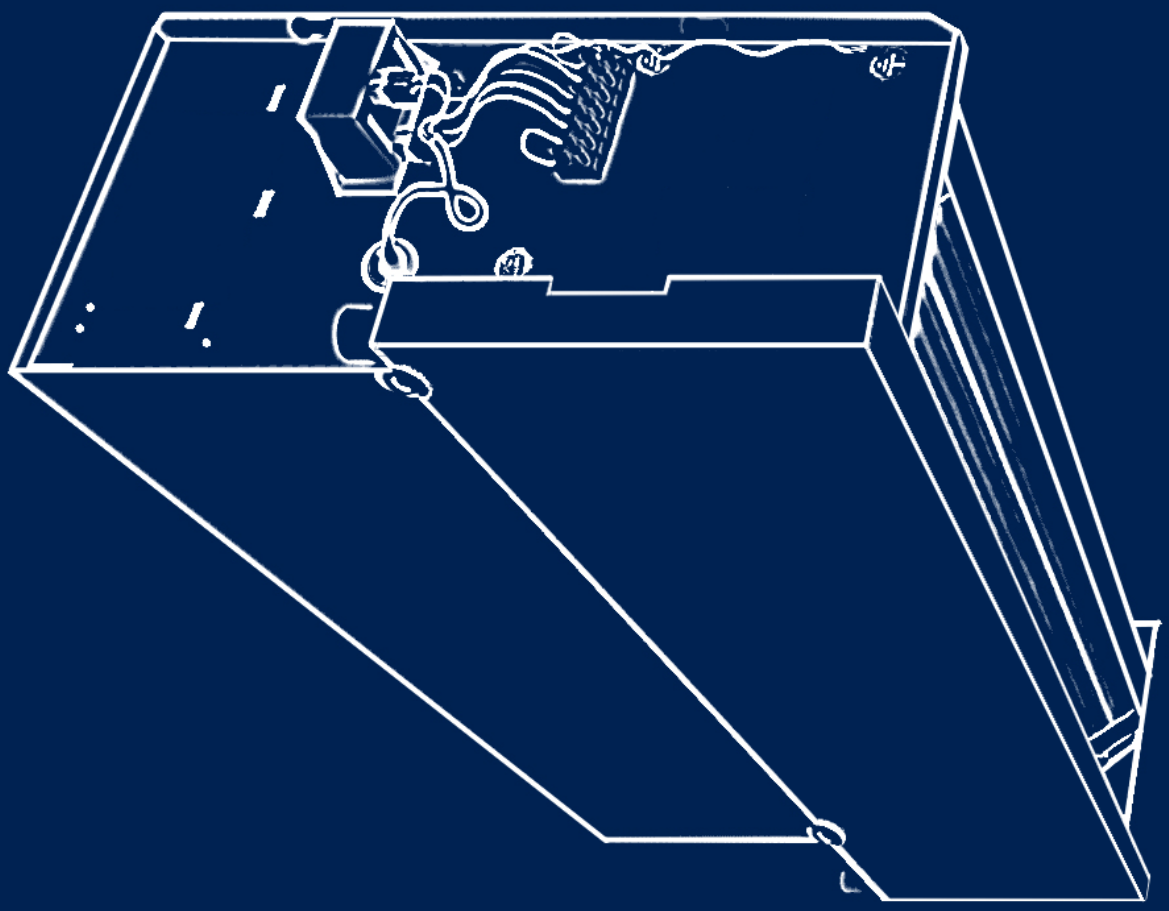


Fan coil units

HC BARCOL-AIR

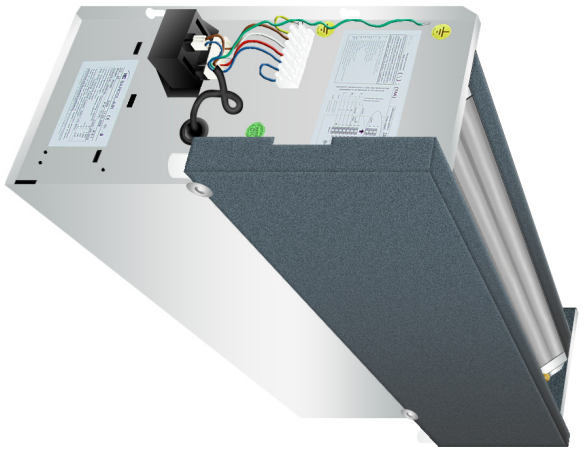
Table of contents

General description

Application

The HC Barcol-Air fan coil units are suitable for cooling and/or heating of (open) offices, meeting rooms and classrooms. The fan coil units are available for horizontal and vertical applications, both with and without cabinet and suitable for air volumes from 350 up to 1960 m3/h with a cooling capacity of 1200 to 8700 W.

Because of the low unit height of 230 mm the fan coil units are extremely suitable for both new build and refurbishment projects for easily mounting above the false ceiling.



Functioning

Room air enters the fan coil unit through a filter where it is cooled or heated and by the fan supplied back into the area.

Fresh air can be added at the entry to comply with the ventilation norms and standards. The supply air into the room can be distributed using air grilles or diffusers connected by acoustic flexible duct to the fan coil unit.

Valve controllers and actuators, fitted at the heat exchangers, control the cooling and/or heating requirement of the room. This control can be on-off, pulse with modulating or fully modulating. Fully modulating is recommendable for high capacities.

The speed control of the fan can be fixed, it can be controlled by the occupant or it can be controlled by a fan coil unit controller. The fan speed determines the cooling and/or heating capacity. At minimum set-point it delivers 75% of the maximum capacity; at medium speed this will be approximately 90%.

The sound production of the fan coil unit depends on the chosen speed setting, the installation method and the room absorption. The selection tables show acoustic values, assuming installation in false ceiling, connection with acoustic flexible duct and diffuser and room absorption of 10 dB per frequency band.

Application

Refurbishment projects
In projects where traditionally a minimum of ventilation air is designed and installed and the architectural does not allow for more air, fan coil units are extremely suitable to be used.

Extension to existing projects
For local solutions like meeting rooms or other areas that require high cooling load, Fan Coil Units are suitable to be used to bring additional cooling load into the room. For this, the already existing chilled water system can be used or a new/additional chilled water system can be used.

New building constructions
New projects are always suitable for use of Fan Coil Units. A benefit, when the HC Barcol-Air units with very low build-in height are being used, is that tremendous false ceiling height is required and therewith construction height per floor can be reduced.

Low temperature systems for heating and/or High temperature systems for cooling
The HC Barcol-Air Fan Coil Units can also be used with chilled/warm water systems with ground storage. Energy conscious systems can be used, maintaining comfort levels in the room due to an excellent heat transfer at the coils of the units.

General description

Special applications

Hotels and apartments
Specific hotel or apartment designs are possible. Ask for the almost unlimited configurations of the HC Barcol-Air Fan Coil Units.

Exposed Fan Coil Units
Fan Coil Units that cannot be installed in the false ceiling can still be supplied with acoustic treatment if required.

Wall and façade units
Special applications for local cooling or heating can be realized by integrating the Fan Coil Units in existing architectural panel enclosures or double wall partitions.

Wall or ceiling units from the standard line can be provided with a casing and with integral inlet and/or outlet grilles. Optionally the Fan Coil Units can be supplied with feet to locate the unit on the floor.

Technical details:

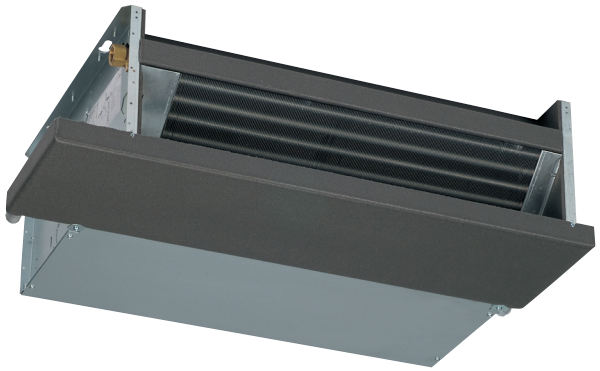
- Low soundproduction
- Heat exchanger with high output
- Maintenance-free drip tray
- Direct driven plastic centrifugal impeller with forward curved blades
- 3 speeds control
- Large air volume range: 350…1960 m^3/h
- Low heigth: 225 mm
- 2-pipe or 4-pipe ½" BSP (female connections): with anti-torsion fittings.

Construction

The fan coil units are modular of construction can be supplied with an inlet sound attenuator and / or multiple outlet plenum.

The inlet attenuator has two press-out connections (one on each side) that can be used for fresh air connections either on the left or right handed side.
The quantities of circular outlets depend on the size of the unit and these can optionally be supplied with manual to be adjusted volume control dampers.

