



Ultima Compact Chiller Range

30 – 150kW

- + EER* up to 3.42
- + ESEER** up to 4.42
- + Compact design
- + Optimised for use with R410A
- + Low sound levels
- + Full Hydraulic Pump Options

* Energy Efficiency Ratio

** European Seasonal Energy Efficiency Ratio



Unparalleled efficiency

Ultimate in advanced chiller technology

The Ultima Compact Chilller is a high efficiency, compact, air-cooled single/dual circuit chiller, which offers exceptional European Seasonal Energy Efficiency Ratios (ESEER) of up to 4.42 and Energy Efficiency Ratios (EER) of up to 3.42.

With DSH scroll compressors and optimised for R410A refrigerant, the Ultima Compact Chiller range has been engineered using the very best chiller 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 Chiller is ideally applicable to a variety of environments including data centres, retail, manufacturing and leisure.

Available with an extensive range of pump options and buffer tanks to reduce installation time, foot print and operating costs.

Key technical data

- 30 – 150kW nominal cooling capacity
- 44 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
- Various pump options including, water filter, flow switch and buffer tanks



ESEER* of up to 4.42

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

* European Seasonal 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 Single & Dual Circuit | 85 - 100kW |
| | 2000 x 1300 x 3650mm Single & Dual Circuit | 100 - 150kW |
| | 2000 x 1300 x 4500mm Single & Dual Circuit | 125 - 150kW |

* 12/7°C, 35°C Ambient, 100% Water

Next generation compressor technology for ultimate efficiency



For increased efficiency and reliability, the Ultima Compact Chiller 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

**HFC
R410A**

Designed and optimised for R410A refrigerant

The Ultima Compact Chiller 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.



EER* increase of up to 30% with electronic expansion valves

Electronic expansion valves (EEVs) are included on all units as standard. EEVs ability to maintain control of the suction superheat at reduced head pressures provides significant energy savings. This can result in an EER* increase of up to 30%.

* Energy Efficiency Ratio



Up to 80% more efficient*

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

* than an AC fan at part load

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

| Model No. | Number of Circuits | Nom. Cooling Capacity (kW) ¹ | Input (kW) ¹ | EER ² | Sound Pressure @ 10m dB(A) | Dimensions (H x W x D) mm | Operating Weight (kg) |
|----------------------|--------------------|---|-------------------------|------------------|----------------------------|---------------------------|-----------------------|
| Regular quiet | | | | | | | |
| UCCR030SR-10E0 | 1 | 31.6 | 10.1 | 3.13 | 44 | 1450 x 1310 x 1650 | 560 |
| UCCR040SR-10H0 | 1 | 39.4 | 14.5 | 2.72 | 44 | 1450 x 1310 x 1650 | 616 |
| UCCR040DR-10CC | 2 | 39.4 | 14.5 | 2.72 | 44 | 1450 x 1310 x 1650 | 650 |
| UCCR050SR-20K0 | 1 | 57.2 | 17.6 | 3.25 | 47 | 1450 x 1310 x 2500 | 833 |
| UCCR050DR-20DD | 2 | 57.2 | 17.6 | 3.25 | 47 | 1450 x 1310 x 2500 | 804 |
| UCCR060SR-20L0 | 1 | 63.6 | 20.1 | 3.16 | 47 | 1450 x 1310 x 2500 | 839 |
| UCCR060DR-20EE | 2 | 63.6 | 20.1 | 3.16 | 47 | 1450 x 1310 x 2500 | 812 |
| UCCR070SR-20M0 | 1 | 71.1 | 23.6 | 3.01 | 47 | 1450 x 1310 x 2500 | 843 |
| UCCR070DR-20FF | 2 | 71.1 | 23.6 | 3.01 | 47 | 1450 x 1310 x 2500 | 816 |
| UCCR075SR-20N0 | 1 | 78.1 | 27.3 | 2.86 | 48 | 1450 x 1310 x 2500 | 850 |
| UCCR075DR-20GG | 2 | 78.1 | 27.3 | 2.86 | 48 | 1450 x 1310 x 2500 | 823 |
| UCCR085DR-20HJ | 2 | 88.2 | 30.3 | 2.91 | 49 | 2000 x 1300 x 2800 | 1160 |
| UCCR100DR-20JK | 2 | 105.7 | 34.4 | 3.07 | 53 | 2000 x 1300 x 2800 | 1206 |
| UCCR125DR-30LL | 2 | 130.1 | 40.4 | 3.22 | 53 | 2000 x 1300 x 3650 | 1511 |
| UCCR150DR-30NN | 2 | 161.6 | 53.8 | 3.00 | 54 | 2000 x 1300 x 3650 | 1536 |
| Extra quiet | | | | | | | |
| UCCR030SX-10E0 | 1 | 31.8 | 10.0 | 3.18 | 42 | 1450 x 1310 x 1650 | 560 |
| UCCR040SX-10H0 | 1 | 39.7 | 14.4 | 2.76 | 42 | 1450 x 1310 x 1650 | 616 |
| UCCR040DX-10CC | 2 | 39.7 | 14.4 | 2.76 | 42 | 1450 x 1310 x 1650 | 650 |
| UCCR050SX-20K0 | 1 | 57.4 | 17.4 | 3.30 | 45 | 1450 x 1310 x 2500 | 833 |
| UCCR050DX-20DD | 2 | 57.4 | 17.4 | 3.30 | 45 | 1450 x 1310 x 2500 | 804 |
| UCCR060SX-20L0 | 1 | 63.9 | 19.9 | 3.21 | 45 | 1450 x 1310 x 2500 | 839 |
| UCCR060DX-20EE | 2 | 63.9 | 19.9 | 3.21 | 45 | 1450 x 1310 x 2500 | 812 |
| UCCR070SX-20M0 | 1 | 71.5 | 23.3 | 3.07 | 45 | 1450 x 1310 x 2500 | 843 |
| UCCR070DX-20FF | 2 | 71.5 | 23.3 | 3.07 | 45 | 1450 x 1310 x 2500 | 816 |
| UCCR075SX-20N0 | 1 | 78.6 | 26.9 | 2.92 | 46 | 1450 x 1310 x 2500 | 850 |
| UCCR075DX-20GG | 2 | 78.6 | 26.9 | 2.92 | 46 | 1450 x 1310 x 2500 | 823 |
| UCCR085DX-20HJ | 2 | 89.3 | 29.7 | 3.01 | 47 | 2000 x 1300 x 2800 | 1160 |
| UCCR100DX-30JK | 2 | 106.6 | 33.0 | 3.23 | 48 | 2000 x 1300 x 3650 | 1498 |
| UCCR125DX-40LL | 2 | 130.7 | 38.5 | 3.39 | 48 | 2000 x 1300 x 4500 | 1679 |
| UCCR150DX-40NN | 2 | 162.1 | 51.7 | 3.14 | 48 | 2000 x 1300 x 4500 | 1704 |

