

Ultima Compact Condensing Unit

Air Cooled Condensing Unit

30kW - 450kW



TECHNICAL MANUAL



ISO 14001
EM552086



ISO 9001
FM00542

About Airedale Products & Customer Services

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As standard, Airedale guarantees all non consumable **parts only** for a period of **24 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, we have introduced Airedale Service, who 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 our Airedale Service 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.

Where applicable, effective removal of condensate is achieved by gradient drainage to outlets and where used, humidification systems produce sterile, non-toxic steam during normal operation.

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

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Warranty cover is not a substitute for Maintenance. Warranty cover is conditional on 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.

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CUSTOMER SERVICES

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General Description

UNIT IDENTIFICATION

AIR COOLED CONDENSING UNIT	
UCCU	Ultima Compact Condensing Unit - Cooling Only
30 - 450	Model Size (Expressed as Nominal Cooling in kW)
SQ-	Single Circuit - Quiet (Models 30-80 (Except 75) Only)
SSQ-	Single Circuit - Super Quiet (Models 30-80 (Except 75) Only)
D-	Double Circuit - Standard
DQ-	Double Circuit - Quiet
DSQ-	Double Circuit - Super Quiet
2-16	Number of Fans
/1 or /2	Single or Double Row of Fans
Example	UCCU250DQ-8/2

INTRODUCTION

The Airedale range of Ultima Compact air cooled condensing units covers the nominal capacity range 30kW to 450kW in 23 model sizes. The range is available with many optional variations including **Quiet** and **Super Quiet** sound level variants.

The range is suitable for a wide range of split-system applications such as Cold Storage, large Retail Comfort Cooling, Process Cooling, Healthcare, Hi-Tech environments and leisure.

Attention has been placed on maximising the unit's performance while keeping the sound and vibration levels and footprint to an absolute minimum.

CE DIRECTIVE



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

Electromagnetic Compatibility Directive (EMC)	89/336/EEC
Low Voltage Directive (LVD)	73/23/EEC
Machinery Directive (MD)	89/392/EEC in the version 98/37/EC
Pressure Equipment Directive (PED)	97/23/EC

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

Maximum and Minimum Operation Temperature (TS) and Pressure (PS)	
Operating Temperature (TS),	TS = Min -20°C to Max 120°C *
Maximum Operating Pressure (PS)	PS = High Side 26 Barg

*Based upon the maximum machine running temperatures.

REFRIGERANTS

The range has been designed and optimised for operation with the ozone benign R407C refrigerant.

STANDARD FEATURES

All models sizes.

Construction

The base is fabricated from galvanised steel to ensure a tough, durable, weatherproof construction.

The superstructure is manufactured from galvanised sheet steel coated with epoxy baked powder paint to provide a durable and weatherproof finish. Standard unit colour is Light Grey (RAL 7035).

Compressors and heat exchangers are mounted on a rigid galvanised heavy-duty sub frame. Fully weatherproofed electrical panels are situated at one end of the unit. Access to the compressors is via end panels adjacent to the electrical control panel.

Other features include:

- Dedicated Compressor Enclosure
- Condenser Fan Discharge Plenum

General Description

STANDARD FEATURES All models sizes.

Condenser Large surface area coil(s) ideally positioned to optimise airflow and heat transfer, manufactured from refrigeration quality copper tubes with mechanically bonded aluminium fins.

Condenser Fan Axial fan assemblies with fingerproof grille and incorporating external rotor motor technology, to provide highly accurate discreet speed control, discharge air vertically. The fans offer maximum performance while keeping sound levels to a minimum.

Electrical supply dependent upon model size, refer to *Electrical Data*.

Head Pressure Control Electronic head pressure controllers are fitted which modulate the fan speed to maintain a constant condensing pressure, allowing the system to operate satisfactorily in ambient temperatures as low as -20°C.

Head pressure can be set, monitored and values viewed at the microprocessor display.

Compressor Scroll compressors comprising:

- Internal motor protection
- Internal pressure relief
- Non return valve
- External discharge temperature protection
- Oil sight glass
- Sump heater

Each Tandem / Trio set has an oil equalisation line.

The compressors are mounted to the rigid galvanised heavy duty sub-frame with the use of vibration reducing isolation.

Refrigeration Each refrigeration circuit is supplied with the following:

- Holding charge of Helium
- Liquid line ball valve
- Suction line ball valve
- Low pressure cut-out with manual reset via microprocessor controller
- High pressure switch with manual reset
- Pressure relief valve with integral rupture disc and indicator gauge

Refer to *Features - Variations* for further detail.

Controls **AIRETronix** microprocessor controller can provide 2-6 stages of capacity control, dependent upon model type, as standard. The controller incorporates full Building Management System capabilities, full details can be found in the *Controls* section.

Control management is offered in 1 of 4 of the most common types, to select via the microprocessor, to be specified at time of order:

- External 0-10V Signal
- Suction Pressure Monitoring
- Remote Space Temperature Sensor
- Remote Digital Inputs

Electrical Dedicated weatherproof electrical power and controls panels are situated at the end of the unit and contain:

- Separate, fully accessible, controls compartment, allowing adjustment of control set points whilst the unit is operational
- Circuit breakers for protection of all major unit components
- Separate, permanent supply for controls/trace heating, 230V/50Hz/1ph

The electrical power and control panel is wired to the latest European standards and codes of practice.

UCCU75, 100-450 Mains supply is 3 phase and a neutral is not required. Refer to *Interconnecting Wiring*.

FEATURES - VARIATIONS		UCCU30, UCCU40, UCCU50, UCCU60, UCCU70 & UCCU80	UCCU75, UCCU100, UCCU125 & UCCU150	UCCU110, UCCU130, UCCU160 & UCCU180	UCCU200, UCCU225, UCCU250, UCCU275 & UCCU300	UCCU330, UCCU360, UCCU400 & UCCU450
Construction						
4 x eye bolts to BS4278 or Integrated lugs/Mounting feet	Integrated lugs	Lifting Eye Bolts	Lifting Eye Bolts	Lifting Eye Bolts	Lifting Eye Bolts	Lifting Eye Bolts
Acoustically lined compressor enclosure	SSQ/DSQ Models	DSQ Models	DSQ Models	DSQ Models	DSQ Models	DSQ Models
Refrigeration						
Holding charge of Helium	Std	Std	Std	Std	Std	Std
Number of Independent Refrigeration Circuits	1 or 2	2	2	2	2	2
Scroll Compressor Arrangement	1 x Tandem Set or 2 x Single	2 x Tandem Sets	2 x Tandem Sets	2 x Tandem Sets	2 x Tandem Sets	2 x Trio Sets
Stickle Bladed Fans	Std	Std - c/w Long Bellmouth	Std - c/w Long Bellmouth	Std - c/w Long Bellmouth	Std - c/w Long Bellmouth	Std - c/w Long Bellmouth
Low speed condenser fan	SQ/DQ Models	DQ Models	DQ Models	DQ Models	DQ Models	DQ Models
Extra Low speed condenser fan	SSQ/DSQ Models	DSQ Models	DSQ Models	DSQ Models	DSQ Models	DSQ Models
Electrical						
Emergency stop	-	Std	Std	Std	Std	Std
Door isolated mains power compartments	-	-	Std	Std	Std	Std
Dedicated bus-bar chamber for incoming 3-phase & earth mains power supply (no neutral required)	-	-	Std	Std	Std	Std
Mains Supply 3 Phase	Std	Std	Std	Std	Std	Std
Neutral Required	Yes	No	No	No	No	No
Phase Rotation Protection	Opt	Opt	Opt	Std	Std	Std
Power Factor Correction	-	Opt	Opt	Opt	Opt	Opt

General Description

OPTIONAL EXTRAS - ENERGY SAVING

Power Factor Correction When applied to the motors of each compressor, the compressor power factor is controlled to a minimum operating value of 0.95 at the full operating capacity. This satisfies many supply authorities that may impose surcharges on equipment with power factor less than 0.95.

OPTIONAL EXTRAS - GENERAL - ALL MODELS

Epoxy Coated Condenser Coils In atmospheres where high corrosion is anticipated epoxy coated aluminium finned coils can be fitted.

Coil Guards Guards can be fitted to each of the outer coils to protect against damage.

Anti Vibration Mounts (Spring Type) Spring vibration isolators can be supplied loose for on site fitting to the base frame of each condensing unit.
The isolators are suitable for fitting to a concrete slab or structural steelwork providing the surface is level and of sufficient strength where a high level of vibration elimination is required.

For further details, please refer to *Error! Reference source not found.* section.

Anti Vibration Mounts (Pad Type) Pad vibration isolators can be supplied loose for on site fitting to the base frame of each condensing unit.

The isolators are suitable for fitting to structural steelwork providing the surface is level and of sufficient strength where a moderate degree of vibration elimination is required.

For further details, please refer to *Error! Reference source not found.* section.

Condenser Fan Discharge Air Plenum Extension Constructed from galvanised sheet steel coated with epoxy baked powder paint, this plenum directs discharge air vertically, thus limiting air re-circulation and provides a degree of acoustic reduction in the horizontal plane, factory fitted. For details please contact Airedale.

Standard unit colour is Light Grey (RAL 7035).

For further details refer to *Dimensions*.

Dual Pressure Relief Valve A 3-way dual shut-off valve that incorporates 2 relief valves and rupture disc assemblies per circuit. The valve allows the maintenance of individual pressure relief valves and rupture discs without the need for refrigerant evacuation.

Discharge Line Ball Valve To facilitate easier pump down to condenser coil, factory fitted.

Discharge Line non-Return Valve To facilitate easier pump down to condenser coil, factory fitted.

Leak Detection Kit A factory calibrated and fitted leak detection kit, will raise an alarm when refrigerant gas is detected.

Phase Rotation Protection A phase sequence relay is available for units containing 3 phase scroll compressors, to prevent possible damage by running the compressor in the wrong direction.

Liquid Receiver & Pressure Relief Valve A liquid receiver, complete with rupture disc assembly, can be factory fitted. Sized to accept the total refrigerant charge, including interconnecting pipework of an equivalent length of 30m plus evaporator based on nominal conditions, for selection outside this range, please contact Airedale.

General Description

OPTIONAL EXTRAS - GENERAL - ALL MODELS

Suction Line Accumulator	For installations such as low temperature applications where there is a risk of liquid returning to the compressor, a suction line accumulator can be factory fitted
Filter Drier & Sight Glass	A liquid line filter drier suitably sized to the refrigeration duty of the compressor and sight glass suitably sized for the liquid line are shipped loose.
Alternative Refrigerant	For applications outside the EU, units can be supplied for use with R22, please specify at time of order.
Electronic Soft Start	The electronic soft start enables the condensing unit compressor motor to be ramped to speed with the minimum full load current. Further benefits include removal of nuisance tripping, supply voltage dips and motor overheating.
Remote Setpoint Adjust	Allows the setpoint to be adjusted via an external 0-10V signal.
BMS Interface Card	Enables AIRETronix Controlled chillers to be interfaced with most BMS, factory fitted, please contact Airedale.

AIRETronix Controls

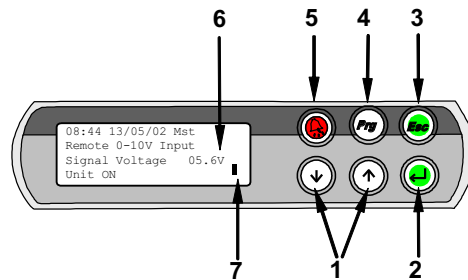
GENERAL DESCRIPTION

The **AIRETronix** microprocessor controller offers powerful analogue and digital control to meet a wide range of monitoring and control features including a real time clock and Industry standard communication port and network connections.

The controller's inbuilt display is used for viewing the unit operating status and making adjustments to control parameters by allowing the operator access to a series of display pages.

Also featured are a visual alarm and the facility to adjust and display control settings by local operator for information and control.

DISPLAY/KEYPAD



- 1 **UP/DOWN KEYS**
To change **Adjustable Fields & Scrolls** up & down available **Menus**
- 2 **ENTER**
Selects Menus & Moves Cursor to Adjustable Fields Green LED
- 3 **ESC**
Green LED lit when **Operating Page** displayed, Returns to **Operating Page** Screen when pressed
- 4 **PROGRAM**
Opens the Available **Menus**
- 5 **ALARM**
Red LED Indicates Alarm Present
- 6 **4 ROW LCD DISPLAY**
- 7 **CURSOR (FLASHING):** Top Left Position = "**HOME**" Indicates adjustable Fields

CONTROL MANAGEMENT

Airedale recognises that all applications differ and have provided 4 of the most common to select via the microprocessor:

External 0-10V Signal

The compressor operation is controlled by the microprocessor in response to an external 0-10V analogue signal.

Remote Space Temperature Sensor

The compressor operation is controlled by the microprocessor in response to changes in return air temperature, measured via a remote sensor (supplied loose).

Remote Digital Inputs

Offering the user complete control of the cooling provided by the unit, via a number (1-6) of digital signals (corresponding to the number of stages of cooling).

FEATURES

Unit Remote ON/OFF

Disables/Enables the condensing unit remotely.

Compressor Anti Cycle Control

Automatic via the Microprocessor.

Compressor Load Limit

Limits the condensing pressure by unloading above 24barg.

Compressor Hours Run

Displays hours run of each compressor.

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.

AIRETronix Controls

FEATURES

Temperature

The microprocessor maintains the temperature by sensing the return air temperatures and manages the compressor loading.

The microprocessor also monitors and displays the following measured parameters:

- Liquid Pressure of each circuit

Alarms

The following conditions will be detected, triggering a visual display:

Common for both circuits (Dual Circuit units):

- Phase Rotation (Optional)
- Emergency Stop

Individual for each circuit:

Individual alarms will isolate the affected circuit only.

