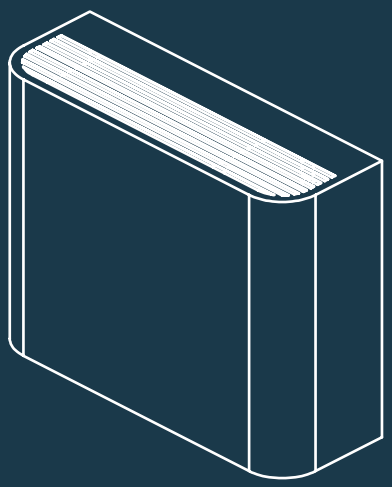
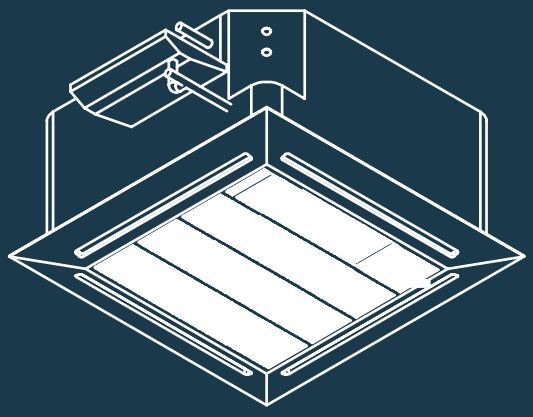
QUARTZ

FAN COILS AND HVAC

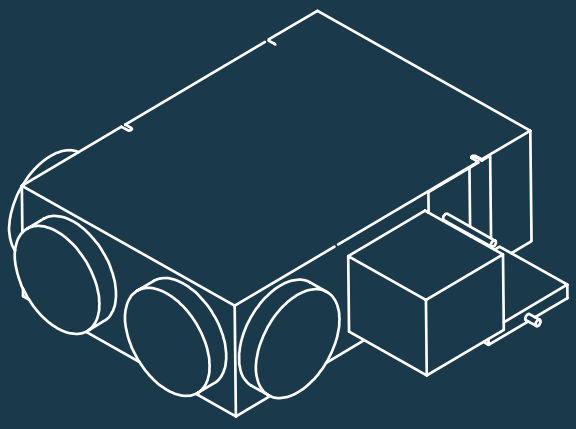






fan coils & hvac

Technical Brochure



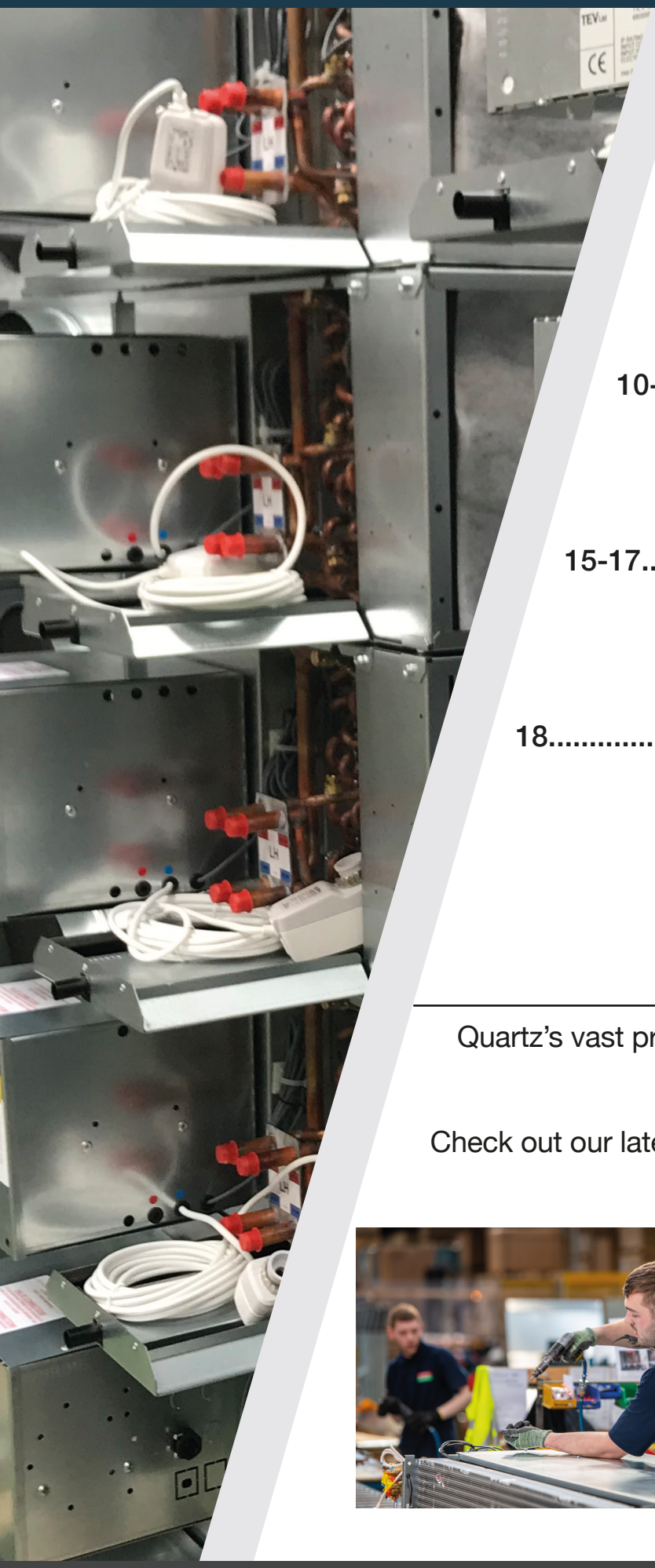
DESIGNED AND BUILT IN THE UK

In partnership with

MARSTAIR

REFRIGERATION AND SPECIALIST AIR CONDITIONING

contents



2-9.....Ducted Fan Coils
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10-14.....Wall and Ceiling Mounted
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15.....Specification
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17.....NR Guide

18.....High Wall Mount
18.....Specification
18.....CWM
18.....NR Guide

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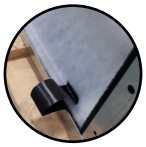
ducted fan coils

3 Model Depths (Sapphire 285mm / Amber 235mm / Amethyst 175mm)



Chassis

• Manufactured from galvanised sheet steel for robust quality.



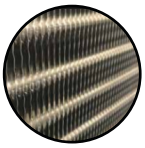
Access

• Access to fans/motors shall be via a sealed removable panel
• Access to coil connections & electrics box is located on one side, giving one point of access. Units are handed depending on project requirements.



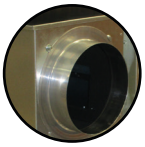
Fan / Motors

• Energy Efficient EC/DC motors in either single fan or motor / impellor configuration are used throughout the range.
• Amber and Sapphire use double inlet forward curved & Amethyst single inlet impellers.



Coils

• Coils are manufactured from seamless copper tube, mechanically expanded into aluminium fins having die formed collars to obtain maximum contact providing optimised heat transfer. Circuits are designed to ensure optimisation of output. Vents are fitted on all inlet and outlet tubes. Testing shall be by dry air to 30 bar, and valve assemblies by hydraulic pressure to 10 bar.



Spigots

• 250/200mm spigots available on Sapphire. 200/150mm spigots available on Amber. 150mm spigots available on Amethyst.



Insulation

• Acoustic & thermal Class ‘O’ insulation



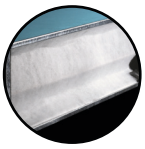
Condensate Tray

• Condensate trays shall be one-piece welded, insulated galvanised steel with a fall to drain. The drain connection shall be 15mm tube suitable for push-on or compression fittings. An epoxy resin based paint shall be applied to the internal surfaces to offer corrosion resistance and trays shall be externally insulated with faced 3mm vapour barrier foam. Standard tray is 200mm extension of unit dimensions with an additional 30mm condensate connection length. Stainless options available.



Speed Control

• Speed control through optional DC Potentiometer or through BMS Controller. Both can be fitted in series to aid comissioning.



Filters

• Standard Filter is an EU2 grade, EU3 grade or Stainless steel filters available as optional extras.

Detail of Product Code Configuration.

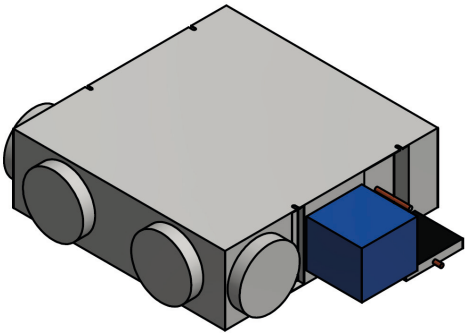
Basic as Catalogued Product: - **e.g. SPR1-1A105**

RANGE	MODEL	WIDTH	COIL CIRCUIT	FILTER	DRAIN TRAY	CASING/PLENUM
SPR	1	1	A	1=Current Filter	0=Current Drain Tray	3= Short unit, NO dis-charge plenum + rec spigot (No elec heat option)
AMB	2	2	B			5= Circ spigot(s) (Standard
AMT	3	3	NZEB			6= Rectangular Spigot
	3	4				7= Inlet plenum + Circ spigot(s)
	4	5				8= Inlet plenum + Rec Spigot(s)
	5					A= Extended inlet c/w F/A spigot + Circ spigot(s)
	6					B= Extended inlet c/w circ F/A spigot + Rect discharge spigot
	7					
	8					
	9					

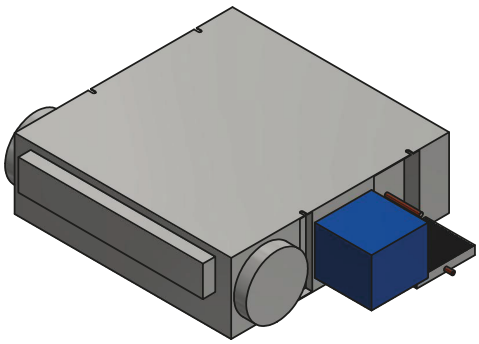
See specific range data for model/width

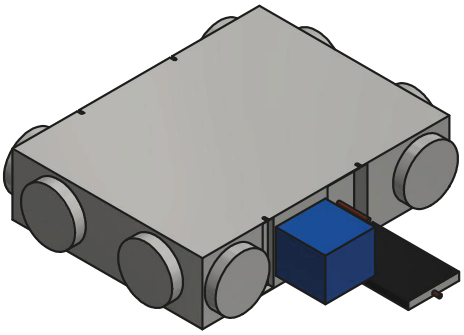
Typical Examples Below: Coil Circuits to be chosen by our Applications Team to correctly meet specification.

