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ARCHITECTURE & DESIGN
CHARTERED BUILDING SURVEYORS
PROJECT MANAGEMENT
PLANNING & DEVELOPMENT

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PRE Planning Submission
Design and Access Statement

UCL- London-UPN016 Anatomy Building Gower Street- Fourth Floor
Retrospective Application for replacement condenser plant

1.0 DESCRIPTION

1.01 The plant pertaining to this application is located on an external area of flat roof on the fourth floor of the Anatomy building at UCL which links the Anatomy building to Chadwick Building, which is situated on Gower Street within the Bloomsbury Conservation Area

1.02 The works are part of a wider refurbishment of the fourth floor laboratories.

1.03 The proposal is to replace four fan coil condenser units and a single compressor unit situated on the roof surface and wall mounted (See image 1), at this location with five modern replacement units , four roof mounted and one wall mounted.(See image 2).
8no Condenser units were previously removed from behind the covered balcony area facing Gower Street as part of the strip out works .

Image 1 existing condenser units.

Image 2 replacement condenser units.

1.04 The proposed units are more discrete than their predecessors being smaller in scale , more efficient and quieter in operation.

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1.05 The proposal also includes for rationalisation of the existing supply and return pipework to provide a neater rationalised installation.

1.06 The roof location partially fronts Gower Street but is not visible from street level and the installation has been assessed against relevant planning policies and we consider this to be in accordance with the development plan and an improvement on the previous installations.

2.00 REASON FOR PROPOSAL

2.01 The existing condensers are being replaced to ensure that the existing laboratories maintain their internal environment in accordance with current internal policies and to ensure both continued and efficient operation.

2.02 The plant is located at low level on the flat roof and away from the external edge of the building. The plant is not visible from Gower Street some 20m below.
(see Image 3 and 4)

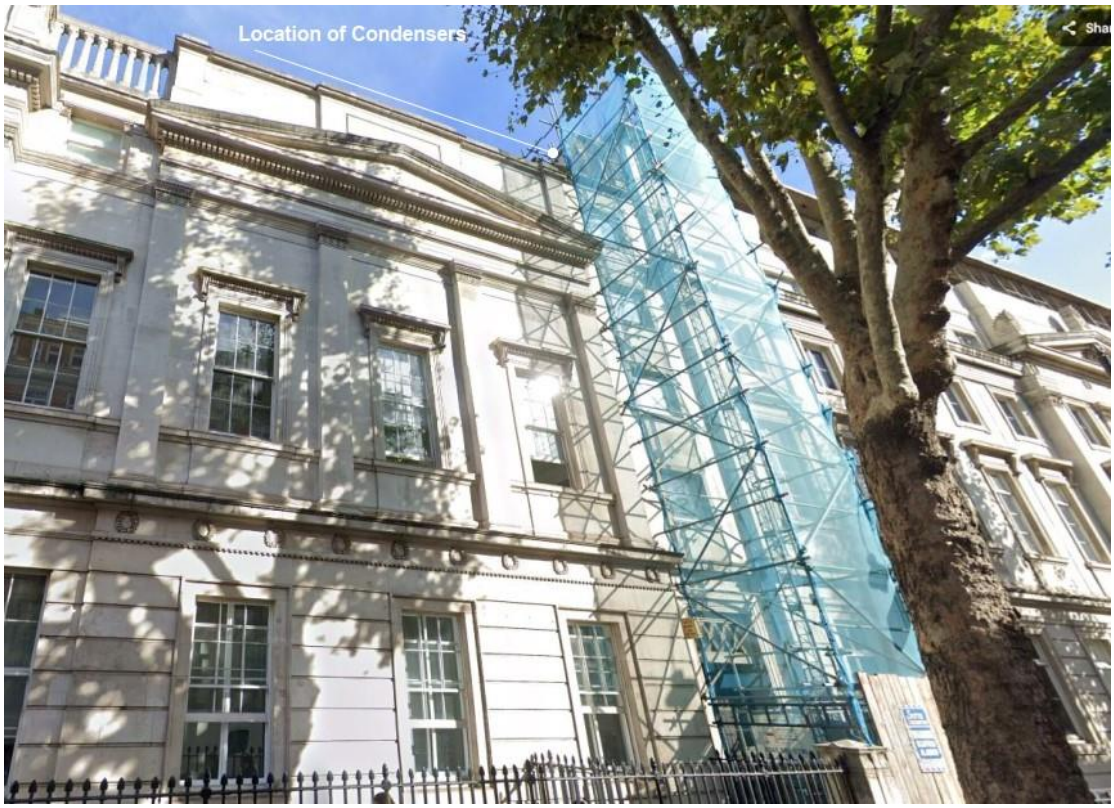

Image 3 view to plant location from Gower Street.