- Compressor Trip
- Low Suction Pressure for each circuit
- High Liquid Pressure for each circuit
- Volt Free Contact Alarm Indication
- Low Pressure Cut-out
- Compressor Overload
- High Compressor Discharge Temperature

Performance Data

CAPACITY DATA - STANDARD - D MODELS

Standard - D Models Dew Point Evaporating Temperature °C	Ambient						40°C			
	20°C		25°C		30°C		35°C		40°C	
	Output kW	Input kW	Output kW	Input kW	Output kW	Input kW	Output kW	Input kW	Output kW	Input kW
-5	63.9	15.5	60.1	18.0	56.4	20.4	52.6	22.8	48.9	25.2
0	77.2	16.5	72.8	18.9	68.5	21.3	64.1	23.6	59.8	26.0
5	92.0	17.5	86.9	19.8	81.9	22.1	76.9	24.5	72.0	26.8
10	108.0	18.5	102.3	20.8	96.7	23.0	91.1	25.3	85.6	27.6
-5										
0										
5										
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NOT APPLICABLE

NOT APPLICABLE

Standard - D Models Dew Point Evaporating Temperature °C	Ambient						40°C			
	20°C		25°C		30°C		35°C		40°C	
	Output kW	Input kW	Output kW	Input kW	Output kW	Input kW	Output kW	Input kW	Output kW	Input kW
-5	125.0	32.8	117.7	37.6	110.5	42.4	103.3	47.1	96.2	51.7
0	149.9	35.2	141.4	39.8	133.1	44.4	124.7	49.1	116.6	53.6
5	177.2	37.6	167.6	42.2	158.2	46.6	148.7	51.1	139.4	55.5
10	206.7	40.1	196.0	44.6	185.5	48.9	175.0	53.3	164.6	57.6
-5	152.1	36.0	143.5	41.5	134.9	46.9	126.4	52.3	117.8	57.8
0	183.5	38.4	173.4	43.8	163.5	49.1	153.5	54.5	143.6	59.8
5	218.1	41.0	206.6	46.3	195.2	51.6	183.8	56.8	172.6	62.0
10	255.8	43.7	242.8	49.0	230.0	54.2	217.1	59.4	204.5	64.5
-5	188.9	41.2	159.8	47.4	150.8	53.7	141.8	59.9	132.9	66.1
0	202.6	44.2	192.1	50.4	181.6	56.6	171.1	62.8	160.9	68.9
5	239.8	47.5	227.8	53.7	215.9	59.8	204.0	65.9	192.4	71.9
10	280.3	51.0	266.8	57.1	253.5	63.2	240.2	69.2	227.1	75.2
-5	190.3	48.0	180.1	54.8	170.0	61.7	159.9	68.5	149.9	75.2
0	228.5	51.6	216.7	58.4	205.0	65.2	193.2	72.0	181.7	78.6
5	270.8	55.6	257.2	62.4	243.8	69.1	230.4	75.8	217.2	82.4
10	316.6	60.0	301.3	66.7	286.2	73.3	271.1	79.9	256.2	86.5
-5	206.7	53.6	196.1	61.3	185.5	68.9	174.9	76.5	164.6	84.0
0	247.2	58.0	234.9	65.7	222.7	73.2	210.4	80.9	198.5	88.3
5	291.9	62.8	277.8	70.5	264.0	78.0	250.1	85.5	236.4	93.0
10	340.4	68.1	324.6	75.6	309.1	83.1	293.6	90.5	278.0	98.0
-5	235.0	79.4	222.9	83.2	210.9	87.1	198.9	90.9	187.1	94.6
0	280.2	82.7	266.1	86.4	252.2	90.1	238.2	93.9	224.6	97.5
5	330.2	86.1	314.1	89.8	298.4	93.4	282.5	97.0	267.0	100.6
10	384.7	89.8	366.7	93.3	349.1	96.8	331.4	100.3	313.8	103.8
-5	259.7	88.5	245.8	92.9	232.1	97.3	218.4	101.7	205.0	106.0
0	307.7	92.5	291.6	96.8	275.9	100.9	259.9	105.1	244.4	109.2
5	360.8	96.7	342.6	100.8	324.8	104.8	306.8	108.7	289.1	112.7
10	418.7	101.1	398.5	105.0	378.6	108.8	358.7	112.6	338.6	116.5
-5	285.0	73.1	269.8	83.5	254.6	93.8	239.5	104.1	224.5	114.3
0	342.6	78.5	324.8	88.9	307.2	99.1	289.5	109.4	272.2	119.4
5	406.2	84.5	385.8	94.8	365.7	104.9	345.5	115.1	325.6	125.2
10	475.2	91.0	452.2	101.2	429.6	111.3	406.8	121.4	384.1	131.4
-5	310.0	81.3	294.0	93.0	278.2	104.5	262.3	116.0	246.8	127.3
0	370.9	87.8	352.4	99.4	334.1	110.9	315.7	122.5	297.7	133.8
5	438.3	94.9	417.1	106.5	396.3	118.0	375.4	129.4	354.7	140.8
10	511.4	102.7	487.6	114.2	464.3	125.5	440.9	136.9	417.3	148.3
-5	354.9	91.5	336.0	104.2	317.1	116.7	298.2	129.3	279.5	141.7
0	423.2	98.4	401.1	110.9	379.3	123.3	357.3	135.8	335.6	148.1
5	498.9	105.8	473.7	118.2	448.8	130.5	423.8	142.8	398.8	155.1
10	581.5	113.9	553.2	126.2	525.3	138.3	497.2	150.5	468.7	162.8
-5	393.2	106.5	371.5	120.0	349.9	133.4	328.3	146.8	306.9	160.1
0	466.2	114.8	441.0	128.0	416.0	141.0	390.9	154.1	366.0	167.1
5	547.0	123.6	518.3	136.6	490.0	149.3	461.5	162.1	432.8	175.0
10	635.0	133.1	603.0	145.8	571.4	158.2	539.6	170.8	506.8	183.7

4 For conditions outside those quoted, please refer to Airedale.
5 For operation in the shaded area, please refer to Airedale.

1 Output kW refers to compressor duty.
2 Input kW refers to the compressor input power.
3 Interpolate for operating conditions between those quoted, do not extrapolate

Performance Data

CAPACITY DATA - QUIET - SQ/DQ MODELS

Table with columns for Dew Point Evaporating Temperature (°C) and Ambient temperature (20°C, 25°C, 30°C, 35°C, 40°C). Rows include models like UCCU30SQ-1/1, UCCU40SQ-1/1, UCCU50SQ-2/1, etc.

1 Output kW refers to compressor duty. 2 Input kW refers to the compressor input power. 3 Interpolate for operating conditions between those quoted, do not extrapolate

Table with columns for Dew Point Evaporating Temperature (°C) and Ambient temperature (20°C, 25°C, 30°C, 35°C, 40°C). Rows include models like UCCU160DQ-6/2, UCCU180DQ-6/2, UCCU200DQ-6/2, etc.

4 For conditions outside those quoted, please refer to Airedale. 5 For operation in the shaded area, please refer to Airedale.

Performance Data

OPERATING LIMITS

Cooling	Standard Unit with Electronic Fan Speed Control (-20°C)
Minimum Ambient Air DB °C	-20°C
Maximum Ambient Air DB °C	Refer to <i>Performance Data - Capacity Data</i>
Minimum Evaporating Temperature °C	-5°C
Maximum Evaporating Temperature °C	+10°C

1 For conditions outside those quoted, please refer to Airedale.

SOUND DATA

Measurement of Sound Data

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 : 1995. **The Global sound data quoted is valid for noise emitted in the horizontal plane in all directions**

All Sound Power Levels quoted are calculated from measured sound intensity according to BS EN ISO9614 Part 1 : 1995.

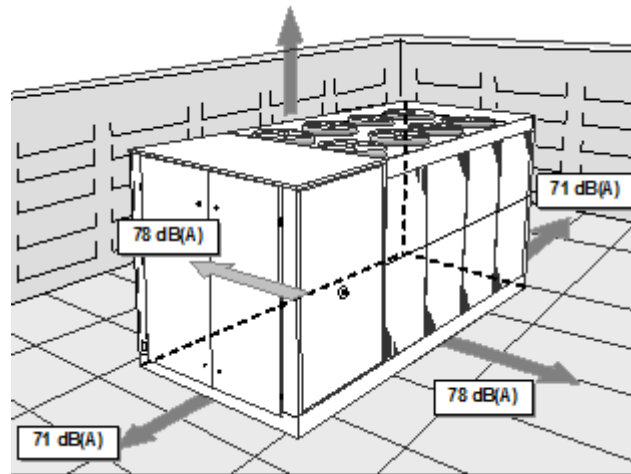
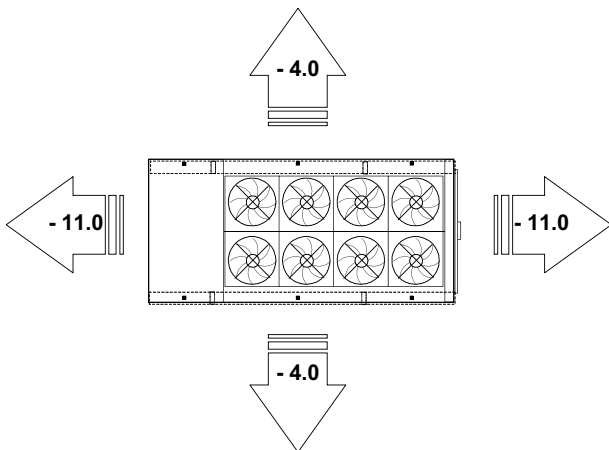
Sound Pressure Levels are calculated from sound power using the expanded parallelepiped method according to BS EN ISO11203 : 1996.

Sound Directivity

The Global sound measurements quoted in the following tables **do not** incorporate any directivity or denote any sound level heard at any given position surrounding the condensing unit, rather they represent the total sound level radiating from the chiller in **all directions in the horizontal plane** from source.

Using the adjustment factors from the map below, specific directional sound power levels can be derived from the global sound power data.

Example - UCCU250DSQ-8/2, Sound Power of 82 dB(A)
=



Performance Data

SOUND DATA

Global Sound Level

Standard - D Models

Sound Measurement	Overall dB(A)	Frequency (Hz) dB						
		63	125	250	500	1000	2000	4000
Power Pressure @ 10m		NOT APPLICABLE						
Power Pressure @ 10m								
Power Pressure @ 10m								
Power Pressure @ 10m								
Power Pressure @ 10m								
UCCU75D-2/1	Power Pressure @ 10m 81 49	74 42	80 48	77 45	79 47	78 46	72 40	63 31
Power Pressure @ 10m		NOT APPLICABLE						
UCCU100D-2/1	Power Pressure @ 10m 81 49	80 48	84 52	78 46	79 47	78 46	72 40	63 31
UCCU110D-4/2	Power Pressure @ 10m 88 56	82 50	89 57	82 50	82 50	84 52	82 50	77 45
UCCU125D-3/1	Power Pressure @ 10m 84 52	74 42	84 52	83 51	81 49	80 48	74 42	65 33
UCCU130D-4/2	Power Pressure @ 10m 88 56	79 47	89 57	84 52	82 50	84 52	82 50	77 45
UCCU150D-3/1	Power Pressure @ 10m 84 52	74 42	84 52	83 51	81 49	80 48	74 42	65 33
UCCU160D-4/2	Power Pressure @ 10m 88 56	79 47	89 57	84 52	82 50	84 52	82 50	77 45
UCCU180D-6/2	Power Pressure @ 10m 90 58	83 51	92 60	86 54	84 52	86 54	84 52	79 47
UCCU200D-6/2	Power Pressure @ 10m 90 58	81 49	91 59	87 55	84 52	86 54	84 52	79 47
UCCU225D-6/2	Power Pressure @ 10m 90 58	81 49	91 59	87 55	84 52	86 54	84 52	79 47
UCCU250D-6/2	Power Pressure @ 10m 90 58	81 49	91 59	87 55	84 52	86 54	84 52	79 47
UCCU275D-8/2	Power Pressure @ 10m 89 57	78 46	85 53	83 51	88 56	85 53	81 49	75 43
UCCU300D-8/2	Power Pressure @ 10m 89 57	78 46	85 53	83 51	88 56	85 53	81 49	75 43
UCCU330D-10/2	Power Pressure @ 10m 90 58	77 45	86 54	84 52	88 56	86 54	80 48	73 41
UCCU360D-10/2	Power Pressure @ 10m 90 58	75 43	86 54	84 52	89 57	86 54	80 48	73 41
UCCU400D-12/2	Power Pressure @ 10m 91 59	76 44	87 55	85 53	89 57	87 55	81 49	73 41
UCCU450D-12/2	Power Pressure @ 10m 91 59	76 44	87 55	85 53	90 58	87 55	81 49	74 42

1 dB(A) is the overall sound level, measured on the A scale.

2 All sound data measured at nominal conditions: 5°C Evaporating temperature and 30°C ambient.



The Sound Pressure data quoted is only valid in free field conditions, where the unit is installed on a reflective base. If the equipment is placed adjacent to a reflective wall, values may vary to those stated, typically increasing by 3dB for each side added.