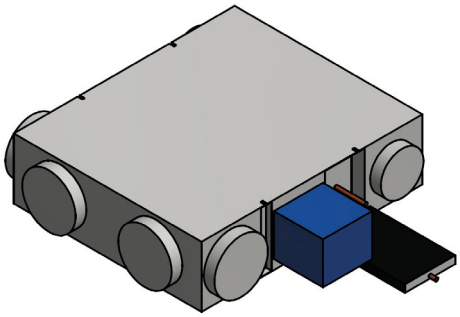
Type 0 Drain tray
Type 5 Casing / Plenum



Type 0 Drain tray
Type 6 Casing / Plenum







Type 1 Drain tray
Type 7 Casing / Plenum

Type 1 Drain tray
Type A Casing / Plenum



*ALL DATA AT 30Pa EXTERNAL RESISTANCE

Model	Speed	Airflow l/s	Cooling						Heating						Electrical (EC/DC)		Acoustic
			UK (23db/16.1wb)			Eurovent (27db/19wb)			UK (20db)		Eurovent (20˚C)						
			6/12			7/12			82/71		65/55 4 pipe		45/40 2 pipe				
			Sensible	Total	Air off db	Sensible	Total	Air off db	Total	Air off db	Total	Air off db	Total	Air off db	FLC	Anticipated SFP	NR
			kW	kW	˚C	kW	kW	˚C	kW	˚C	kW	˚C	kW	˚C	Amps	w/l/s	See Qualification
SPR1-1	Whisper	55	0.92	1.20	9.2	1.11	1.58	10.3	1.50	42.5	1.01	35.2	1.52	35.2	0.7	0.15	22
	Low	100	1.51	1.82	10.5	1.85	2.49	11.7	1.94	36.0	1.38	31.4	2.65	31.4	0.7	0.18	30
	Low-med	135	1.96	2.30	11.0	2.38	3.12	12.4	2.34	34.3	1.64	30.0	3.41	30.0	0.7	0.21	34
	Med	160	2.25	2.58	11.4	2.72	3.49	12.9	2.57	33.3	1.80	29.3	3.92	29.3	0.7	0.25	35
	Med-high	170	2.36	2.69	11.5	2.86	3.64	13.1	2.67	33.0	1.85	29.0	4.11	29.0	0.7	0.27	35
	High	180	2.48	2.81	11.6	2.99	3.79	13.3	2.76	32.7	1.91	28.8	4.30	28.8	0.7	0.29	36
SPR1-1+	Whisper	70	1.10	1.37	10.0	1.40	2.02	10.5	1.57	38.5	1.07	32.6	1.92	32.6	0.7	0.15	23
	Low	115	1.71	2.03	10.7	2.15	2.98	11.5	2.12	35.2	1.45	30.4	2.97	30.4	0.7	0.18	27
	Low-med	145	2.08	2.41	11.1	2.61	3.50	12.1	2.44	33.9	1.67	29.5	3.60	29.5	0.7	0.21	31
	Med	170	2.36	2.69	11.5	2.96	3.88	12.6	2.67	33.0	1.82	28.8	4.09	28.8	0.7	0.25	34
	Med-high	180	2.48	2.81	11.6	2.99	3.79	13.3	2.76	32.7	1.91	28.8	4.31	28.8	0.7	0.27	35
	High	190	2.59	2.92	11.7	3.24	4.17	12.9	2.85	32.4	1.94	28.4	4.47	28.4	0.7	0.29	36
SPR 2-2	Whisper	70	1.10	1.37	10.0	1.40	2.02	10.5	1.57	38.5	1.07	32.6	1.92	32.6	0.7	0.15	24
	Low	115	1.71	2.03	10.7	2.15	2.98	11.5	2.12	35.2	1.45	30.4	2.97	30.4	0.7	0.18	26
	Low-med	145	2.08	2.41	11.1	2.61	3.50	12.1	2.44	33.9	1.67	29.5	3.60	29.5	0.7	0.21	27
	Med	170	2.36	2.69	11.5	2.96	3.88	12.6	2.67	33.0	1.82	28.8	4.09	28.8	0.7	0.25	31
	Med-high	180	2.48	2.81	11.6	2.99	3.79	13.3	2.76	32.7	1.91	28.8	4.31	28.8	0.7	0.27	33
	High	190	2.59	2.92	11.7	3.24	4.17	12.9	2.85	32.4	1.94	28.4	4.47	28.4	0.7	0.29	34
SPR 2-2+	Whisper	70	1.21	1.60	8.7	1.46	2.11	9.8	2.38	48.1	1.47	37.4	1.97	37.4	0.7	0.15	19
	Low	100	1.58	1.96	9.9	2.03	2.95	10.2	2.42	40.0	1.68	33.9	2.77	33.9	0.7	0.17	22
	Low-med	130	2.00	2.44	10.3	2.54	3.62	10.9	2.83	38.0	1.96	32.5	3.49	32.5	0.7	0.2	26
	Med	170	2.54	3.03	10.7	3.22	4.48	11.3	3.36	36.3	2.32	31.3	4.40	31.3	0.7	0.24	30
	Med-high	180	2.67	3.18	10.7	3.31	4.41	11.8	3.48	36.0	2.63	32.1	4.84	32.1	0.7	0.26	31
	High	190	2.81	3.32	10.8	3.54	4.87	11.6	3.61	35.7	2.50	30.9	5.25	30.9	0.7	0.29	33
SPR 3-2	Whisper	84	1.38	1.77	9.4	1.69	2.41	10.4	2.35	43.1	1.54	35.2	2.32	35.2	1.4	0.17	22
	Low	115	1.78	2.18	10.2	2.26	3.09	10.8	2.58	38.5	2.05	34.7	3.15	34.7	1.4	0.17	23
	Low-med	154	2.32	2.78	10.5	2.85	3.85	11.7	3.09	36.6	2.14	31.5	4.07	31.5	1.4	0.18	25
	Med	208	3.01	3.51	11.0	3.67	4.81	12.4	3.72	34.8	2.54	30.1	5.24	30.1	1.4	0.18	29
	Med-high	245	3.44	3.94	11.4	4.26	5.54	12.6	4.08	33.8	3.06	30.3	5.98	30.3	1.4	0.2	31
	High	300	4.07	4.57	11.8	4.91	6.15	13.5	4.61	32.7	3.08	28.5	7.02	28.5	1.4	0.22	34
SPR 4-3	Whisper	100	1.69	2.22	9.0	2.10	3.06	9.6	3.50	48.9	2.18	38.0	2.83	38.0	1.4	0.15	22
	Low	205	3.06	3.65	10.7	3.87	5.31	11.4	4.36	37.6	3.13	32.6	5.50	32.6	1.4	0.16	27
	Low-med	245	3.59	4.23	10.9	4.51	6.11	11.8	4.88	36.5	3.49	31.8	6.41	31.8	1.4	0.18	29
	Med	310	4.40	5.07	11.3	5.49	7.26	12.4	5.64	35.0	4.00	30.7	7.81	30.7	1.4	0.21	33
	Med-high	360	4.97	5.64	11.6	6.18	8.02	12.8	6.14	34.1	4.33	29.9	8.82	29.9	1.4	0.26	36
	High	435	5.80	6.47	12.0	7.27	9.43	13.2	6.87	33.1	5.10	29.7	10.24	29.7	1.4	0.3	38
SPR 5-4	Whisper	105	1.81	2.41	8.8	2.21	3.22	9.6	4.05	51.9	2.41	39.0	2.99	39.0	1.4	0.14	23
	Low	210	3.11	3.69	10.8	4.00	5.50	11.3	4.71	38.5	3.31	33.0	5.73	33.0	1.4	0.16	25
	Low-med	255	3.73	4.39	10.9	4.73	6.41	11.7	5.32	37.2	3.72	32.1	6.79	32.1	1.4	0.18	28
	Med	325	4.66	5.40	11.1	5.82	7.75	12.2	6.23	35.8	4.31	31.0	8.34	31.0	1.4	0.2	31
	Med-high	367	5.16	5.91	11.4	6.43	8.44	12.5	6.67	35.0	4.61	30.4	9.23	30.4	1.4	0.26	34
	High	445	6.04	6.81	11.8	7.64	10.03	12.8	7.44	33.8	5.52	30.3	10.79	30.3	1.4	0.29	36
SPR 6-4	Whisper	130	2.11	2.67	9.6	2.65	3.81	10.2	4.15	46.4	2.67	37.0	3.64	37.0	1.7	0.17	22
	Low	215	3.22	3.86	10.6	4.08	5.60	11.3	4.78	38.4	3.36	32.9	5.85	32.9	1.7	0.18	25
	Low-med	285	4.18	4.93	10.9	5.20	6.99	11.9	5.71	36.6	3.98	31.5	7.47	31.5	1.7	0.18	28
	Med	335	4.83	5.64	11.1	5.97	7.92	12.3	6.34	35.6	4.38	30.8	8.56	30.8	1.7	0.19	30
	Med-high	382	5.39	6.19	11.3	6.64	8.67	12.6	6.82	34.8	4.70	30.2	9.54	30.2	1.7	0.22	32
	High	462	6.31	7.13	11.7	7.73	9.87	13.2	7.61	33.6	5.20	29.3	11.11	29.3	1.7	0.24	34



sapphire 285mm

*ALL DATA AT 30Pa EXTERNAL RESISTANCE

Model	Speed	Airflow l/s	Cooling						Heating						Electrical (EC/DC)		Acoustic
			UK (23db/16.1wb)			Eurovent (27db/19wb)			UK (20db)		Eurovent (20˚C)						
			6/12			7/12			82/71		65/55 4 pipe		45/40 2 pipe				
			Sensible	Total	Air off db	Sensible	Total	Air off db	Total	Air off db	Total	Air off db	Total	Air off db	FLC	Anticipated SFP	NR
			kW	kW	˚C	kW	kW	˚C	kW	˚C	kW	˚C	kW	˚C	Amps	w/l/s	See Qualification
SPR 8-5	Whisper	150	2.90	3.23	9.2	3.15	4.38	9.6	5.41	43.6	3.26	37.96	4.24	43.4	1.7	0.13	25
	Low	250	3.82	4.65	10.4	4.88	6.79	10.9	5.98	39.8	4.13	33.65	6.88	42.7	1.7	0.16	26
	Low-med	355	5.28	6.29	10.7	6.64	8.96	11.5	7.44	37.3	5.11	31.90	9.34	41.7	1.7	0.18	30
	Med	425	6.21	7.31	10.9	7.73	10.29	12.0	8.37	36.3	5.69	31.07	10.88	41.2	1.7	0.21	33
	Med-high	477	6.84	7.93	11.1	8.49	11.16	12.3	8.92	35.5	6.06	30.50	11.96	40.7	1.7	0.28	35
	High	560	7.81	8.91	11.5	9.64	12.42	12.8	9.78	34.4	6.60	29.74	13.62	40.1	1.7	0.3	38
SPR9-5	Whisper	250	3.85	4.70	10.3	4.91	6.87	10.8	5.98	39.8	4.13	33.65	6.88	42.7	3.4	0.19	27
	Low	355	5.32	6.36	10.6	6.69	9.10	11.4	7.44	37.3	5.11	31.90	9.34	41.7	3.4	0.2	30
	Low-med	425	6.25	7.38	10.8	7.79	10.43	11.8	8.37	36.3	5.69	31.07	10.88	41.2	3.4	0.2	32
	Med	477	6.88	8.01	11.1	8.55	11.31	12.2	8.92	35.5	6.06	30.50	11.96	40.7	3.4	0.2	34
	Med-high	560	7.86	8.99	11.4	9.71	12.60	12.7	9.78	34.4	6.60	29.74	13.62	40.1	3.4	0.28	36
	High	600	8.31	9.46	11.6	10.42	13.56	12.6	10.19	34.0	7.42	30.22	14.39	39.8	3.4	0.32	37

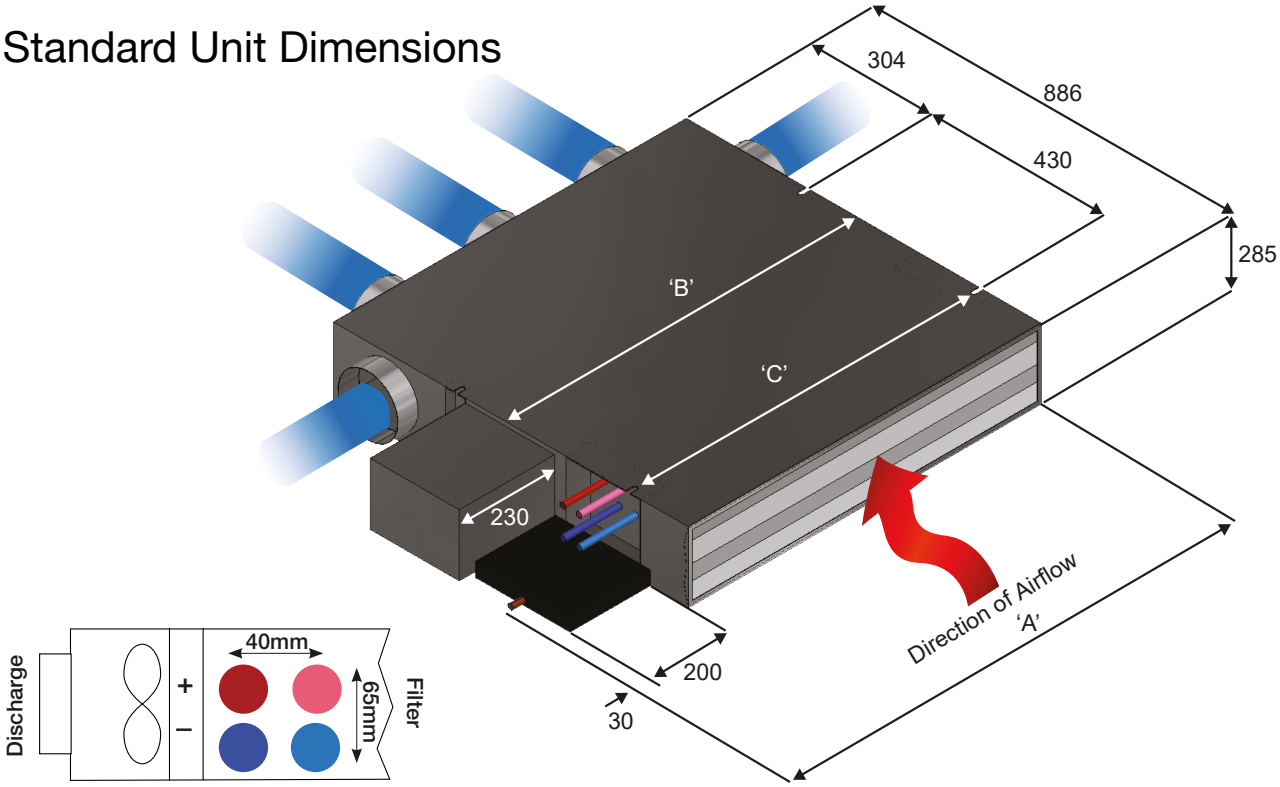
Qualification of NR Predictions Fan Coils:
The N.R. guide figures quoted in the schedule are intended to show the levels which may be expected in a typical office environment. The room effect is calculated using the Schultz method and the resultant NR calculation requires that the following conditions be met.

