Airedale
APPLIED THERMAL INNOVATION

Condensing Unit | Air Cooled



Ultima Compact Condensing Unit Range

30 – 150kW

+ EER* up to 3.39
+ Compact design
+ Optimised for use with R410A
+ Low sound levels

* Energy Efficiency Ratio

HFC R410A | AIR DX | SCROLL COMPRESSOR | EC FAN

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www.airedale.com

BRITISH MANUFACTURER | ENERGY EFFICIENCY | CONTROLS | SERVICE | TRAINING

Unparalleled efficiency

Ultimate in advanced condenser technology

The Ultima Compact Condenser is a high efficiency, compact, air-cooled single/ dual circuit condensing unit, which offers exceptional Energy Efficiency Ratios (EER) of up to 3.39 .

With DSH scroll compressors and optimised for R410A refrigerant, the Ultima Compact Condensing range has been engineered using the very best condenser technology and components to increase efficiency and deliver improved performance.

Developed with low sound levels as a key factor in its design, the Ultima Compact Condenser is ideally applicable to a variety of environments including including offices, retail, healthcare, leisure and data centres.

Key technical data

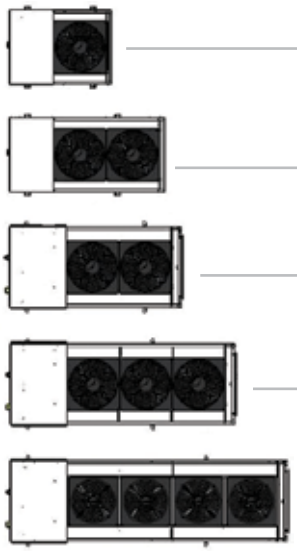
- 30 – 150kW nominal cooling capacity
- 30 models
- 5 case sizes
- Single and dual circuit variants
- Regular quiet and extra quiet sound variants
- 1-4 stages of cooling
- Designed and optimised for R410A refrigerant

EER* of up to 3.42

Part load efficiencies are enhanced by sequenced scroll compressors and EC fans.

*Energy Efficiency Ratio

5 case sizes available



H x W x L	Nominal Cooling*
1450 x 1310 x 1650mm Single and Dual Circuit	30 - 40kW
1450 x 1310 x 2500mm Single and Dual Circuit	30 - 75kW
2000 x 1300 x 2800mm Dual Circuit Only	85 - 100kW
2000 x 1300 x 3650mm Dual Circuit Only	100 - 150kW
2000 x 1300 x 4500mm Dual Circuit Only	125 - 150kW

* 6°C evaporating temperature, 35°C ambient

Next generation compressor technology for ultimate efficiency

For increased efficiency and reliability, the Ultima Compact Condenser range utilises DSH scroll compressor technology.

Ideal for a range of applications. The DSH is a compressor with a low vibration level. It is focused on part-load energy efficiency, lower applied costs and improved robustness.

Key features of DSH scroll compressors:

- Intermediate Discharge Valves (IDV) - avoid over compression and extra effort by motors during part-load operation, reducing power consumption and improving seasonal energy efficiency
- Increased application envelope allows evaporating temperatures of up to 25˚C
- Intermediate cap and “no contact – no wear” scroll design reduces friction and running costs
- Electronic motor protection module prevents overheating, overloading and phase loss
- Integrated non-return valve prevents refrigerant migration

Increased efficiency by up to 30% with a Remote Electronic Expansion Valve (REEV)*

The Remote Electronic Expansion Valve (REEV) brings the efficiency and control of electronic expansion valves to a split system, providing stable and accurate control of the refrigeration system superheat.

REEV enables the Ultima Compact Condensing Unit Range to be matched with any manufacturer’s new or existing Air Handling Unit (AHU) in a 1-1 circuit match, regardless of size.

Benefits include:

- Improved efficiency by up to 30%
- Optimisation
- Versatility for a greater selection tolerance
- Remote intelligent configuration, providing ultra-stable system operation
- Reduced cost of installation

* Option

Up to 80% more efficient*

Electronically commutated axial fans give increased performance for reduced power input.

*than an AC fan at part load

Designed and optimised for R410A refrigerant

The Ultima Compact Condensing Unit Range has been specifically developed for use with the refrigerant R410A. With the higher heat transfer capabilities of R410A it is designed to increase system efficiencies and is less susceptible to efficiency losses due to pressure drop when compared with R407C.

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

Specifications at a glance

Nomenclature explained U CUR 075 D R- 2

U	Ultima
CUR	CUR = Condensing Unit R410A
xxx	Nominal Capacity (kW)
S D	Number of Circuits Single Circuit Dual Circuit
R- X-	Noise Variant Regular Quiet Extra Quiet
1-4	Number of Fans/Case size

Nominal capacity @ 6°C evaporating, 35°C ambient

EU F-Gas Regulations

This product range contains R410A fluorinated greenhouse gas with a GWP of 2088, weight range of 8.5 - 45.5kg, representing 17.7 - 95.0 equivalent tonnes of CO_2.