Performance Data

SOUND DATA

Global Sound Level

Quiet - SQ & DQ Models

Sound Measurement	Overall dB(A)	Frequency (Hz) dB						
		63	125	250	500	1000	2000	4000
UCCU30SQ-1/1 Power	78	70	75	74	74	75	71	67
UCCU30DQ-1/1 Pressure @ 10m	46	38	43	42	42	43	39	35
UCCU40SQ-1/1 Power	78	70	75	74	74	75	71	67
UCCU40DQ-1/1 Pressure @ 10m	46	38	43	42	42	43	39	35
UCCU50SQ-2/1 Power	80	82	82	78	76	77	73	66
UCCU50DQ-2/1 Pressure @ 10m	48	50	50	46	44	45	41	34
UCCU60SQ-2/1 Power	80	82	82	78	76	77	73	66
UCCU60DQ-2/1 Pressure @ 10m	48	50	50	46	44	45	41	34
UCCU70SQ-2/1 Power	80	82	82	78	76	77	73	66
UCCU70DQ-2/1 Pressure @ 10m	48	50	50	46	44	45	41	34
UCCU75DQ-2/1 Power	77	75	80	73	75	74	68	61
UCCU75DQ-2/1 Pressure @ 10m	45	43	48	41	43	42	36	29
UCCU80SQ-2/1 Power	80	82	82	78	76	77	73	66
UCCU80DQ-2/1 Pressure @ 10m	48	50	50	46	44	45	41	34
UCCU100DQ-2/1 Power	77	73	80	73	75	74	68	62
UCCU100DQ-2/1 Pressure @ 10m	45	41	48	41	43	42	36	30
UCCU110DQ-4/2 Power	83	86	85	80	78	80	76	70
UCCU110DQ-4/2 Pressure @ 10m	51	54	53	48	46	48	44	38
UCCU125DQ-3/1 Power	80	75	84	82	77	76	70	64
UCCU125DQ-3/1 Pressure @ 10m	48	43	52	50	45	44	38	32
UCCU130DQ-4/2 Power	83	85	85	83	78	80	76	70
UCCU130DQ-4/2 Pressure @ 10m	51	53	53	51	46	48	44	38
UCCU150DQ-4/1 Power	81	76	85	82	79	77	71	65
UCCU150DQ-4/1 Pressure @ 10m	49	44	53	50	47	45	39	33
UCCU160DQ-6/2 Power	85	87	86	84	80	81	77	71
UCCU160DQ-6/2 Pressure @ 10m	53	55	54	52	48	49	45	39
UCCU180DQ-6/2 Power	85	87	89	84	80	82	77	72
UCCU180DQ-6/2 Pressure @ 10m	53	55	57	52	48	50	45	40
UCCU200DQ-6/2 Power	86	87	88	86	81	82	77	71
UCCU200DQ-6/2 Pressure @ 10m	54	55	56	54	49	50	45	39
UCCU225DQ-8/2 Power	87	88	89	87	82	83	79	73
UCCU225DQ-8/2 Pressure @ 10m	55	56	57	55	50	51	47	41
UCCU250DQ-8/2 Power	87	88	89	87	82	83	79	73
UCCU250DQ-8/2 Pressure @ 10m	55	56	57	55	50	51	47	41
UCCU275DQ-10/2 Power	86	78	85	78	84	81	78	72
UCCU275DQ-10/2 Pressure @ 10m	54	46	53	46	52	49	46	40
UCCU300DQ-10/2 Power	86	79	86	79	85	82	78	72
UCCU300DQ-10/2 Pressure @ 10m	54	47	54	47	53	50	46	40
UCCU330DQ-12/2 Power	86	79	87	80	85	82	77	71
UCCU330DQ-12/2 Pressure @ 10m	54	47	55	48	53	50	45	39
UCCU360DQ-12/2 Power	87	79	87	80	86	82	77	71
UCCU360DQ-12/2 Pressure @ 10m	55	47	55	48	54	50	45	39
UCCU400DQ-14/2 Power	87	80	87	81	86	83	78	72
UCCU400DQ-14/2 Pressure @ 10m	54	47	54	48	53	50	45	39
UCCU450DQ-14/2 Power	87	80	88	81	87	83	78	72
UCCU450DQ-14/2 Pressure @ 10m	54	47	55	48	54	50	45	39

1 dB(A) is the overall sound level, measured on the A scale.

2 All sound data measured at nominal conditions: 5°C Evaporating temperature and 30°C ambient.



The Sound Pressure data quoted is only valid in free field conditions, where the unit is installed on a reflective base. If the equipment is placed adjacent to a reflective wall, values may vary to those stated, typically increasing by 3dB for each side added.

Performance Data

SOUND DATA

Global Sound Level

Super Quiet - SSQ & DSQ Models

Sound Measurement	Overall dB(A)	Frequency (Hz) dB						
		63	125	250	500	1000	2000	4000
UCCU30SSQ-1/1 Power	73	76	70	69	69	69	66	58
UCCU30DSQ-1/1 Pressure @ 10m	41	44	38	37	37	37	34	26
UCCU40SSQ-1/1 Power	73	76	70	69	69	69	66	58
UCCU40DSQ-1/1 Pressure @ 10m	41	44	38	37	37	37	34	26
UCCU50SSQ-2/1 Power	74	80	76	72	72	70	64	58
UCCU50DSQ-2/1 Pressure @ 10m	42	48	44	40	40	38	32	26
UCCU60SSQ-2/1 Power	74	80	76	72	72	70	64	58
UCCU60DSQ-2/1 Pressure @ 10m	42	48	44	40	40	38	32	26
UCCU70SSQ-2/1 Power	74	80	76	72	72	70	64	58
UCCU70DSQ-2/1 Pressure @ 10m	42	48	44	40	40	38	32	26
UCCU75DSQ-3/1 Power	74	74	80	78	69	70	64	54
UCCU75DSQ-3/1 Pressure @ 10m	42	42	48	46	37	38	32	22
UCCU80SSQ-2/1 Power	75	74	73	73	72	71	68	61
UCCU80DSQ-2/1 Pressure @ 10m	43	42	41	41	40	39	36	29
UCCU100DSQ-3/1 Power	75	81	84	78	69	70	64	56
UCCU100DSQ-3/1 Pressure @ 10m	43	49	52	46	37	38	32	24
UCCU110DSQ-4/2 Power	77	82	84	76	74	73	67	61
UCCU110DSQ-4/2 Pressure @ 10m	45	50	52	44	42	41	35	29
UCCU125DSQ-4/1 Power	77	76	84	83	71	70	65	58
UCCU125DSQ-4/1 Pressure @ 10m	45	44	52	51	39	38	33	26
UCCU130DSQ-6/2 Power	80	80	84	82	76	75	69	63
UCCU130DSQ-6/2 Pressure @ 10m	47	48	52	50	44	43	37	31
UCCU150DSQ-4/1 Power	78	77	85	83	72	71	66	58
UCCU150DSQ-4/1 Pressure @ 10m	46	45	53	51	40	39	34	26
UCCU160DSQ-6/2 Power	80	80	84	82	76	75	69	63
UCCU160DSQ-6/2 Pressure @ 10m	47	48	52	50	44	43	37	31
UCCU180DSQ-6/2 Power	80	83	88	82	77	75	69	64
UCCU180DSQ-6/2 Pressure @ 10m	48	51	56	50	45	43	37	32
UCCU200DSQ-8/2 Power	81	81	87	85	78	75	69	64
UCCU200DSQ-8/2 Pressure @ 10m	49	49	55	53	46	43	37	32
UCCU225DSQ-8/2 Power	82	82	88	85	78	76	70	64
UCCU225DSQ-8/2 Pressure @ 10m	50	50	56	53	46	44	38	32
UCCU250DSQ-8/2 Power	82	82	88	85	78	76	70	64
UCCU250DSQ-8/2 Pressure @ 10m	50	50	56	53	46	44	38	32
UCCU275DSQ-12/2 Power	83	79	85	82	81	77	75	70
UCCU275DSQ-12/2 Pressure @ 10m	51	47	53	50	49	45	43	38
UCCU300DSQ-12/2 Power	83	80	85	83	81	77	75	70
UCCU300DSQ-12/2 Pressure @ 10m	51	48	53	51	49	45	43	38
UCCU330DSQ-14/2 Power	84	81	87	84	82	78	74	68
UCCU330DSQ-14/2 Pressure @ 10m	51	48	54	51	49	45	41	35
UCCU360DSQ-14/2 Power	84	81	87	84	83	79	74	67
UCCU360DSQ-14/2 Pressure @ 10m	51	48	54	51	50	46	41	34
UCCU400DSQ-16/2 Power	85	81	87	84	84	79	74	68
UCCU400DSQ-16/2 Pressure @ 10m	52	48	54	51	51	46	41	35
UCCU450DSQ-16/2 Power	85	81	87	84	84	79	74	68
UCCU450DSQ-16/2 Pressure @ 10m	52	48	54	51	51	46	41	35

1 dB(A) is the overall sound level, measured on the A scale.

2 All sound data measured at nominal conditions: 5°C Evaporating temperature and 30°C ambient.

▼ The Sound Pressure data quoted is only valid in free field conditions, where the unit is installed on a reflective base. If the equipment is placed adjacent to a reflective wall, values may vary to those stated, typically increasing by 3dB for each side added.

General Specification

MECHANICAL DATA		UCCU30SQ-1/1	UCCU40SQ-1/1	UCCU50SQ-2/1	UCCU60SQ-2/1	UCCU70SQ-2/1	UCCU80SQ-2/1
		UCCU30DQ-1/1	UCCU40DQ-1/1	UCCU50DQ-2/1	UCCU60DQ-2/1	UCCU70DQ-2/1	UCCU80DQ-2/1
Duty - Cooling		Copper Tube/ Aluminium Fins - Air Cooled					
Cooling Only (1) kW		33.9	39.1	52.1	61.1	69.2	76.8
Nominal Input (1) kW		10.7	12.1	15.6	17.9	20.6	24.6
EER (2)		3.17	3.24	3.33	3.41	3.36	3.12
Capacity Steps	%	0-50-100	0-50-100	0-50-100	0-40-60-100	0-50-100	0-50-100
Capacity Split - CCT1 / CCT2		50 / 50	50 / 50	50 / 50	60 / 40	50 / 50	50 / 50
Dimensions - H x L x W		1450x1650x1310	1450x1650x1310	1450x2500x1310	1450x2500x1310	1450x2500x1310	1450x2500x1310
Weight - Machine		460	540	680	720	740	810
Weight - Operating		470	550	690	740	760	830
Construction - Material / Colour		Plain Galvanised Steel Base with Galvanised Sheet Steel, Epoxy Baked Powder Paint Superstructure Light Grey (RAL 7035)					
Condenser		Copper Tube/ Aluminium Fins - Air Cooled					
Face Area (Total) m ²		1.70	1.70	3.40	3.40	3.40	3.40
Nominal Airflow m ³ /s		2.40	2.43	5.19	5.78	4.81	4.81
Fan & Motor		Axial Fan					
Quantity		1	1	2	2	2	2
Diameter mm		630	630	630	630	630	630
Maximum Speed rpm		1020	1020	1020	1020	1020	1020
Compressor		Single Circuit - Tandem Scroll / Double Circuit - 2 x Single Scroll					
Quantity		2	2	2	2	2	2
Oil Charge Volume (Total) l		1.5 + 1.5	1.6 + 1.6	1.9 + 1.9	3.0 + 1.9	3.0 + 3.0	3.6 + 3.6
Oil Type		Polyol Ester					
Refrigeration		Single Circuit / Double Circuit					
Holding Charge		Helium to 6.9 barg					
Refrigerant Type		R407C					
Recommended Charge (Total) kg		5 + 5	6 + 6	6 + 6	8 + 8	8 + 8	10 + 10
Connections - Single Circuit		Polyol Ester					
Liquid Line in		7/8	7/8	7/8	1 1/8	1 1/8	1 1/8
Suction Line in		1 3/8	1 3/8	1 5/8	1 5/8	1 5/8	1 5/8
Connections - Dual Circuit		Polyol Ester					
Liquid Line in		3/4	3/4	3/4	7/8 / 3/4	7/8	7/8
Suction Line in		1 1/8	1 1/8	1 1/8	1 3/8 / 1 1/8	1 3/8	1 3/8
SUPER QUIET SQ		UCCU30SSQ-1/1	UCCU40SSQ-1/1	UCCU50SSQ-2/1	UCCU60SSQ-2/1	UCCU70SSQ-2/1	UCCU80SSQ-2/1
		UCCU30DSQ-1/1	UCCU40DSQ-1/1	UCCU50DSQ-2/1	UCCU60DSQ-2/1	UCCU70DSQ-2/1	UCCU80DSQ-2/1
		All data as 'Quiet' Model except:					
Cooling Duty (1) kW		34.0	39.2	53.0	60.1	69.4	78.3
Nominal Input (1) kW		10.7	12.0	15.2	18.4	20.5	23.9
EER (2)		3.18	3.25	3.50	3.27	3.38	3.27
Dimensions, H x L x W mm		1450x1650x1310	1450x1650x1310	1450x2500x1310	1450x2500x1310	1450x2500x1310	1450x2500x1310
Weight - Machine kg		470	560	690	730	750	850
Weight - Operating kg		480	570	700	750	770	870
Condenser Face Area (Total) m ²		1.70	1.70	3.40	3.40	3.40	3.40
Nominal Airflow m ³ /s		2.89	2.72	6.14	6.14	5.78	5.44
Condenser Fans, number		1	1	2	2	2	2
Fan Type		Sickle Bladed Fan					
Fan Diameter mm		710	710	710	710	710	710
Maximum Fan Speed rpm		750	750	750	750	750	750
Refrigerant Charge (Total) (3) kg		5 + 5	6 + 6	6 + 6	8 + 8	8 + 8	10 + 10

(1) Nominal Cooling Duties based on 5°C Evaporating temperature and 30°C ambient.
All performance data is supplied in accordance with BS EN 14511-1:2013

(2) EER is the Cooling duty ÷ compressor input power.

