conditioned space, absorbing room heat and transferring it outside to the condenser. By using tandem fixed scroll compressors across the circuit, capacity can be more precisely matched to application.



Dual circuit

DX air cooled (2X20, X1X1)

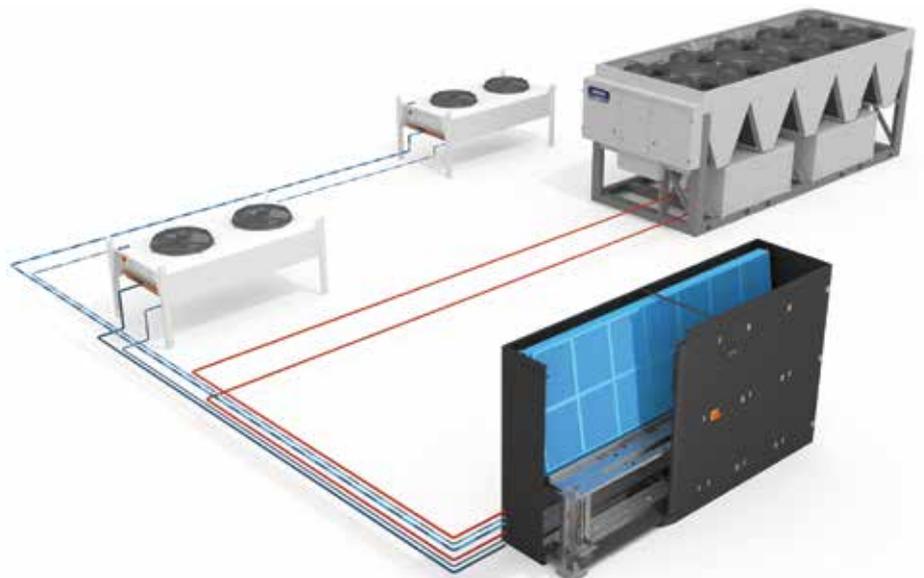
An air cooled, R410A double circuit system, the SmartCool™ 2X20/X1X1 is linked to two separate, remotely mounted air cooled condensers. The 2X20/X1X1 system is located within the conditioned space, absorbing room heat and transferring it outside to the condensers. By using tandem fixed scroll compressors across the circuit, capacity can be more precisely matched to application.



Dual cool

DX air cooled and chilled water (2X2C)

For redundancy in critical applications, the SmartCool™ dual cool 2X2C offers two different cooling mediums, air cooled DX and chilled water, within the same case. The 2X2C system is managed by the AireTronix microprocessor to select which medium acts as the primary source of cooling or which acts as back-up, should the primary source fail or is unable to cope with the heat load.