- Room sizes are based on a cooling load of 120W/m2 with a chilled water flow temperature of 6°C and a return of 12°C
- Units must be correctly mounted onto a solid structure, using drop rods attached to the mounting points provided, in a false ceiling not less than 300mm deep, with standard T-Bar grid and 10mm fibreboard tiles.
- Rooms should be carpeted, with no more than 20% glazed or highly reflective surfaces
- In open plan areas units should be mounted not less than 6m apart and return air grilles should not be mounted directly below, or adjacent to unit inlets
- 1m of non noise regenerative flexible duct should be fitted to each outlet spigot, which should be sized to maintain the required N.R. level, i.e. 1.5m/s at NR25, 2.0m/s at NR30, 3.0m/s at NR35 and 4.0m/s at NR40
- Height from the floor to the discharge grilles is not less than 2.5m
- The attenuation due to the ceiling tiles is not less than the following

c	125	250	500	1K	2K	4K
dB	4	7	9	11	14	16

Providing that the grille plenums are correctly sized and insulated the foregoing should ensure that the ‘guide’ NR Levels are met when measured at 1.5m from the nearest grille.

Standard Unit Dimensions



*Note: Flow into coil Depicted on a LH- Unit.
All Coil Connections 15mm Plain Copper

Unit Model	Dim 'A' Overall Width	Dim 'B' Unit Width	Dim 'C' Fixing Centres	Maximum No. of Spigots/ Size	Cooling Coil Volume (L)	Heating Coil Volume (L)	DRY Weight (approx Kg)	WET Weight (approx Kg)
SPR 1 - 1	860	630	595	4 (250/200)	1.5	0.25	45	47
SPR 2 - 2	1110	880	845	4 (250/200)	2.2	0.35	55	58
SPR 3 - 2	1110	880	845	4 (250/200)	2.2	0.35	57	68
SPR 4 - 3	1460	1230	1195	5 (250/200)	3.0	0.5	75	79
SPR 5 - 4	1660	1430	1395	5 (250/200)	3.5	0.6	85	90
SPR 6 - 4	1660	1430	1395	5 (250/200)	3.5	0.6	90	95
SPR 8 - 5	2010	1780	1745	6 (250/200)	4.5	0.7	105	110
SPR 9 - 5	2010	1780	1745	6 (250/200)	4.5	0.7	109	115