(3) Unit supplied with a holding charge of Helium, the refrigerant charge is suitable for upto 10 metres of interconnecting pipework, additional refrigerant must be added for longer pipe runs.

(4) Suitable For Brazed Connections.

General Specification

MECHANICAL DATA		UCCU75D-2/1	UCCU100D-2/1	UCCU110D-4/2	UCCU125D-3/1	UCCU130D-4/2	UCCU150D-3/1	
Duty - Cooling								
Cooling Only	(1) kW	81.9	104.7	112.0	133.7	135.8	157.7	
Nominal Input	(1) kW	22.1	30.7	27.2	37.6	36.6	46.9	
EER	(2)	3.70	3.41	4.11	3.56	3.71	3.37	
Capacity Steps	%	0-25-50-75-100	0-25-50-75-100	0-25-50-75-100	0-20-40-50-60-80-100	0-20-40-50-60-80-100	0-25-50-75-100	
Capacity Split - CCT1 / CCT2	%	50 / 50	50 / 50	50 / 50	50 / 50	50 / 50	50 / 50	
Dimensions - H x L x W		mm	2000x2800x1300	2000x2800x1300	2100x2415x1850	2000x3650x1300	2100x2415x1850	2000x3650x1300
Weight - Machine		kg	930	960	1280	1200	1330	1240
Weight - Operating		kg	940	970	1320	1210	1370	1250
Construction - Material / Colour		Plain Galvanised Steel Base with Galvanised Sheet Steel, Epoxy Baked Powder Paint Superstructure- Light Grey (RAL 7035)						
Condenser		Copper Tube/ Aluminium Fins - Air Cooled						
Face Area (Total)	m ²	5.10	5.10	5.20	7.70	5.20	7.70	
Nominal Airflow	m ³ /s	7.50	7.50	12.80	11.25	12.80	11.25	
Fan & Motor		Sickle Bladed Fan						
Quantity		2	2	4	3	4	3	
Diameter	mm	710	710	630	710	630	710	
Maximum Speed	rpm	900	900	1020	900	1020	900	
Compressor		Tandem Scroll						
Quantity		4	4	4	4	4	4	
Oil Charge Volume (Total)	l	4 x 3.25	4 x 3.80	4 x 3.80	2 x 6.20+2 x 3.80	2 x 6.20+2 x 3.80	4 x 6.20	
Oil Type		Polyol Ester						
Refrigeration		Dual Circuit						
Holding Charge	(3)	Helium to 6.9 barg						
Refrigerant Type		R407C						
Recommended Charge (Total)	kg	20 + 20	22 + 22	22 + 22	25 + 25	22 + 22	30 + 30	
Connections		(4)						
Liquid Line	in	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	
Suction Line	in	1 3/8	1 3/8	1 5/8	1 5/8	1 5/8	1 5/8	
QUIET DQ		UCCU75DQ-2/1	UCCU100DQ-2/1	UCCU110DQ-4/2	UCCU125DQ-3/1	UCCU130DQ-4/2	UCCU150DQ-4/1	
All data as D Model except:								
Cooling Duty	(1) kW	79.9	103.1	109.4	130.1	132.0	159.8	
Nominal Input	(1) kW	23.1	31.4	28.4	39.3	38.4	45.8	
EER	(2)	3.46	3.28	3.85	3.31	3.44	3.49	
Dimensions, H x L x W	mm	2000x2800x1300	2000x2800x1300	2100x2415x1850	2000x3650x1300	2100x2415x1850	2000x4500x1300	
Weight - Machine	kg	930	1000	1240	1200	1280	1500	
Weight - Operating	kg	940	1010	1280	1210	1320	1510	
Condenser Face Area (Total)	m ²	5.10	5.10	5.20	7.70	5.20	10.20	
Nominal Airflow	m ³ /s	6.10	9.92	9.15	9.92	12.20	12.88	
Condenser Fans, number		2	2	4	3	4	4	
Maximum Fan Speed	rpm	750	750	900	750	900	750	
Refrigerant Charge (Total)	(3) kg	20 + 20	25 + 25	22 + 22	30 + 30	22 + 22	40 + 40	
SUPER QUIET DSQ		UCCU75DSQ-3/1	UCCU100DSQ-3/1	UCCU110DSQ-4/2	UCCU125DSQ-4/1	UCCU130DSQ-6/2	UCCU150DSQ-4/1	
All data as D Model except:								
Cooling Duty	(1) kW	81.9	104.6	106.0	130.9	137.1	154.1	
Nominal Input	(1) kW	22.2	30.7	30.0	38.9	35.9	48.6	
EER	(2)	3.70	3.40	3.53	3.37	3.82	3.17	
Dimensions, H x L x W	mm	2000x3650x1300	2000x3650x1300	2100x2415x1850	2000x4500x1300	2100x3220x1850	2000x4500x1300	
Weight - Machine	kg	1140	1170	1260	1470	1550	1610	
Weight - Operating	kg	1150	1180	1300	1480	1600	1620	
Condenser Face Area (Total)	m ²	7.70	7.70	5.20	10.20	7.80	10.20	
Nominal Airflow	m ³ /s	6.60	7.84	8.80	11.76	8.80	12.88	
Condenser Fans, number		3	3	4	4	6	4	
Maximum Fan Speed	rpm	570	570	750	570	750	570	
Refrigerant Charge (Total)	(3) kg	20 + 20	23 + 23	22 + 22	40 + 40	30 + 30	40 + 40	

(1) Nominal Cooling Duties based on 5°C Evaporating temperature and 30°C ambient.

All performance data is supplied in accordance with BS EN 14511-1:2013

(2) EER is the Cooling duty ÷ compressor input power.

(3) Unit supplied with a holding charge of Helium, the refrigerant charge is suitable for upto 10 metres of interconnecting pipework, additional refrigerant must be added for longer pipe runs.

(4) Suitable For Brazed Connections.

General Specification

MECHANICAL DATA		UCCU160D-4/2	UCCU180D-6/2	UCCU200D-6/2	UCCU225D-6/2	UCCU250D-6/2	UCCU275D-8/2
Duty - Cooling							
Cooling Only (1)	kW	158.2	195.2	215.9	243.8	264.0	298.4
Nominal Input (1)	kW	46.6	51.6	59.8	69.1	78.0	93.4
EER (2)		3.39	3.79	3.61	3.53	3.39	3.19
Capacity Steps	%	0-25-50-75-100	0-20-40-50-60-80-100	0-20-40-50-60-80-100	0-20-40-50-60-80-100	0-25-50-75-100	0-20-40-50-60-80-100
Capacity Split - CCT1 / CCT2	%	50 / 50	50 / 50	50 / 50	50 / 50	50 / 50	50 / 50
Dimensions - H x L x W		mm	2100x2415x1850	2100x3220x1850	2100x3220x1850	2100x3220x1850	2180x4700x2200
Weight - Machine	kg	1370	1760	1760	1880	1880	2350
Weight - Operating	kg	1410	1810	1810	1930	1930	2410
Construction - Material / Colour		Plain Galvanised Steel Base with Galvanised Sheet Steel, Epoxy Baked Powder Paint Superstructure- Light Grey (RAL 7035)					
Condenser		Copper Tube/ Aluminium Fins - Air Cooled					
Face Area (Total)	m ²	5.20	7.80	7.80	7.80	7.80	11.20
Nominal Airflow	m ³ /s	12.80	19.20	19.20	19.20	19.20	24.80
Fan & Motor		Sickle Bladed Fan					
Quantity		4	6	6	6	6	8
Diameter	mm	630	630	630	630	630	710
Maximum Speed	rpm	1020	1020	1020	1020	1020	900
Compressor		Tandem Scroll					
Quantity		4	4	4	4	4	4
Oil Charge Volume (Total)	l	4 x 6.2	4 x 8.0	2 x 8.0 + 2 x 6.2	4 x 8.0	4 x 8.0	4 x 8.0
Oil Type		Polyol Ester					
Refrigeration (3)		Dual Circuit					
Holding Charge		Helium to 6.9 barg					
Refrigerant Type		R407C					
Recommended Charge (Total)	kg	20 + 20	30 + 30	30 + 30	30 + 30	30 + 30	41 + 41
Connections (4)							
Liquid Line	in	1 1/8	1 1/8	1 3/8	1 3/8	1 3/8	1 5/8
Suction Line	in	2 1/8	2 1/8	2 1/8	2 1/8	2 1/8	2 5/8
QUIET DQ		UCCU160DQ-6/2	UCCU180DQ-6/2	UCCU200DQ-6/2	UCCU225DQ-8/2	UCCU250DQ-8/2	UCCU275DQ-10/2
		All data as D Model except:					
Cooling Duty (1)	kW	164.9	190.1	212.9	246.0	266.5	299.7
Nominal Input (1)	kW	43.4	53.9	61.3	68.0	76.6	93.1
EER (2)		3.80	3.53	3.47	3.62	3.48	3.22
Dimensions, H x L x W	mm	2100x3220x1850	2100x3220x1850	2100x3220x1850	2100x4025x1850	2100x4025x1850	2180x5550x2200
Weight - Machine	kg	1580	1690	1690	2050	2050	2630
Weight - Operating	kg	1630	1740	1740	2120	2120	2700
Condenser Face Area (Total)	m ²	7.80	7.80	7.80	10.40	10.40	14.00
Nominal Airflow	m ³ /s	14.88	14.88	14.88	19.84	19.84	24.50
Condenser Fans, number		6	6	6	8	8	10
Maximum Fan Speed	rpm	900	900	900	900	900	750
Refrigerant Charge (Total)	kg	30 + 30	30 + 30	30 + 30	40 + 40	40 + 40	41 + 41
SUPER QUIET DSQ		UCCU160DSQ-6/2	UCCU180DSQ-6/2	UCCU200DSQ-8/2	UCCU225DSQ-8/2	UCCU250DSQ-8/2	UCCU275DSQ-12/2
		All data as D Model except:					
Cooling Duty (1)	kW	159.9	186.3	213.9	241.5	261.3	299.9
Nominal Input (1)	kW	45.8	55.7	60.8	70.3	79.4	93.1
EER (2)		3.49	3.35	3.52	3.44	3.29	3.22
Dimensions, H x L x W	mm	2100x3220x1850	2100x3220x1850	2100x4025x1850	2100x4025x1850	2100x4025x1850	2180x6400x2200
Weight - Machine	kg	1600	1710	1960	2070	2070	2930
Weight - Operating	kg	1650	1760	2030	2140	2140	3010
Condenser Face Area (Total)	m ²	7.80	7.80	10.40	10.40	10.40	16.80
Nominal Airflow	m ³ /s	11.76	11.76	15.68	15.68	15.68	20.40
Condenser Fans, number		6	6	8	8	8	12
Maximum Fan Speed	rpm	750	750	750	750	750	570
Refrigerant Charge (Total)	kg	30 + 30	30 + 30	30 + 30	40 + 40	40 + 40	50 + 50

- (1) Nominal Cooling Duties based on 5°C Evaporating temperature and 30°C ambient.
All performance data is supplied in accordance with BS EN 14511-1:2013
- (2) EER is the Cooling duty ÷ compressor input power.
- (3) Unit supplied with a holding charge of Helium, the refrigerant charge is suitable for upto 10 metres of interconnecting pipework, additional refrigerant must be added for longer pipe runs.
- (4) Suitable For Brazed Connections.

General Specification

MECHANICAL DATA		UCCU300D-8/2	UCCU330D-10/2	UCCU360D-10/2	UCCU400D-12/2	UCCU450D-12/2	
Duty - Cooling							
Cooling Only	(1) kW	324.8	365.7	396.3	448.8	490.0	
Nominal Input	(1) kW	104.8	104.9	118.0	130.5	149.3	
EER	(2)	3.10	3.48	3.36	3.44	3.28	
Capacity Steps	%	0-25-50-75-100	0-19-33-52-67-85-100	0-17-33-50-67-83-100	0-18-33-51-67-85-100	0-17-33-50-67-83-100	
Capacity Split - CCT1 / CCT2	%	50 / 50	55 / 45	50 / 50	55 / 45	50 / 50	
Dimensions - H x L x W		mm	2180x4700x2200	2180x5550x2200	2180x5550x2200	2180x6400x2200	2180x6400x2200
Weight - Machine		kg	2470	2750	2810	3160	3260
Weight - Operating		kg	2530	2820	2880	3240	3340
Construction - Material / Colour		Plain Galvanised Steel Base with Galvanised Sheet Steel, Epoxy Baked Powder Paint Superstructure- Light Grey (RAL 7035)					
Condenser							
Face Area (Total) m ²							
Nominal Airflow m ³ /s							
Fan & Motor							
Quantity							
Diameter mm							
Maximum Speed rpm							
Compressor							
Quantity							
Oil Charge Volume (Total) l							
Oil Type							
Refrigeration (3)							
Holding Charge							
Refrigerant Type							
Recommended Charge (Total) kg							
Connections (4)							
Liquid Line in							
Suction Line in							
QUIET DQ							
All data as D Model except:							
Cooling Duty	(1) kW	326.4	364.5	395.1	449.8	491.0	
Nominal Input	(1) kW	104.4	105.5	118.6	130.0	148.8	
EER	(2)	3.13	3.45	3.33	3.46	3.30	
Dimensions, H x L x W		mm	2180x5550x2200	2180x6400x2200	2180x6400x2200	2180x7250x2200	2180x7250x2200
Weight - Machine		kg	2750	3050	3110	3430	3540
Weight - Operating		kg	2820	3130	3190	3530	3640
Condenser Face Area (Total)		m ²	14.00	16.80	16.80	19.60	19.60
Nominal Airflow		m ³ /s	24.50	29.40	29.40	34.30	34.30
Condenser Fans, number			10	12	12	14	14
Maximum Fan Speed		rpm	750	750	750	750	750
Refrigerant Charge (Total)		(3) kg	40 + 40	54 + 49	49 + 49	65 + 60	72 + 72
SUPER QUIET DSQ							
All data as D Model except:							
Cooling Duty	(1) kW	326.7	363.1	393.5	442.0	481.0	
Nominal Input	(1) kW	104.3	106.2	119.5	133.8	153.4	
EER	(2)	3.13	3.42	3.29	3.30	3.14	
Dimensions, H x L x W		mm	2180x6400x2200	2180x7250x2200	2180x7250x2200	2180x8100x2200	2180x8100x2200
Weight - Machine		kg	3040	3330	3380	3890	3990
Weight - Operating		kg	3120	3430	3480	4030	4130
Condenser Face Area (Total)		m ²	16.80	19.60	19.60	22.40	22.40
Nominal Airflow		m ³ /s	20.40	23.80	23.80	27.20	27.20
Condenser Fans, number			12	14	14	16	16
Maximum Fan Speed		rpm	570	570	570	570	570
Refrigerant Charge (Total)		(3) kg	46 + 46	56 + 51	70 + 70	82 + 76	80 + 80

(1) Nominal Cooling Duties based on 5°C Evaporating temperature and 30°C ambient.