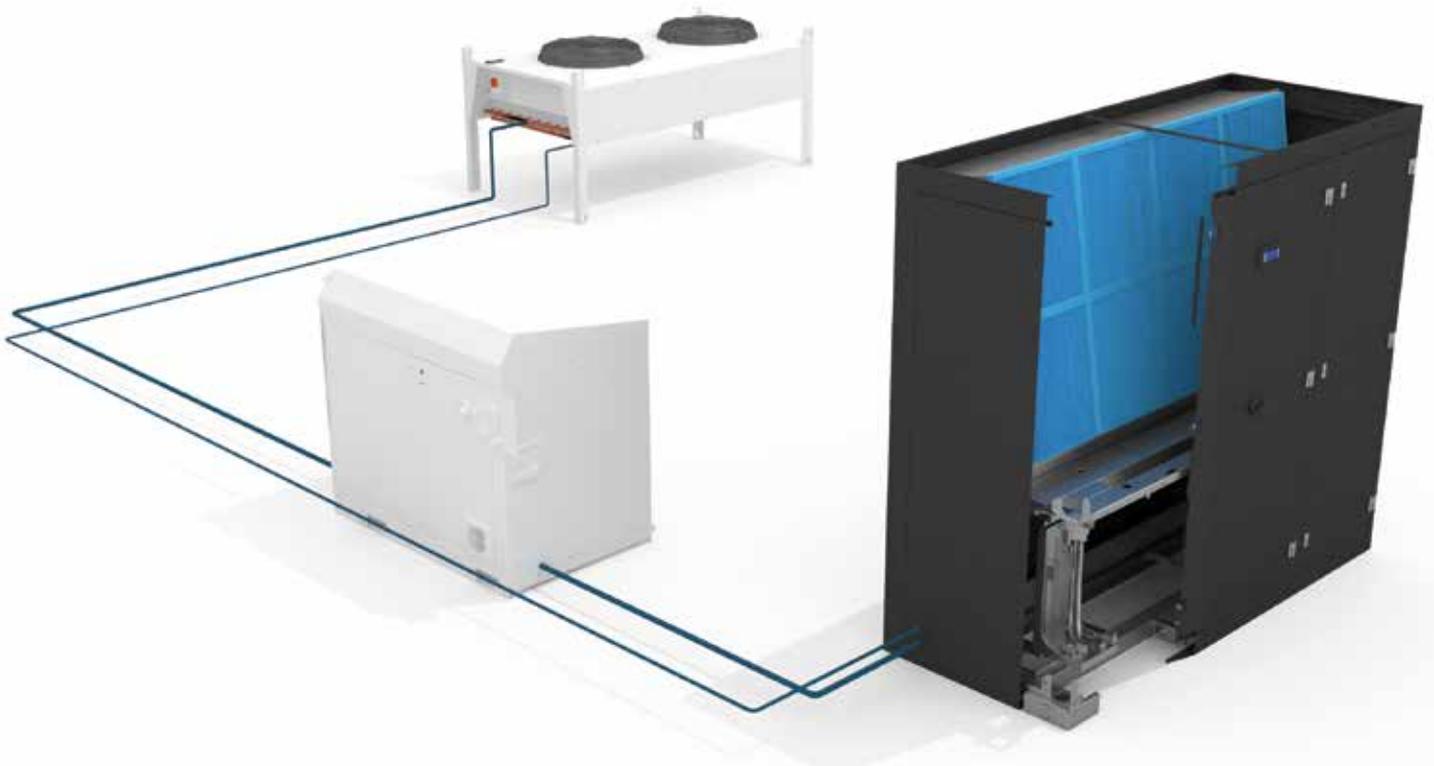


Dual circuit

DX water cooled (2W20)

Suitable for applications favouring reduced refrigerant charges, the SmartCool™ 2W20 is a double circuit system featuring DX cooling within the case and dry coolers outside. Warm room air is passed through an interlaced evaporator coil and an integral plate condenser transfers the heat load to the glycol solution which is then channelled outside to either one or two air cooled dry coolers (capacity dependant).

This system is optionally offered with a Smart Hydronics Kit matched to the piping system.



Dual circuit

DX water cooled with glycol free-cooling (2W2F)

The 2W2F system includes a free-cooling coil in conjunction with the evaporator. In low ambient conditions, particularly in relation to the high temperatures and continuous system operation of a server environment, the 2W2F system will run with minimum energy. At times of higher ambient, sophisticated AireTronix controls technology will modulate the 2-way water regulating valves to transition from free-cooling back to mechanical cooling. Typically the SmartCool™ 2W2F dual circuit free-cooling system uses 21%* less energy than a standard air cooled DX system.

This system is optionally offered with a Smart Hydronics Kit matched to the piping system.

* Based on Met Office average ambient figures for London, UK at 24°C/45%RH

Specifications at a glance

SmartCool™: Optimising the key drivers in efficient building operation

- Fixed speed tandem scroll compressor DX cooling across single and dual circuits offer 4 stages of cooling.
- Minimum space claim
- Compliant scroll compressors for increased reliability and extended operating envelope
- Fans and all main components accessible from front for easy access / maintenance
- Preconfigured, packaged units with optional, colour touch screen microprocessor display for seamless fine-tuning
- Fits through a standard door
- Robust welded case construction



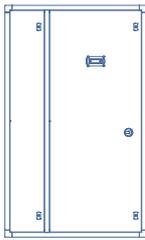
EU F-Gas Regulations

This product range contains R410A fluorinated greenhouse gas with a GWP of 2088, weight range of 2.3 - 8.4kg, representing 4.8 - 17.5 equivalent tonnes of CO₂.

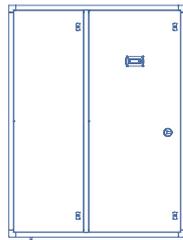
DX



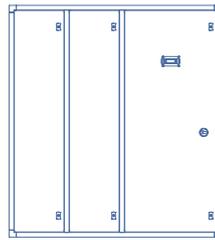
SC09



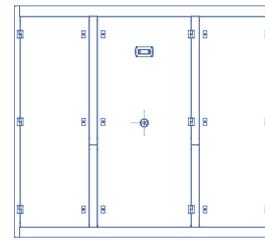
SC12



SC15



SC18



SC22

Environment

- Free-cooling dual cool variant uses 21% less energy
- Designed and optimised for R410A which requires only a minimum refrigerant charge and high heat transfer coefficient
- Compliant scroll compressors for increased reliability and extended operating envelope (up to +36°C - model dependant)
- Direct drive, speed controllable, EC backward curved fans (indoor) and axial fans (outdoor) for low sound and power input

Optional

- Refrigerant leak detection for F Gas compliance
- Night-time set-back limits sound emissions in noise sensitive applications by reducing condenser fan speed at pre-set hours

Electrical & Controls

- Advanced AireTronix controls technology managing and optimising the system's performance
- Grundfos flow sensor (DX water cooled and DX water cooled with glycol free-cooling)