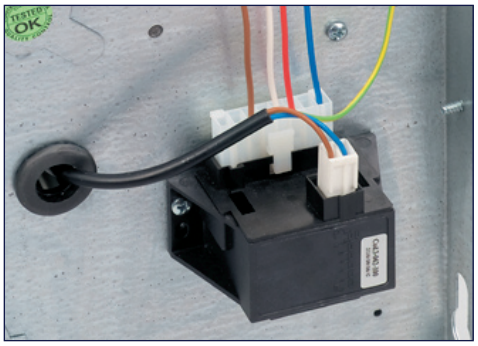
The vertical units are provided with a condensate drip tray which can have the drain connection on either side of the unit.



Product presentation

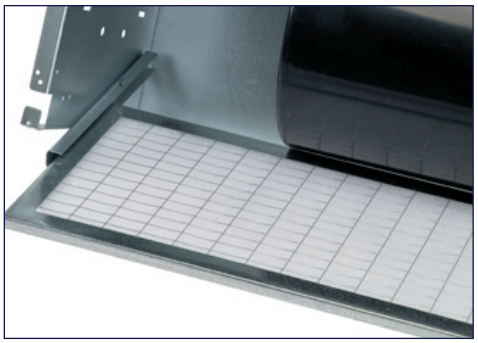
Fan Coil Unit

- Casing Material: galvanised sheet steel 0,8 mm, provide with 4 hanging lugs (M8) (ø 10 mm) exclusive anti-vibration rubber
- Insulation materials internal: M1 class thermal acoustical isolation.
- Heat exchanger: copper tube provided with aluminium fins and ½" internally threaded connection.
- Electromotor: low reverberations, double isolated 230 V, Individual phase 50 Hz motor provided with an exter nally mounted step-down transformer The motor is standard supplied with condenser, clixon and main tenance-free bearings (see attachment A).
- Power consumption is model specific.
- Fan: statically and dynamic balanced, dual inlet, direct driven plastic centrifugal impeller with forward curved blades.
- Condensate tray: galvanised sheet steel, external M1 class isolated and provided with ø 20 mm drain connection



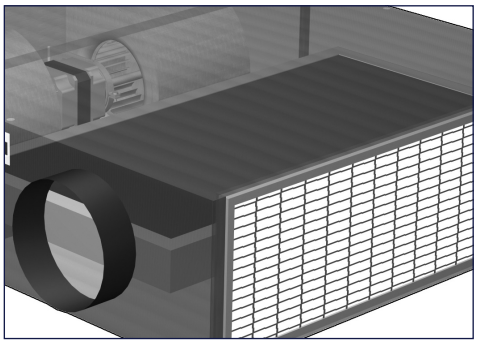
Inlet sound attenuator

- Caing Material: galvanised sheet steel, thickness 0,8 mm.
- air filter: easy to remove filter element existing of Acryl, class EU3 (eurovent 4/5) and assembled in a galvani sed sheet steel U-frame made solid with wire-mess.
- Internal Insulation material: M1 class thermal acoustic insulation (see attachment B).
- press-out connections for fresh air: left- and right side, dimensions model specific.



Multiple outlet plenum

- Casing Material: galvanised sheet steel thickness 0,8 mm.
- Insulation material internal: M1 class thermal acoustic insulation (DP/HSn)
- Outlet spigots: galvanised steel, thickness 0,8 mm, Quantity and diameter model specific.

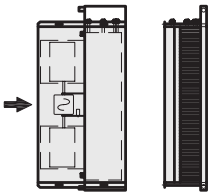


Guidelines

De fan coil units are designed and tested according to the following norms and standards:
- Machine guideline: 98/37/CE.
- Low pressure guideline: 73/23/CEE.
- EMC guideline: 89/336/CEE.
- the unit is manufactured with RoHS free materials.

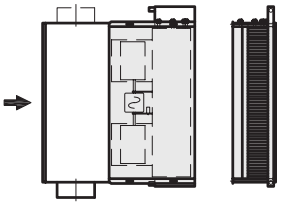
Model overview

Horizontal application (top view)



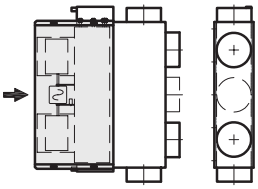
*Type FCK**A**.OO*

Horizontal fan coil unit



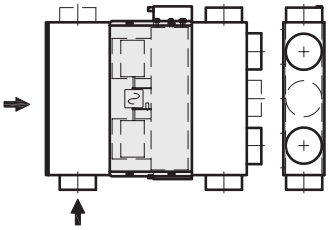
*Type FCK**V**.SO*

Horizontal fan coil unit
+ fresh air connection



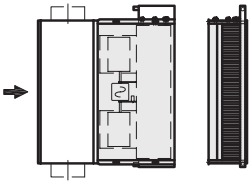
*Type FCK**C**.OO*

Horizontal fan coil unit
+ multiple circular outlets



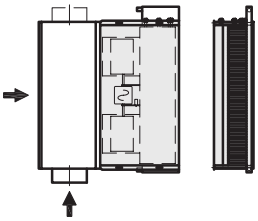
*Type FCK**W**.SO*

Horizontal fan coil unit
+ fresh air connection
+ multiple circular outlets



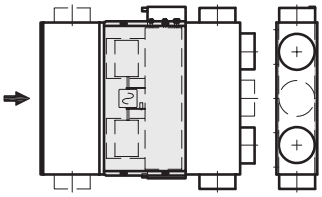
*Type FCK**D**.SO*

Horizontal fan coil unit
+ sound attenuator



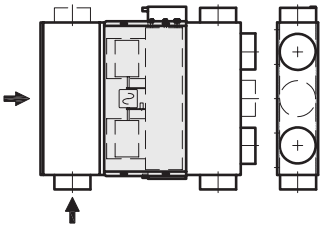
*Type FCK**Y**.SO*

Horizontal fan coil unit
+ sound attenuator
+ fresh air connection



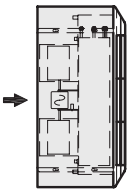
*Type FCK**F**.SO*

Horizontal fan coil unit
+ sound attenuator
+ multiple circular outlets



*Type FCK**Z**.SO*

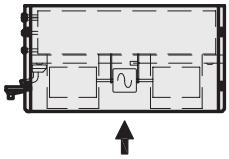
Horizontal fan coil unit
+ fresh air connection
+ sound attenuator
+ multiple circular outlets



*Type F**F**KO.OO*

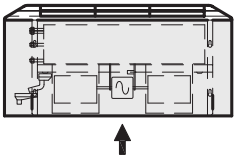
Horizontal fan coil unit
+ cabinet

Vertical application (front view)



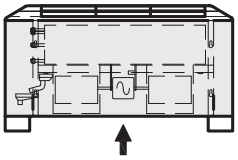
*Type FDK**A**.OO*

Vertical fan coil unit



*Type FEK**O**.OS*

Vertical fan coil unit
+ cabinet

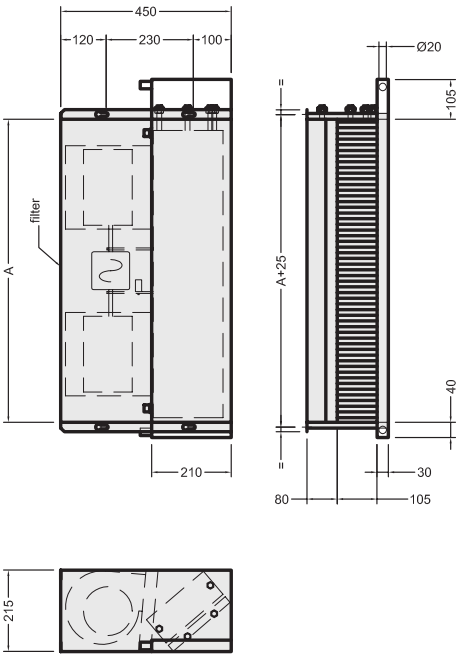


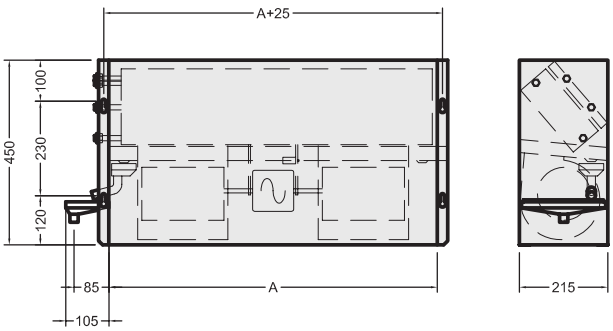
*Type FEK**O**.OS-PA*

Vertical fan coil unit
+ cabinet
+ 'feet' (optional)

Dimensions and drawings

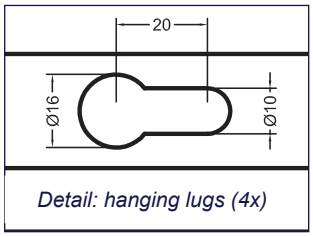
Type ***FC*****.....**
FD**.....**





Type ***FC*** *. A . . .*
(unit for horizontal mounting with rectangular outlet)

Type ***FD*** *. A . . .*
(unit for vertical mounting with rectangular outlet)