All performance data is supplied in accordance with BS EN 14511-1:2013

(2) EER is the Cooling duty ÷ compressor input power.

(3) Unit supplied with a holding charge of Helium, the refrigerant charge is suitable for upto 10 metres of interconnecting pipework, additional refrigerant must be added for longer pipe runs.

(4) Suitable For Brazed Connections.

General Specification

ELECTRICAL DATA	UCCU30SQ-1/1		UCCU40SQ-1/1		UCCU50SQ-2/1		UCCU60SQ-2/1		UCCU70SQ-2/1		UCCU80SQ-2/1			
	UCCU30DQ-1/1		UCCU40DQ-1/1		UCCU50DQ-2/1		UCCU60DQ-2/1		UCCU70DQ-2/1		UCCU80DQ-2/1			
Unit Data														
Nominal Run Amps	(1)	A	27	28	38	43	47	58						
Maximum Start Amps	(2)	A	116	114	142	157	162	207						
Permanent Supply		VAC			230 V 1 PH 50 Hz									
Mains Supply		VAC			400 V 3 PH 50 Hz									
Rec Permanent Fuse Size		A	16	16	16	16	16	16						
Rec Mains Fuse Size		A	32	40	50	50	63	80						
Max Permanent Incoming Cable Size		mm ²			4 mm ² terminals									
Max Mains Incoming Cable Size		mm ²			35 (Direct to Isolator)									
Control Circuit		VAC			24V/230VAC									
Condenser Fan - Per Fan														
Quantity			1	1	2	2	2	2						
Full Load Amps		A	3.00	3.00	3.00	3.00	3.00	3.00						
Locked Rotor Amps		A	7.00	7.00	7.00	7.00	7.00	7.00						
Motor Rating		kW	1.75	1.75	1.75	1.75	1.75	1.75						
Compressor - Per Compressor														
Quantity			2	2	2	2	2	2						
Motor Rating		kW	4.7	6.2	8.1	9.5 / 8.1	9.5	11.7						
Nominal Run Amps	(1)	A	12.0	12.7	16.1	20.7 / 16.1	20.7	26.0						
Sump Heater Rating		W	70.0	65.0	65.0	65.0 / 75.0	65.0	70.0						
Start Amps	(2)		101.0	98.0	120.0	135.0 / 120.0	135.0	175.0						
Type Of Start					Direct on line									
SUPER QUIET SQ														
			UCCU30SSQ-1/1		UCCU40SSQ-1/1		UCCU50SSQ-2/1		UCCU60SSQ-2/1		UCCU70SSQ-2/1		UCCU80SSQ-2/1	
			UCCU30DSQ-1/1		UCCU40DSQ-1/1		UCCU50DSQ-2/1		UCCU60DSQ-2/1		UCCU70DSQ-2/1		UCCU80DSQ-2/1	
All data as above except:														
Condenser Fan - Per Fan														
Quantity			1	1	2	2	2	2						
Full Load Amps		A	1.15	1.15	3.50	3.50	1.15	1.15						
Locked Rotor Amps		A	2.10	2.10	7.50	7.50	2.10	2.10						
Motor Rating		kW	0.70	0.70	0.78	0.78	0.70	0.70						
OPTIONAL EXTRAS														
Power Factor Correction														
Nominal Run Amps	(1)	A	N/A	N/A	N/A	N/A	N/A	N/A						
Maximum Start Amps	(2)	A	N/A	N/A	N/A	N/A	N/A	N/A						
Recommended Mains Fuse		A	N/A	N/A	N/A	N/A	N/A	N/A						
Compressor Nominal Run Amps - Per Compressor		A	N/A	N/A	N/A	N/A	N/A	N/A						
Electronic Soft-start														
Nominal Run Amps	(1)	A	27	28	38	43	47	58						
Maximum Start Amps	(2)	A	76	77	94	103	108	137						
Recommended Mains Fuse		A	32	40	50	50	63	80						

- (1) Based at 7.2°C Evaporating and 54.4°C Condensing temperatures.
 (2) Starting amps refers to the direct on line connections.

General Specification

ELECTRICAL DATA		UCCU75D-2/1	UCCU100D-2/1	UCCU110D-4/2	UCCU125D-3/1	UCCU130D-4/2	UCCU150D-3/1
Unit Data							
Nominal Run Amps	(1) A	54	68	75	89	95	109
Maximum Start Amps	(2) A	140	172	179	238	244	258
Permanent Supply	VAC			230 V 1 PH 50 Hz			
Mains Supply	VAC			400 V 3 PH 50 Hz			
Rec Permanent Fuse Size	A	16	16	16	16	16	16
Rec Mains Fuse Size	A	63	80	100	125	125	125
Max Permanent Incoming Cable Size	mm ²			4 mm ² terminals			
Max Mains Incoming Cable Size	mm ²	70 (Direct to MCCB)	70 (Direct to MCCB)	Direct to Bus Bar	70 (Direct to MCCB)	Direct to Bus Bar	70 (Direct to MCCB)
Control Circuit	VAC			24V/230V AC			
Condenser Fan - Per Fan							
Quantity		2	2	4	3	4	3
Full Load Amps	A	1.75	1.75	3.00	1.75	3.00	1.75
Locked Rotor Amps	A	6.20	6.20	7.00	6.20	7.00	6.20
Motor Rating	kW	0.98	0.98	1.75	0.98	1.75	0.98
Compressor - Per Compressor							
Quantity		4	4	4	2 + 2	2 + 2	4
Motor Rating	kW	6.2	8.1	8.1	8.1 / 11.7	8.1 / 11.7	11.7
Nominal Run Amps	(1) A	12.7	16.1	16.1	16.1 / 26.0	16.1 / 26.0	26.0
Sump Heater Rating	W	65.0	65.0	65.0	65.0 / 75.0	65.0 / 75.0	75.0
Start Amps	(2)	98.0	120.0	120.0	120.0 / 175.0	120.0 / 175.0	175.0
Type Of Start				Direct on line			
QUIET DQ		UCCU75DQ-2/1	UCCU100DQ-2/1	UCCU110DQ-4/2	UCCU125DQ-3/1	UCCU130DQ-4/2	UCCU150DQ-4/1
		All data as above except:					
Condenser Fan - Per Fan							
Quantity		2	2	4	3	4	4
Full Load Amps	A	1.15	1.15	1.25	1.15	1.25	1.15
Locked Rotor Amps	A	2.10	2.10	4.50	2.10	4.50	2.10
Motor Rating	kW	0.68	0.68	0.69	0.68	0.69	0.68
SUPER QUIET DSQ		UCCU75DSQ-3/1	UCCU100DSQ-3/1	UCCU110DSQ-4/2	UCCU125DSQ-4/1	UCCU130DSQ-6/2	UCCU150DSQ-4/1
		All data as above except:					
Condenser Fan - Per Fan							
Quantity	A	3	3	4	4	6	4
Full Load Amps	A	0.83	0.83	0.78	0.83	0.78	0.83
Locked Rotor Amps	A	1.50	1.50	1.50	1.50	1.50	1.50
Motor Rating	kW	0.32	0.32	0.48	0.32	0.48	0.32
OPTIONAL EXTRAS							
Power Factor Correction							
Nominal Run Amps	(1) A	49	61	68	80	86	97
Maximum Start Amps	(2) A	140	172	179	238	244	258
Recommended Mains Fuse	A	63	80	100	125	125	125
Compressor Nominal Run Amps - Per Compressor	A	4 x 11	4 x 13	4 x 13	2 x 20 / 2 x 13	2 x 20 / 2 x 13	4 x 20
Electronic Soft-start							
Nominal Run Amps	(1) A	54	68	75	89	95	109
Maximum Start Amps	(2) A	100	124	131	168	174	188
Recommended Mains Fuse	A	63	80	100	125	125	125

- (1) Based at 7.2°C Evaporating and 54.4°C Condensing temperatures.
 (2) Starting amps refers to the direct on line connections.

General Specification

ELECTRICAL DATA		UCCU160D-4/2	UCCU180D-6/2	UCCU200D-6/2	UCCU225D-6/2	UCCU250D-6/2	UCCU275D-8/2
Unit Data							
Nominal Run Amps	(1) A	115	132	146	158	172	160
Maximum Start Amps	(2) A	264	315	377	389	403	440
Permanent Supply	VAC			230 V 1 PH 50 Hz			
Mains Supply	VAC			400 V 3 PH 50 Hz			
Rec Permanent Fuse Size	A	16	16	16	16	16	16
Rec Mains Fuse Size	A	125	160	160	200	200	200
Max Permanent Incoming Cable Size	mm ²			4 mm ² terminals			
Max Mains Incoming Cable Size	mm ²			Direct to Bus Bar			
Control Circuit	VAC			24V/230V AC			
Condenser Fan - Per Fan							
Quantity		4	6	6	6	6	8
Full Load Amps	A	3.00	3.00	3.00	3.00	3.00	1.75
Locked Rotor Amps	A	7.00	7.00	7.00	7.00	7.00	6.20
Motor Rating	kW	1.75	1.75	1.75	1.75	1.75	0.98
Compressor - Per Compressor							
Quantity		4	2 + 2	2 + 2	2 + 2	4	2 + 2
Motor Rating	kW	11.7	15.0 / 11.7	18.2 / 11.7	18.2 / 15.0	18.2	22.8 / 18.2
Nominal Run Amps	(1) A	26.0	32.0 / 26.0	39.0 / 26.0	39.0 / 32.0	39.0	47.0 / 39.0
Sump Heater Rating	W	75.0	130.0 / 75.0	130.0 / 75.0	130.0 / 130.0	130.0	130.0 / 130.0
Start Amps	(2)	175.0	215.0 / 175.0	270.0 / 175.0	270.0 / 215.0	270.0	320.0 / 270.0
Type Of Start				Direct on line			
QUIET DQ		UCCU160DQ-6/2	UCCU180DQ-6/2	UCCU200DQ-6/2	UCCU225DQ-8/2	UCCU250DQ-8/2	UCCU275DQ-10/2
		All data as above except:					
Condenser Fan - Per Fan							
Quantity		6	6	6	8	8	10
Full Load Amps	A	1.25	1.25	1.25	1.25	1.25	1.15
Locked Rotor Amps	A	4.50	4.50	4.50	4.50	4.50	2.10
Motor Rating	kW	0.69	0.69	0.69	0.69	0.69	0.70
SUPER QUIET DSQ		UCCU160DSQ-6/2	UCCU180DSQ-6/2	UCCU200DSQ-8/2	UCCU225DSQ-8/2	UCCU250DSQ-8/2	UCCU275DSQ-12/2
		All data as above except:					
Condenser Fan - Per Fan							
Quantity		6	6	8	8	8	12
Full Load Amps	A	0.78	0.78	0.78	0.78	0.78	0.83
Locked Rotor Amps	A	1.50	1.50	1.50	1.50	1.50	1.50
Motor Rating	kW	0.48	0.48	0.48	0.48	0.48	0.32
OPTIONAL EXTRAS							
Power Factor Correction							
Nominal Run Amps	(1) A	103	118	132	142	156	146
Maximum Start Amps	(2) A	264	315	377	389	403	430
Recommended Mains Fuse	A	125	125	160	160	200	200
Compressor Nominal Run Amps - Per Compressor	A	4 x 20	2 x 24 / 2 x 20	2 x 30 / 2 x 20	2 x 30 / 2 x 24	4 x 30	2 x 36 / 2 x 30
Electronic Soft-start							
Nominal Run Amps	(1) A	115	132	146	158	172	160
Maximum Start Amps	(2) A	194	229	269	281	295	302
Recommended Mains Fuse	A	125	160	160	200	200	200

- (1) Based at 7.2°C Evaporating and 54.4°C Condensing temperatures.
 (2) Starting amps refers to the direct on line connections.