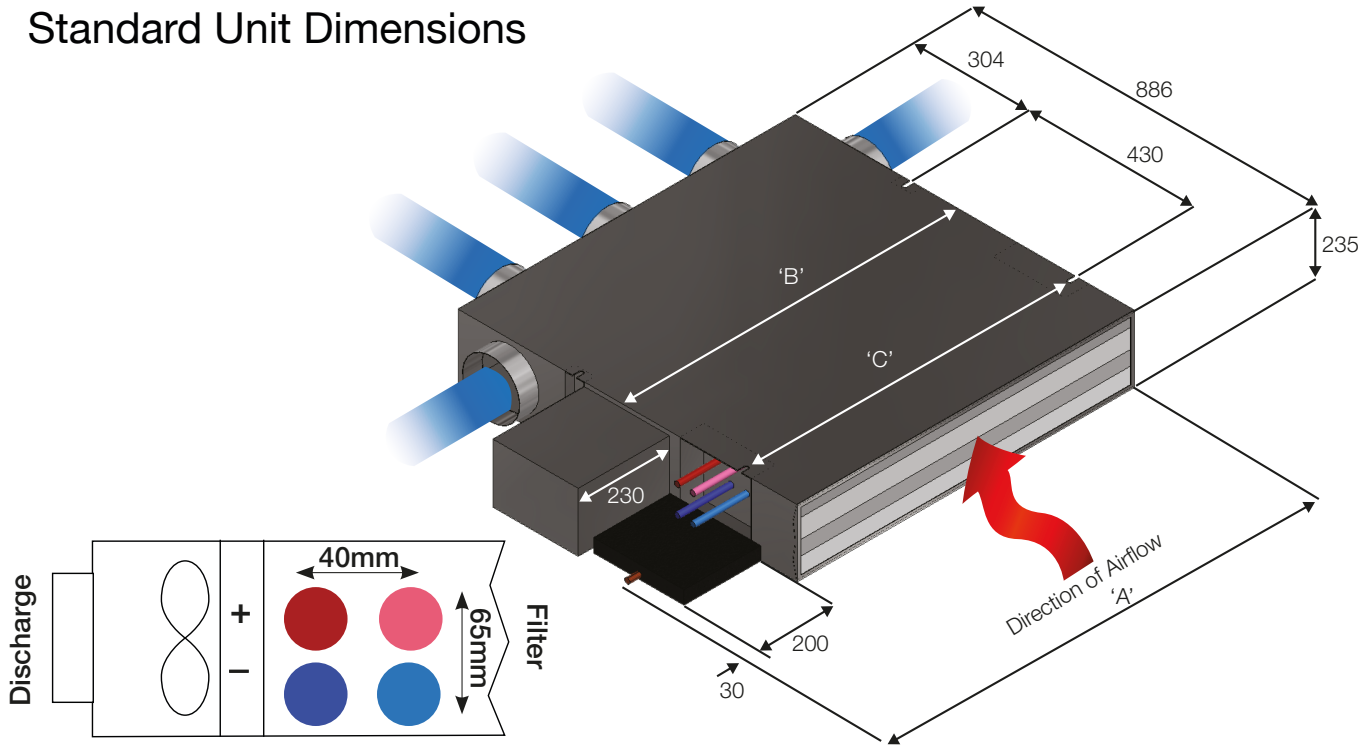


Performance Output

*ALL DATA AT 30Pa EXTERNAL RESISTANCE

Model	Speed	Airflow l/s	Cooling						Heating						Electrical (EC/DC)		Acoustic
			UK (23db/16.1wb)			Eurovent (27db/19wb)			UK (20db)		Eurovent (20°C)						
			6/12			7/12			82/71		65/55 4 pipe		45/40 2 pipe				
			Sensible	Total	Air off db	Sensible	Total	Air off db	Total	Air off db	Total	Air off db	Total	Air off db	FLC	Anticipated SFP	NR
			kW	kW	°C	kW	kW	°C	kW	°C	kW	°C	kW	°C	Amps	w/l/s	See Qualification
AMB 1-1	Whisper	55	0.82	0.98	10.7	1.05	1.40	11.2	1.56	43.4	1.34	40.1	1.51	42.7	0.70	0.18	25
	Low	100	1.39	1.58	11.5	1.74	2.23	12.6	2.29	38.9	1.89	35.6	2.52	40.8	0.70	0.20	30
	Low-med	135	1.78	1.98	12.1	2.21	2.78	13.5	2.72	36.7	2.19	33.4	3.22	39.7	0.70	0.26	33
	Med	160	2.05	2.26	12.4	2.54	3.14	13.9	3.02	35.6	2.36	32.2	3.67	39.0	0.70	0.33	35
	Med-high	170	2.15	2.36	12.5	2.66	3.28	14.1	3.14	35.3	2.42	31.8	3.84	38.7	0.70	0.36	37
	High	180	2.25	2.47	12.7	2.79	3.42	14.2	3.24	34.9	2.48	31.4	1.54	27.1	0.70	0.40	40
AMB 2-2	Whisper	70	1.09	1.34	10.1	1.33	1.79	11.3	2.29	47.0	1.79	41.1	1.91	42.6	0.70	0.17	25
	Low	85	1.21	1.40	11.2	1.62	2.18	11.2	2.43	43.6	2.02	39.6	2.33	42.7	0.70	0.19	27
	Low-med	115	1.53	1.71	12.0	2.11	2.77	11.8	2.94	41.1	2.42	37.4	3.03	41.8	0.70	0.20	30
	Med	155	2.13	2.41	11.6	2.71	3.49	12.5	3.59	39.1	2.84	35.1	3.90	40.8	0.70	0.28	33
	Med-high	170	2.30	2.59	11.8	2.93	3.74	12.8	3.78	38.4	2.97	34.4	4.20	40.4	0.70	0.30	34
	High	180	2.42	2.72	11.9	3.06	3.90	12.9	3.91	38.0	3.05	34.0	4.40	40.2	0.70	0.35	35
AMB 3-2	Whisper	85	1.21	1.40	11.2	1.62	2.21	11.2	2.43	43.6	2.02	39.6	2.33	42.7	1.40	0.20	25
	Low	115	1.53	1.71	12.0	2.11	2.77	11.8	2.94	41.1	2.42	37.4	3.03	41.8	1.40	0.23	27
	Low-med	168	2.19	2.43	12.2	2.90	3.71	12.7	3.76	38.5	2.95	34.5	4.17	40.5	1.40	0.25	30
	Med	228	2.84	3.11	12.7	3.70	4.62	13.6	4.50	36.3	3.39	32.3	5.31	39.3	1.40	0.28	33
	Med-high	275	3.32	3.61	13.0	4.27	5.24	14.2	5.05	35.2	3.66	31.0	6.11	38.4	1.40	0.30	34
	High	289	3.45	3.75	13.1	4.42	5.41	14.4	5.21	34.9	3.73	30.7	6.33	38.1	1.40	0.33	35
AMB 3-3	Whisper	75	1.28	1.68	8.9	1.47	2.00	10.8	3.28	56.1	2.00	42.0	2.12	43.4	0.70	0.16	25
	Low	90	1.44	1.81	9.8	1.73	2.36	11.1	3.38	51.0	2.07	39.0	2.50	43.0	0.70	0.18	27
	Low-med	120	1.72	2.00	11.2	2.30	3.12	11.2	3.55	44.5	2.85	39.6	3.31	42.8	0.70	0.20	30
	Med	160	2.24	2.56	11.4	2.97	3.96	11.7	4.24	41.9	3.37	37.4	4.27	42.1	0.70	0.28	33
	Med-high	180	2.52	2.88	11.4	3.28	4.36	11.9	4.58	41.0	3.60	36.5	4.72	41.7	0.70	0.31	34
	High	190	2.65	3.03	11.5	3.44	4.55	12.0	4.74	40.6	3.71	36.1	4.94	41.5	0.70	0.35	35
AMB 4-3	Whisper	100	1.54	1.88	10.3	1.91	2.58	11.2	3.41	48.2	2.54	41.0	2.75	42.7	1.40	0.15	25
	Low	135	1.88	2.14	11.5	2.56	3.44	11.3	3.81	43.3	2.72	36.7	3.68	42.5	1.40	0.17	27
	Low-med	200	2.79	3.18	11.5	3.59	4.74	12.2	4.91	40.3	3.81	35.7	5.16	41.3	1.40	0.20	30
	Med	240	3.29	3.72	11.7	4.18	5.45	12.6	5.51	39.0	4.18	34.4	6.00	40.7	1.40	0.23	33
	Med-high	275	3.69	4.14	11.9	4.67	6.04	13.0	5.97	37.9	4.45	33.4	6.70	40.1	1.40	0.25	34
	High	300	3.98	4.42	12.0	5.01	6.43	13.2	6.29	37.3	4.62	32.7	7.19	39.8	1.40	0.28	35
AMB 5-4	Whisper	105	1.66	2.07	9.9	2.06	2.84	10.8	3.92	50.9	2.76	41.7	2.93	43.1	1.40	0.15	25
	Low	140	2.03	2.37	11.0	2.74	3.76	10.8	4.07	44.0	2.91	37.2	3.88	42.9	1.40	0.17	27
	Low-med	205	2.93	3.38	11.2	3.83	5.17	11.6	5.16	40.8	4.10	36.5	5.43	41.9	1.40	0.20	30
	Med	250	3.51	4.02	11.4	4.54	6.05	12.0	5.90	39.5	4.53	35.0	6.43	41.3	1.40	0.24	33
	Med-high	280	3.87	4.40	11.6	4.99	6.60	12.3	6.32	38.7	4.78	34.1	7.06	40.8	1.40	0.26	34
	High	320	4.33	4.86	11.8	5.56	7.30	12.6	6.82	37.6	5.07	33.1	7.87	40.3	1.40	0.29	35
AMB 6-4	Whisper	130	1.89	2.21	11.0	2.50	3.42	11.1	3.94	45.1	3.16	40.1	3.55	42.6	1.70	0.19	25
	Low	170	2.45	2.86	11.1	3.26	4.44	11.1	4.59	42.3	3.29	36.0	4.62	42.5	1.70	0.20	27
	Low-med	220	3.12	3.60	11.3	4.07	5.47	11.7	5.41	40.3	4.25	36.0	5.77	41.7	1.70	0.24	30
	Med	280	3.87	4.40	11.6	4.99	6.60	12.3	6.32	38.7	4.78	34.1	7.06	40.8	1.70	0.28	33
	Med-high	330	4.44	4.97	11.9	5.70	7.47	12.7	6.95	37.4	5.14	32.9	8.07	40.2	1.70	0.31	35
	High	395	5.14	5.69	12.2	6.57	8.47	13.3	7.75	36.2	5.52	31.6	9.30	39.5	1.70	0.34	38
AMB 7-5	Whisper	140	2.17	2.67	10.2	2.78	3.83	10.6	5.04	49.8	3.58	41.1	3.89	43.0	1.70	0.18	25
	Low	225	3.31	3.91	10.8	4.37	5.95	10.9	6.04	42.2	4.73	37.4	6.08	42.3	1.70	0.23	30
	Low-med	290	4.20	4.91	11.0	5.49	7.31	11.4	7.12	40.3	5.39	35.4	7.57	41.6	1.70	0.27	33
	Med	340	4.86	5.62	11.2	6.27	8.28	11.8	7.92	39.3	5.81	34.1	8.64	41.0	1.70	0.31	35
	Med-high	390	5.45	6.22	11.4	7.01	9.19	12.1	8.56	38.1	6.18	33.1	9.67	40.5	1.70	0.35	37
	High	460	6.24	7.03	11.8	7.98	10.33	12.7	9.45	37.0	6.61	31.9	11.04	39.8	1.70	0.41	40
AMB 8-5	Whisper	150	2.21	2.62	10.8	2.96	4.07	10.7	5.07	47.9	3.73	40.6	4.14	42.8	2.80	0.22	25
	Low	250	3.55	4.08	11.3	4.81	6.49	11.1	6.46	41.4	5.00	36.5	6.66	42.0	2.80	0.22	30
	Low-med	350	4.83	5.48	11.6	6.42	8.47	11.8	8.06	39.0	5.89	33.9	8.85	40.9	2.80	0.28	33
	Med	420	5.62	6.28	11.9	7.44	9.70	12.4	8.94	37.6	6.37	32.5	10.27	40.2	2.80	0.33	35
	Med-high	470	6.17	6.85	12.1	8.11	10.48	12.7	9.57	36.8	6.66	31.7	11.23	39.7	2.80	0.38	37
	High	550	7.00	7.71	12.5	9.11	11.58	13.3	10.52	35.8	7.07	30.6	12.68	39.1	2.80	0.47	40
AMB 9-5	Whisper	250	3.55	4.08	11.3	4.81	6.49	11.1	6.46	41.4	5.00	36.5	6.66	42.0	3.50	0.22	25
	Low	300	4.21	4.81	11.4	5.65	7.51	11.4	7.29	40.1	5.21	34.4	7.79	41.5	3.50	0.28	27
	Low-med	350	4.83	5.48	11.6	6.42	8.47	11.8	8.06	39.0	5.89	33.9	8.85	40.9	3.50	0.33	30
	Med	420	5.62	6.28	11.9	7.44	9.70	12.4	8.94	37.6	6.37	32.5	10.27	40.2	3.50	0.38	33
	Med-high	470	6.17	6.85	12.1	8.11	10.48	12.7	9.57	36.8	6.66	31.7	11.23	39.7	3.50	0.40	35

Standard Unit Dimensions



'Note: Flow into coil Depicted on a LH- Unit.
All Coil Connections 15mm Plain Copper

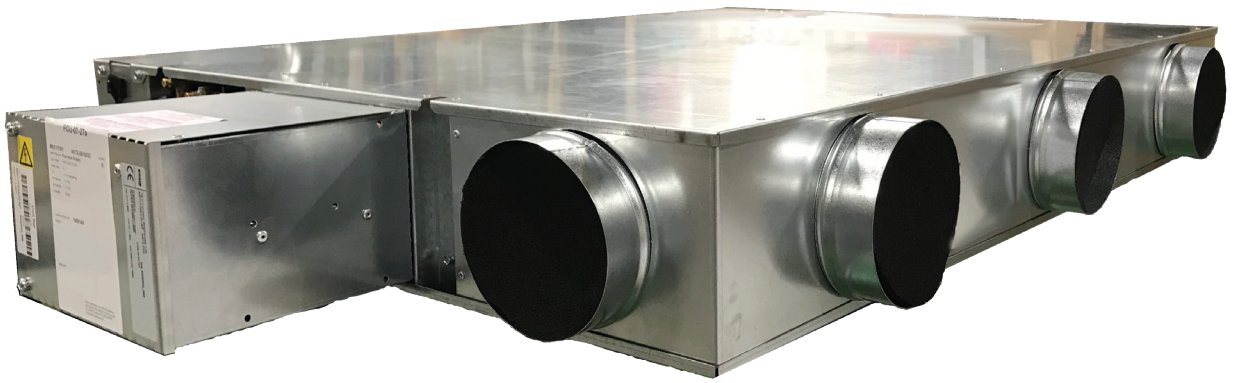
Unit Model	Dim 'A' Overall Width	Dim 'B' Unit Width	Dim 'C' Fixing Centres	Maximum No. of Spigots/ Size	Cooling Coil Volume (L)	Heating Coil Volume (L)	DRY Weight (approx Kg)	WET weight (approx Kg)
AMB 1 - 1	860	630	595	4 (200/150)	1.2	0.25	40	41.5
AMB 2 - 2	1110	880	845	4 (200/150)	1.7	0.35	50	52
AMB 3 - 2	1110	880	845	4 (200/150)	1.7	0.35	52	54
AMB 3 - 3	1460	1230	1195	5 (200/150)	2.4	0.5	60	63
AMB 4 - 3	1460	1230	1195	5 (200/150)	2.4	0.5	65	68
AMB 5 - 4	1660	1430	1395	5 (200/150)	2.8	0.6	75	78.5
AMB 6 - 4	1660	1430	1395	5 (200/150)	2.8	0.6	80	83.5
AMB 7 - 5	2010	1780	1745	5 (200/150)	3.5	0.7	90	94
AMB 8 - 5	2010	1780	1745	6 (200/150)	3.5	0.7	95	99