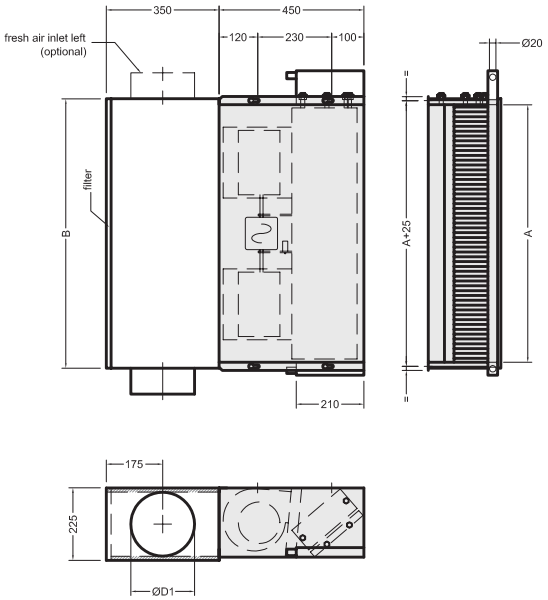
Detail: hanging lugs (4x)

Dimensions

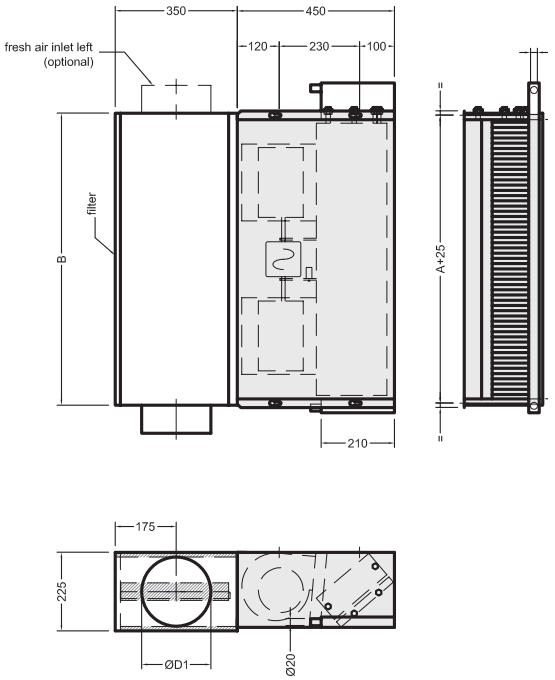
Model	A	B	ØD	ØD1	L	P	Q
012	400	437	4*158	158	545	210	113.5
022	400	437	4*158	158	545	210	113.5
032	600	637	4*158	158	745	260	188.5
042	600	637	4*158	158	745	260	188.5
052	800	837	4*198	158	945	310	263.5
062	800	837	4*198	158	945	310	263.5
072	1000	1037	4*198	198	1145	400	318.5
082	1000	1037	4*198	198	1145	400	318.5
092	1200	1237	5*198	198	1345	2*350	268.5
102	1200	1237	5*198	198	1345	2*350	268.5
112	1400	1437	6*198	198	1545	3*350	193.5
122	1400	1437	6*198	198	1545	3*350	193.5

Dimensions and drawings

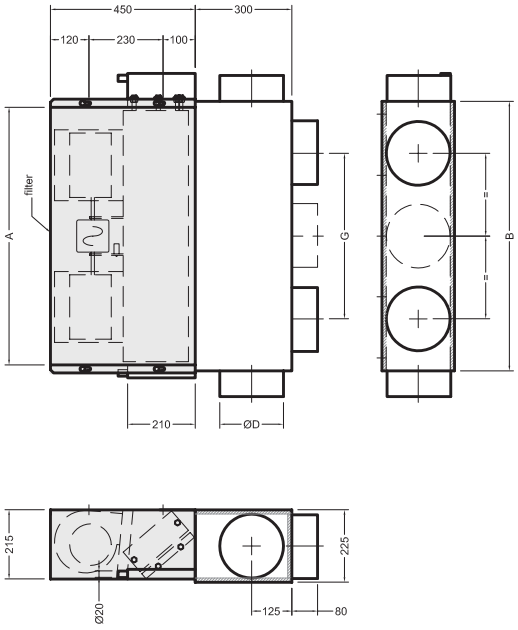
Type FC.....



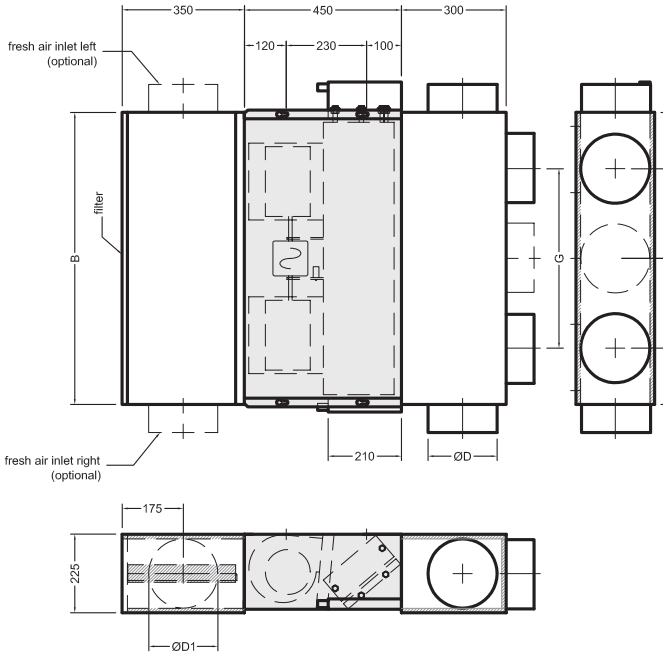
Type *FC . **V** . . .*
(unit with fresh air connection)



Type *FC.**D**. . . or FC . **Y** . . .*
(unit with sound attenuator and fresh air connection (optional)



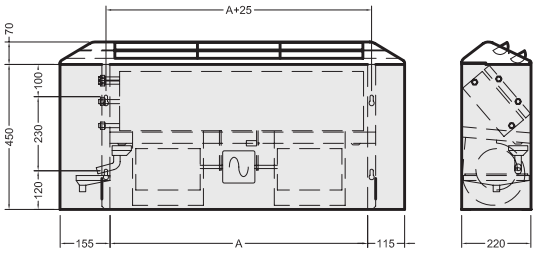
Type *FC . **C** . . .*
(unit with multiple circular outlets)



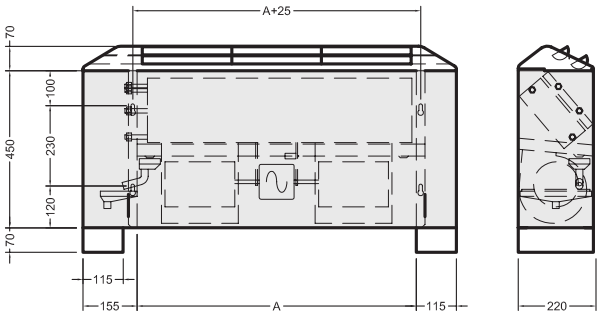
Type *FC . **F** . . . of FC . **Z** . . .*
(unit with sound attenuator and multiple circular outlets, fresh air connection optional)

Drawings and dimensions

*Type F**E**.....*
*F**F**.....*



Type FE . . . . . (vertical unit with cabinet)



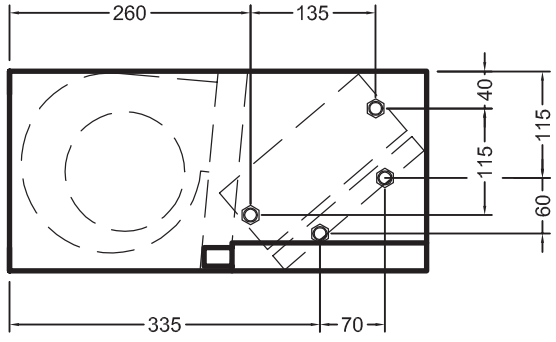
Type FF . . . . . (vertical unit with cabinet and 'feet')

Remark:
Cabinets made of galvanized sheet steel with powder coating.