Optional

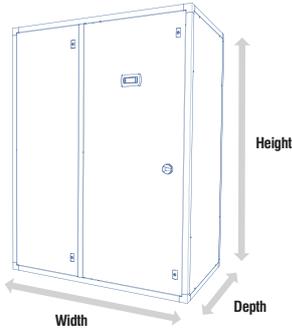
- ACIS™ building management integrates cooling and other building services, improves data and reduces operating costs
- Dual power supply for redundancy and flexibility
- Electrical supply phase rotation protection
- Electronic soft start for minimal full load current (DX models)
- Power monitoring to manage energy consumption
- Ultracap UPS option to backup power to the controller in the event of a power failure
- Drip tray level sensor

Energy-saving

- EC backward curved fans with composite impellers for up to 70% more efficiency; improving air distribution and air management
- Up to 17% more cooling/m²
- Intelligent, variable head pressure control for increased efficiency (adjustable from display)
- Electronic expansion valves for 30% increase in efficiency
- High efficiency G4 (EU4) rated, pleated disposable filters give superior high performance with lower airside pressure drops

Optional

- Energy Manager for local and remote energy analysis and monitoring



Nomenclature explained

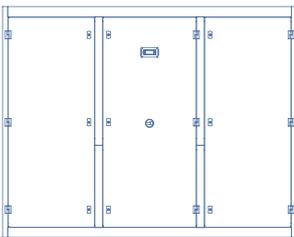
DX Air Cooled Example - SC22D074-2X20-0	SC	22	D	074	-	2	X	2	0	-	0
Dual Cool Example - SC25D092-2X2C-0	SC	25	D	092	-	2	X	2	C	-	0
Water Cooled Example - SC31D108-2W20-0	SC	31	D	108	-	2	W	2	0	-	0
Free Cool Example - SC35D127-2W2F-0	SC	35	D	127	-	2	W	2	F	-	0

SC	SmartCool
22 - 35	Decimetre Case Width (dm)
D	Downflow
050 - 140	Nominal capacity (kW)
2	Dual DX Circuit
X	Air Cooled - Compressor Indoor
W	Water Cooled
2	Two Compressors / Circuit
0	No CW Coil
C	Chilled Water
F	Free Cool
0	400/230V 3PH/1PH 50Hz

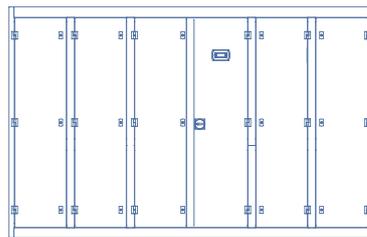
The nominal cooling capacity is based upon gross total cooling capacity at 24°C / 45%RH return air conditions, 45°C condensing temperature (DX) and 7 / 12°C supply and return water temperatures (CW)

Case size	Height (mm)	Width (mm)	Depth (mm)
1	1980	900	890
2	1980	1200	890
3	1980	1500	890
4	1980	1800	890
5	1980	2200	890
6	1980	2500	890
7	1980	3100	890
8	1980	3500	890

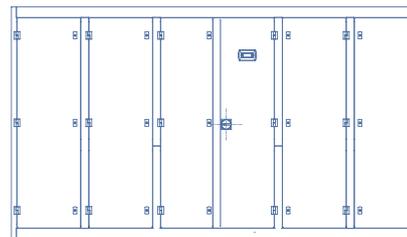
DX or Dual Cool



SC25



SC31



SC35

Mechanical

- 100 models: DX air cooled (16-140kW); DX air cooled with chilled water (60-127kW), DX water cooled (60-127kW), DX water cooled with glycol free-cooling (60-127kW)
- Single circuit DX, Dual circuit DX/DX, Dual cool DX/Free-cooling, DX/CW
- Downflow configuration
- Dual cool with automatic change-over and duty share, for built-in 2N redundancy and flexibility (60 -127kW)
- Slab coil with hydrophilic coated fins; offers two circuits configured to reduce down time (model dependent)
- Large surface area filters for lower airside pressure drop
- Sight glass and filter drier for system reliability
- Front access to all major components for quick and easy service and maintenance
- Lift off door hinges
- 360° unit access via fully detachable panels as well as all service connections located at one end of the unit facilitates installation and maintenance
- Robust welded case construction

Optional:

- Dual purpose condensate pump for humidifier and condensate drains

Precision

- Fixed speed tandem scroll compressor DX cooling across single and dual circuits offer 4 stages of cooling
- 'Draw through' configuration for maximum heat exchanger efficiency (16 – 140kW)

Optional:

- Constant air volume control whereby fans speed changes if faced with system resistance
- Variable air flow in response to changes in room demand (dependent on application)
- High efficiency de-humidification uses less mechanical cooling
- Staged electric heating during de-humidification to ensure thermal balance
- Thyristor-controlled electric heating for precise control

