

TECHNICAL DATA

2 PIPES		3 ROWS							
MODELS		012C	020C	025C	035C	050C	060C	080C	090C
Nominal Air Flow (High/Medium/Low)	m ³ /h	290/	380/	497/	705/	853/	1141/	1360/	1500/
		245/	296/	349/	565/	695/	969/	1063/	1368/
		197	210	260	400	465	705	824	1190
Available Static Pressure	Pa	--	--	--	--	--	--	--	--
Total Cooling Capacity ¹	kW	1.3	1.8	2.7	3.6	4.8	5.9	6.9	8.0
Total Sensible Capacity ¹	kW	1.0	1.5	1.9	2.6	3.6	4.6	5.3	5.8
Heating Capacity ²	kW	2.2	2.7	3.6	4.8	6.2	8.1	10.5	12.0
Water Flow Rate	l/s	0.063	0.085	0.129	0.170	0.227	0.282	0.358	0.347
Water Pressure Drop - Cooling	kPa	4	5	10	16	28	33	18	20
Lp (Sound Pressure Level) ³	dB(A)	38/35/33	42/37/32	42/35/32	48/44/39	47/39/31	53/48/41	51/47/40	53/51/47
Power Supply	V/ph/Hz	220~240/1/50							
Fan N°.	n°	1	1	2	2	2	2	3	3
Max Power Supply ⁴	kW	0.024	0.044	0.044	0.059	0.068	0.102	0.147	0.167
Cond. Drain Connections	mm	20	20	20	20	20	20	20	20
Water Connections	inches	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Total volume	litres	0.792		1.158		1.525		1.89	
Weight [with package]	kg	20 [22]		24 [27]		26 [30]		35 [39]	
Weight with cabinet [with package]	kg	22 [25]		29 [32]		32 [37]		45 [50]	
Dimens. unit (L x A x P)	mm	704x224x540		904x224x540		1104x224x540		1304x224x540	
Dimens. with cabinet (L x A x P)	mm	910x539x230		1110x539x230		1310x539x230		1510x539x230	

2 PIPES		4 ROWS							
MODELS		412C	420C	425C	435C	450C	460C	480C	490C
Nominal Air Flow (High/Medium/Low)	m ³ /h	254/	369/	445/	677/	811/	1068/	1300/	1450/
		215/	321/	330/	545/	663/	915/	1165/	1288/
		176	240	250	380	456	672	908	1120
Available Static Pressure	Pa	--	--	--	--	--	--	--	--
Total Cooling Capacity ¹	kW	1.5	2.7	3.1	4.6	5.3	6.4	7.1	8.3
Total Sensible Capacity ¹	kW	1.1	1.7	2.1	2.8	3.7	5.0	5.5	5.8
Heating Capacity ²	kW	2.3	2.8	4.2	5.3	6.8	8.4	11.0	12.5
Water Flow Rate	l/s	0.073	0.098	0.149	0.193	0.251	0.304	0.397	0.409
Water Pressure Drop - Cooling	kPa	4	5	10	14	21	20	18	17
Lp (Sound Pressure Level) ³	dB(A)	38/36/33	42/37/32	41/34/32	47/43/38	47/39/31	53/48/41	51/47/40	53/50/47
Power Supply	V/ph/Hz	220~240/1/50							
Fan N°.	n°	1	1	2	2	2	2	3	3
Max Power Supply ⁴	kW	0.021	0.050	0.051	0.056	0.077	0.107	0.143	0.167
Cond. Drain Connections	mm	20	20	20	20	20	20	20	20
Water Connections	inches	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Total volume	litres	1.056		1.545		2.033		2.52	
Weight [with package]	kg	24 [26]		28 [30]		30 [33]		35 [39]	
Weight with cabinet [with package]	kg	26 [27]		31 [35]		35 [40]		45 [50]	
Dimens. unit (L x A x P)	mm	704x224x540		904x224x540		1104x224x540		1304x224x540	
Dimens. with cabinet (L x A x P)	mm	910x539x230		1110x539x230		1310x539x230		1510x539x230	

NOTES

1 At the following nominal conditions: nominal air flow; 7/12°C inlet/outlet water temperature; 27°C d b/19°C wb inlet air temperature; High speed

2 At the following nominal conditions: nominal air flow 50°C inlet water temperature; 20°C inlet air temperature; same water flow as for cooling; High speed