Dimensions fan coil units with cabinet

Model	A
01	400
02	400
03	600
04	600
05	800
06	800
07	1000
08	1000
09	1200
10	1200
11	1400
12	1400

Figure 1: coil configuration



Remarks:
1. *The coil configuration as shown in figure 1 is applicable on alle types of fan coil units.*
2. *Pipe connection 1/2" BSP female.*
3. *Optional the hot water reheat coil can be replaced by electric heating coil.*

Selection principles and selection example

The NEN-EN15251 standard describes the parameters for design and energy efficiency of building, indoor air quality, room comfort and acoustic details. Using Fan Coil Units for office buildings and schools result in following important design criteria:

Air volumes

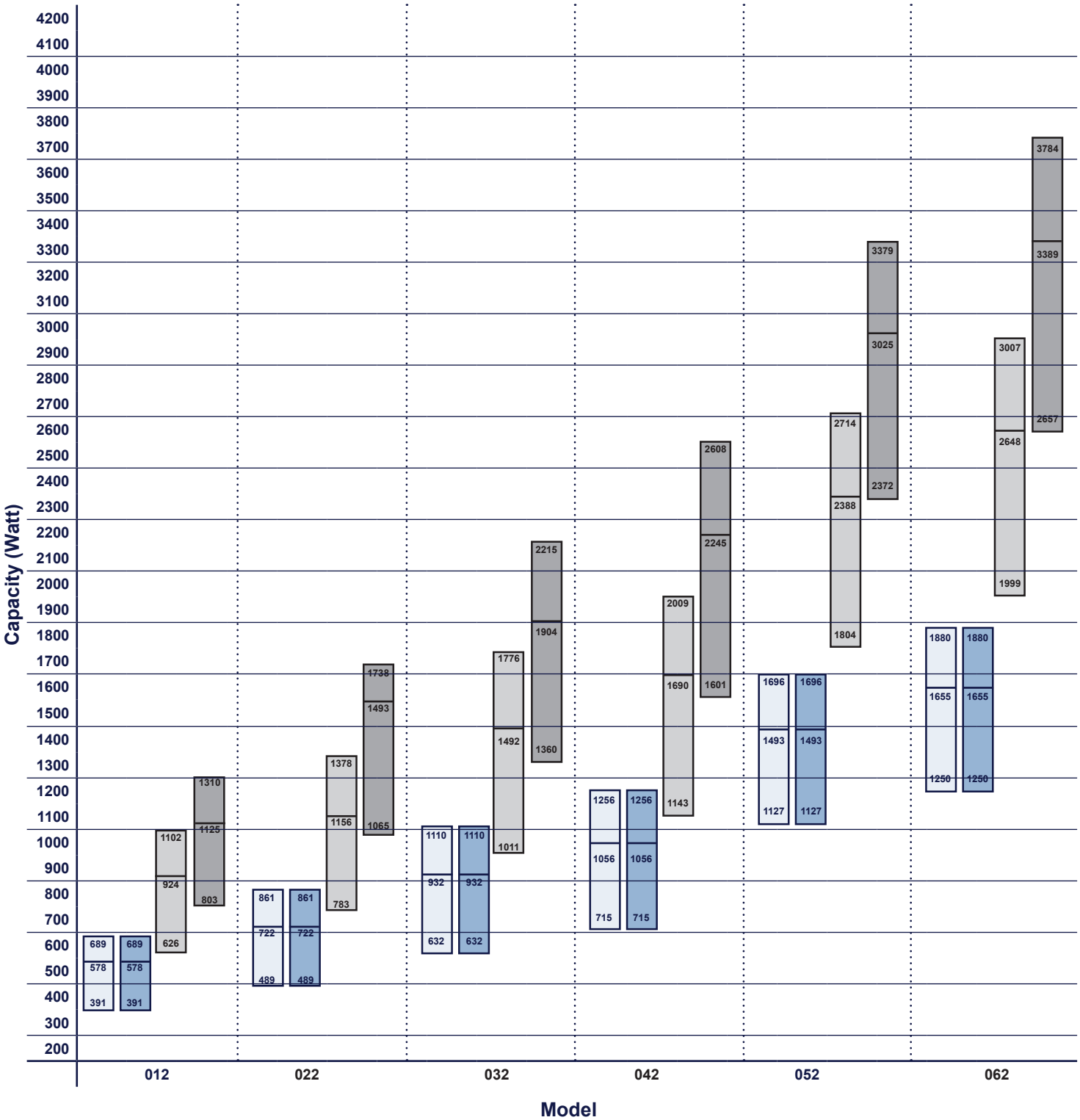
Room type	Building	Square area per person	Fresh air requirement		
			per person	as per building leakage (middle class)	total
			q_p	q_b	q_{to}
			$m^3/h, m^2$	$m^3/h, m^2$	$m^3/h, m^2$
office room	I	10	3,6	3,6	7,2
	II	10	2,5	2,5	5,0
	III	10	1,4	1,4	2,9
open office	I	15	2,5	3,6	6,1
	II	15	1,8	2,5	4,3
	III	15	1,1	1,4	2,5
training or meeting room	I	5,0	1,8	3,6	5,4
	II	3,5	1,1	2,5	3,6

Sound pressure levels (mid.Freq.)

Building type	Room	Fresh air requirement	
		typical range	disign parameters
office building	office	30....40	35
	open office	35....45	40
	office area	35....45	40
	meeting room	30....40	35
school	training room	30....40	35
	corridor	35....50	40
	gymnasium	35....45	40
	canteen	30....40	35

Speed selection: cooling

Water track ***6/12°C***
12/18°C



Selection principles:

min | med | max = Total - cool water track 12/18°C

min | med | max = Sensible - cool water track 12/18°C

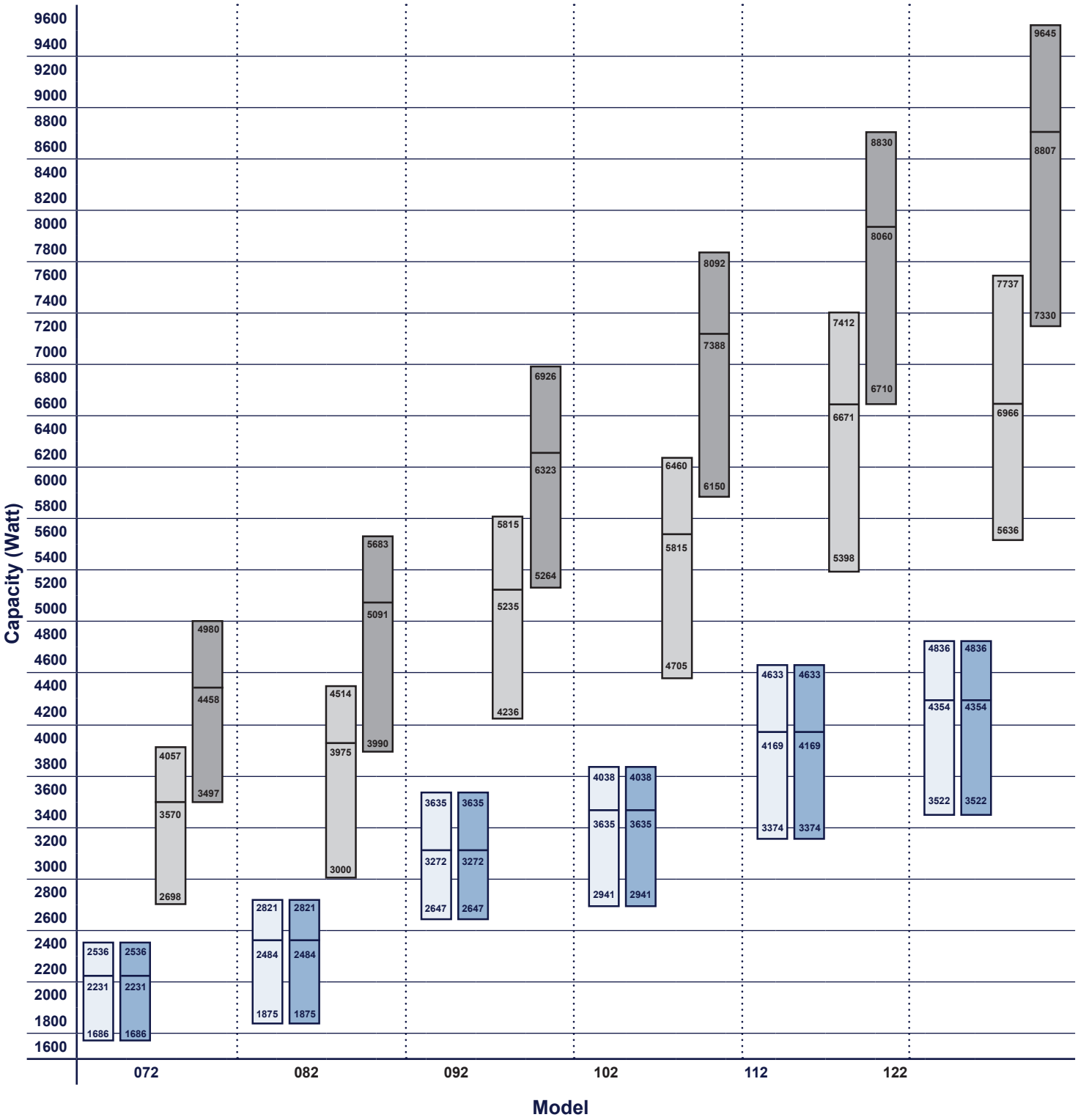
min | med | max = Total - cool water track 6/12°C

min | med | max = Sensible - cool water track 6/12°C

Air conditions = 25°C / 50% relative humidity

Speed selection: cooling

Water track ***6/12°C***
12/18°C



Selection principles:

min med max = Total - cool water track 12/18°C

min med max = Sensible - cool water track 12/18°C

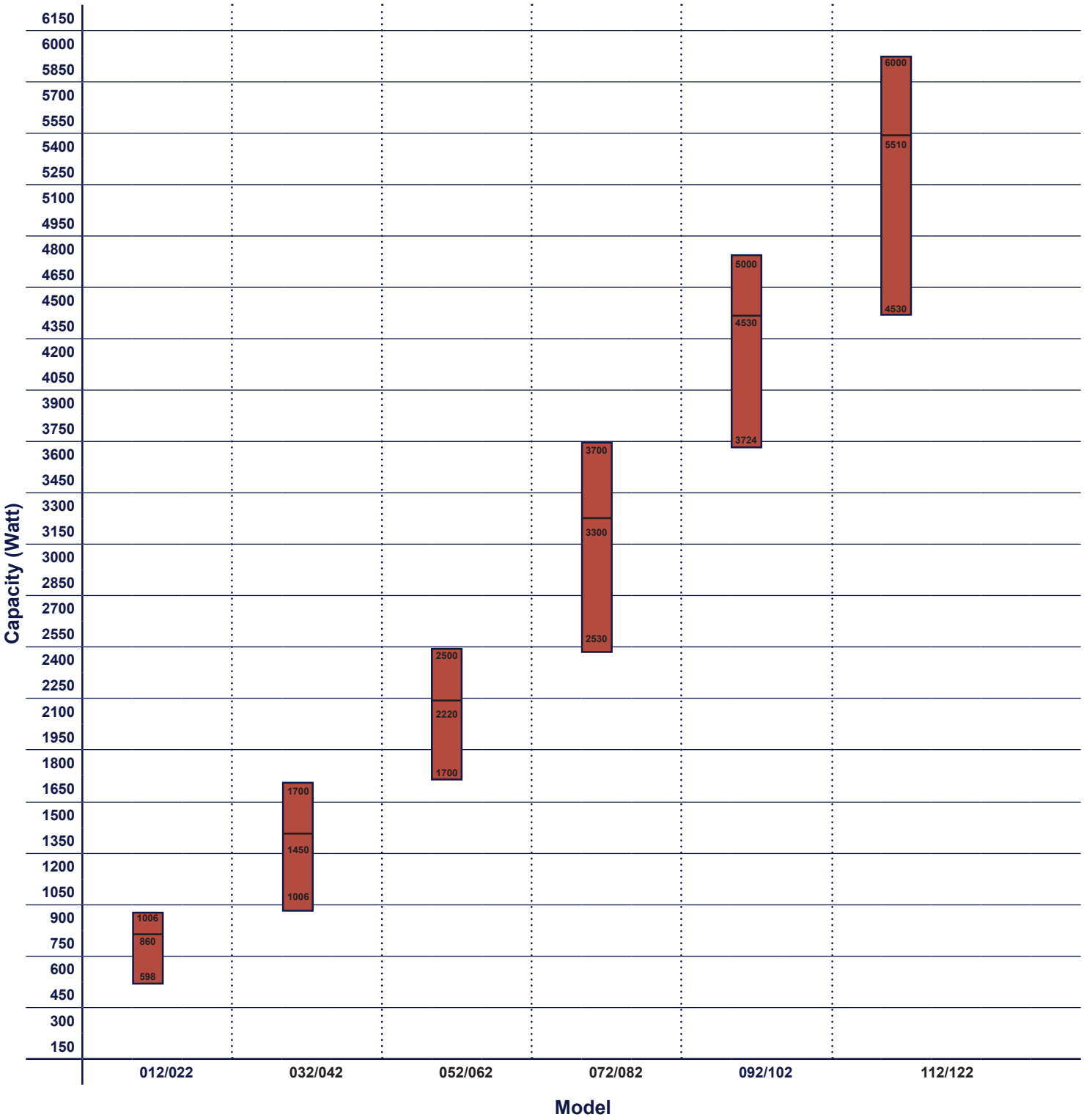
min med max = Total - cool water track 6/12°C

min med max = Sensible - cool water track 6/12°C

Air conditions = 25°C / 50% relative humidity

Speed selection: heating (1-row)

*Water track **55/40°C***



Selection principles:

= hot water track 55/40°C

Air conditions = 20°C / 50% relative humidity

Remark: the facts mentioned above are based on an external pressure loss of approximately 20 Pa.

Speed selection: heating (1-row)

Water track ***80/60°C***

Selection principles:

= hot water track 80/60°C

Air conditions = 20°C / 50% relative humidity

Remark: the facts mentioned above are based on an external pressure loss of approximately 20 Pa.

Fan coil units for horizontal mounting,
with rectangular in- and outlet

Type FC.A...
- INLET SIDE -

Selection data for sound power and sound pressure

Model	Speed	Sound power (Lw) - OUTLET SIDE Frequency (Hz)						Sound pressure (Lp)		
		125	250	500	1000	2000	4000	dB(A)	NC	NR
012	min.	42	45	44	40	33	27	25	--	20
	med.	48	50	50	46	41	34	31	24	26
	max.	53	54	54	51	46	40	35	28	30
022	min.	42	45	44	40	33	27	25	--	20
	med.	48	50	50	46	41	34	31	24	26
	max.	53	54	54	51	46	40	35	28	30
032	min.	42	46	46	40	35	27	26	--	22
	med.	48	52	52	46	42	36	32	26	28
	max.	53	56	56	51	48	42	37	30	32
042	min.	42	46	46	40	35	27	26	--	22
	med.	48	52	52	46	42	36	32	26	28
	max.	53	56	56	51	48	42	37	30	32
052	min.	45	48	47	40	35	28	28	20	23
	med.	52	54	53	48	42	35	34	27	29
	max.	57	59	58	54	50	43	39	33	34
062	min.	45	48	47	40	35	28	28	20	23
	med.	52	54	53	48	42	35	34	27	29
	max.	57	59	58	54	50	43	39	33	34
072	min.	46	48	49	43	39	34	29	22	25
	med.	51	54	55	49	46	41	35	29	31
	max.	55	58	59	54	51	46	39	34	35
082	min.	46	48	49	43	39	34	29	22	25
	med.	51	54	55	49	46	41	35	29	31
	max.	55	58	59	54	51	46	39	34	35
092	min.	50	53	53	48	47	40	34	27	29
	med.	56	60	60	54	53	48	41	35	36
	max.	60	65	65	59	58	52	46	40	41
102	min.	50	53	53	48	47	40	34	27	29
	med.	56	60	60	54	53	48	41	35	36
	max.	60	65	65	59	58	52	46	40	41
112	min.	50	54	54	50	47	42	35	28	30
	med.	58	60	60	56	54	50	41	35	36
	max.	62	66	65	61	59	55	46	41	42
122	min.	50	54	54	50	47	42	35	28	30
	med.	58	60	60	56	54	50	41	35	36
	max.	62	66	65	61	59	55	46	41	42

Remarks:

1. *Sound data is determined in a reverberation room according to ISO 3741 en ISO 3742 with "free feeld' set-up and at 2 meter distance.*
2. *The sound power levels as shown are for the basic fan coil unit only (excluding inlet attenuator or outlet plenum).*
   Sound pressure levels include additional attenuation for inlet attenuator and/or multiple outlet plenum.
3. *The sound power level as per note 1 is used as base for sound pressure calculations for inlet and outlet sound levels.*
4. *Lw values < 17 dB are indicated as "-".*
5. *LpA values < 20 dB(A), NC 20 of NR 20 are indicated as "--".*
6. *The room index LpA at the outlet side are including room absorption of 10 dB/Oct and are determined with the following assumptions for downstream ductwork including a diffuser with insulated plenum box:*

Hz	125	250	500	1000	2000	4000
dB	2	5	10	15	15	20

7. *The room index LpA at the inlet side are including room absorption of 10 dB/Oct and are determined with the following assumptions for ceiling plenum and suspended ceiling absorption:*

Hz	125	250	500	1000	2000	4000
dB	2	5	10	15	15	15

Fan coil units for horizontal mounting,
with rectangular in- and outlet

Type FC.A...
- OUTLET SIDE -

Selection data for sound power and sound pressure

Model	Speed	Sound power (Lw) - OUTLET SIDE Frequency (Hz)						Sound pressure (Lp)		
		125	250	500	1000	2000	4000	dB(A)	NC	NR
012	min.	42	45	44	40	33	27	25	--	20
	med.	48	50	50	46	41	34	31	24	26
	max.	53	54	54	51	46	40	35	28	30
022	min.	42	45	44	40	33	27	25	--	20
	med.	48	50	50	46	41	34	31	24	26
	max.	53	54	54	51	46	40	35	28	30
032	min.	42	46	46	40	35	27	26	--	22
	med.	48	52	52	46	42	36	32	26	28
	max.	53	56	56	51	48	42	37	30	32
042	min.	42	46	46	40	35	27	26	--	22
	med.	48	52	52	46	42	36	32	26	28
	max.	53	56	56	51	48	42	37	30	32
052	min.	45	48	47	40	35	28	28	20	23
	med.	52	54	53	48	42	35	34	27	29
	max.	57	59	58	54	50	43	39	33	34
062	min.	45	48	47	40	35	28	28	20	23
	med.	52	54	53	48	42	35	34	27	29
	max.	57	59	58	54	50	43	39	33	34
072	min.	46	48	49	43	39	34	29	22	25
	med.	51	54	55	49	46	41	35	29	31
	max.	55	58	59	54	51	46	39	34	35
082	min.	46	48	49	43	39	34	29	22	25
	med.	51	54	55	49	46	41	35	29	31
	max.	55	58	59	54	51	46	39	34	35
092	min.	50	53	53	48	47	40	34	27	29
	med.	56	60	60	54	53	48	41	35	36
	max.	60	65	65	59	58	52	45	40	41
102	min.	50	53	53	48	47	40	34	27	29
	med.	56	60	60	54	53	48	41	35	36
	max.	60	65	65	59	58	52	45	40	41
112	min.	50	54	54	50	47	42	35	28	30
	med.	58	60	60	56	54	50	41	35	36
	max.	62	66	65	61	59	55	46	41	42
122	min.	50	54	54	50	47	42	35	28	30
	med.	58	60	60	56	54	50	41	35	36
	max.	62	66	65	61	59	55	46	41	42