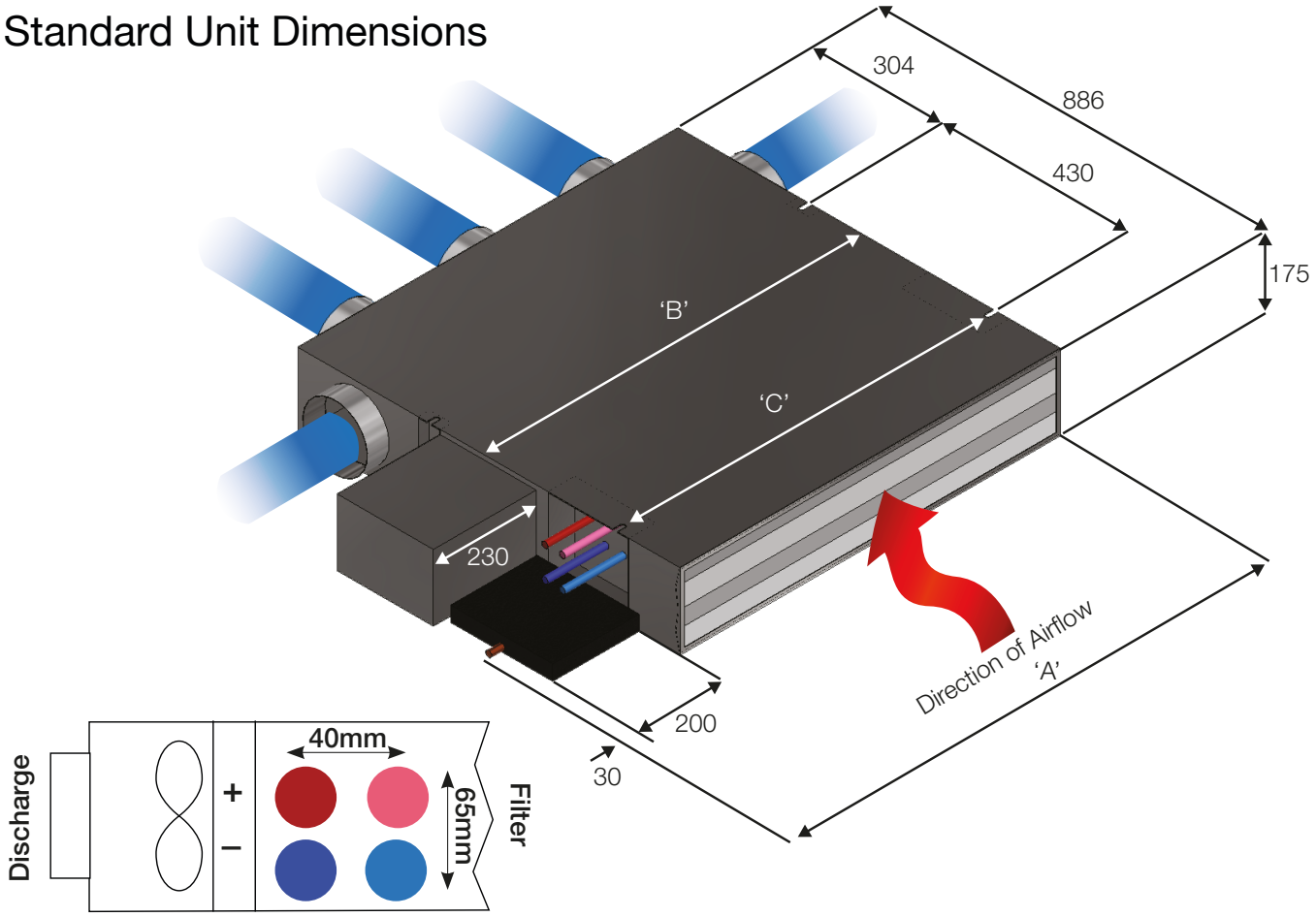
Performance Output

*ALL DATA AT 30Pa EXTERNAL RESISTANCE

Model	Speed	Airflow l/s	Cooling						Heating						Electrical (EC/DC)		Acoustic
			UK (23db/16.1wb)			Eurovent (27db/19wb)			UK (20db)		Eurovent (20˚C)						
			6/12			7/12			82/71		65/55 4 pipe		45/40 2 pipe				
			Sensible	Total	Air off db	Sensible	Total	Air off db	Total	Air off db	Total	Air off db	Total	Air off db	FLC	Expected SFP	NR
			kW	kW	˚C	kW	kW	˚C	kW	˚C	kW	˚C	kW	˚C	Amps	w/l/s	See Qualification
AMT 1-2	Whisper	35	0.64	0.88	7.9	0.76	1.12	9.1	1.72	60.6	1.12	46.5	1.02	44.1	0.25	0.22	27
	Low	70	1.09	1.34	10.1	1.40	1.97	10.5	2.13	45.2	1.63	39.2	1.98	43.4	0.25	0.18	32
	Low-med	100	1.51	1.83	10.5	1.92	2.64	11.1	2.69	42.2	2.04	36.9	2.73	42.6	0.25	0.21	35
	Med	120	1.78	2.12	10.7	2.24	3.04	11.6	3.04	40.9	2.28	35.7	3.21	42.1	0.25	0.24	37
	Med-high	140	2.03	2.37	11.0	2.55	3.40	11.9	3.31	39.5	2.49	34.7	3.66	41.6	0.25	-	39
	High	170	2.39	2.73	11.4	2.99	3.91	12.5	3.74	38.2	2.77	33.5	4.30	40.9	0.25	-	42
AMT 2-3	Whisper	40	0.76	1.06	7.3	0.90	1.35	8.4	2.31	67.7	1.43	49.5	1.19	44.6	0.27	0.21	27
	Low	80	1.35	1.77	9.1	1.66	2.40	9.8	2.80	48.9	2.02	40.9	2.29	43.7	0.27	0.19	32
	Low-med	110	1.77	2.24	9.7	2.21	3.14	10.4	3.32	44.9	2.50	38.8	3.12	43.4	0.27	0.21	35
	Med	130	2.05	2.55	10.0	2.56	3.59	10.7	3.70	43.5	2.78	37.7	3.63	43.1	0.27	0.25	37
	Med-high	150	2.32	2.85	10.2	2.91	4.03	11.0	4.08	42.5	3.05	36.8	4.12	42.7	0.27	-	39
	High	180	2.72	3.27	10.5	3.39	4.62	11.4	4.59	41.1	3.39	35.6	4.84	42.2	0.27	-	42
AMT 3-4	Whisper	100	1.59	1.99	9.9	2.03	2.91	10.2	3.43	48.4	2.46	40.3	2.84	43.5	0.65	0.18	27
	Low	150	2.32	2.84	10.2	2.95	4.13	10.7	4.44	44.5	3.26	38.0	4.19	43.1	0.65	0.27	32
	Low-med	190	2.88	3.47	10.5	3.63	5.01	11.2	5.22	42.7	3.77	36.4	5.16	42.4	0.65	0.38	35
	Med	200	3.01	3.62	10.6	3.80	5.21	11.3	5.41	42.4	3.89	36.1	5.40	42.3	0.65	0.41	37
	Med-high	260	3.75	4.37	11.1	4.72	6.31	12.0	6.32	40.1	4.48	34.2	6.76	41.5	0.65	-	39
	High	300	4.23	4.84	11.3	5.31	6.97	12.4	6.91	39.0	4.84	33.3	7.62	41.0	0.65	-	42
AMT 4-5	Whisper	120	1.90	2.37	9.9	2.49	3.60	9.8	4.38	50.2	3.07	41.1	3.43	43.6	0.73	0.21	27
	Low	170	2.64	3.25	10.2	3.43	4.87	10.3	5.30	45.8	3.86	38.8	4.80	43.3	0.73	0.30	32
	Low-med	210	3.22	3.92	10.3	4.14	5.80	10.7	6.10	44.0	4.39	37.3	5.80	42.8	0.73	0.41	35
	Med	220	3.36	4.09	10.4	4.32	6.03	10.8	6.30	43.7	4.52	37.0	6.04	42.7	0.73	0.44	37
	Med-high	280	4.17	4.96	10.7	5.32	7.27	11.3	7.36	41.7	5.20	35.4	7.46	42.0	0.73	-	39
	High	320	4.66	5.47	11.0	5.95	8.01	11.6	7.97	40.6	5.59	34.4	8.36	41.6	0.73	-	42
AMT 5-5	Whisper	135	2.11	2.60	10.1	2.30	3.34	12.9	4.57	48.0	3.34	40.4	3.88	43.8	1.60	0.23	27
	Low	200	3.08	3.76	10.3	3.31	4.70	13.3	5.90	44.4	4.26	37.6	5.55	42.9	1.60	0.35	32
	Low-med	250	3.78	4.56	10.5	4.04	5.67	13.6	6.88	42.7	4.89	36.2	6.76	42.4	1.60	0.40	35
	Med	280	4.17	4.96	10.7	4.46	6.18	13.8	7.36	41.7	5.20	35.4	7.46	42.0	1.60	0.50	37
	Med-high	310	4.54	5.35	10.9	4.86	6.67	14.0	7.82	40.9	5.49	34.6	8.14	41.7	1.60	-	39
	High	380	5.39	6.21	11.3	5.78	7.76	14.4	8.87	39.3	6.13	33.3	9.65	41.0	1.60	-	42



Standard Unit Dimensions



'Note: Flow into coil Depicted on a LH- Unit.
All Coil Connections 15mm Plain Copper

Unit Model	Dim 'A' Overall Width	Dim 'B' Unit Width	Dim 'C' Fixing Centres	Maximum No. of Spigots/ Size	Cooling Coil Volume (L)	Heating Coil Volume (L)	DRY Weight (approx Kg)	WET Weight (approx Kg)
AMT 1-2	1110	880	845	5/150	1.6	0.35	45	47
AMT 2-3	1460	1230	1195	5/150	2.25	0.5	55	58
AMT 3-4	1660	1430	1395	6/150	2.6	0.6	65	68
AMT 4-5	2010	1780	1745	8/150	3.25	0.7	80	84

Qualification of NR Predictions Fan

The N.R. guide figures quoted in the schedule are intended to show the levels which may be expected in a typical office environment. If the following conditions are met, the NR figures should be achieved

- Room sizes are based on a cooling load of 120W/m² with a chilled water flow temperature of 6°C and a return of 12°C
- Units must be correctly mounted onto a solid structure, using drop rods attached to the mounting points provided, in a false ceiling not less than 300mm deep, with standard T-Bar grid and 10mm fibreboard tiles.
- Rooms should be carpeted, with no more than 20% glazed or highly reflective surfaces
- In open plan areas units should be mounted not less than 6m apart and return air grilles should not be mounted directly below, or adjacent to unit inlets
- 1m of non noise regenerative flexible duct should be fitted to each outlet spigot, which should be sized to maintain the required N.R. level, i.e. 1.5m/s at NR25, 2.0m/s at NR30, 3.0m/s at NR35 and 4.0m/s at NR40

Providing that the grille plenums are correctly sized and insulated the foregoing should ensure that the 'guide' NR Levels are met when measured at 1.5m from the nearest grille.



Chassis

• Manufactured from galvanised sheet steel, riveted and spot welded for rigidity.



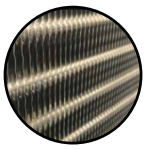
Casing

• The outer cabinet is a single piece, hot dipped galvanised sheet steel wrap around section
• PVC pre-coated to ensure high resistance to corrosion. The standard colour is RAL9010 White. Cabinets are fitted as standard with 100mm wide ABS moulded grilles in light grey (RAL7035).



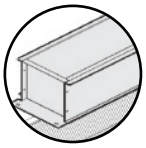
Fan / Motors

• Energy Efficient EC/DC motors in either single fan or motor / impeller configuration are used throughout the range.
• Topaz uses single inlet impellers.



Coils

• Coils are manufactured from seamless copper tube, mechanically expanded into aluminium fins having die formed collars to obtain maximum contact providing optimised heat transfer. Circuits are designed to ensure optimisation of output. Vents are fitted with easily accessible slotted/hexagonal plugs. Testing shall be by dry air to 30 bar, and valve assemblies by hydraulic pressure to manufacturers maximum recommended operating pressure.



Spigots (Chassis units only)

• Standard chassis unit is open discharge, circular or rectangular optional extras spigot options available



Insulation

• Acoustic & thermal Class ‘O’ insulation



Condensate Tray

• Insulated internal condensate tray made of galvanised steel sheet, complete with drain plug for complete drainage. External drain tray is ABS plastic



Speed Control

• Speed control through optional extra DC Potentiometer or through BMS Controller (if controller has this function available). Both can be fitted in series.



Filters

• Filtering honeycomb polypropylene fabric enclosed within a metal frame to facilitate withdrawal and cleaning.
• Filtering rate of the standard model: EU1. Optional extra EU2 & EU3 filters available

Performance Output

Model	Speed	Airflow l/s	Cooling				Heating			Electrical (EC/DC)		Acoustic
			UK (23db/16.1wb)		Eurovent (27db/19wb)		UK (20db)	Eurovent (20°C)				
			6/12		7/12		82/71	65/55 4 pipe	45/40 2 pipe			
			Sensible	Total	Sensible	Total	Total	Total	Total	FLC	Anticipated SFP	NR
			kW	kW	kW	kW	kW	kW	kW	Amps	w/l/s	See Qualification
TPZ Cased Units All Data At 0Pa External Resistance												
TPZ 10 Cased	Whisper	32	0.39	0.42	0.49	0.59	1.05	0.71	0.69	0.09	0.18	17
	Low	35	0.42	0.45	0.52	0.61	1.11	0.75	0.70	0.10	0.17	19
	Low-med	42	0.47	0.51	0.59	0.67	1.25	0.85	0.85	0.12	0.19	23
	Med	50	0.52	0.56	0.67	0.74	1.42	0.96	0.97	0.15	0.20	28
	Med-high	60	0.57	0.62	0.74	0.82	1.58	1.07	1.12	0.17	0.18	33
	High	72	0.63	0.68	0.83	0.91	1.78	1.20	1.29	0.18	0.16	36
TPZ 20 Cased	Whisper	49	0.62	0.68	0.77	0.94	1.73	1.21	1.15	0.11	0.21	19
	Low	55	0.67	0.73	0.84	0.99	1.87	1.30	1.25	0.12	0.20	23
	Low-med	64	0.74	0.81	0.94	1.08	2.07	1.44	1.41	0.14	0.20	27
	Med	76	0.82	0.89	1.06	1.20	2.33	1.61	1.61	0.16	0.20	31
	Med-high	92	0.93	1.00	1.20	1.34	2.65	1.83	1.91	0.19	0.20	36
	High	108	1.01	1.09	1.39	1.54	2.92	2.01	2.16	0.21	0.18	39
TPZ 30 Cased	Whisper	60	0.73	0.80	0.91	1.07	2.35	1.65	1.41	0.22	0.20	16
	Low	71	0.81	0.87	1.01	1.16	2.61	1.83	1.58	0.23	0.18	22
	Low-med	92	0.94	1.01	1.22	1.36	3.12	2.18	1.94	0.27	0.16	29
	Med	108	1.04	1.12	1.42	1.58	3.49	2.44	2.15	0.29	0.15	32
	Med-high	121	1.12	1.21	1.57	1.75	3.79	2.65	2.43	0.32	0.15	33
	High	140	1.20	1.30	1.77	1.97	4.15	2.90	2.70	0.38	0.15	37
TPZ 40 Cased	Whisper	59	0.75	0.83	0.94	1.13	2.31	1.61	1.57	0.22	0.20	16
	Low	69	0.82	0.89	1.03	1.20	2.51	1.76	1.80	0.23	0.19	20
	Low-med	90	0.97	1.04	1.27	1.45	3.00	2.09	2.19	0.27	0.17	28
	Med	104	1.06	1.14	1.46	1.66	3.32	2.30	2.44	0.29	0.15	31
	Med-high	119	1.14	1.23	1.66	1.88	3.64	2.53	2.77	0.32	0.15	34
	High	139	1.24	1.34	1.88	2.11	4.01	2.78	3.12	0.38	0.15	36
TPZ 50 Cased	Whisper	95	1.04	1.12	1.38	1.59	3.35	2.35	2.13	0.27	0.16	23
	Low	110	1.14	1.22	1.58	1.81	3.69	2.59	2.44	0.31	0.15	26
	Low-med	130	1.26	1.35	1.82	2.07	4.14	2.90	2.72	0.36	0.15	31
	Med	151	1.37	1.48	2.08	2.34	4.61	3.23	3.05	0.50	0.18	35
	Med-high	179	1.52	1.65	2.38	2.65	5.14	3.59	3.50	0.59	0.18	40
	High	213	1.82	1.97	2.72	3.02	5.72	4.00	3.95	0.76	0.20	44
TPZ 60 Cased	Whisper	97	1.22	1.34	1.68	2.18	3.72	2.61	2.33	0.41	0.15	21
	Low	113	1.34	1.46	1.91	2.44	4.12	2.88	2.61	0.49	0.16	27
	Low-med	131	1.48	1.60	2.17	2.73	4.56	3.19	2.97	0.54	0.15	30
	Med	152	1.73	1.88	2.47	3.06	5.08	3.56	3.31	0.76	0.18	35
	Med-high	180	2.04	2.21	2.84	3.43	5.65	3.95	3.76	0.92	0.19	40
	High	213	2.36	2.56	3.24	3.83	6.28	4.39	4.29	1.13	0.20	43
TPZ 70 Cased	Whisper	94	1.53	1.94	1.97	2.92	4.31	3.03	2.31	0.25	0.15	19
	Low	109	1.68	2.06	2.18	3.14	4.43	3.11	2.68	0.31	0.16	22
	Low-med	128	1.86	2.17	2.40	3.32	4.57	3.21	3.17	0.34	0.15	27
	Med	152	2.16	2.49	2.77	3.75	5.11	3.59	3.64	0.50	0.18	32
	Med-high	186	2.57	2.92	3.27	4.31	5.83	4.09	4.30	0.63	0.19	38
	High	228	3.06	3.43	3.89	5.00	6.70	4.70	5.04	0.79	0.19	43
TPZ 80 Cased	Whisper	208	2.26	2.44	3.14	3.69	6.45	4.51	3.08	0.39	0.17	35
	Low	249	2.52	2.71	3.69	4.28	7.28	5.09	4.18	0.60	0.22	40
	Low-med	278	2.70	2.91	4.06	4.68	7.87	5.50	5.04	0.84	0.28	43
	Med	315	2.90	3.13	4.52	5.18	8.55	5.98	5.38	1.10	0.32	46
	Med-high	347	3.13	3.38	4.87	5.54	9.06	6.32	5.90	1.21	0.32	48
	High	397	3.62	3.91	5.42	6.10	9.84	6.87	5.85	1.61	0.37	52
TPZ 90 Cased	Whisper	203	2.60	2.60	3.73	4.27	7.06	4.94	3.18	0.48	0.22	38
	Low	242	2.89	2.89	4.35	4.91	7.95	5.55	4.39	0.65	0.25	42
	Low-med	266	3.05	3.05	4.73	5.29	8.50	5.93	5.21	0.83	0.29	44
	Med	297	3.32	3.32	5.21	5.77	9.18	6.41	5.75	0.95	0.30	46
	Med-high	327	3.71	3.71	5.64	6.16	9.74	6.80	5.88	1.09	0.31	49
	High	371	4.22	4.22	6.23	6.71	10.53	7.35	6.23	1.20	0.30	52