3 At High/Medium/Low speed; nominal air flow; measured in a room of 100m volume and 0.5 sec. reverberation time (e.g. office/conference room with carpet on the floor)

4 Nominal Air Flow; High Fan Speed

TECHNICAL DATA

4 PIPES

3+1 ROWS

MODELS		012H	020H	025H	035H	050H	060H	080H	090H
Nominal Air Flow (High/Medium/Low)	m ³ /h	254/	369/	445/	677/	811/	1068/	1300/	1450/
		215/	321/	330/	545/	663/	915/	1063/	1248/
		176	240	250	380	456	672	824	1078
Available Static Pressure	Pa	--	--	--	--	--	--	--	--
Total Cooling Capacity ⁵	kW	1.2	1.8	2.5	3.5	4.6	5.7	6.9	8.0
Total Sensible Capacity ⁵	kW	0.9	1.4	1.7	2.5	3.4	4.4	4.9	5.2
Water Flow Rate	l/s	0.057	0.084	0.118	0.165	0.219	0.271	0.32	0.345
Water Pressure Drop - Cooling	kPa	4	5	8	15	26	16	15	17
Heating Capacity ⁶	kW	2.3	2.9	4.3	5.6	7.0	8.6	12.0	13.0
Water Flow Rate	l/s	0.057	0.071	0.104	0.137	0.172	0.209	0.216	0.339
Water Pressure Drop - Heating	kPa	11	18	30	18	35	40	24	14
Lp (Sound Pressure Level) ⁷	dB(A)	38/36/33	42/37/32	41/34/32	47/43/38	47/39/31	53/48/41	51/47/40	53/50/47
Power Supply	V/ph/Hz	220~240/1/50							
Fan N°	n°	1	1	2	2	2	2	3	3
Max Power Supply ⁴	kW	0.021	0.050	0.051	0.056	0.077	0.107	0.140	0.161
Cond. Drain Connections	mm	20	20	20	20	20	20	20	20
Water Connections	inches	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Total volume	litres	[0.792 + 0.264]		[1.158 + 0.386]		[1.525 + 0.508]		[1.89 + 0.63]	
Weight [with package]	kg	24 [26]		28 [30]		30 [33]		35 [39]	
Weight with cabinet [with package]	kg	26 [27]		31 [35]		35 [40]		45 [50]	
Dimens. unit (LxA xP)	mm	704x224x540		904x224x540		1104x224x540		1304x224x540	
Dimens. with cabinet (L x A x P)	mm	910x539x230		1110x539x230		1310x539x230		1510x539x230	

NOTES

4 Nominal Air Flow; High Fan Speed

5 At the following nominal conditions: nominal air flow; 7/12°C inlet/outlet water temperature; 27°C d b / 19°C wb inlet air temperature; High speed

6 At the following nominal conditions: nominal air flow; 70/60 °C inlet/outlet water temperature; 20°C inlet air temperature; High speed

7 At High/Medium/Low speed; nominal air flow; measured in a room of 100 m volume and 0.5 sec. reverberation time (e.g. office/conference room with carpet on the floor)