SmartCool™ technical specifications:

Case size (mm)	Model no.	Nominal cooling (kW) TC	Nominal cooling (kW) SC	EER	No. of fans	Air volume m ³ /s	Sound pressure @ 3m (dBA)*
Single circuit							
H x W x D	X100 - DX air cooled						
1. 1980(H) x 900(W) x 890(L)	SC09D016-X100-0	17.4	17.3	3.73	1	1.6	64
	SC09D019-X100-0	19.9	19.8	3.50	1	1.8	66
	SC09D023-X100-0	23.5	23.4	3.41	1	1.9	67
	SC09D026-X100-0	26.2	25.1	3.38	1	1.9	67
X200 - DX air cooled							
2. 1980(H) x 1200(W) x 890(L)	SC12D020-X200-0	22.4	22.3	3.70	1	1.7	59
	SC12D023-X200-0	27.9	27.7	3.56	1	2.1	62
	SC12D029-X200-0	31.3	30.7	3.38	1	2.3	67
	SC12D033-X200-0	36.0	34.1	3.29	1	2.5	68
	SC12D036-X200-0	40.3	36.2	3.26	1	2.5	69
3. 1980(H) x 1500(W) x 890(L)	SC15D027-X200-0	29.5	29.3	3.82	2	2.4	61
	SC15D030-X200-0	33.5	33.3	3.65	2	2.8	69
	SC15D035-X200-0	38.8	38.6	3.41	2	3.3	69
	SC15D040-X200-0	42.9	42.6	3.34	2	3.3	70
	SC15D044-X200-0	45.6	44.2	3.35	2	3.3	70
4. 1980(H) x 1800(W) x 890(L)	SC18D037-X200-0	39.2	39.0	3.59	2	3.3	71
	SC18D040-X200-0	44.4	44.1	3.47	2	3.6	72
	SC18D044-X200-0	48.2	47.9	3.41	2	4.0	74
X1X1 - DX air cooled							
4. 1980(H) x 1800(W) x 890(L)	SC18D048-X1X1-0	53.7	53.4	3.34	2	4.1	75
	SC18D055-X1X1-0	60.8	56.5	3.36	2	4.1	75
2X20 - DX air cooled							
5. 1980(H) x 2200(W) x 890(L)	SC22D050-2X20-0	51.0	51.0	3.80	2	4.7	56
	SC22D059-2X20-0	61.9	61.9	3.69	2	5.1	57
	SC22D064-2X20-0	68.7	68.7	3.52	2	5.4	61
	SC22D074-2X20-0	76.9	76.9	3.36	2	5.6	66
6. 1980(H) x 2500(W) x 890(L)	SC25D062-2X20-0	63.9	63.9	3.84	3	5.7	55
	SC25D068-2X20-0	71.0	71.0	3.70	3	5.9	58
	SC25D075-2X20-0	79.7	79.7	3.51	3	6.2	58
	SC25D085-2X20-0	88.8	88.8	3.39	3	6.4	59
	SC25D092-2X20-0	94.8	90.9	3.36	3	6.7	59
7. 1980(H) x 3100(W) x 890(L)	SC31D069-2X20-0	74.1	74.1	3.82	3	6.9	59
	SC31D079-2X20-0	83.7	83.7	3.61	3	7.2	59
	SC31D089-2X20-0	93.6	93.6	3.49	3	7.5	60
	SC31D094-2X20-0	100.0	100.0	3.48	3	7.8	62
	SC31D108-2X20-0	111.8	111.8	3.39	3	8.1	66
	SC31D124-2X20-0	125.7	117.3	3.40	3	8.1	66
8. 1980(H) x 3500(W) x 890(L)	SC35D079-2X20-0	85.8	85.8	3.73	4	7.9	58
	SC35D091-2X20-0	96.3	96.3	3.60	4	8.2	59
	SC35D098-2X20-0	103.0	103.0	3.60	4	8.6	60
	SC35D111-2X20-0	115.6	115.6	3.48	4	9.0	61
	SC35D127-2X20-0	130.5	130.5	3.46	4	9.3	61
	SC35D140-2X20-0	143.2	136.7	3.32	4	9.6	63
2W20 - DX water cooled							
5. 1980(H) x 2200(W) x 890(L)	SC22D050-2W20-0	51.0	51.0	3.80	2	4.7	56
	SC22D059-2W20-0	61.9	61.9	3.69	2	5.1	57
	SC22D064-2W20-0	68.7	68.7	3.52	2	5.4	61
	SC22D074-2W20-0	76.9	76.9	3.36	2	5.6	66
6. 1980(H) x 2500(W) x 890(L)	SC25D062-2W20-0	63.9	63.9	3.84	3	5.7	55
	SC25D068-2W20-0	71.0	71.0	3.70	3	5.9	58
	SC25D075-2W20-0	79.7	79.7	3.51	3	6.2	58
	SC25D085-2W20-0	88.8	88.8	3.39	3	6.4	59
	SC25D092-2W20-0	94.8	90.9	3.36	3	6.7	59
7. 1980(H) x 3100(W) x 890(L)	SC31D069-2W20-0	74.1	74.1	3.82	3	6.9	59
	SC31D079-2W20-0	83.7	83.7	3.61	3	7.2	59
	SC31D089-2W20-0	93.6	93.6	3.49	3	7.5	60
	SC31D094-2W20-0	100.0	100.0	3.48	3	7.8	62
	SC31D108-2W20-0	111.8	111.8	3.39	3	8.1	66
	SC31D124-2W20-0	125.7	117.3	3.40	3	8.1	66
8. 1980(H) x 3500(W) x 890(L)	SC35D079-2W20-0	85.8	85.8	3.73	4	7.9	58
	SC35D091-2W20-0	96.3	96.3	3.60	4	8.2	59
	SC35D098-2W20-0	103.0	103.0	3.60	4	8.6	60
	SC35D111-2W20-0	115.6	115.6	3.48	4	9.0	61
	SC35D127-2W20-0	130.5	130.5	3.46	4	9.3	61