Performance Output

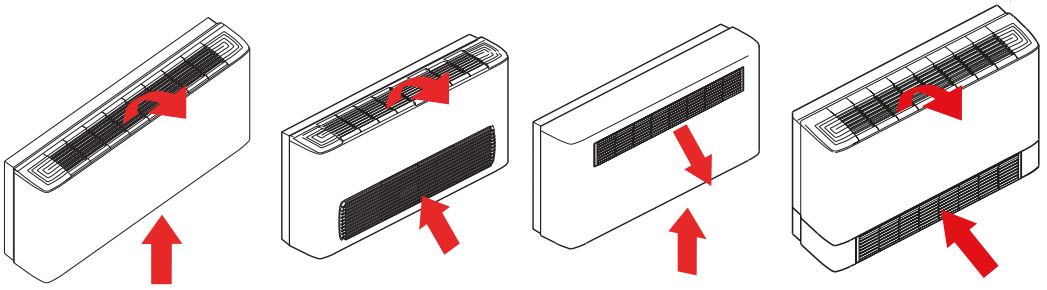
Model	Speed	Airflow l/s	Cooling				Heating			Electrical (EC/DC)		Acoustic
			UK (23db/16.1wb)		Eurovent (27db/19wb)		UK (20db)	Eurovent (20˚C)				
			6/12		7/12		82/71	65/55 4 pipe	45/40 2 pipe			
			Sensible	Total	Sensible	Total	Total	Total	Total	FLC	Anticipated SFP	NR
			kW	kW	kW	kW	kW	kW	kW	Amps	w/l/s	See Qualification
TPZ 110 Cased	Whisper	233	2.88	3.15	3.91	4.95	7.92	5.55	5.68	0.40	0.16	34
	Low	261	3.10	3.36	4.32	5.43	8.53	5.96	6.46	0.59	0.21	37
	Low-med	361	3.80	4.09	5.76	7.02	10.60	7.41	7.73	1.07	0.28	41
	Med	416	4.34	4.67	6.53	7.84	11.73	8.18	8.50	1.51	0.34	44
	High	530	5.59	6.02	7.92	9.25	13.60	9.48	10.69	2.06	0.36	51
TPZ 120 Cased	Whisper	242	2.97	3.24	4.16	5.38	9.54	6.68	6.13	0.65	0.25	34
	Low	278	3.24	3.52	4.71	6.03	10.47	7.33	6.57	0.84	0.28	37
	Low-med	377	3.90	4.19	6.17	7.67	12.93	9.04	7.70	1.43	0.36	43
	Med	419	4.42	4.77	6.78	8.35	13.96	9.76	9.20	1.65	0.37	45
	High	528	5.71	6.16	8.17	9.74	16.13	11.27	11.10	2.13	0.38	52
TPZ Chassis Units All Data At 5Pa External Resistance												
TPZ 10 Chassis	Whisper	24	0.33	0.37	0.41	0.51	0.89	0.60	0.54	0.09	0.19	17
	Low	28	0.36	0.40	0.45	0.55	0.96	0.64	0.55	0.10	0.18	19
	Low-med	36	0.42	0.46	0.53	0.62	1.12	0.76	0.72	0.12	0.20	23
	Med	44	0.48	0.52	0.62	0.70	1.30	0.88	0.92	0.15	0.21	28
	Med-high	55	0.55	0.59	0.71	0.79	1.50	1.02	1.07	0.17	0.19	33
	High	68	0.62	0.66	0.80	0.88	1.71	1.15	1.25	0.18	0.17	36
TPZ 20 Chassis	Whisper	39	0.55	0.63	0.67	0.87	1.58	1.10	0.93	0.11	0.22	19
	Low	47	0.61	0.67	0.75	0.91	1.68	1.16	1.06	0.12	0.21	23
	Low-med	57	0.69	0.75	0.86	1.02	1.92	1.33	1.25	0.14	0.21	27
	Med	71	0.79	0.86	1.00	1.14	2.21	1.53	1.48	0.16	0.21	31
	Med-high	87	0.90	0.96	1.16	1.29	2.56	1.77	1.79	0.19	0.21	36
	High	104	0.99	1.07	1.34	1.49	2.86	1.96	2.06	0.21	0.19	39
TPZ 30 Chassis	Whisper	61	0.73	0.80	0.91	1.07	2.37	1.65	1.00	0.22	0.20	22
	Low	78	0.85	0.92	1.08	1.22	2.78	1.95	1.29	0.23	0.18	29
	Low-med	96	0.96	1.04	1.27	1.41	3.20	2.24	1.73	0.27	0.16	32
	Med	112	1.07	1.15	1.47	1.63	3.59	2.51	1.94	0.29	0.15	33
	High	132	1.17	1.26	1.70	1.89	4.00	2.80	2.53	0.38	0.15	37
TPZ 40 Chassis	Whisper	40	0.61	0.74	0.75	1.04	2.09	1.46	1.09	0.22	0.20	16
	Low	54	0.72	0.81	0.89	1.12	2.28	1.59	1.43	0.23	0.19	20
	Low-med	77	0.88	0.95	1.11	1.27	2.70	1.89	1.91	0.27	0.17	28
	Med	94	0.99	1.07	1.33	1.51	3.09	2.15	2.20	0.29	0.15	31
	Med-high	111	1.09	1.18	1.55	1.76	3.46	2.41	2.54	0.32	0.15	34
	High	131	1.21	1.30	1.79	2.02	3.86	2.69	2.93	0.38	0.15	36
TPZ 50 Chassis	Whisper	84	0.96	1.04	1.23	1.43	3.07	2.16	1.82	0.27	0.16	23
	Low	100	1.07	1.15	1.45	1.66	3.45	2.42	2.15	0.31	0.15	26
	Low-med	121	1.21	1.30	1.71	1.95	3.94	2.76	2.46	0.36	0.15	31
	Med	144	1.33	1.44	1.99	2.25	4.44	3.12	2.82	0.50	0.18	35
	Med-high	173	1.48	1.60	2.32	2.59	5.03	3.52	3.31	0.59	0.18	40
	High	208	1.77	1.92	2.67	2.96	5.64	3.94	3.82	0.76	0.20	44
TPZ 60 Chassis	Whisper	79	1.06	1.18	1.39	1.85	3.23	2.27	1.97	0.41	0.15	21
	Low	99	1.23	1.34	1.70	2.20	3.75	2.63	2.28	0.49	0.16	27
	Low-med	120	1.39	1.51	2.01	2.55	4.28	3.00	2.68	0.54	0.15	30
	Med	142	1.61	1.75	2.33	2.90	4.83	3.39	3.05	0.76	0.18	35
	Med-high	174	1.97	2.13	2.75	3.34	5.53	3.87	3.55	0.92	0.19	40
	High	207	2.30	2.49	3.17	3.75	6.17	4.32	4.13	1.13	0.20	43
TPZ 70 Chassis	Whisper	79	1.34	1.76	1.73	2.62	4.09	2.89	1.80	0.25	0.15	19
	Low	96	1.55	1.97	2.00	2.96	4.33	3.05	2.17	0.31	0.16	22
	Low-med	119	1.77	2.11	2.29	3.23	4.46	3.13	2.78	0.34	0.15	27
	Med	145	2.06	2.39	2.65	3.62	4.94	3.47	3.37	0.50	0.18	32
	Med-high	189	2.61	2.96	3.32	4.37	5.89	4.13	4.08	0.63	0.19	38
	High	223	3.00	3.37	3.81	4.91	6.59	4.62	4.85	0.79	0.19	43
TPZ 80 Chassis	Whisper	200	2.21	2.39	3.04	3.58	6.29	4.40	2.81	0.39	0.17	35
	Low	244	2.49	2.68	3.62	4.21	7.19	5.02	3.98	0.60	0.22	40
	Low-med	273	2.67	2.87	3.99	4.60	7.76	5.42	4.83	0.84	0.28	43
	Med	311	2.88	3.10	4.47	5.13	8.49	5.92	5.19	1.10	0.32	46
	Med-high	343	3.09	3.34	4.83	5.50	9.00	6.29	5.70	1.21	0.32	48
	High	395	3.59	3.88	5.39	6.07	9.81	6.84	5.64	1.61	0.37	52