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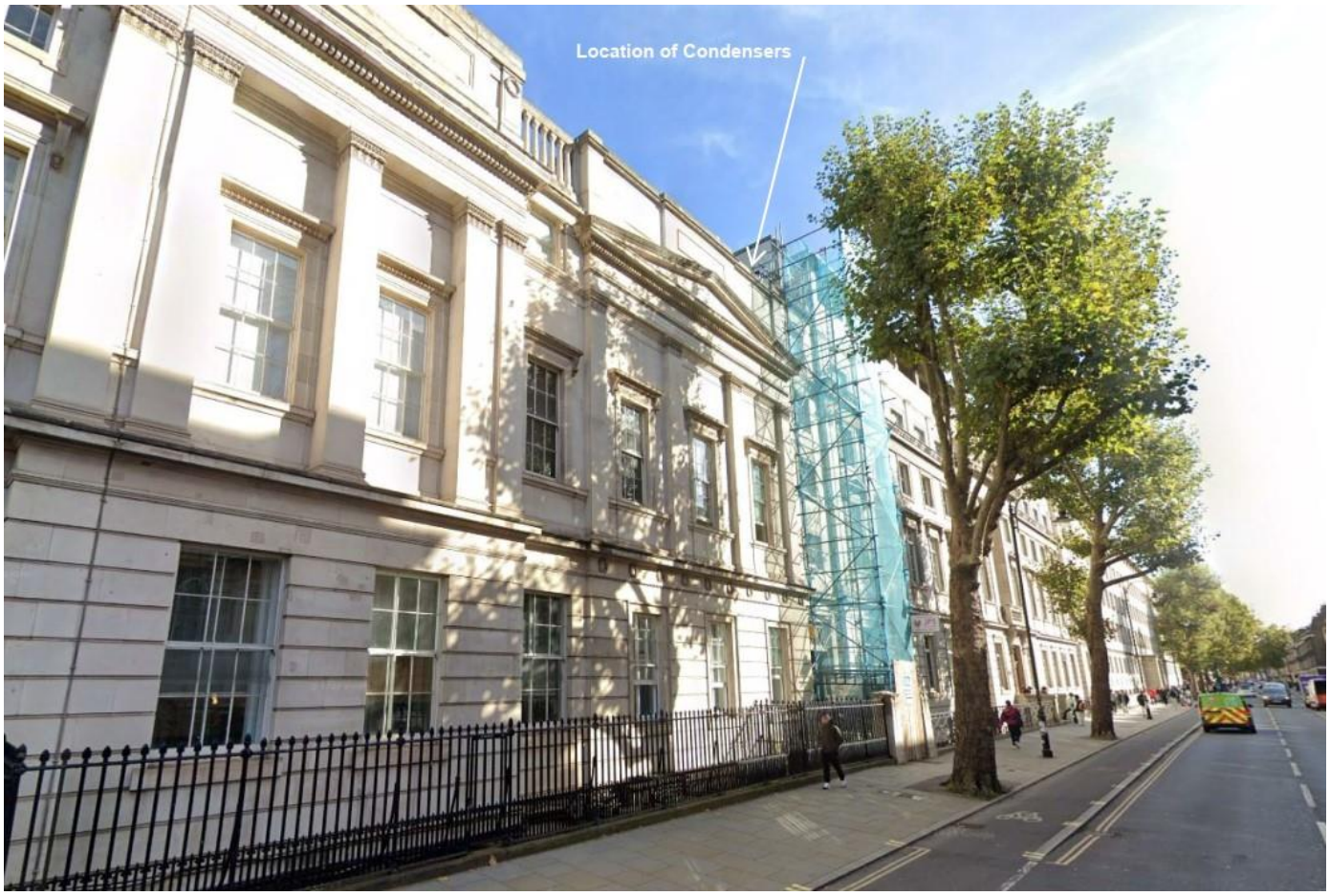

Image 4 view to plant location from Gower Street

2.03 The replacement units are in the same location as the original units but are located mostly on the flat roof with only one wall mounted unit.