SOUND LEVEL

2 PIPES										3 ROWS		
Model	Speed	1/1 Octave Sound pressure level								Lw {dB(A)}	Lp {dB(A)}	NR
		63Hz	125 Hz	250 Hz	500 Hz	1K Hz	2K Hz	4K Hz	8K Hz			
012C	High	11.3	15.8	30.0	30.5	33.7	32.9	24.0	16.8	46.0	38.0	33.0
	Medium	12.4	14.9	27.5	27.6	31.5	28.8	19.9	13.5	43.5	35.5	30.0
	Low	11.7	12.3	23.4	23.7	25.6	21.4	13.6	11.0	40.5	32.5	28.0
020C	High	12.8	20.7	33.7	35.2	37.7	36.6	31.0	23.7	50.0	42.0	37.0
	Medium	12.1	17.6	29.5	31.1	33.4	31.6	24.8	17.6	44.5	36.5	32.0
	Low	13.2	13.7	24.3	25.0	27.3	23.1	16.7	13.5	40.0	32.0	28.0
025C	High	9.0	14.1	27.8	30.7	30.1	25.1	17.6	12.2	50.0	42.0	37.0
	Medium	9.9	12.1	25.0	27.9	26.2	20.8	14.0	11.4	43.0	35.0	31.0
	Low	11.3	10.3	22.0	24.0	21.7	16.1	11.7	11.0	40.0	32.0	28.0
035C	High	10.4	23.5	38.1	41.0	41.5	40.5	34.0	25.2	55.5	47.5	43.0
	Medium	10.9	19.6	34.0	37.6	36.7	35.7	27.8	19.1	51.5	43.5	39.0
	Low	9.9	14.9	28.6	31.9	30.1	28.2	18.6	13.8	47.0	38.5	34.0
050C	High	17.5	24.3	37.6	39.4	41.7	40.3	32.9	24.1	53.8	47.0	39.0
	Medium	14.2	20.4	34.2	36.3	37.9	36.7	27.6	18.3	47.0	39.0	35.0
	Low	13.7	17.3	28.4	30.5	30.9	27.5	18.0	12.0	39.0	31.0	26.0
060C	High	14.1	28.6	42.3	43.8	46.3	45.5	38.8	32.8	61.0	53.0	51.0
	Medium	12.7	23.9	38.9	40.4	42.5	42.0	33.6	26.6	56.0	48.0	44.0
	Low	10.6	17.0	32.3	34.2	36.2	33.4	23.4	16.4	49.0	41.5	38.0
080C	High	14.8	28.5	42.7	46.2	46.9	45.7	39.3	34.6	59.5	51.3	47.0
	Medium	12.5	24.5	39.5	43.1	43.2	41.5	34.4	29.0	55.3	47.4	42.0
	Low	10.7	20.2	34.2	37.8	36.8	34.3	26.0	19.9	48.4	40.7	37.0
090C	High	17.6	29.6	43.9	46.3	48.2	47.2	41.7	36.6	61.5	53.2	48.0
	Medium	16.2	27.2	41.1	44.2	45.7	44.9	38.4	33.1	58.6	50.6	46.0
	Low	16.0	24.3	38.1	41.2	42.2	40.7	33.9	28.0	55.6	47.1	42.0

2 PIPES										4 ROWS		
Model	Speed	1/1 Octave Sound pressure level								Lw{dB(A)}	Lp{dB(A)}	NR
		63Hz	125 Hz	250 Hz	500 Hz	1K Hz	2K Hz	4K Hz	8K Hz			
412C	High	10.5	15.7	29.8	30.8	33.2	30.2	23.4	14.6	46.0	38.0	33.0
	Medium	10.6	13.2	27.6	28.2	30.4	26.2	19.1	12.2	43.5	35.5	30.0
	Low	10.6	12.2	23.5	23.3	24.7	19.6	13.5	11.1	40.5	32.5	27.0
420C	High	11.7	18.1	31.7	34.3	36.8	34.6	28.6	20.2	50.0	42.0	38.0
	Medium	10.2	14.3	27.6	29.5	32.3	28.4	21.1	13.8	45.0	37.0	33.0
	Low	11.1	11.2	22.2	23.5	24.2	19.3	13.0	11.1	40.5	37.0	33.0
425C	High	8.7	14.3	28.5	30.3	29.7	26.0	18.0	14.0	49.0	41.0	37.0
	Medium	7.3	12.4	26.1	27.5	26.3	21.7	14.9	13.4	43.0	34.5	31.0
	Low	8.7	12.9	23.1	24.2	22.4	17.4	13.2	13.0	39.5	31.5	27.0
435C	High	12.2	22.3	36.4	38.9	39.7	37.7	32.1	23.9	55.0	47.0	42.0
	Medium	8.5	20.3	32.6	35.7	35.7	32.9	26.5	18.6	51.5	43.0	38.0
	Low	8.2	17.1	27.5	30.2	29.1	24.9	18.2	14.0	46.0	38.0	34.0
450C	High	12.4	23.6	37.7	40.1	41.9	39.4	32.7	23.1	55.5	47.0	43.0
	Medium	10.4	19.7	33.7	36.4	37.4	34.2	26.3	17.2	47.0	39.0	35.0
	Low	8.6	14.1	27.7	30.2	29.5	24.3	16.6	13.3	39.0	31.0	26.0
460C	High	15.4	26.9	40.7	43.2	44.8	42.6	37.6	29.3	61.0	53.0	51.0
	Medium	12.2	22.7	36.8	39.8	40.8	38.3	32.3	23.3	56.0	48.0	44.0
	Low	9.7	17.5	30.3	33.6	34.3	29.4	21.4	14.9	49.0	41.5	38.0
480C	High	18.7	26.8	41.8	43.9	46.3	45.4	39.6	31.6	59.2	51.1	46.0
	Medium	14.1	23.6	38.1	41.1	42.7	41.3	34.8	26.2	55.2	47.2	42.0
	Low	13.9	17.7	32.4	35.2	35.9	33.8	25.9	16.5	45.7	40.6	36.0
490C	High	17.3	29.8	43.4	45.7	47.9	46.0	41.1	34.1	61.0	52.6	47.0
	Medium	16.3	28.1	41.8	44.4	45.8	43.6	38.5	31.2	58.1	50.1	45.0
	Low	16.9	25.0	39.2	41.7	42.9	40.7	35.0	27.3	55.0	46.8	42.0