DX data is based on nominal cooling at 24°C/45%RH 45°C condensing temperatures

TC = Total Cooling

SC = Sensible Cooling

EER = Energy Efficiency Ratio based on TOTAL input power of compressors and fans

Performance data calculated in accordance with BSEN 14511-2011 and Eurovent 6/6

SmartCool™ technical specifications continued:

Case size (mm)	Model no.	DX cooling (kW) TC	DX cooling (kW) SC	EER	TC Secondary Cooling (kW)	SC Secondary Cooling (kW)	EER	No. of fans	Air volume m ³ /s	Sound pressure @ 3m (dBA)*
Dual cool										
H x W x D										
2X2C - DX air cooled / chilled water										
5. 1980(H) x 2200(W) x 890(L)	SC22D050-2X2C-0	51.0	51.0	3.80	68.7	59.2	22.71	2	4.7	56
	SC22D059-2X2C-0	61.9	61.9	3.69	72.7	63.6	18.96	2	5.1	57
	SC22D064-2X2C-0	68.7	68.7	3.52	75.6	67.0	16.56	2	5.4	61
	SC22D074-2X2C-0	76.9	76.9	3.36	77.3	71.5	15.47	2	5.6	66
6. 1980(H) x 2500(W) x 890(L)	SC25D062-2X2C-0	63.9	63.9	3.84	80.8	71.4	20.61	3	5.7	55
	SC25D068-2X2C-0	71.0	71.0	3.70	83.2	74.3	18.60	3	5.9	58
	SC25D075-2X2C-0	79.7	79.7	3.51	86.2	79.8	17.01	3	6.2	58
	SC25D085-2X2C-0	88.8	88.8	3.39	86.9	80.4	15.11	3	6.4	59
	SC25D092-2X2C-0	94.8	90.9	3.36	87.0	80.5	13.38	3	6.7	59
7. 1980(H) x 3100(W) x 890(L)	SC31D069-2X2C-0	74.1	74.1	3.82	100.6	86.4	21.68	3	6.9	59
	SC31D079-2X2C-0	83.7	83.7	3.61	103.9	90.1	19.54	3	7.2	59
	SC31D089-2X2C-0	93.6	93.6	3.49	107.0	93.6	17.69	3	7.5	60
	SC31D094-2X2C-0	100.0	100.0	3.48	109.8	96.9	16.14	3	7.8	62
	SC31D108-2X2C-0	111.8	111.8	3.39	112.8	104.4	14.74	3	8.1	66
	SC31D124-2X2C-0	125.7	117.3	3.40	112.8	104.4	14.74	3	8.1	66
8. 1980(H) x 3500(W) x 890(L)	SC35D079-2X2C-0	85.8	85.8	3.73	115.2	98.4	21.87	4	7.9	58
	SC35D091-2X2C-0	96.3	96.3	3.60	118.9	102.6	19.70	4	8.2	59
	SC35D098-2X2C-0	103.0	103.0	3.60	122.5	106.7	17.77	4	8.6	60
	SC35D111-2X2C-0	115.6	115.6	3.48	126.7	111.5	15.73	4	9.0	61
	SC35D127-2X2C-0	130.5	130.5	3.46	129.5	119.9	14.47	4	9.3	61
2W2F - DX water cooled / free cooling										
5. 1980(H) x 2200(W) x 890(L)	SC22D050-2W2F-0	51.0	51.0	3.80	68.7	59.2	22.71	2	4.7	56
	SC22D059-2W2F-0	61.9	61.9	3.69	72.7	63.6	18.96	2	5.1	57
	SC22D064-2W2F-0	68.7	68.7	3.52	75.6	67.0	16.56	2	5.4	61
	SC22D074-2W2F-0	76.9	76.9	3.36	77.3	71.5	15.47	2	5.6	66
6. 1980(H) x 2500(W) x 890(L)	SC25D062-2W2F-0	63.9	63.9	3.84	80.8	71.4	20.61	3	5.7	55
	SC25D068-2W2F-0	71.0	71.0	3.70	83.2	74.3	18.60	3	5.9	58
	SC25D075-2W2F-0	79.7	79.7	3.51	86.2	79.8	17.01	3	6.2	58
	SC25D085-2W2F-0	88.8	88.8	3.39	86.9	80.4	15.11	3	6.4	59
	SC25D092-2W2F-0	94.8	90.9	3.36	87.0	80.5	13.38	3	6.7	59
7. 1980(H) x 3100(W) x 890(L)	SC31D069-2W2F-0	74.1	74.1	3.82	100.6	86.4	21.68	3	6.9	59