2.04 The proposed alterations are part of a wider refurbishment to the laboratories on the fourth floor at UCL's Anatomy and Medical Sciences Building.

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3.00 CONCLUSION

3.01 We believe that the installation should be considered to be minor alterations which would not unduly impact the character and appearance of the host building or surroundings.

3.02 The proposed changes would preserve the character and appearance of the Bloomsbury Conservation Area and not cause any demonstrable harm.

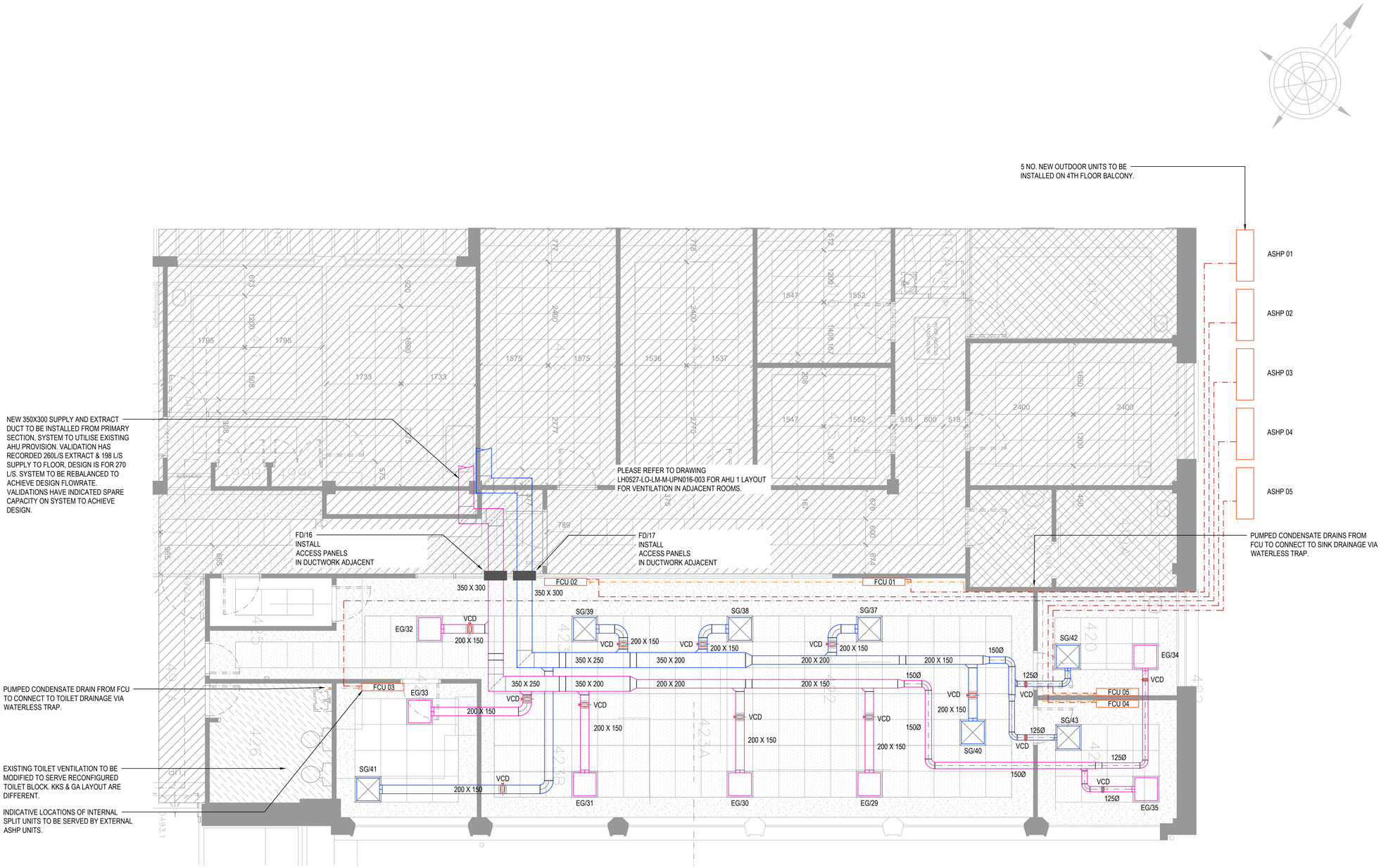
3.03 Due to the location and nature of the proposals they would not harm neighbouring amenity by way of loss of outlook, daylight/sunlight or privacy than is already in place