SOUND LEVEL

4 PIPES										3+1 ROWS		
Model	Speed	1/1 Octave Sound pressure level								Lw{dB(A)}	Lp{dB(A)}	NR
		63Hz	125 Hz	250 Hz	500 Hz	1K Hz	2K Hz	4K Hz	8K Hz			
012H	High	11.5	16.6	29.6	31.5	33.1	30.3	23.5	17.2	46.0	38.0	33.0
	Medium	11.3	14.5	27.0	28.4	30.5	26.3	19.4	14.7	43.5	35.5	30.0
	Low	11.1	13.2	22.5	23.7	24.0	19.3	14.2	13.2	40.5	32.5	27.0
020H	High	10.3	20.1	33.8	36.3	36.9	35.5	29.4	22.9	50.0	42.0	38.0
	Medium	10.3	17.4	29.2	31.7	33.0	30.7	23.4	17.2	45.0	37.0	33.0
	Low	9.4	14.1	23.9	25.8	27.3	22.5	15.7	13.3	40.5	37.0	33.0
025H	High	11.5	15.0	26.7	28.9	29.2	25.4	17.8	12.4	49.0	41.0	37.0
	Medium	17.8	14.2	24.5	25.9	25.2	21.1	14.1	11.4	43.0	34.5	31.0
	Low	10.1	13.6	21.9	22.7	20.6	16.4	12.4	11.5	39.5	31.5	27.0
035H	High	13.1	21.8	35.9	39.2	40.5	38.6	33.3	25.6	55.0	47.0	42.0
	Medium	11.8	22.7	33.0	35.7	36.7	33.9	27.7	19.8	51.5	43.0	38.0
	Low	11.7	21.6	27.6	30.2	30.1	25.6	18.6	12.6	46.0	38.0	34.0
050H	High	12.6	21.3	35.4	38.7	40.0	38.1	32.8	25.1	55.5	47.0	43.0
	Medium	11.1	18.2	30.0	32.5	33.8	31.5	24.2	18.0	47.0	39.0	35.0
	Low	9.0	13.9	23.2	24.4	24.7	20.0	14.9	13.9	39.0	31.0	26.0
060H	High	16.7	26.2	40.4	42.5	44.4	42.7	36.6	27.0	61.0	53.0	51.0
	Medium	13.2	22.9	37.1	39.3	40.7	38.8	31.5	21.7	56.0	48.0	44.0
	Low	11.2	17.9	30.9	33.2	34.3	30.0	21.4	14.5	49.0	41.5	38.0
080H	High	15.6	27.9	42.8	44.3	46.1	44.0	38.1	32.7	59.2	51.1	46.0
	Medium	13.3	25.0	39.8	41.4	42.2	40.0	33.5	27.3	55.2	47.2	42.0
	Low	10.9	19.7	35.0	36.7	36.5	33.0	25.6	19.3	45.7	40.6	36.0
090H	High	17.3	29.8	43.4	45.7	47.9	46.0	41.1	34.1	61.0	52.6	47.0
	Medium	16.3	28.1	41.8	44.4	45.8	43.6	38.5	31.2	58.1	50.1	45.0
	Low	16.9	25.0	39.2	41.7	42.9	40.7	35.0	27.3	55.0	46.8	42.0

Sound pressure level and NR are measured to a room of 100m³ volume and 0.5 sec. reverberation time (e.g. office/conference room with carpet on the floor).