5 case sizes available

Model No.	Number of Circuits	Nom. Cooling Capacity (kW)[1]	Input (kW)[1]	EER[2]	Sound Pressure @ 10m dB(A)	Dimensions (HxWxD) mm	Operating Weight (kg)
Regular quiet							
UCUR030SR-10E0	1	31.6	10.1	3.13	44	1450 x 1310 x 1650	560
UCUR040SR-10H0	1	39.4	14.5	2.72	44	1450 x 1310 x 1650	616
UCUR040DR-10CC	2	39.4	14.5	2.72	44	1450 x 1310 x 1650	650
UCUR050SR-20K0	1	57.2	17.6	3.25	47	1450 x 1310 x 2500	833
UCUR050DR-20DD	2	57.2	17.6	3.25	47	1450 x 1310 x 2500	804
UCUR060SR-20L0	1	63.6	20.1	3.16	47	1450 x 1310 x 2500	839
UCUR060DR-20EE	2	63.6	20.1	3.16	47	1450 x 1310 x 2500	812
UCUR070SR-20M0	1	71.1	23.6	3.01	47	1450 x 1310 x 2500	843
UCUR070DR-20FF	2	71.1	23.6	3.01	47	1450 x 1310 x 2500	816
UCUR075SR-20N0	1	78.1	27.3	2.86	48	1450 x 1310 x 2500	850
UCUR075DR-20GG	2	78.1	27.3	2.86	48	1450 x 1310 x 2500	823
UCUR085DR-20HJ	2	88.2	30.3	2.91	49	2000 x 1300 x 2800	1160
UCUR100DR-20JK	2	105.7	34.4	3.07	53	2000 x 1300 x 2800	1206
UCUR125DR-30LL	2	130.1	40.4	3.22	53	2000 x 1300 x 3650	1511
UCUR150DR-30NN	2	161.6	53.8	3.00	54	2000 x 1300 x 3650	1536
Extra quiet							
UCUR030SX-10E0	1	31.8	10.0	3.18	42	1450 x 1310 x 1650	560
UCUR040SX-10H0	1	39.7	14.4	2.76	42	1450 x 1310 x 1650	616
UCUR040DX-10CC	2	39.7	14.4	2.76	42	1450 x 1310 x 1650	650
UCUR050SX-20K0	1	57.4	17.4	3.30	45	1450 x 1310 x 2500	833
UCUR050DX-20DD	2	57.4	17.4	3.30	45	1450 x 1310 x 2500	804
UCUR060SX-20L0	1	63.9	19.9	3.21	45	1450 x 1310 x 2500	839
UCUR060DX-20EE	2	63.9	19.9	3.21	45	1450 x 1310 x 2500	812
UCUR070SX-20M0	1	71.5	23.3	3.07	45	1450 x 1310 x 2500	843
UCUR070DX-20FF	2	71.5	23.3	3.07	45	1450 x 1310 x 2500	816
UCUR075SX-20N0	1	78.6	26.9	2.92	46	1450 x 1310 x 2500	850
UCUR075DX-20GG	2	78.6	26.9	2.92	46	1450 x 1310 x 2500	823
UCUR085DX-20HJ	2	89.3	29.7	3.01	47	2000 x 1300 x 2800	1160
UCUR100DX-30JK	2	106.6	33.0	3.23	48	2000 x 1300 x 3650	1498
UCUR125DX-40LL	2	130.7	38.5	3.39	48	2000 x 1300 x 4500	1679
UCUR150DX-40NN	2	162.1	51.7	3.14	48	2000 x 1300 x 4500	1704

1) Nominal cooling capacity at 6°C evaporating temperature, 35°C ambient temperature, EC fans

2) EER at 6°C evaporating temperature, 35°C ambient temperature, based on TOTAL input power of compressors and fans

Specifications at a glance

Standard Features

The Ultima Compact Condensing range offers a wealth of cost effective, energy saving features. These features help to provide the necessary internal environment expected within an energy efficient building.

- DSH Scroll Compressors
- Optimised Head Pressure Control
- 630mm and 710mm Diameter EC Fans
- Round Tube Plate Fin (RTPF) Condenser Coils
- Fan Discharge Standard Height Plenum
- 400V / 50Hz / 3~
- Liquid and Discharge Line Shut-Off Valves
- Low Pressure Switch with Auto-Reset
- High Pressure Trip Switches
- UltraCap Power Backup
- Control Panel Ventilation

Options

In addition to its wide range of standard features the Ultima Compact Condensing range offers a number of enhanced options that can be specified to create a bespoke product that meets each individual's unique application needs.

Mechanical

- AC Fans
- Extended Height Fan Discharge Plenum
- Dual Maintainable Pressure Relief Valves
- Anti-Vibration Mounts

Refrigeration

- Leak Detection
- Epoxy Coated RTPF Condenser Coils
- Pump Down – Discharge Line Check Valves
- Liquid Receiver
- Suction Accumulator
- Remote Electronic Expansion Valve (REEV)

Electrical*

- Power Monitoring
- Compressor soft start
- Power Factor Correction*

Optional Features – Controls

- Interface Cards

* Model specific

Performance tested

and proven

Quality is assured by our on-site, world-class testing facilities that set the standard as one of the most advanced testing centres of its kind within the global air conditioning industry.

This facility is integral to our development process and ensures our team of designers and engineers conduct a rigorous test program to produce and improve each of our manufactured units.

Designed and built to exceed stringent international standards, our test centre is capable of testing a complete range of air conditioning equipment including precision air conditioning to 250kW and chillers up to 2MW.

We apply a consistent design philosophy which combines innovative sustainability with premium performance and efficiency across each range. Our state-of-the-art, on-site R&D laboratory is BS EN 14511 and BS EN 13053 compliant and allows us to test units for every application.

Our air conditioning units consistently offer some of the industry's leading proven environmental and cost performance figures, combined with the highest quality, reliability and service.

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

Talk directly with an experienced engineer

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.

+44 (0)113 239 1000

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.

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.

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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