Remarks:

1. *Sound data is determined in a reverberation room according to ISO 3741 en ISO 3742 with "free feeld' set-up and at 2 meter distance.*
2. *The sound power levels as shown are for the basic fan coil unit only (excluding inlet attenuator or outlet plenum).*
   Sound pressure levels include additional attenuation for inlet attenuator and/or multiple outlet plenum.
3. *The sound power level as per note 1 is used as base for sound pressure calculations for inlet and outlet sound levels.*
4. *Lw values < 17 dB are indicated as "-".*
5. *LpA values < 20 dB(A), NC 20 of NR 20 are indicated as "--".*
6. *The room index LpA at the outlet side are including room absorption of 10 dB/Oct and are determined with the following assumptions for downstream ductwork including a diffuser with insulated plenum box:*

Hz	125	250	500	1000	2000	4000
dB	2	5	10	15	15	20

7. *The room index LpA at the inlet side are including room absorption of 10 dB/Oct and are determined with the following assumptions for ceiling plenum and suspended ceiling absorption:*

Hz	125	250	500	1000	2000	4000
dB	2	5	10	15	15	15

Fan coil units for horizontal mounting,
with distribution plenum with multiple outlets

Type FC.C...
- INLET SIDE -

Selection data for sound power and sound pressure

Model	Speed	Sound power (Lw) - INLET SIDE Frequency (Hz)						Sound pressure (Lp)		
		125	250	500	1000	2000	4000	dB(A)	NC	NR
012	min.	42	45	44	40	33	27	25	--	20
	med.	48	50	50	46	41	34	31	24	26
	max.	53	54	54	51	46	40	35	28	30
022	min.	42	45	44	40	33	27	25	--	20
	med.	48	50	50	46	41	34	31	24	26
	max.	53	54	54	51	46	40	35	28	30
032	min.	42	46	46	40	35	27	26	--	22
	med.	48	52	52	46	42	36	32	26	28
	max.	53	56	56	51	48	42	37	30	32
042	min.	42	46	46	40	35	27	26	--	22
	med.	48	52	52	46	42	36	32	26	28
	max.	53	56	56	51	48	42	37	30	32
052	min.	45	48	47	40	35	28	28	20	23
	med.	52	54	53	48	42	35	34	27	29
	max.	57	59	58	54	50	43	39	33	34
062	min.	45	48	47	40	35	28	28	20	23
	med.	52	54	53	48	42	35	34	27	29
	max.	57	59	58	54	50	43	39	33	34
072	min.	46	48	49	43	39	34	29	22	25
	med.	51	54	55	49	46	41	35	29	31
	max.	55	58	59	54	51	46	39	34	35
082	min.	46	48	49	43	39	34	29	22	25
	med.	51	54	55	49	46	41	35	29	31
	max.	55	58	59	54	51	46	39	34	35
092	min.	50	53	53	48	47	40	34	27	29
	med.	56	60	60	54	53	48	41	35	36
	max.	60	65	65	59	58	52	46	40	41
102	min.	50	53	53	48	47	40	34	27	29
	med.	56	60	60	54	53	48	41	35	36
	max.	60	65	65	59	58	52	46	40	41
112	min.	50	54	54	50	47	42	35	28	30
	med.	58	60	60	56	54	50	41	35	36
	max.	62	66	65	61	59	55	46	41	42
122	min.	50	54	54	50	47	42	35	28	30
	med.	58	60	60	56	54	50	41	35	36
	max.	62	66	65	61	59	55	46	41	42

Remarks:

1. *Sound data is determined in a reverberation room according to ISO 3741 en ISO 3742 with "free feeld' set-up and at 2 meter distance.*
2. *The sound power levels as shown are for the basic fan coil unit only (excluding inlet attenuator or outlet plenum).*
   Sound pressure levels include additional attenuation for inlet attenuator and/or multiple outlet plenum.
3. *The sound power level as per note 1 is used as base for sound pressure calculations for inlet and outlet sound levels.*
4. *Lw values < 17 dB are indicated as "-".*
5. *LpA values < 20 dB(A), NC 20 of NR 20 are indicated as "--".*
6. *The room index LpA at the outlet side are including room absorption of 10 dB/Oct and are determined with the following assumptions for downstream ductwork including a diffuser with insulated plenum box:*

Hz	125	250	500	1000	2000	4000
dB	2	5	10	15	15	20

7. *The room index LpA at the inlet side are including room absorption of 10 dB/Oct and are determined with the following assumptions for ceiling plenum and suspended ceiling absorption:*

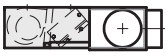
Hz	125	250	500	1000	2000	4000
dB	2	5	10	15	15	15

8. *Sound attenuation due to outlet plenum is as follows:*

Model	Frequency (Hz)					
	125	250	500	1000	2000	4000
012	-2	-3	-6	-9	-9	-10
022	-2	-3	-6	-9	-9	-10
032	-2	-4	-7	-10	-11	-12
042	-2	-4	-7	-10	-11	-12
052	-2	-4	-7	-10	-11	-12
062	-2	-4	-7	-10	-11	-12
072	-2	-4	-7	-10	-11	-12
082	-2	-4	-7	-10	-11	-12
092	-2	-4	-7	-10	-11	-12
102	-2	-4	-7	-10	-11	-12
112	-2	-4	-7	-10	-11	-12
122	-2	-4	-7	-10	-11	-12

Fan coil units for horizontal mounting,
with distribution plenum with multiple outlets

Type FC.C...
- OUTLET SIDE -



Selection data for sound power and sound pressure

Model	Speed	Sound power (Lw) - OUTLET SIDE Frequency (Hz)						Sound pressure (Lp)		
		125	250	500	1000	2000	4000	dB(A)	NC	NR
012	min.	42	45	44	40	33	27	25	--	20
	med.	48	50	50	46	41	34	31	24	26
	max.	53	54	54	51	46	40	35	28	30
022	min.	42	45	44	40	33	27	25	--	20
	med.	48	50	50	46	41	34	31	24	26
	max.	53	54	54	51	46	40	35	28	30
032	min.	42	46	46	40	35	27	26	--	22
	med.	48	52	52	46	42	36	32	26	28
	max.	53	56	56	51	48	42	37	30	32
042	min.	42	46	46	40	35	27	26	--	22
	med.	48	52	52	46	42	36	32	26	28
	max.	53	56	56	51	48	42	37	30	32
052	min.	45	48	47	40	35	28	28	20	23
	med.	52	54	53	48	42	35	34	27	29
	max.	57	59	58	54	50	43	39	33	34
062	min.	45	48	47	40	35	28	28	20	23
	med.	52	54	53	48	42	35	34	27	29
	max.	57	59	58	54	50	43	39	33	34
072	min.	46	48	49	43	39	34	29	22	25
	med.	51	54	55	49	46	41	35	29	31
	max.	55	58	59	54	51	46	39	34	35
082	min.	46	48	49	43	39	34	29	22	25
	med.	51	54	55	49	46	41	35	29	31
	max.	55	58	59	54	51	46	39	34	35
092	min.	50	53	53	48	47	40	34	27	29
	med.	56	60	60	54	53	48	41	35	36
	max.	60	65	65	59	58	52	45	40	41
102	min.	50	53	53	48	47	40	34	27	29
	med.	56	60	60	54	53	48	41	35	36
	max.	60	65	65	59	58	52	45	40	41
112	min.	50	54	54	50	47	42	35	28	30
	med.	58	60	60	56	54	50	41	35	36
	max.	62	66	65	61	59	55	46	41	42
122	min.	50	54	54	50	47	42	35	28	30
	med.	58	60	60	56	54	50	41	35	36
	max.	62	66	65	61	59	55	46	41	42

Remarks:

1. *Sound data is determined in a reverberation room according to ISO 3741 en ISO 3742 with "free feeld' set-up and at 2 meter distance.*
2. *The sound power levels as shown are for the basic fan coil unit only (excluding inlet attenuator or outlet plenum).*
   Sound pressure levels include additional attenuation for inlet attenuator and/or multiple outlet plenum.
3. *The sound power level as per note 1 is used as base for sound pressure calculations for inlet and outlet sound levels.*
4. *Lw values < 17 dB are indicated as "-".*
5. *LpA values < 20 dB(A), NC 20 of NR 20 are indicated as "--".*
6. *The room index LpA at the outlet side are including room absorption of 10 dB/Oct and are determined with the following assumptions for downstream ductwork including a diffuser with insulated plenum box:*

Hz	125	250	500	1000	2000	4000
dB	2	5	10	15	15	20

7. *The room index LpA at the inlet side are including room absorption of 10 dB/Oct and are determined with the following assumptions for ceiling plenum and suspended ceiling absorption:*

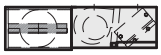
Hz	125	250	500	1000	2000	4000
dB	2	5	10	15	15	15

8. *Sound attenuation due to outlet plenum is as follows:*

Model	Frequency (Hz)					
	125	250	500	1000	2000	4000
012	-2	-3	-6	-9	-9	-10
022	-2	-3	-6	-9	-9	-10
032	-2	-4	-7	-10	-11	-12
042	-2	-4	-7	-10	-11	-12
052	-2	-4	-7	-10	-11	-12
062	-2	-4	-7	-10	-11	-12
072	-2	-4	-7	-10	-11	-12
082	-2	-4	-7	-10	-11	-12
092	-2	-4	-7	-10	-11	-12
102	-2	-4	-7	-10	-11	-12
112	-2	-4	-7	-10	-11	-12
122	-2	-4	-7	-10	-11	-12

Fan coil units for horizontal mounting,
with sound attenuator

Type FC.D...
- INLET SIDE -



Selection data for sound power and sound pressure

Model	Speed	Sound power (Lw) - INLET SIDE Frequency (Hz)						Sound pressure (Lp)		
		125	250	500	1000	2000	4000	dB(A)	NC	NR
012	min.	42	45	44	40	33	27	23	--	--
	med.	48	50	50	46	41	34	29	22	24
	max.	53	54	54	51	46	40	33	26	28
022	min.	42	45	44	40	33	27	23	--	--
	med.	48	50	50	46	41	34	29	22	24
	max.	53	54	54	51	46	40	33	26	28
032	min.	42	46	46	40	35	27	25	--	20
	med.	48	52	52	46	42	36	31	24	26
	max.	53	56	56	51	48	42	35	28	30
042	min.	42	46	46	40	35	27	25	--	20
	med.	48	52	52	46	42	36	31	24	26
	max.	53	56	56	51	48	42	35	28	30
052	min.	45	48	47	40	35	28	26	--	22
	med.	52	54	53	48	42	35	32	26	28
	max.	57	59	58	54	50	43	37	31	33
062	min.	45	48	47	40	35	28	26	--	22
	med.	52	54	53	48	42	35	32	26	28
	max.	57	59	58	54	50	43	37	31	33
072	min.	46	48	49	43	39	34	25	--	20
	med.	51	54	55	49	46	41	30	23	26
	max.	55	58	59	54	51	46	34	28	30
082	min.	46	48	49	43	39	34	25	--	20
	med.	51	54	55	49	46	41	30	23	26
	max.	55	58	59	54	51	46	34	28	30
092	min.	50	53	53	48	47	40	29	21	24
	med.	56	60	60	54	53	48	36	30	32
	max.	60	65	65	59	58	52	41	35	37
102	min.	50	53	53	48	47	40	29	21	24
	med.	56	60	60	54	53	48	36	30	32
	max.	60	65	65	59	58	52	41	35	37
112	min.	50	54	54	50	47	42	29	21	24
	med.	58	60	60	56	54	50	35	28	30
	max.	62	66	65	61	59	55	41	35	37
122	min.	50	54	54	50	47	42	29	21	24
	med.	58	60	60	56	54	50	35	28	30
	max.	62	66	65	61	59	55	41	35	37

Remarks:

1. *Sound data is determined in a reverberation room according to ISO 3741 en ISO 3742 with "free feeld' set-up and at 2 meter distance.*
2. *The sound power levels as shown are for the basic fan coil unit only (excluding inlet attenuator or outlet plenum).*
   Sound pressure levels include additional attenuation for inlet attenuator and/or multiple outlet plenum.
3. *The sound power level as per note 1 is used as base for sound pressure calculations for inlet and outlet sound levels.*
4. *Lw values < 17 dB are indicated as "-".*
5. *LpA values < 20 dB(A), NC 20 of NR 20 are indicated as "--".*
6. *The room index LpA at the outlet side are including room absorption of 10 dB/Oct and are determined with the following assumptions for downstream ductwork including a diffuser with insulated plenum box:*

Hz	125	250	500	1000	2000	4000
dB	2	5	10	15	15	20

7. *The room index LpA at the inlet side are including room absorption of 10 dB/Oct and are determined with the following assumptions for ceiling plenum and suspended ceiling absorption:*

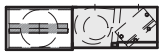
Hz	125	250	500	1000	2000	4000
dB	2	5	10	15	15	15

8. *Sound attenuation due to outlet plenum is as follows:*

Model	Frequency (Hz)					
	125	250	500	1000	2000	4000
012	-1	-1	-2	-4	-6	-8
022	-1	-1	-2	-4	-6	-8
032	-1	-1	-2	-4	-6	-8
042	-1	-1	-2	-4	-6	-8
052	-1	-1	-2	-6	-9	-10
062	-1	-1	-2	-6	-9	-10
072	-1	-4	-5	-10	-14	-13
082	-1	-4	-5	-10	-14	-13
092	-1	-4	-5	-10	-14	-13
102	-1	-4	-5	-10	-14	-13
112	-1	-5	-6	-11	-15	-14
122	-1	-5	-9	-11	-15	-14

Fan coil units for horizontal mounting, with sound attenuator

Type FC.D...
- OUTLET SIDE -



Selection data for sound power and sound pressure

Model	Speed	Sound power (Lw) - OUTLET SIDE Frequency (Hz)						Sound pressure (Lp)		
		125	250	500	1000	2000	4000	dB(A)	NC	NR
012	min.	42	45	44	40	33	27	25	--	20
	med.	48	50	50	46	41	34	31	24	26
	max.	53	54	54	51	46	40	35	28	30
022	min.	42	45	44	40	33	27	25	--	20
	med.	48	50	50	46	41	34	31	24	26
	max.	53	54	54	51	46	40	35	28	30
032	min.	42	46	46	40	35	27	26	--	22
	med.	48	52	52	46	42	36	32	26	28
	max.	53	56	56	51	48	42	37	30	32
042	min.	42	46	46	40	35	27	26	--	22
	med.	48	52	52	46	42	36	32	26	28
	max.	53	56	56	51	48	42	37	30	32
052	min.	45	48	47	40	35	28	28	20	23
	med.	52	54	53	48	42	35	34	27	29
	max.	57	59	58	54	50	43	39	33	34
062	min.	45	48	47	40	35	28	28	20	23
	med.	52	54	53	48	42	35	34	27	29
	max.	57	59	58	54	50	43	39	33	34
072	min.	46	48	49	43	39	34	29	22	25
	med.	51	54	55	49	46	41	35	29	31
	max.	55	58	59	54	51	46	39	34	35
082	min.	46	48	49	43	39	34	29	22	25
	med.	51	54	55	49	46	41	35	29	31
	max.	55	58	59	54	51	46	39	34	35
092	min.	50	53	53	48	47	40	34	27	29
	med.	56	60	60	54	53	48	41	35	36
	max.	60	65	65	59	58	52	45	40	41
102	min.	50	53	53	48	47	40	34	27	29
	med.	56	60	60	54	53	48	41	35	36
	max.	60	65	65	59	58	52	45	40	41
112	min.	50	54	54	50	47	42	35	28	30
	med.	58	60	60	56	54	50	41	35	36
	max.	62	66	65	61	59	55	46	41	42
122	min.	50	54	54	50	47	42	35	28	30
	med.	58	60	60	56	54	50	41	35	36
	max.	62	66	65	61	59	55	46	41	42

Remarks:

1. *Sound data is determined in a reverberation room according to ISO 3741 en ISO 3742 with "free feeld' set-up and at 2 meter distance.*
2. *The sound power levels as shown are for the basic fan coil unit only (excluding inlet attenuator or outlet plenum).*
   Sound pressure levels include additional attenuation for inlet attenuator and/or multiple outlet plenum.
3. *The sound power level as per note 1 is used as base for sound pressure calculations for inlet and outlet sound levels.*
4. *Lw values < 17 dB are indicated as "-".*
5. *LpA values < 20 dB(A), NC 20 of NR 20 are indicated as "--".*
6. *The room index LpA at the outlet side are including room absorption of 10 dB/Oct and are determined with the following assumptions for downstream ductwork including a diffuser with insulated plenum box:*

Hz	125	250	500	1000	2000	4000
dB	2	5	10	15	15	20

7. *The room index LpA at the inlet side are including room absorption of 10 dB/Oct and are determined with the following assumptions for ceiling plenum and suspended ceiling absorption:*