General Specification

ELECTRICAL DATA		UCCU300D-8/2	UCCU330D-10/2	UCCU360D-10/2	UCCU400D-12/2	UCCU450D-12/2
Unit Data						
Nominal Run Amps	(1) A	173	231	252	279	303
Maximum Start Amps	(2) A	454	462	483	552	576
Permanent Supply	VAC			230 V 1 PH 50 Hz		
Mains Supply	VAC			400 V 3 PH 50 Hz		
Rec Permanent Fuse Size	A	16	16	16	16	16
Rec Mains Fuse Size	A	250	250	315	315	355
Max Permanent Incoming Cable Size	mm ²			4 mm ² terminals		
Max Mains Incoming Cable Size	mm ²			Direct to Bus Bar		
Control Circuit	VAC			24V/230V AC		
Condenser Fan - Per Fan						
Quantity		8	10	10	12	12
Full Load Amps	A	1.75	1.75	1.75	1.75	1.75
Locked Rotor Amps	A	6.20	6.20	6.20	6.20	6.20
Motor Rating	kW	0.98	0.98	0.98	0.98	0.98
Compressor - Per Compressor						
Quantity		4	3 + 3	6	3 + 3	6
Motor Rating	kW	22.8	18.2 / 15.0	18.2	22.8 / 18.2	22.8
Nominal Run Amps	(1) A	47.0	39.0 / 32.0	39.0	47.0 / 39.0	47.0
Sump Heater Rating	W	130.0	130.0 / 130.0	130.0	130.0 / 130.0	130.0
Start Amps	(2)	320.0	270.0 / 215.0	270.0	320.0 / 270.0	320.0
Type Of Start				Direct on line		
QUIET DQ		UCCU300DQ-10/2	UCCU330DQ-12/2	UCCU360DQ-12/2	UCCU400DQ-14/2	UCCU450DQ-14/2
		All data as above except:				
Condenser Fan - Per Fan						
Quantity		10	12	12	14	14
Full Load Amps	A	1.15	1.15	1.15	1.15	1.15
Locked Rotor Amps	A	2.10	2.10	2.10	2.10	2.10
Motor Rating	kW	0.70	0.70	0.70	0.70	0.70
SUPER QUIET DSQ		UCCU300DSQ-12/2	UCCU330DSQ-14/2	UCCU360DSQ-14/2	UCCU400DSQ-16/2	UCCU450DSQ-16/2
		All data as above except:				
Condenser Fan - Per Fan						
Quantity		12	14	14	16	16
Full Load Amps	A	0.83	0.83	0.83	0.83	0.83
Locked Rotor Amps	A	1.50	1.50	1.50	1.50	1.50
Motor Rating	kW	0.32	0.32	0.32	0.32	0.32
OPTIONAL EXTRAS						
Power Factor Correction						
Nominal Run Amps	(1) A	158	207	228	246	261
Maximum Start Amps	(2) A	442	362	483	552	576
Recommended Mains Fuse	A	200	250	250	250	315
Compressor Nominal Run Amps - Per Compressor	A	4 x 36	3 x 30 / 3 x 24	6 x 30	3 x 36 / 3 x 30	6 x 36
Electronic Soft-start						
Nominal Run Amps	(1) A	173	231	252	279	303
Maximum Start Amps	(2) A	314	354	375	424	448
Recommended Mains Fuse	A	250	250	315	315	355

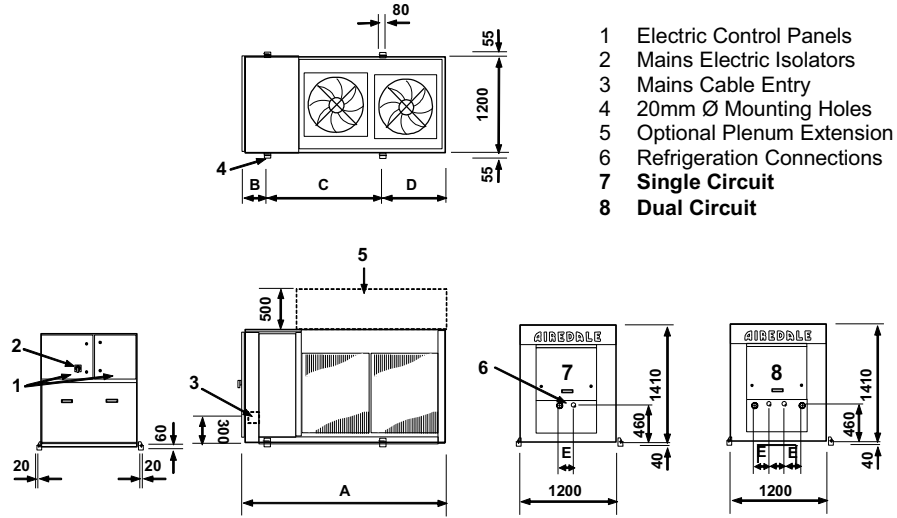
- (1) Based at 7.2°C Evaporating and 54.4°C Condensing temperatures.
 (2) Starting amps refers to the direct on line connections.

General Specification

DIMENSIONS

SINGLE ROW FANS - /1

UCCU30 - UCCU80
(Except UCCU75)

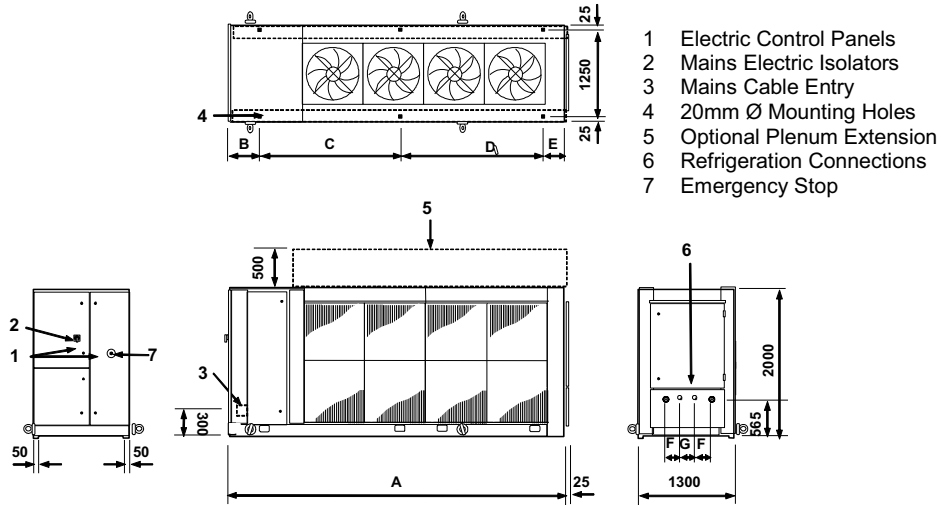


- 1 Electric Control Panels
- 2 Mains Electric Isolators
- 3 Mains Cable Entry
- 4 20mm Ø Mounting Holes
- 5 Optional Plenum Extension
- 6 Refrigeration Connections
- 7 **Single Circuit**
- 8 **Dual Circuit**

Model SQ/DQ		A	B	C	D	E
UCCU30 - UCCU40 SQ/DQ	mm	1650	300	1050	300	200
UCCU50 - UCCU70 SQ/DQ	mm	2500	300	1450	750	200
UCCU80 SQ/DQ	mm	2500	300	1450	750	200

Model SSQ/DSQ		A	B	C	D	E
UCCU30 - UCCU40 SSQ/DSQ	mm	1650	300	1050	300	200
UCCU50 - UCCU70 SSQ/DSQ	mm	2500	300	1450	750	200
UCCU80 SSQ/DSQ	mm	2500	300	1450	750	200

UCCU75 - UCCU150
(Except UCCU80)



- 1 Electric Control Panels
- 2 Mains Electric Isolators
- 3 Mains Cable Entry
- 4 20mm Ø Mounting Holes
- 5 Optional Plenum Extension
- 6 Refrigeration Connections
- 7 Emergency Stop

Model D		A	B	C	D	E	F	G
UCCU75D-2/1	mm	2775	390	1900	(1)	485	200	170
UCCU100D-2/1	mm	2775	390	1900	(1)	485	200	170
UCCU125D-3/1	mm	3625	390	1825	1135	275	200	170
UCCU150D-3/1	mm	3625	390	1825	1135	275	200	170

Model DQ		A	B	C	D	E	F	G
UCCU75DQ-2/1	mm	2775	390	1900	(1)	485	200	170
UCCU100DQ-2/1	mm	2775	390	1900	(1)	485	200	170
UCCU125DQ-3/1	mm	3625	390	1825	1135	275	200	170
UCCU150DQ-4/1	mm	4475	390	1900	1900	285	200	170

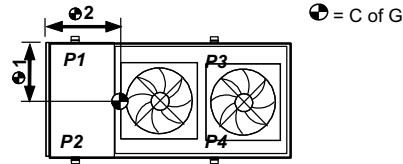
Model DSQ		A	B	C	D	E	F	G
UCCU75DSQ-3/1	mm	3625	390	1825	1135	275	200	170
UCCU100DSQ-3/1	mm	3625	390	1825	1135	275	200	170
UCCU125DSQ-4/1	mm	4475	390	1900	1900	285	200	170
UCCU150DSQ-4/1	mm	4475	390	1900	1900	285	200	170

(1) Have only 4 fixing and 4 point loadings.

General Specification

POINT LOADINGS, WEIGHTS & CENTRE OF GRAVITY (C OF G) SINGLE ROW FANS - /1

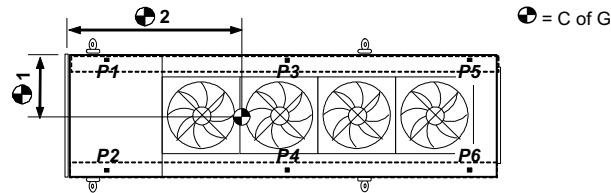
UCCU30 - UCCU80 (Except UCCU75)



Model SQ/DQ		P1	P2	P3	P4	(1)	(1)	Operating Weight	C of G1 (mm)	C of G2 (mm)
UCCU30 SQ/DQ-1/1	kg	120	120	115	115			470	600	815
UCCU40 SQ/DQ-1/1	kg	140	140	135	135			550	600	815
UCCU50 SQ/DQ-2/1	kg	170	170	175	175			690	600	1035
UCCU60 SQ/DQ-2/1	kg	180	180	190	190			740	600	1045
UCCU70 SQ/DQ-2/1	kg	185	185	195	195			760	600	1045
UCCU80 SQ/DQ-2/1	kg	200	200	215	215			830	600	1050

Model SSQ/DSQ		P1	P2	P3	P4	(1)	(1)	Operating Weight	C of G1 (mm)	C of G2 (mm)
UCCU30 SSQ/DSQ-1/1	kg	120	120	120	120			480	600	825
UCCU40 SSQ/DSQ-1/1	kg	145	145	140	140			570	600	815
UCCU50 SSQ/DSQ-2/1	kg	175	175	175	175			700	600	1025
UCCU60 SSQ/DSQ-2/1	kg	185	185	190	190			750	600	1035
UCCU70 SSQ/DSQ-2/1	kg	185	185	200	200			770	600	1055
UCCU80 SSQ/DSQ-2/1	kg	210	210	225	225			870	600	1050

UCC75 - UCC150 (Except UCC80)



Model D		P1	P2	P3	P4	P5	P6	Operating Weight	C of G1 (mm)	C of G2 (mm)
UCCU75D-2/1	kg	305	305	(1)	(1)	165	165	940	650	1055
UCCU100D-2/1	kg	320	320	(1)	(1)	165	165	970	650	1035
UCCU125D-3/1	kg	300	280	185	175	135	135	1210	635	1595
UCCU150D-3/1	kg	305	305	190	190	130	130	1250	650	1560

Model DQ		P1	P2	P3	P4	P5	P6	Operating Weight	C of G1 (mm)	C of G2 (mm)
UCCU75DQ-2/1	kg	305	305	(1)	(1)	165	165	940	650	1055
UCCU100DQ-2/1	kg	325	325	(1)	(1)	180	180	1010	650	1065
UCCU125DQ-3/1	kg	305	285	185	175	135	125	1210	630	1570
UCCU150DQ-4/1	kg	325	325	240	240	190	190	1510	650	1950

Model DSQ		P1	P2	P3	P4	P5	P6	Operating Weight	C of G1 (mm)	C of G2 (mm)
UCCU75DSQ-3/1	kg	285	285	165	165	125	125	1150	650	1555
UCCU100DSQ-3/1	kg	290	290	165	165	135	135	1180	650	1580
UCCU125DSQ-4/1	kg	315	295	250	240	195	185	1480	635	1995
UCCU150DSQ-4/1	kg	330	330	270	270	210	210	1620	650	2010

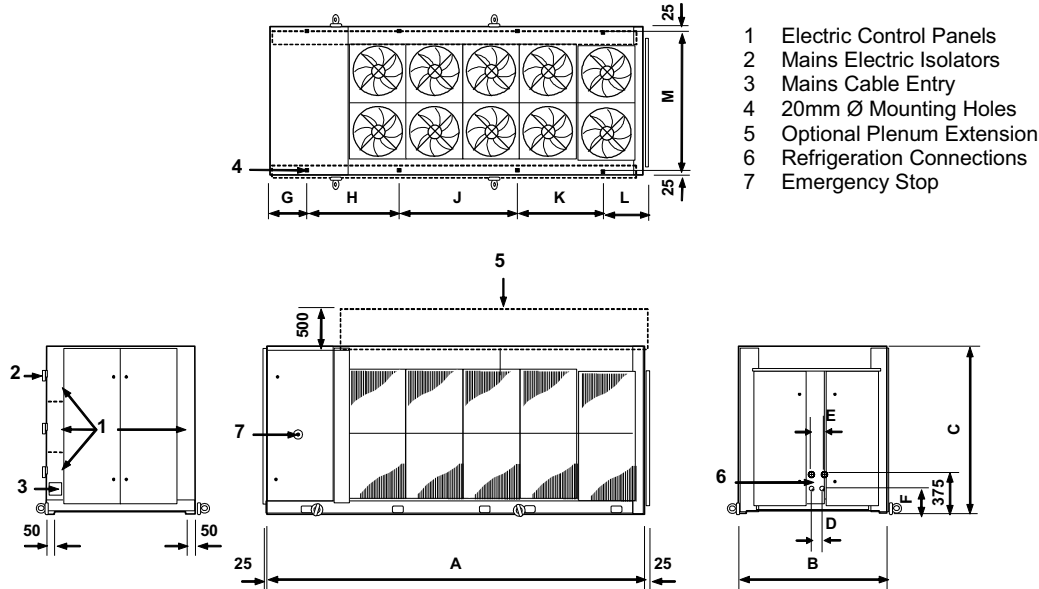
(1) Have only 4 fixing and 4 point loadings.