	SC31D079-2W2F-0	83.7	83.7	3.61	103.9	90.1	19.54	3	7.2	59
	SC31D089-2W2F-0	93.6	93.6	3.49	107.0	93.6	17.69	3	7.5	60
	SC31D094-2W2F-0	100.0	100.0	3.48	109.8	96.9	16.14	3	7.8	62
	SC31D108-2W2F-0	111.8	111.8	3.39	112.8	104.4	14.74	3	8.1	66
	SC31D124-2W2F-0	125.7	117.3	3.40	112.8	104.4	14.74	3	8.1	66
8. 1980(H) x 3500(W) x 890(L)	SC35D079-2W2F-0	85.8	85.8	3.73	115.2	98.4	21.87	4	7.9	58
	SC35D091-2W2F-0	96.3	96.3	3.60	118.9	102.6	19.70	4	8.2	59
	SC35D098-2W2F-0	103.0	103.0	3.60	122.5	106.7	17.77	4	8.6	60
	SC35D111-2W2F-0	115.6	115.6	3.48	126.7	111.5	15.73	4	9.0	61
	SC35D127-2W2F-0	130.5	130.5	3.46	129.5	119.9	14.47	4	9.3	61
X1C0 / X2C0 / XDC0 - DX Air-Cooled / Chilled Water										
1. 1980(H) x 900(W) x 890(L)	SC09D016-X1C0-0	17.2	17.2	3.06	22.0	21.6	24.83	1	1.6	55
	SC09D019-X1C0-0	19.1	19.1	2.78	23.8	23.8	19.54	1	1.8	61
	SC09D023-X1C0-0	23.9	23.9	3.21	24.5	24.5	18.17	1	1.9	62
	SC09D026-X1C0-0	26.4	26.0	3.10	24.5	24.5	18.17	1	1.9	62
6. 1980(H) x 1200(W) x 890(L)	SC12D021-X2C0-0	21.1	21.1	2.77	27.5	24.8	41.34	1	1.7	48
	SC12D027-X2C0-0	28.2	28.2	2.97	31.8	29.0	31.06	1	2.1	66
	SC12D030-X2C0-0	31.6	31.6	3.04	33.1	29.6	25.21	1	2.3	66
	SC12D035-X2C0-0	35.4	34.9	2.64	35.1	32.0	21.09	1	2.5	65
	SC12D037-X2C0-0	38.8	36.9	2.51	35.1	32.0	21.09	1	2.5	65
7. 1980(H) x 3100(W) x 890(L)	SC15D027-X2C0-0	26.3	26.3	2.43	33.6	31.1	33.07	2	2.4	51
	SC15D032-X2C0-0	33.5	33.5	2.84	37.0	36.2	24.25	2	2.8	55
	SC15D036-X2C0-0	37.7	37.7	2.59	43.0	43.0	17.72	2	3.3	59
	SC15D040-X2C0-0	41.5	41.5	2.68	43.0	43.0	17.72	2	3.3	59
	SC15D043-X2C0-0	45.6	45.6	2.73	43.0	43.0	17.72	2	3.3	59
8. 1980(H) x 1800(W) x 890(L)	SC18D037-X2C0-0	38.1	38.1	2.93	42.9	42.9	22.49	2	3.3	54
	SC18D040-X2C0-0	42.5	42.5	2.74	45.9	45.9	22.17	2	3.6	69
	SC18D044-X2C0-0	45.8	45.8	2.68	49.7	49.7	17.71	2	4.0	69
	SC18D048-XDC0-0	44.5	44.5	3.29	54.3	54.3	17.94	2	4.1	69
	SC18D055-XDC0-0	46.9	46.9	3.06	54.3	54.3	17.94	2	4.1	69

CW / Free-cool data is based on nominal cooling at 24°C / 45%RH and 7 / 12°C water inlet / outlet temperature 0% glycol

TC = Total Cooling

SC = Sensible Cooling

EER = Energy Efficiency Ratio based on TOTAL input power of compressors and fans

Performance data calculated in accordance with BSEN 14511-2011 and Eurovent 6/6

ACIS™ BMS

One source, complete visibility

ACIS™ BMS, Airedale's exclusive Building Management System is an innovative, scalable and future-proof solution which has been specifically designed to enhance system performance, drive down operational costs and aid decision making for a wide range of building services.