Performance Output

Model	Speed	Airflow l/s	Cooling				Heating			Electrical (EC/DC)		Acoustic
			UK (23db/16.1wb)		Eurovent (27db/19wb)		UK (20db)	Eurovent (20˚C)				
			6/12		7/12		82/71	65/55 4 pipe	45/40 2 pipe			
			Sensible	Total	Sensible	Total	Total	Total	Total	FLC	Anticipated SFP	NR
			kW	kW	kW	kW	kW	kW	kW	Amps	w/l/s	See Qualification
TPZ 90 Chassis	Whisper	185	2.46	2.46	3.43	3.96	6.64	4.65	2.91	0.48	0.22	38
	Low	232	2.82	2.82	4.19	4.75	7.73	5.40	4.17	0.65	0.25	42
	Low-med	258	3.01	3.01	4.60	5.17	8.31	5.81	4.99	0.83	0.29	44
	Med	289	3.21	3.21	5.09	5.65	9.01	6.29	5.53	0.95	0.30	46
	Med-high	319	3.61	3.61	5.52	6.05	9.59	6.70	5.66	1.09	0.31	49
	High	366	4.16	4.16	6.17	6.65	10.45	7.28	6.00	1.20	0.30	52
TPZ 100 Chassis	Whisper	219	2.63	2.86	3.77	4.88	8.27	5.80	5.96	0.55	0.22	38
	Low	250	2.85	3.09	4.22	5.38	9.06	6.35	6.55	0.68	0.25	40
	Low-med	283	3.19	3.45	4.70	5.92	9.87	6.92	7.29	0.84	0.27	42
	Med	317	3.62	3.93	5.18	6.44	10.68	7.49	7.66	1.08	0.32	45
	Med-high	359	4.12	4.47	5.75	7.05	11.63	8.14	8.18	1.23	0.32	48
	High	391	4.45	4.83	6.16	7.43	12.27	8.59	8.71	1.43	0.34	50
TPZ 110 Chassis	Whisper	221	2.78	3.05	3.72	4.73	7.65	5.35	5.39	0.40	0.16	34
	Low	248	2.99	3.26	4.12	5.20	8.24	5.76	6.00	0.59	0.21	37
	Low-med	360	3.78	4.08	5.74	7.00	10.57	7.39	7.58	1.07	0.28	41
	Med	413	4.29	4.62	6.49	7.80	11.66	8.14	9.00	1.51	0.34	44
	High	511	5.40	5.82	7.70	9.03	13.29	9.28	10.53	2.06	0.36	51
TPZ 120 Chassis	Whisper	232	2.89	3.17	4.00	5.20	9.28	6.51	5.77	0.65	0.25	34
	Low	269	3.18	3.45	4.58	5.87	10.24	7.17	6.31	0.84	0.28	37
	Low-med	373	3.87	4.17	6.11	7.60	12.83	8.97	7.55	1.43	0.36	43
	Med	408	4.26	4.59	6.62	8.17	13.69	9.57	9.20	1.65	0.37	45
	High	499	5.39	5.82	7.81	9.37	15.57	10.88	10.93	2.13	0.38	52

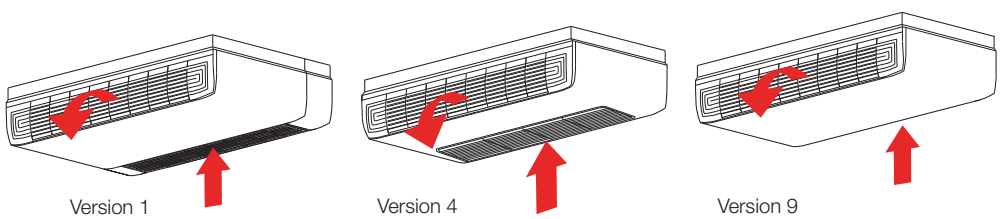
Configuration Options

Vertical Cased Units



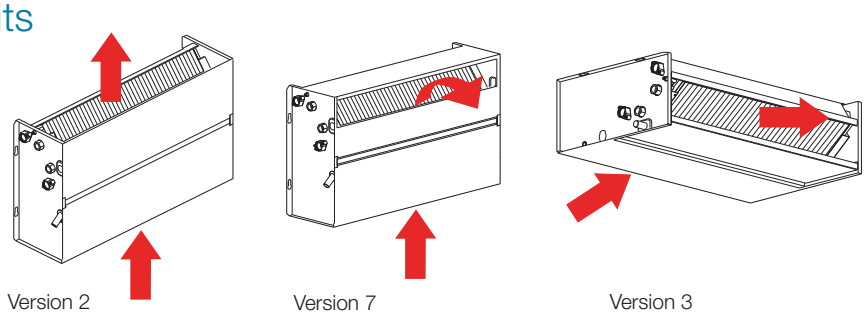
Version 0 Version 5 Version 6 Version 8

Horizontal Cased Units



Version 1 Version 4 Version 9

Chassis Units



Version 2 Version 7 Version 3

Detail of Product Code Configuration.

RANGE	MODEL SIZE	VERSION	AIR PATH/MOUNTING POSITION
TPZ	1	0	Cased Vertical Unit - Vertical Air intake & Vertical Discharge
	2	1	Cased Horizonal Unit - Vertical Air intake & Horizontal Discharge
	3	2	Chassis Vertical Unit - Vertical air Intake & Discharge
	4	3	Chassis Horizontal Unit - Horizontal air Intake & Discharge
	5	4	Cased Horizontal Unit - Vertical Air intake & Horizontal Discharge
	6	5	Cased Vertical Unit - Front air Intake & Top Discharge
	7	6	Cased Vertical High wall Unit - Vertical Air Intake & Front Discharge
	8	7	Chassis Vertical Unit - Vertical air Intake & Front Discharge
	9	7 Special Cased	Cased Vertical High wall Unit - Vertical air Intake & Front Discharge
	10	8	Cased Vertical Unit floor standing plinth - Front air intake & Top Discharge
	11	9	Cased Horizontal Unit - Horizontal air Intake & Discharge
	12		

Unit Dimensions

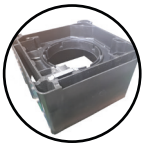
Unit Model	Unit Size											
	10	20	30	40	50	60	70	80	90	100	110	120
Cased Versions 0 & 9												
LENGTH	660	860	1060	1060	1260	1260	1260	1460	1460	1660	1960	1960
HEIGHT	480	480	480	480	480	480	585	585	585	602	602	602
DEPTH	225	225	225	225	225	225	225	225	225	257	257	257
Cased Versions 1 & 8												
LENGTH	660	860	1060	1060	1260	1260	1260	1460	1460	1660	1960	1960
HEIGHT	610	610	610	610	610	610	715	715	715	735	735	735
DEPTH	225	225	225	225	225	225	225	225	225	257	257	257
Cased Versions 4 & 5												
LENGTH	660	860	1060	1060	1260	1260	1260	1460	1460	1660	1960	1960
HEIGHT	480	480	480	480	480	480	585	585	585	602	602	602
DEPTH	225	225	225	225	225	225	225	225	225	257	257	257
Cased Version 6												
LENGTH	659	859	1059	1059	1259	1259	1259	1459	1459	-	-	-
HEIGHT	476	476	476	476	476	476	581	581	581	-	-	-
DEPTH	227	227	227	227	227	227	227	227	227	-	-	-
Special Hygene Cased - Version 7												
LENGTH	-	-	1110	1110	1310	1310	1310	1510	1510	1710	2010	2010
HEIGHT	-	-	580	580	580	580	685	685	685	702	702	702
DEPTH	-	-	245	245	245	245	245	245	245	277	277	277
Chassis Versions 2 & 7 (Vertical)												
LENGTH L	420	620	820	820	1020	1020	1020	1220	1220	1380	1680	1680
LENGTH A	102	102	102	102	102	102	102	102	102	130	130	130
LENGTH B	100	100	100	100	100	100	100	100	100	100	100	100
LENGTH + A + B + L	622	822	1022	1022	1222	1222	1222	1422	1422	1610	1910	1910
HEIGHT	460	460	460	460	460	460	565	565	565	585	585	585
DEPTH	220	220	220	220	220	220	220	220	220	252	252	252
Chassis Version 3 (Horizontal)												
LENGTH L	420	620	820	820	1020	1020	1020	1220	1220	1380	1680	1680
LENGTH A	130	130	130	130	130	130	160	160	160	160	160	160
LENGTH B	100	100	100	100	100	100	100	100	100	100	100	100
LENGTH + A + B + L	650	850	1050	1050	1250	1250	1280	1480	1480	1640	1940	1940
HEIGHT	460	460	460	460	460	460	565	565	565	585	585	585
DEPTH	220	220	220	220	220	220	220	220	220	252	252	252

Qualification of NR predictions TPZ Chassis (Versions 2, 3 &

The dB(A) figures quoted are intended as a guide to the levels expected in a typical office environment, based on a cooling load of 120 W/m^2, with a chilled water flow of 6°C, return of 12°C, return air temperature of 23°C and 50% R.H. Measurement points should be as follows:

• On Topaz Chassis units we have assumed the following sound reductions due to architectural case/wall construction

Hz	125	250	500	1k	2k	4k



Chassis

• Removable lightweight one-piece chassis with integrated drip tray, for ease of installation, maintenance and cleaning on site.



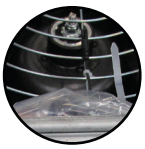
Fascia

• Modern, slim, square fascia with rounded corners
• Standard colour RAL9001(colour variation to suit project requirements)
• 4 Way Air discharge - foam blanking kits
• Adjustable vanes. Fresh air inlet & Branch duct options available



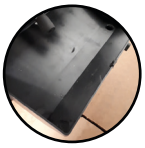
Access

• Access to the fan/motors and coil from below.
• Valve/actuator access from the side
• Remote electrics box available to house controls



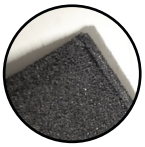
Motors/ Fans

• EC/DC motors as standard.
• AC Motors only available on CWC 600/ CWC(H) 600
• long air flows making use of ‘coanda’ effect.
• Fan finger guard for safety



Condensate Tray

• Integral easy clean drain tray (part of chassis)
• External ABS Drip tray



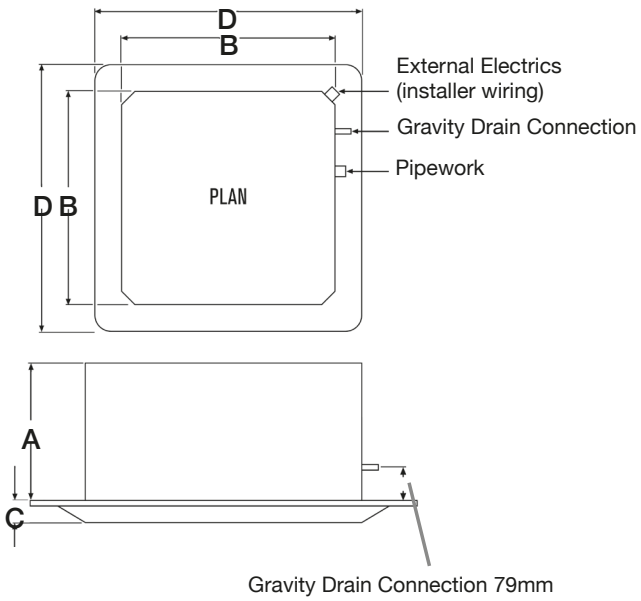
Filters

• Easy access long life washable filter



CWC / CWC(H)

Standard Unit Dimensions



Unit Model		Width B	Depth	Fascia Height C	Fas-cia Width D	Fascia Depth	
CWC600(H) 25	306	580	580	30	675	675	23kg
CWC600(H) 45	306	580	580	30	675	675	24kg
CWC600(H) 65	306	580	580	30	675	675	25kg
CWC600(H) 75	306	580	580	30	675	675	26kg
CWC875(H) 95	314	875	875	30	966	966	36kg
CWC875(H) 135	314	875	875	30	966	966	40kg