1) Nominal cooling capacity at 7/12°C water and 35°C ambient temperature

2) EER at 7/12°C water and 35°C ambient temperature, based on TOTAL input power of compressors and fans

3) ESEER based on Eurovent standard calculation method

Specifications at a glance

| Nomenclature explained | | U | CCR | 075 | D | R- | 2 | A | G | G |
|------------------------|--|---|-----|-----|---|----|---|---|---|---|
| U | Ultima | | | | | | | | | |
| CCR | Compact Chiller R410A | | | | | | | | | |
| xxx | Normal Capacity (kW) | | | | | | | | | |
| S | Number of Circuits Single Circuit Dual Circuit | | | | | | | | | |
| D | | | | | | | | | | |
| R- | Noise Variant Regular Quiet Extra Quiet | | | | | | | | | |
| X- | | | | | | | | | | |
| 1-4 | Number of Fans/Case size | | | | | | | | | |
| A | Evaporator Type | | | | | | | | | |
| C - N | Compressor Configuration Circuit 1; 0 if n/a | | | | | | | | | |
| C - N | Compressor Configuration Circuit 2; 0 if n/a | | | | | | | | | |

EU F-Gas Regulations

This product range contains R410A fluorinated greenhouse gas with a GWP of 2088, weight range of 9.5 - 48.0kg, representing 19.8 - 100.2 equivalent tonnes of CO₂.



Standard Features

The Ultima Compact Chiller 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
- Evaporator Pad Heater
- Phase Rotation Relay
- Electronic Expansion Valves

Options

In addition to its wide range of standard features the Ultima Compact Chiller 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
- Condenser Coil Guards

Refrigeration

- Leak Detection
- Epoxy Coated RTPF Condenser Coils
- Pump Down – Discharge Line Check Valves*

Water

- Flow Switch
- Water Filter
- Standard and Larger Head Pump Options
- Standard and Larger Head Twin Head Pump Options*
- Standard and Larger Head Run and Standby Pump Options
- Regulating Bypass Option
- Flushing Bypass Option
- Buffer Tank*
- Expansion Vessel
- Differential Water Pressure Transducer

Electrical*

- Power Monitoring
- Compressor Soft Start
- Power Factor Correction*

Optional Features – Controls

- Interface Cards

* Model specific

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.

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**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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