Offering a more pre-emptive BMS solution, ACIS™ is able to make decisions, delivering a higher level of building intelligence. With its simplistic and intuitive interface, ACIS™ BMS allows you to gain access anytime, anywhere to your building's systems, enabling you to manage building services from any manufacturer across multiple sites through a single integrated system.

A wide range of features enable total system efficiency to be evaluated, puts the user in full control, provides complete visibility of all building services and offers total facility integration.

- 
Complete Visibility of Building Infrastructure
- 
Secure Remote 24/7 Access
- 
Extensive Analysis, Monitoring and Diagnostic Tools
- 
Fully Compatible
- 
Immediate Notifications
- 
Live Capture and Historical Energy Usage
- 
Visualisation and Graphical Representation
- 
Optional 24/7 Support



Intelligent controls

Seamlessly managing your system



The control centre of each of our cooling systems is a sophisticated electronic microprocessor with control logic specially developed by Airedale.

The microprocessor uses sensors to send and receive messages to and from active components such as compressors, fans and pumps so they interact with each other, balancing cooling duty, temperature, air flow and pressure to exactly match the application.

By integrating intelligent components, the controller manages and optimises the system's performance and reduces power draw.

Smart networking solutions:

Fully-programmable via the control panel's user-friendly display, the microprocessor can be linked with all standard BMS protocols to:



Trigger alarm messages



Send alarm/service messages via email or SMS using an interface



Operate time scheduling



Allow adjustment of temperature setpoints

Future-proof, flexible, 24/7

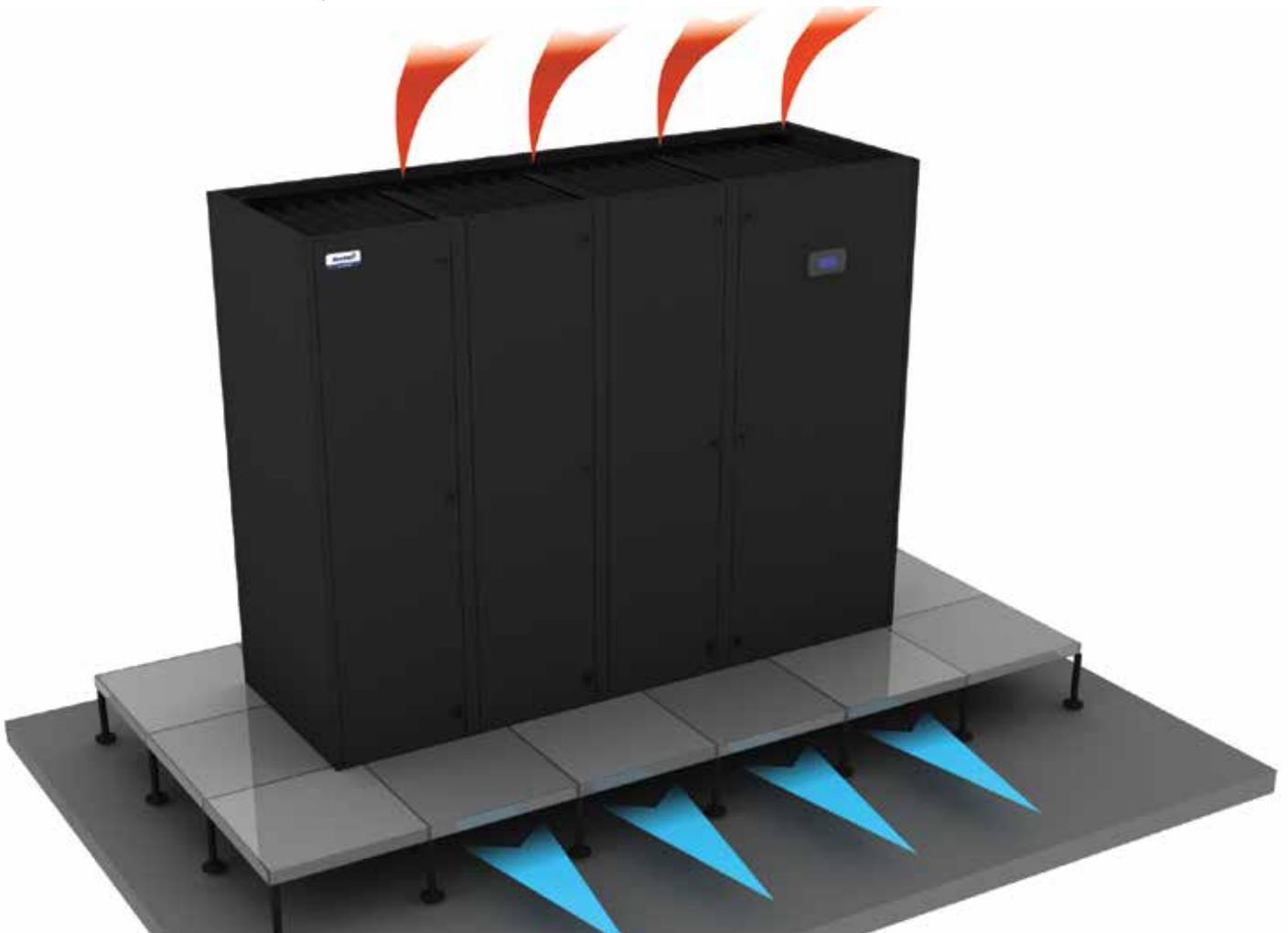
As an intelligent stand-alone unit or when networked with up to eight units, the SmartCool™ adapts to your data centre's particular requirements. Its compact, modular design makes it easy for multiple units of different size and capacity to be added as load increases or to eliminate hot spots. Smartly networked standby units ensure 24/7 availability.