3.04 The installations would not generate any additional noise, vibration, odour, fumes or dust to surrounding neighbours or the environment.

3.05 It has been noted that special attention needs to be paid to preserving or enhancing the character or appearance of the conservation area and as such we believe the installation is in accord with this and current development policies.

3.06 The location plan , fourth floor plan and part elevations show the scale, extent and position of the new plant. Also enclosed is the Troup Bywater Anderson schematic showing the installed Fan Coil Unit Condensers and the enclosed technical literature show the performance of the units.

A1



NOTES

NOTES

1. THIS DRAWING MUST BE READ IN CONJUNCTION WITH THE M&E CONSULTANTS SPECIFICATION AND ALL OTHER RELEVANT MECHANICAL, ELECTRICAL AND PUBLIC HEALTH DRAWINGS, SCHEMATICS AND SCHEDULES.
2. ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE STATED.
3. DO NOT SCALE FROM THIS DRAWING.
4. VCD'S ARE TO BE PLACED ON EACH BRANCH.
5. FIRE STRATEGY BASED ON DRAWING 397-MSA-04-052.
6. STRIP OUT OR CAP EXISTING REDUNDANT SUPPLY AND EXTRACT WORK.
7. VENTILATION DUCTWORK TO BE INSTALLED IN NEW CEILING VOID.
8. BASED ON ARCHITECTS GA LAYOUT 397-MSA-04-001

LEGEND

- SUPPLY GRILLE
- EXTRACT GRILLE
- FIRE DAMPER
- VCD
- SUPPLY GRILLE SIDE CONNECTION
- MECHANICAL EQUIPMENT

KEY PLAN

Rev	Dcc	Description	Dwn	Chkd	Date
C02	-	CONTRACT ISSUE	JJ	IH	23.02.2024
C01	-	CONTRACT ISSUE	JJ	IH	08.12.2023
P04	-	PRELIMINARY ISSUE	JJ	IH	17.11.2023
P03	-	PRELIMINARY ISSUE	JJ	IH	01.09.2023
P02	-	ISSUED FOR COMMENT	JJ	IH	21.07.2023
P01	-	ISSUED FOR COMMENT	JJ	IH	23.06.2023

CONTRACT

TROUP BYWATERS + ANDERS
Bringing Buildings to Life

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w: www.tbanda.com

Project
UCL BSU
UPN 016 - MSA RODENTS

Title
SW18 HVAC LAYOUT

Client
DMA

Architect
N/A

Project No.	Drawn By	Date	Checked	Scale
LH0527	JJ	01-09-2023	IH	1:50

Acad Model

Drawing No.
LH0527-LO_LM_M_UPN016_005

Revision
C02

K:\LH0527 UCL BSU\06_L3_Final_Drawings\M\LH0527-LO-LM-M-UPN016-005.dwg

Wall mounted unit

Top Seasonal Performance

FTXM-R / RXM-R perfera

R-32 BLUEVOLUTION

Suitable for bedrooms, living rooms or small offices

The new FTXM range is equipped with an advanced heating function to provide ideal comfort at home. When the Heat Boost mode is activated the space is warmed up rapidly as the set temperature is reached 14% faster when compared with common air conditioners.

Suitable for bedrooms, living rooms or small offices, the FTXM range is equipped with an infra-red remote control with a 7 day timer. The timer allows you to programme a 7 day schedule with 4 different actions per day.