General Specification

DIMENSIONS

DOUBLE ROW FANS - /2

UCCU110 - UCCU450



Model D		A	B	C	D	E	F	G	H	J	K	L	M
UCCU110D - UCCU160D	mm	2365	1850	2100	115	140	205	275	1600	(1)	(1)	490	1800
UCCU180D - UCCU225D	mm	3170	1850	2100	115	140	205	480	1100	1100	(2)	490	1800
UCCU250D	mm	3170	1850	2100	115	140	205	480	1100	1100	(2)	490	1800
UCCU275D - UCCU300D	mm	4650	2200	2180	140	150	225	350	1750	1925	(2)	625	2150
UCCU330D - UCCU360D	mm	5500	2200	2180	140	150	225	350	1350	1350	1925	525	2150
UCCU400D - UCCU450D	mm	6350	2200	2180	140	150	225	350	1700	1925	1925	450	2150

Model DQ		A	B	C	D	E	F	G	H	J	K	L	M
UCCU110DQ - UCCU130DQ	mm	2365	1850	2100	115	140	205	275	1600	(1)	(1)	490	1800
UCCU160DQ - UCCU200DQ	mm	3170	1850	2100	115	140	205	480	1100	1100	(1)	490	1800
UCCU225DQ	mm	3975	1850	2100	115	140	205	480	1500	1500	(2)	495	1800
UCCU250DQ	mm	3975	1850	2100	115	140	205	480	1500	1500	(2)	495	1800
UCCU275DQ - UCCU300DQ	mm	5500	2200	2180	140	150	225	350	1350	1350	1925	525	2150
UCCU330DQ - UCCU360DQ	mm	6350	2200	2180	140	150	225	350	1700	1925	1925	450	2150
UCCU400DQ - UCCU450DQ	mm	7200	2200	2180	140	150	225	350	1700	2700	2000	450	2150

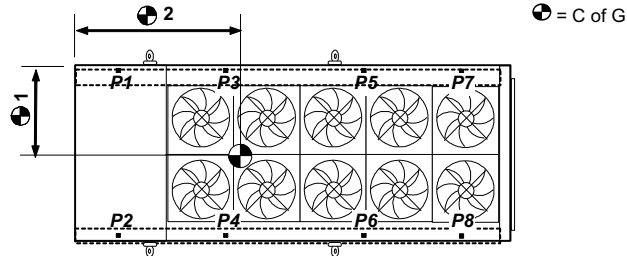
Model DSQ		A	B	C	D	E	F	G	H	J	K	L	M
UCCU110DSQ	mm	2365	1850	2100	115	140	205	275	1600	(1)	(1)	490	1800
UCCU130DSQ - UCCU180DSQ	mm	3170	1850	2100	115	140	205	480	1100	1100	(2)	490	1800
UCCU200DSQ	mm	3975	1850	2100	115	140	205	480	1500	1500	(2)	495	1800
UCCU225DSQ	mm	3975	1850	2100	115	140	205	480	1500	1500	(2)	495	1800
UCCU250DSQ	mm	3975	1850	2100	115	140	205	480	1500	1500	(2)	495	1800
UCCU275DSQ - UCCU300DSQ	mm	6350	2200	2180	140	150	225	350	1700	1925	1925	450	2150
UCCU330DSQ - UCCU360DSQ	mm	7200	2200	2180	140	150	225	350	1700	2700	2000	450	2150
UCCU400DSQ - UCCU450DSQ	mm	8050	2200	2180	140	150	225	350	1700	2800	2725	525	2150

- (1) Have only 4 fixing and 4 point loadings.
 (2) Have only 6 fixing and 6 point loadings.

General Specification

POINT LOADINGS, WEIGHTS & CENTRE OF GRAVITY (C OF G) DOUBLE ROW FANS - /2

UCCU110 - UCCU450



Model D		P1	P2	P3	P4	P5	P6	P7	P8	Operating Weight	C of G1 (mm)	C of G2 (mm)
UCCU110D-4/2	kg	380	380	(1)	(1)	(1)	(1)	280	280	1320	925	955
UCCU130D-4/2	kg	395	415	(1)	(1)	(1)	(1)	280	280	1370	940	930
UCCU160D-4/2	kg	470	470	(1)	(1)	(1)	(1)	235	235	1410	925	810
UCCU180D-6/2	kg	550	590	205	225	(2)	(2)	120	120	1810	955	1035
UCCU200D-6/2	kg	550	590	205	225	(2)	(2)	120	120	1810	955	1035
UCCU225D-6/2	kg	620	620	220	220	(2)	(2)	125	125	1930	925	1015
UCCU250D-6/2	kg	620	620	220	220	(2)	(2)	125	125	1930	925	1015
UCCU275D-8/2	kg	680	680	330	330	(2)	(2)	195	195	2410	1100	1425
UCCU300D-8/2	kg	715	715	350	350	(2)	(2)	200	200	2530	1100	1415
UCCU330D-10/2	kg	690	690	340	340	190	190	190	190	2820	1100	1665
UCCU360D-10/2	kg	715	715	345	345	190	190	190	190	2880	1100	1640
UCCU400D-12/2	kg	740	740	380	380	255	255	245	245	3240	1100	2160
UCCU450D-12/2	kg	775	775	395	395	255	255	245	245	3340	1100	2120

Model DQ		P1	P2	P3	P4	P5	P6	P7	P8	Operating Weight	C of G1 (mm)	C of G2 (mm)
UCCU110DQ-4/2	kg	370	370	(1)	(1)	(1)	(1)	270	270	1280	925	950
UCCU130DQ-4/2	kg	385	405	(1)	(1)	(1)	(1)	265	265	1320	940	915
UCCU160DQ-6/2	kg	480	480	210	210	(2)	(2)	125	125	1630	925	1100
UCCU180DQ-6/2	kg	505	545	210	230	(2)	(2)	125	125	1740	955	1075
UCCU200DQ-6/2	kg	505	545	210	230	(2)	(2)	125	125	1740	955	1075
UCCU225DQ-8/2	kg	545	545	290	290	(2)	(2)	225	225	2120	925	1525
UCCU250DQ-8/2	kg	545	545	290	290	(2)	(2)	225	225	2120	925	1525
UCCU275DQ-10/2	kg	650	650	325	325	195	195	180	180	2700	1100	1680
UCCU300DQ-10/2	kg	690	690	335	335	200	200	185	185	2820	1100	1660
UCCU330DQ-12/2	kg	715	715	375	375	245	245	230	230	3130	1100	2140
UCCU360DQ-12/2	kg	730	730	385	385	250	250	230	230	3190	1100	2130
UCCU400DQ-14/2	kg	760	760	415	415	300	300	290	290	3530	1100	2550
UCCU450DQ-14/2	kg	805	805	425	425	300	300	290	290	3640	1100	2490

Model DSQ		P1	P2	P3	P4	P5	P6	P7	P8	Operating Weight	C of G1 (mm)	C of G2 (mm)
UCCU110DSQ-4/2	kg	380	380	(1)	(1)	(1)	(1)	270	270	1300	925	940
UCCU130DSQ-6/2	kg	380	400	210	210	(2)	(2)	200	200	1600	935	1320
UCCU160DSQ-6/2	kg	405	405	220	220	(2)	(2)	200	200	1650	925	1305
UCCU180DSQ-6/2	kg	425	465	225	245	(2)	(2)	200	200	1760	955	1275
UCCU200DSQ-8/2	kg	480	520	265	285	(2)	(2)	240	240	2030	950	1300
UCCU225DSQ-8/2	kg	535	535	290	290	(2)	(2)	245	245	2140	925	1575
UCCU250DSQ-8/2	kg	535	535	290	290	(2)	(2)	245	245	2140	925	1575
UCCU275DSQ-10/2	kg	695	695	340	340	245	245	225	225	3010	1100	2155
UCCU300DSQ-12/2	kg	730	730	355	355	250	250	225	225	3120	1100	2120
UCCU330DSQ-14/2	kg	760	760	405	405	280	280	270	270	3430	1100	2475
UCCU360DSQ-14/2	kg	780	780	410	410	280	280	270	270	3480	1100	2450
UCCU400DSQ-16/2	kg	805	805	460	460	430	430	320	320	4030	1100	2830
UCCU450DSQ-16/2	kg	835	835	475	475	435	435	320	320	4130	1100	2790

- (1) Have only 4 fixing and 4 point loadings.
 (2) Have only 6 fixing and 6 point loadings.

Installation Data

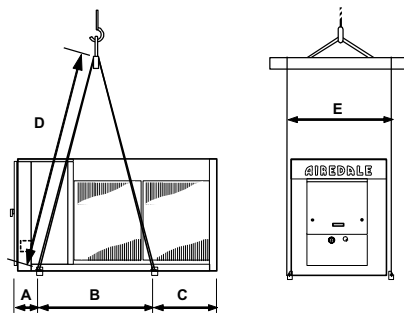
UNIT LIFTING

- Employ lifting specialists.
- Local codes and regulations relating to the lifting of this type of equipment should be observed.
- Use the lifting eye bolts/lifting lugs provided.
- Attach lifting chains to the 4 lifting eye bolts/lifting lugs provided, each chain and eye bolt must be capable of lifting the whole chiller.
- Use the appropriate spreader bars/lifting slings with the holes/lugs provided.
- Lift the unit slowly and evenly.
- If the unit is dropped, it should immediately be checked for damage and reported to Airedale Service.

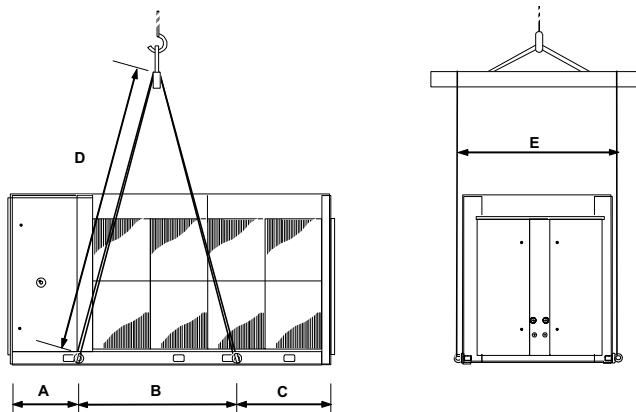
CAUTION  Only use lifting points provided.

The unit should be lifted from the base and where possible, with all packing and protection in position. If any other type of slinging is used, due care should be taken to ensure that the slings do not crush the casework or coil.

LIFTING DIMENSIONS



UCCU30 - 80 (Except UCCU75)		A	B ⁽¹⁾	C ⁽¹⁾	D ⁽¹⁾	E
1 FAN /1	mm	300	1050 (1450)	300 (300)	1900 (2200)	1270
2 FANS /1	mm	300	1450	750	2200	1270




UCCU75 - UCCU450 (Except UCCU80)		A	B	C	D	E
75, 100, 125 & 150	..-2/1 mm	290	1900	585	2500	1450
	..-3/1 mm	290	2015	1320	2500	1450
	..-4/1 mm	290	2870	1315	3000	1450
110, 130, 160, 180, 200, 225 & 250	..-4/2 mm	180	1580	605	2500	2000
	..-6/2 mm	595	1650	925	2500	2000
	..-8/2 mm	595	2050	1330	2500	2350
275, 300, 330, 360, 400 & 450	..-8/2 mm	465	2560	1625	3000	2350
	..-10/2 mm	465	3135	1900	3500	2350
	..-12/2 mm	465	3610	2275	3500	2350
	..-14/2 mm	465	4385	2350	4000	2350
	..-16/2 mm	465	5035	2550	5000	2350

Installation Data

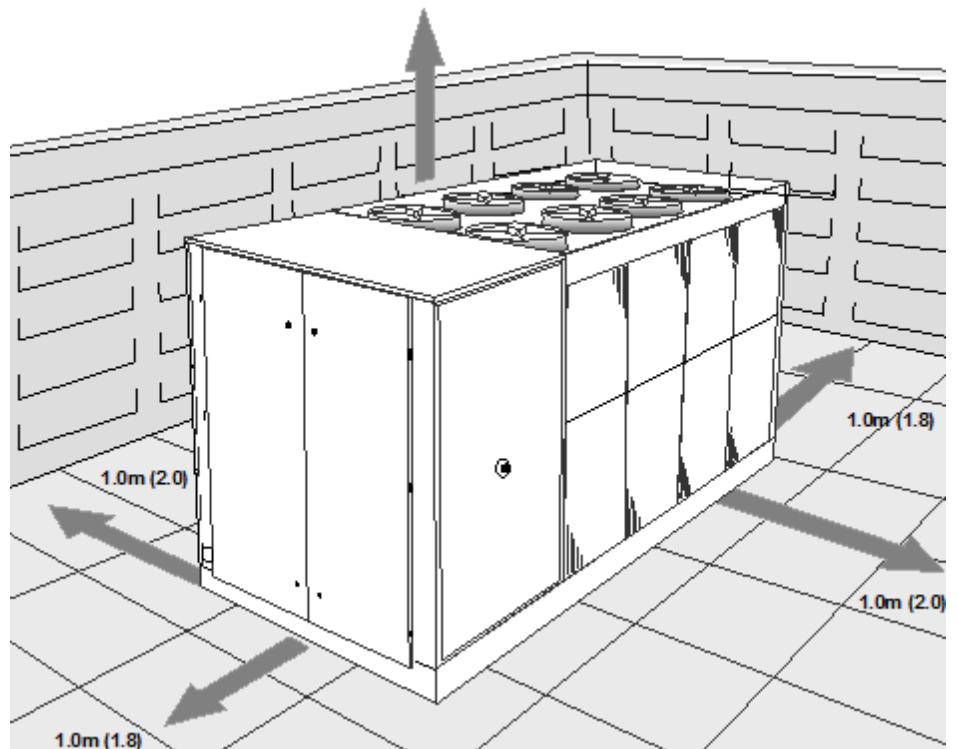
POSITIONING

The installation position should be selected with the following points in mind:

- Position on a stable and even base, levelled to ensure that the compressor operates correctly.
- Levelling should be to +/- 5mm.
- Where vibration transmission to the building structure is possible, fit spring anti-vibration mounts and flexible water connections.
- Observe airflow and maintenance clearances.
- Pipework and electrical connections are readily accessible.
- Where multiple units are installed, due care should be taken to avoid the discharge air from each unit adversely affecting other units in the vicinity.
- Within a side enclosed installation, the fan MUST be higher than the enclosing structure.
- Figures in brackets indicate airflow and maintenance clearances for side-enclosed or multiple condensing unit applications.
- Ensure there are no obstructions directly above the fans.
- Allow free space above the fans to prevent air recirculation.