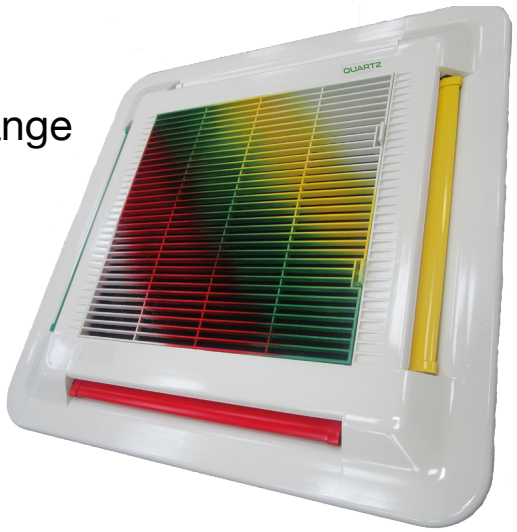
* All dimensions quoted in mm

Model	Speed	Airflow l/s	Cooling				Heating			Electrical (EC/DC)	Acoustic	Full Load Current (A)	Starting Current (A)
			UK (23db/16.1wb)		Eurovent (27db/19wb)		UK (20db)	Eurovent (20˚C)					
			6/12		7/12		82/71	65/55 4 pipe	45/40 2 pipe				
			Sensible	Total	Sensible	Total	Total	Total	Total	Anticipated SFP	NR		
			kW	kW	kW	kW	kW	kW	kW	w/l/s	See Qualification		
CWC600 25	Whisper	110	1.03	1.11	1.46	1.67	-	-	1.94	0.05	28	0.39	1.20
	Low	135	1.14	1.23	1.73	1.98	-	-	2.25	0.07	33		
	Low-med	160	1.23	1.34	1.97	2.24	-	-	2.54	0.11	39		
	Med	185	1.31	1.42	2.22	2.52	-	-	2.81	0.13	45		
	High	255	1.72	1.87	2.82	3.18	-	-	3.47	0.2	52		
CWC600 45	Whisper	105	1.57	1.89	1.86	2.60	-	-	2.45	0.06	25	0.39	1.20
	Low	130	1.83	2.09	2.31	3.20	-	-	2.99	0.08	31		
	Low-med	155	2.06	2.30	2.74	3.80	-	-	3.48	0.11	35		
	Med	180	2.28	2.51	3.12	4.32	-	-	3.94	0.13	42		
	High	240	2.72	2.94	4.00	5.49	-	-	4.97	0.21	50		
CWC600 65	Whisper	105	1.76	2.29	2.14	3.13	-	-	2.75	0.06	22	0.39	1.20
	Low	125	2.02	2.55	2.46	3.55	-	-	3.23	0.08	28		
	Low-med	150	2.32	2.84	2.84	4.04	-	-	3.82	0.11	32		
	Med	170	2.55	3.05	3.22	4.59	-	-	4.28	0.14	40		
	High	230	3.18	3.61	4.19	6.01	-	-	5.59	0.22	47		
CWC600 75	Whisper	125	2.17	2.89	2.60	3.87	-	-	3.33	0.05	25	0.39	1.20
	Low	155	2.59	3.35	3.24	4.81	-	-	4.09	0.06	30		
	Low-med	175	2.84	3.62	3.64	5.43	-	-	4.58	0.1	37		
	Med	205	3.22	3.99	4.26	6.35	-	-	5.30	0.12	43		
	High	240	3.63	4.37	4.96	7.38	-	-	6.11	0.21	48		
CWCH600 25	Whisper	110	0.84	0.91	1.34	1.51	1.93	1.31	-	0.05	28	0.39	1.20
	Low	135	0.91	0.99	4.57	1.76	2.13	1.44	-	0.07	33		
	Low-med	160	0.98	1.08	1.77	1.98	2.34	1.59	-	0.11	39		
	Med	185	1.26	1.37	1.96	2.18	2.55	1.73	-	0.13	45		
	High	255	1.75	1.91	2.37	2.64	3.07	2.07	-	0.2	52		
CWCH600 45	Whisper	105	1.38	1.54	1.64	2.14	3.16	2.15	-	0.06	25	0.39	1.20
	Low	130	1.57	1.70	2.02	2.55	3.51	2.38	-	0.08	31		
	Low-med	155	1.74	1.89	2.40	3.02	3.91	2.65	-	0.11	35		
	Med	180	1.90	2.05	2.72	3.42	4.29	2.90	-	0.13	42		
	High	240	2.20	2.37	3.46	4.30	5.12	3.46	-	0.21	50		
CWCH600 65	Whisper	105	1.62	1.99	1.96	2.78	3.10	2.11	-	0.06	22	0.39	1.20
	Low	125	1.85	2.18	2.25	3.13	3.42	2.32	-	0.08	28		
	Low-med	150	2.11	2.41	2.73	3.80	3.82	2.59	-	0.11	32		
	Med	170	2.30	2.59	3.03	4.24	4.14	2.80	-	0.14	40		
	High	230	2.81	3.06	3.96	5.53	4.99	3.37	-	0.22	47		
CWCH600 75	Whisper	125	2.03	2.58	2.52	3.70	4.04	2.76	-	0.05	25	0.39	1.20
	Low	155	2.40	2.95	3.09	4.51	4.63	3.16	-	0.06	30		
	Low-med	175	2.64	3.17	3.46	5.05	5.02	3.42	-	0.1	37		
	Med	205	2.97	3.47	3.98	5.80	5.58	3.81	-	0.12	43		
	High	240	3.34	3.81	4.50	6.54	6.12	4.17	-	0.21	48		

Qualification of NR predictions CWC600 range

The dB(A) figures quoted are intended as a guide to the levels expected in a typical office environment, based on a cooling load of 120 W/m², with a chilled water flow of 6°C, return of 12°C, return air temperature of 23°C and 50% R.H. Measurement points should be as follows:

• 1.4m from the discharge vane for CWC600 range units



Model	Speed	Airflow l/s	Cooling				Heating			Electrical (EC/DC)		Full Load Current (A)	Starting Current (A)
			UK (23db/16.1wb)		Eurovent (27db/19wb)		UK (20db)	Eurovent (20˚C)					
			6/12		7/12		82/71	65/55 4 pipe	45/40 2 pipe				
			Sensible	Total	Sensible	Total	Total	Total	Total	Anticipated SFP	NR		
			kW	kW	kW	kW	kW	kW	kW	w/l/s	See Qualification		
CWC875 95	Whisper	240	3.10	3.44	4.04	5.5	-	-	5.37	0.02	23	0.60	1.80
	Low	330	4.09	4.51	5.25	6.94	-	-	6.91	0.05	31		
	Low-med	370	4.50	4.96	5.7	7.47	-	-	7.54	0.05	35		
	Med	450	5.27	5.77	6.66	8.33	-	-	8.73	0.07	40		
	High	540	6.05	6.57	7.5	9.41	-	-	9.97	0.11	43		
CWC875 135	Whisper	240	3.34	3.85	4.45	6.26	-	-	6.16	0.02	24	0.60	1.80
	Low	320	4.35	4.96	5.61	7.7	-	-	7.94	0.05	31		
	Low-med	360	4.83	5.48	6.14	8.37	-	-	8.78	0.06	35		
	Med	450	5.86	6.57	7.25	9.63	-	-	10.58	0.07	41		
	High	530	6.71	7.45	8.21	10.68	-	-	12.08	0.11	44		
CWC875 155	Whisper	220	3.77	5.06	4.66	6.81	-	-	6.96	0.02	24	0.60	1.80
	Low	300	5.04	6.67	6.01	8.72	-	-	8.03	0.05	31		
	Low-med	350	5.80	7.61	6.7	9.61	-	-	9.27	0.06	35		
	Med	430	6.98	9.02	7.88	11.19	-	-	11.18	0.07	41		
	High	500	7.96	10.15	8.9	12.45	-	-	12.77	0.12	45		
CWCH875 95	Whisper	240	3.04	3.35	3.85	4.94	6.14	4.19	-	0.02	23	0.60	1.80
	Low	330	3.98	4.36	4.95	6.16	7.78	5.12	-	0.05	31		
	Low-med	370	4.36	4.77	5.41	6.64	8.40	5.51	-	0.05	35		
	Med	450	5.05	5.50	6.19	7.49	9.43	6.14	-	0.07	40		
	High	540	5.73	6.19	6.96	8.29	10.26	6.83	-	0.11	43		
CWCH875 135	Whisper	240	3.17	3.55	4.29	5.9	8.70	5.74	-	0.02	24	0.60	1.80
	Low	320	4.08	4.54	5.33	7.14	10.88	6.96	-	0.05	31		
	Low-med	360	4.51	5.00	5.85	7.73	11.84	7.54	-	0.06	35		
	Med	450	5.40	5.93	6.89	8.85	13.67	8.61	-	0.07	41		
	High	530	6.12	6.66	7.79	9.8	14.92	9.54	-	0.11	44		
CWCH875 155	Whisper	220	3.33	4.07	4.36	6.23	8.33	5.65	-	0.02	24	0.60	1.80
	Low	300	4.42	5.32	5.61	7.84	10.62	6.94	-	0.05	31		
	Low-med	350	5.07	6.04	6.23	8.65	11.84	7.73	-	0.06	35		
	Med	430	6.06	7.08	7.3	9.93	13.48	8.76	-	0.07	41		
	High	500	6.88	7.89	8.18	11	14.60	9.62	-	0.12	45		



Qualification of NR predictions CWC875 range

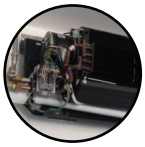
The N.R. guide figures quoted in the schedule are intended to show the levels which may be expected in a typical office environment. The room effect is calculated using the Schultz method and the resultant NR calculation requires that the following conditions be met.

- Room sizes are based on a cooling load of 120W/m2 with a chilled water flow temperature of 6°C and a return of 12°C
- Rooms should be carpeted, with no more than 20% glazed or highly reflective surfaces
- In open plan areas units should be mounted not less than 6m apart
- Height from the floor to the unit fascia is not less than 2.5m

The foregoing should ensure that the ‘guide’ NR Levels are met when measured at 2.5m from the nearest unit.



Casing
- Adjustable Air deflectors
- Hygenic wipe clean finish



Access
- Access to the fan/motors and coil from the front by removable casing
- Valve/actuator access from the side
- Remote electrics box avaliable to house controls



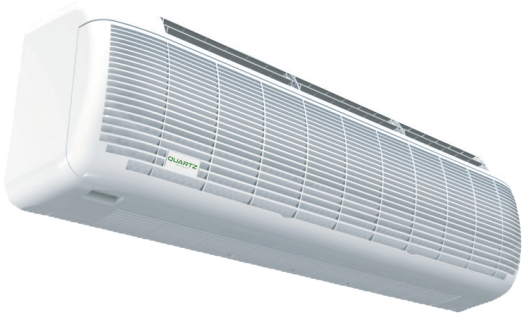
Motors/ Fans
- AC or EC/DC motors available
- Unique ‘top discharge’ outlet for ‘Coanda’ effect

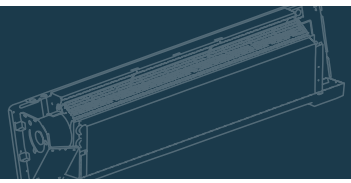


Condensate Tray
- ABS Plastic



Filters
- Long Life washable filters





CWM

Model	Speed	Airflow l/s	Cooling				Heating			Electrical (EC/DC)	Acoustic	Full Load Current (A)	Starting Current (A)
			UK (23db/16.1wb)		Eurovent (27db/19wb)		UK (20db)	Eurovent (20˚C)					
			6/12		7/12		82/71	65/55 4 pipe	45/40 2 pipe				
			Sensible	Total	Sensible	Total	Total	Total	Total	Anticipated SFP	NR		
			kW	kW	kW	kW	kW	kW	kW	w/l/s	See Qualification		
CWM 55	Low	170	1.61	1.73	2.40	2.73	1.12	0.51	3.68	0.11	33	0.34	1.02
	Med	190	1.70	1.84	2.64	2.98	1.21	0.53	4.02	0.13	39		
	High	240	1.93	2.09	3.21	3.58	1.41	0.57	4.81	0.15	44		
CWM 75	Low	220	2.24	2.41	3.28	3.81	1.77	1.02	4.76	0.08	40	0.34	1.02
	Med	310	2.68	2.90	4.44	5.08	2.18	1.33	6.23	0.14	44		
	High	370	2.94	3.19	5.15	5.84	2.39	1.49	7.11	0.15	45		

Unit Model	Height	Width	Depth	Weight (Kg)
CWM(L) 55	350	1200	223	19
CWM(L) 75	350	1500	223	23
CWM(L) 105	350	1800	223	27

Qualification of NR predictions CWM ranges

The dB(A) figures quoted are intended as a guide to the levels expected in a typical office environment, based on a cooling load of 120 W/m^2, with a chilled water flow of 6°C, return of 12°C, return air temperature of 23°C and 50% R.H.
NR Measurements taken at 2.5m from a discharge outlet.

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