Integration protocols

Modbus®



SNMP



Vu™

Touchscreen user interface

All SmartCool™ units are now integrated with a colour touchscreen user interface, Vu™, which further enhances your interaction with the SmartCool™ control system.

Vu™ boasts a range of new and enhanced features



Easy to use interface for enhanced usability

The new intuitive 4.3" touchscreen interface is tuned to the needs of end users with familiar iconography which is clear, modern and bright - providing an experience more akin to a mobile app.

The Vu™ includes gesture control. This allows page navigation with a swipe, setpoint adjustments via a rotating control wheel and scrollable data tables are used to display large amounts of system information efficiently.

Trend visualisation

Visualisation of system information, both dynamic and historical, enables long term trends to be analysed and managed allowing for easy system optimisation.

A user can overlay up to four trends using any combination of pre-set system variables to understand the systems response.

The entire trend and alarm log can also easily be exported to USB media for archiving purposes.

At a glance unit status

The operating status of the unit can easily be determined "at a glance" with a colour coded LED bar.

Built in service terminal

The Vu™ contains a built in service terminal which emulates the traditional LCD display found on other Airedale products. This provides a clean separation between the user and engineer environments, providing a responsive and aesthetic user interface for day-to-day use.

Total support

Whenever you need it

At Airedale, we don't just manufacture and supply cooling and refrigeration products; we also provide a broad range of supporting services to ensure our customers receive the best possible aftersales care.

With more than 40 years' experience in business critical cooling, investing in an Airedale cooling or refrigeration solution means that you can benefit from our advice, expertise and technical support too. From design and selection, through to commissioning and beyond, we make sure your system reduces your total cost of ownership, whilst providing maximum availability and longevity.

Service plans Maximising your system's effectiveness 24/7



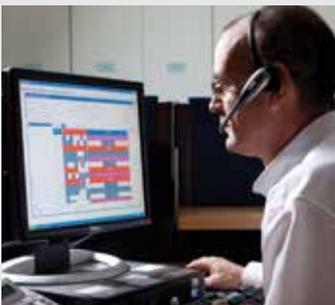
An Airedale service plan provides a planned, preventative maintenance package to sustain the optimum efficiency of your system, enabling the user to see real savings in energy costs and reduced carbon emissions.

With Airedale, you can rest assured that help is never far away. Our 24/7 emergency helpline and call out service is available 365 days of the year, ensuring that we are always on hand to provide expert advice and immediate help, day or night.

A guaranteed emergency response time means that a qualified Airedale engineer will be with you in no time, therefore maximising your system's uptime. Service plans also ensure F Gas compliance and incorporate a full parts and labour warranty for the first 12 months.

For more information visit www.airedale.com

* For customers outside the UK, our international distributors trained by Airedale would be pleased to offer service on Airedale units



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Find out how we design our systems to reduce your whole life costs. Our highly experienced engineers are adept at tailoring our systems to suit your requirements.

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Have complete control of your site

Customers with critical sites can benefit from our remote monitoring facility. Aftersales services include chiller sequencing, network setup and integration as well as a live demonstration and training centre at our head office.



24/7 support; maintenance and spares

Immediate help on hand to keep your critical cooling system operational. Realise the full potential of your system; improve its longevity and efficiency and be F Gas compliant. Avoid downtime with our fast, efficient spares service.



Develop your skills

Learn more about your cooling system by attending an air conditioning and refrigeration course in our purpose-built training school. Train on high-tech cooling systems and fully operational rigs in our dedicated workshops. Industry recognised courses also available. Email training@airedale.com for further details.

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