CAUTION  Prior to connecting services, ensure that the equipment is installed and completely level.

The Sound Pressure data quoted (refer to **Sound Data**) is only valid in free field conditions, where the unit is installed on a reflective base. If the equipment is placed adjacent to a reflective wall, values may vary to those stated in our Performance Data section, typically increasing by 3dB(A) for each side added.

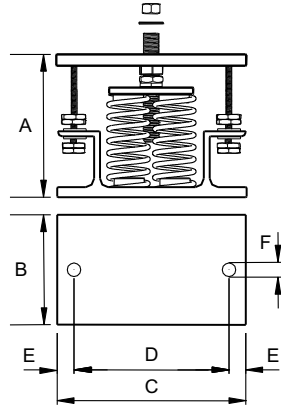


Anti Vibration Mounting (Optional)

Spring Type

Each mount is coloured to indicate the different loads, refer to instructions supplied for correct allocation.

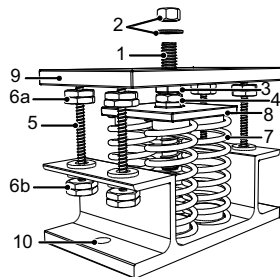
Dimensions



	A(1)	B	C	D	E	FØ
mm	180	130	225	186	20	16

(1) Unloaded dimension

Components



- 1 Locating Screw
- 2 Retaining Nut & Washer
- 3 Levelling Screw
- 4 Levelling Lock Nut
- 5 Retaining Studs
- 6a Upper Retaining Nuts
- 6b Lower Retaining Nuts
- 7 Spring assembly
- 8 Pressure Plate
- 9 Top Plate
- 10 Bolting-down holes

Installation

- 1 Locate and secure mount using bolting down holes (10) in base plate.
- 2 Ensure mounts are located in line with the unit base.
- 3 If applicable, remove compressor enclosure covers to allow access to mount fixing holes in the unit base.
- 4 Lock the upper retaining nuts (6a) to the underside of the top plate (9) before a load is applied.
- 5 Remove retaining nut and washer (2), lower the unit onto the mounts and replace retaining nut and washer.
- 6 Beginning with the mount with the largest deflection, adjust the height of each mount using the levelling screw (3).

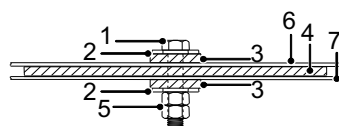
CAUTION **Mountings must be adjusted incrementally in turn. Do not fully adjust 1 mount at a time as this may overload and damage springs.**

- 7 When all mounts are level, lock each into place using the levelling lock nut (4).
- 8 Lock all retaining nuts (6a and 6b) to the extreme ends of the retaining studs (5).

CAUTION **Do not connect any services until all anti vibration mounts have been fully adjusted.**

Pad Type

Components/Installation



- 1 M16 Bolt (Not Supplied)
- 2 Washer (Not Supplied)
- 3 Fixing Pad 506-063
- 4 A V Pad 506-062
- 5 2 x M16 Nut (Not Supplied)
- 6 Unit Base
- 7 Unit Mounting Plinth

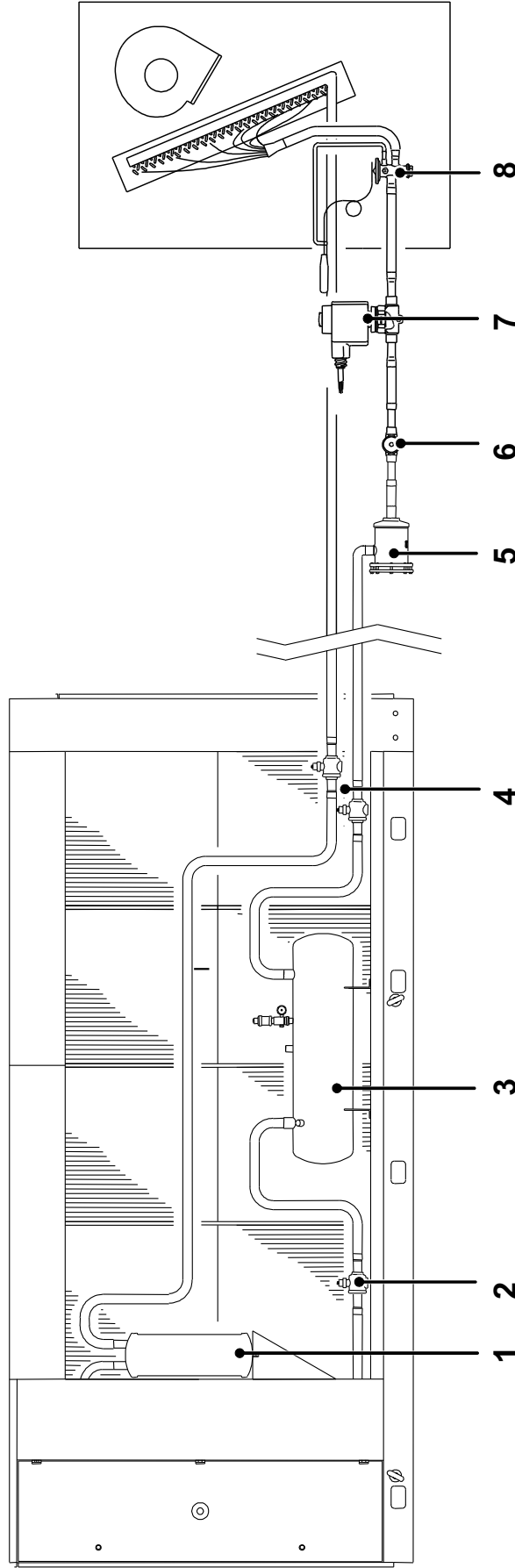
Installation Data

REFRIGERATION SYSTEM

Standard Recommended Installation

OUTDOOR UNIT - ULTIMA COMPACT CONDENSING UNIT

INDOOR UNIT - BY OTHERS



- 1 Suction accumulator (optional - factory fitted)
- 2 Receiver pump down ball valve (optional - factory fitted)
- 3 Liquid receiver & pressure relief assembly (optional - factory fitted)
- 4 Suction & liquid line ball valves (standard - factory fitted)
- 5 Filter drier (optional - supplied loose)
- 6 Sight glass (optional - supplied loose)
- 7 Solenoid valve (supplied by others)
- 8 Expansion valve (supplied by others)

Installation Data

ELECTRICAL

General

- As standard the equipment is designed for 400V, 3 phase, 3 wire 50Hz and a separate permanent 230V, 1 phase, 50Hz supply, to all relevant IEE regulations, British standards and IEC requirements.
- A fused and isolated electrical supply of the appropriate phase, frequency and voltage should be installed.
- The control voltage to the interlocks is 24V. Always size the low voltage interlock and protection cabling for a maximum voltage drop of 2V.

CAUTION  **Wires should be capable of carrying the maximum load current under non-fault conditions at the stipulated voltage.**

- Avoid large voltage drops on cable runs, particularly low voltage wiring.

CAUTION  **A separately fused, locally isolated, permanent single phase and neutral supply MUST BE FITTED for the compressor sump heater and control circuits, FAILURE to do so could INVALIDATE WARRANTY.**

Installation Data

INTERCONNECTING WIRING

Single Circuit

(not including: leak detector, and remote setpoint adjust)

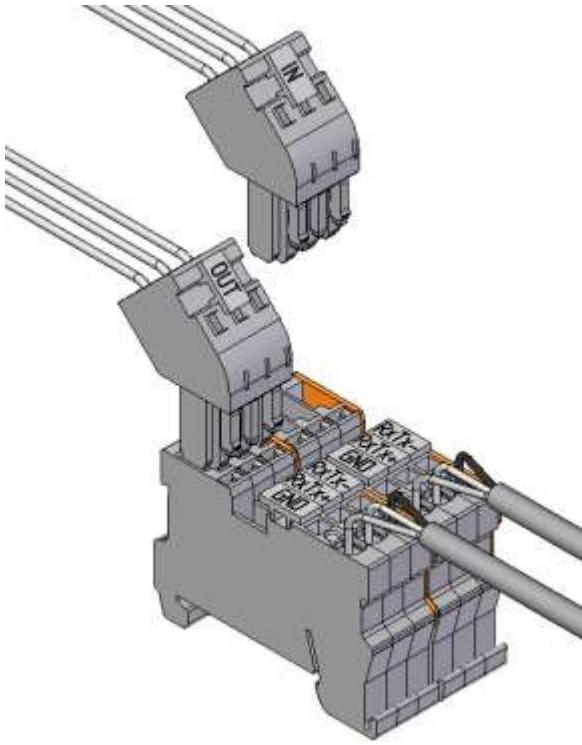
UCCU30– UCCU80 (Excluding UCCU75)	L1	○	←	Mains incoming supply 400V/3PH/50Hz 50Hz (N2 Only Required For UCCU30-80Q/DQ & UCCU50-60SSQ/DSQ)
	L2	○	←	
	L3	○	←	
	N2	○	←	
	E	○	←	
	L4	○	←	Separate Permanent Supply 230V/1PH/50Hz
	N1	○	←	
	E	○	←	
	502	○	→	Circuit 1 24VAC (Suction Pressure Control Option), Compressor.1 24VAC (Digital I/P Control Option)
	504	○	←	
	502	○	→	Remote On/Off 24VAC, Compressor.2 24VAC (Digital I/P Control Option)
	505	○	←	
	500	○	→	0 v 0-10v Remote Capacity Control (0-10VDC Control Option)
	806	○	←	
	52	○	→	Circuit 1 Solenoid Valve Volt Free Contact N/O
	53	○	→	
	573	○	←	Circuit 1 Volt Free Common Alarm Volt Free Alarm N/O Volt Free Alarm N/C
	574	○	→	
575	○	→		
RX-/TX-	○	↔	AIRELan / Optional EEV Connections	
RX+/TX+	○	↔		
GND	○	↔		

Double Circuit

UCCU30 – UCCU450	L1	○	←	Mains incoming supply 400V/3PH/50Hz (N2 Only Required For UCCU30-80Q/DQ & UCCU50-60SSQ/DSQ)
	L2	○	←	
	L3	○	←	
	N2	○	←	
	E	○	←	
	L4	○	←	Separate Permanent Supply 230V/1PH/50Hz
	N1	○	←	
	E	○	←	
	502	○	→	Circuit 1 24VAC (Suction Pressure Control Option) / Compressor.1 24VAC (Digital I/P Control Option)
	504	○	←	
	502	○	→	Unit Remote On/Off 24VAC, Circuit 2 24VAC (Suction Pressure Control Option), Compressor.2 24VAC (Digital I/P Control Option)
	505	○	←	
	502	○	→	Compressor.3 24VAC (Digital I/P Control Option)
	506	○	←	
	502	○	→	Compressor.4 24VAC (Digital I/P Control Option)
	507	○	←	
	502	○	→	Compressor.5 24VAC (Digital I/P Control Option UCCU275-450 Only Excluding UCCU250)
	508	○	←	
502	○	→	Compressor.6 24VAC (Digital I/P Control Option UCCU275-450 Only Excluding UCCU250)	
509	○	←		
502	○	→	Remote On/Off 24VAC, Compressor.2 24VAC (Digital I/P Control Option)	
505	○	←		
500	○	→	0 v 0-10v Remote Capacity Control (0-10VDC Control Option)	
806	○	←		
52	○	→	Circuit 1 Solenoid Valve Volt Free Contact N/O	
53	○	→		
54	○	→	Circuit 2 Solenoid Valve Volt Free Contact N/O	
55	○	→		
573	○	←	Circuit 1 Volt Free Common Alarm Volt Free Alarm N/O Volt Free Alarm N/C	
574	○	→		
575	○	→		
576	○	←	Circuit 2 Volt Free Common Alarm Volt Free Alarm N/O Volt Free Alarm N/C	
577	○	→		
578	○	→		
RX-/TX-	○	↔	AIRELan / Optional EEV Connections	
RX+/TX+	○	↔		
GND	○	↔		

} Dual Circuit Only

pLAN





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	B	01/01/05
	C	01/06/05
	D	01/08/05
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	V1.5.0	10_2013