Alternatively, the FTXM can be controlled via smart phone or tablet using the Residential Controller App, Alexa or Google Home. The indoor unit is easily connected using the integrated WLAN PCB board.

All units are fitted with 2-area Intelligent Eye sensors, which keep the room comfortable while ensuring running costs are kept to a minimum.

› If the sensor detects the room is empty, it will switch to economy mode to save energy then restarts when someone re-enters.

› When people are detected in the room the sensor will direct air-flow away from them.

All units in the FTXM range are fitted with a Titanium apatite deodorising filter which eliminates odours from e.g. tobacco and pets. The Flash Streamer, which breaks down allergens such as pollen and fungal spores, provides better and cleaner air. The Flash Streamer technology is not meant to be used for medical purposes.

The FTXM range is ECA Eligible - check www.daikin.co.uk/ECA to obtain statement of eligibility.

FTXM20-42R

RXM42-60R

A+++ A+++

Replacement Technology

BRC073 (optional)

ARC466A67

WI-FI ADAPTOR INCLUDED AS STANDARD

FTXM-R / RXM-R

R-32 BLUEVOLUTION

Indoor Units			FTXM20R	FTXM25R	FTXM35R	FTXM42R	FTXM50R	FTXM60R	FTXM71R
Capacity	UK Total Cooling	kW	1.95	2.44	3.32	4.11	4.89	5.86	6.94
	UK Sensible Cooling	kW	1.95	1.73	2.31	2.74	3.55	3.84	4.57
	Nominal Cooling	kW	2.0	2.5	3.4	4.2	5.0	6.0	7.1
	Nominal Heating	kW	2.5	2.8	4.0	5.4	5.8	7.0	8.2
Seasonal Efficiency (EN14825) COOLING	Energy Label		A+++	A+++	A+++	A++	A++	A++	A++
	Pdesign	kW	2.0	2.5	3.4	4.2	5.0	6.0	7.1
	SEER		8.65	8.65	8.65	7.85	7.41	6.90	6.2
	Annual Energy Consumption	kWh	81	101	137	187	236	304	401
Seasonal Efficiency (EN14825) HEATING	Energy Label		A+++	A+++	A+++	A++	A++	A+	A+
	Pdesign	kW	2.3	2.4	2.5	4.0	4.6	4.8	6.2
	SCOP		5.10	5.10	5.10	4.71	4.71	4.30	4.10
	Annual Energy Consumption	kWh	631	659	686	1189	1368	1562	2117
Air Flow Rate (Cooling)	High / Med / Low / Silent	m^3/sec	0.175 / 0.125 / 0.095 / 0.072	0.175 / 0.127 / 0.095 / 0.068	0.188 / 0.130 / 0.100 / 0.070	0.198 / 0.150 / 0.108 / 0.072	0.263 / 0.233 / 0.190 / 0.138	0.278 / 0.233 / 0.197 / 0.152	0.282 / 0.250 / 0.203 / 0.167
Dimensions	Height	mm	295	295	295	295	299	299	299
	Width	mm	778	778	778	778	998	998	998
	Depth	mm	272	272	272	272	292	292	292
Weight		kg	10	10	10	10	14.5	14.5	14.5
Sound Pressure (Cooling)	High / Med / Low / Silent	dBA	41 / 33 / 25 / 19	41 / 33 / 25 / 19	45 / 33 / 29 / 19	45 / 39 / 30 / 21	44 / 40 / 36 / 27	46 / 42 / 37 / 30	47 / 43 / 38 / 32
Sound Pressure (Heating)	High / Med / Low / Silent	dBA	39 / 34 / 26 / 20	39 / 34 / 27 / 20	39 / 35 / 28 / 20	45 / 39 / 29 / 21	43 / 39 / 34 / 31	45 / 41 / 36 / 33	46 / 42 / 37 / 34
Sound Power (Cooling)		dBA	57	57	58	60	58	60	60

Outdoor Units			RXM20R9	RXM25R9	RXM35R9	RXM42R	RXM50R	RXM60R	RXM71R
Dimensions	Height x Width x Depth	mm	550 x 765 x 285	550 x 765 x 285	550 x 765 x 285	734 x 870 x 373	734 x 870 x 373	734 x 870 x 373	734 x 954 x 401
Weight		kg	32	32	32	49	49	49	55
Electrical Details	Power Supply		1ph	1ph	1ph	1ph	1ph	1ph	1ph
	Maximum Input Current (MCA)	A	8.93	9.71	9.76	10.36	14.54	15.09	19.78
	Max Fuse Size	A	10	16	16	16	16	16	20
Interconnection Wiring	Core / Cable size		3+E / 1.5	3+E / 1.5	3+E / 1.5	3+E / 1.5	3+E / 1.5	3+E / 1.5	3+E / 1.5
Piping Connections	Liquid / Gas	inches (mm)	1/4 (6.4) / 3/8 (9.5)	1/4 (6.4) / 3/8 (9.5)	1/4 (6.4) / 3/8 (9.5)	1/4 (6.4) / 3/8 (9.5)	1/4 (6.4) / 1/2 (12.7)	1/4 (6.4) / 1/2 (12.7)	1/4 (6.4) / 5/8 (15.9)
Pipework	Maximum Length	m	20	20	20	30	30	30	30
	Maximum Vertical Rise	m	15	15	15	20	20	20	20
	Precharged to	m	10	10	10	10	10	10	10
	Additional Charge	g/m	20	20	20	20	20	20	20
	Holding Charge	kg	0.76	0.76	0.76	1.10	1.15	1.15	1.15
Sound Pressure (Cooling)	Nominal	dBA	46	46	49	48	48	48	47
Sound Pressure (Heating)	Nominal	dBA	47	47	49	48	49	49	48
Sound Power (Cooling)		dBA	59	58	61	62	62	63	66
Operating Range (Cooling)	Min / Max	°CDB	-10 / 50	-10 / 50	-10 / 50	-10 / 50	-10 / 50	-10 / 50	-10 / 46
Operating Range (Heating)	Min / Max	°CWB	-21 / 18	-21 / 18	-21 / 18	-21 / 18	-21 / 18	-21 / 18	-15 / 18
Air Flow Rate (Cooling)	Nominal	m^3/sec	0.600	0.472	0.600	0.777	0.777	0.777	0.817
Meets ETL criteria			•	•	•	•	•	•	

Accessories:

Accessory Ref	Description
EKRS21	Wire harness for S21 port for all marked (*) options
BRC073*	Wired remote control - connection cable required
BRCW901A03	3m extension cord required for wired remote controller BRC073
BRCW901A08	8m extension cord required for wired remote controller BRC073
K.CGM	Condensing unit guard (1150 x 1150 x 650)
K.CGS	Condensing unit guard (750 x 1150 x 460)
K.CWB90-2	Wall bracket (90kg, 500mm support arm)
K.DT1	Condensate drip tray for use with K.CWB90-2
KLIC-DDV3*	KNX interface for Split type systems
KRP413A1S*	Adaptor PCB for remote on/off control - constant/pulse contact
KRP928A2S*	Adaptor PCB for interface to Daikin centralised control systems
RTD-RA*	Adaptor PCB for Modbus connection and/or extended system functions

Notes & Features:

- All fan coils are supplied with infrared remote controller ARC466A67 (7-day schedule timer)
- All fan coils have auto restart after power failure
- Wired controller, KLIC-DI and RTD-RA options cannot be combined
- Night set mode
- Air purification using Flash Streamer technology
- Presence sensor and 2-area intelligent eye
- 5 fan speeds can be selected; from high to super low
- Heat boost function to reach set point quicker during start-up
- Can be connected with R410A Mini VRV using BPMK boxes
- RXM20-35R9 can reduce the sound power by a further 6 dB(A)

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

CE

CERTIFIED LR ISO 9001 - ISO 14001

FSC

Daikin Europe N.V. participates in the Eurovent Certification programme for Air conditioners (AC), Liquid Chilling Packages (LCP), Air handling units (AHU) and Fan coil units (FCU), Check ongoing validity of certificate online: www.eurovent-certification.com or using: www.certiflash.com

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