Hz	125	250	500	1000	2000	4000
dB	2	5	10	15	15	15

8. *Sound attenuation due to outlet plenum is as follows:*

Model	Frequency (Hz)					
	125	250	500	1000	2000	4000
012	-1	-1	-2	-4	-6	-8
022	-1	-1	-2	-4	-6	-8
032	-1	-1	-2	-4	-6	-8
042	-1	-1	-2	-4	-6	-8
052	-1	-1	-2	-6	-9	-10
062	-1	-1	-2	-6	-9	-10
072	-1	-4	-5	-10	-14	-13
082	-1	-4	-5	-10	-14	-13
092	-1	-4	-5	-10	-14	-13
102	-1	-4	-5	-10	-14	-13
112	-1	-5	-6	-11	-15	-14
122	-1	-5	-9	-11	-15	-14

Fan coil units for horizontal mounting,
with sound attenuator and multiple circular outlets

Type FC.F...
- INLET SIDE -

Selection data for sound power and sound pressure

Model	Speed	Sound power (Lw) - INLET SIDE Frequency (Hz)						Sound pressure (Lp)		
		125	250	500	1000	2000	4000	dB(A)	NC	NR
012	min.	42	45	44	40	33	27	23	--	--
	med.	48	50	50	46	41	34	29	22	24
	max.	53	54	54	51	46	40	33	26	28
022	min.	42	45	44	40	33	27	23	--	--
	med.	48	50	50	46	41	34	29	22	24
	max.	53	54	54	51	46	40	33	26	28
032	min.	42	46	46	40	35	27	25	--	20
	med.	48	52	52	46	42	36	31	24	26
	max.	53	56	56	51	48	42	35	28	30
042	min.	42	46	46	40	35	27	25	--	20
	med.	48	52	52	46	42	36	31	24	26
	max.	53	56	56	51	48	42	35	28	30
052	min.	45	48	47	40	35	28	26	--	22
	med.	52	54	53	48	42	35	32	26	28
	max.	57	59	58	54	50	43	37	31	33
062	min.	45	48	47	40	35	28	26	--	22
	med.	52	54	53	48	42	35	32	26	28
	max.	57	59	58	54	50	43	37	31	33
072	min.	46	48	49	43	39	34	25	--	20
	med.	51	54	55	49	46	41	30	23	26
	max.	55	58	59	54	51	46	34	28	30
082	min.	46	48	49	43	39	34	25	--	20
	med.	51	54	55	49	46	41	30	23	26
	max.	55	58	59	54	51	46	34	28	30
092	min.	50	53	53	48	47	40	29	21	24
	med.	56	60	60	54	53	48	36	30	32
	max.	60	65	65	59	58	52	41	35	37
102	min.	50	53	53	48	47	40	29	21	24
	med.	56	60	60	54	53	48	36	30	32
	max.	60	65	65	59	58	52	41	35	37
112	min.	50	54	54	50	47	42	29	21	24
	med.	58	60	60	56	54	50	35	28	30
	max.	62	66	65	61	59	55	41	35	37
122	min.	50	54	54	50	47	42	29	21	24
	med.	58	60	60	56	54	50	35	28	30
	max.	62	66	65	61	59	55	41	35	37

Remarks:

1. *Sound data is determined in a reverberation room according to ISO 3741 en ISO 3742 with "free feeld' set-up and at 2 meter distance.*
2. *The sound power levels as shown are for the basic fan coil unit only (excluding inlet attenuator or outlet plenum).*
   Sound pressure levels include additional attenuation for inlet attenuator and/or multiple outlet plenum.
3. *The sound power level as per note 1 is used as base for sound pressure calculations for inlet and outlet sound levels.*
4. *Lw values < 17 dB are indicated as "-".*
5. *LpA values < 20 dB(A), NC 20 of NR 20 are indicated as "--".*
6. *The room index LpA at the outlet side are including room absorption of 10 dB/Oct and are determined with the following assumptions for downstream ductwork including a diffuser with insulated plenum box:*

Hz	125	250	500	1000	2000	4000
dB	2	5	10	15	15	20

7. *Sound attenuation due to outlet plenum is as follows:*

Model	Frequency (Hz)					
	125	250	500	1000	2000	4000
012	-2	-3	-6	-9	-9	-10
022	-2	-3	-6	-9	-9	-10
032	-2	-4	-7	-10	-11	-12
042	-2	-4	-7	-10	-11	-12
052	-2	-4	-7	-10	-11	-12
062	-2	-4	-7	-10	-11	-12
072	-2	-4	-7	-10	-11	-12
082	-2	-4	-7	-10	-11	-12
092	-2	-4	-7	-10	-11	-12
102	-2	-4	-7	-10	-11	-12
112	-2	-4	-7	-10	-11	-12
122	-2	-4	-7	-10	-11	-12

8. *The room index LpA at the inlet side are including room absorption of 10 dB/Oct and are determined with the following assumptions for ceiling plenum and suspended ceiling absorption:*

Hz	125	250	500	1000	2000	4000
dB	2	5	10	15	15	15

9. *Sound attenuation due to inlet sound attenuator is as follows:*

Model	Frequency (Hz)					
	125	250	500	1000	2000	4000
012	-1	-1	-2	-4	-6	-8
022	-1	-1	-2	-4	-6	-8
032	-1	-1	-2	-4	-6	-8
042	-1	-1	-2	-4	-6	-8
052	-1	-1	-2	-6	-9	-10
062	-1	-1	-2	-6	-9	-10
072	-1	-4	-5	-10	-14	-13
082	-1	-4	-5	-10	-14	-13
092	-1	-4	-5	-10	-14	-13
102	-1	-4	-5	-10	-14	-13
112	-1	-5	-6	-11	-15	-14
122	-1	-5	-9	-11	-15	-14

Fan coil units for horizontal mounting,
with sound attenuator and multiple circular outlets

Type FC.F...
- OUTLET SIDE -

Selection data for sound power and sound pressure

Model	Speed	Sound power (Lw) - OUTLET SIDE Frequency (Hz)						Sound pressure (Lp)		
		125	250	500	1000	2000	4000	dB(A)	NC	NR
012	min.	42	45	44	40	33	27	21	--	--
	med.	48	50	50	46	41	34	26	--	22
	max.	53	54	54	51	46	40	30	23	26
022	min.	42	45	44	40	33	27	21	--	--
	med.	48	50	50	46	41	34	26	--	22
	max.	53	54	54	51	46	40	30	23	26
032	min.	42	46	46	40	35	27	21	--	--
	med.	48	52	52	46	42	36	27	20	23
	max.	53	56	56	51	48	42	31	24	27
042	min.	42	46	46	40	35	27	21	--	--
	med.	48	52	52	46	42	36	27	20	23
	max.	53	56	56	51	48	42	31	24	27
052	min.	45	48	47	40	35	28	23	--	--
	med.	52	54	53	48	42	35	29	22	25
	max.	57	59	58	54	50	43	34	28	30
062	min.	45	48	47	40	35	28	23	--	--
	med.	52	54	53	48	42	35	29	22	25
	max.	57	59	58	54	50	43	34	28	30
072	min.	46	48	49	43	39	34	24	--	--
	med.	51	54	55	49	46	41	29	22	25
	max.	55	58	59	54	51	46	33	27	29
082	min.	46	48	49	43	39	34	24	--	--
	med.	51	54	55	49	46	41	29	22	25
	max.	55	58	59	54	51	46	33	27	29
092	min.	50	53	53	48	47	40	28	21	24
	med.	56	60	60	54	53	48	35	29	31
	max.	60	65	65	59	58	52	40	35	37
102	min.	50	53	53	48	47	40	28	21	24
	med.	56	60	60	54	53	48	35	29	31
	max.	60	65	65	59	58	52	40	35	37
112	min.	50	54	54	50	47	42	29	22	25
	med.	58	60	60	56	54	50	35	29	31
	max.	62	66	65	61	59	55	41	36	38
122	min.	50	54	54	50	47	42	29	22	25
	med.	58	60	60	56	54	50	35	29	31
	max.	62	66	65	61	59	55	41	36	38

Remarks:

1. *Sound data is determined in a reverberation room according to ISO 3741 en ISO 3742 with "free feeld' set-up and at 2 meter distance.*
2. *The sound power levels as shown are for the basic fan coil unit only (excluding inlet attenuator or outlet plenum).*
   Sound pressure levels include additional attenuation for inlet attenuator and/or multiple outlet plenum.
3. *The sound power level as per note 1 is used as base for sound pressure calculations for inlet and outlet sound levels.*
4. *Lw values < 17 dB are indicated as "-".*
5. *LpA values < 20 dB(A), NC 20 of NR 20 are indicated as "--".*
6. *The room index LpA at the outlet side are including room absorption of 10 dB/Oct and are determined with the following assumptions for downstream ductwork including a diffuser with insulated plenum box:*

Hz	125	250	500	1000	2000	4000
dB	2	5	10	15	15	20

7. *Sound attenuation due to outlet plenum is as follows:*

Model	Frequency (Hz)					
	125	250	500	1000	2000	4000
012	-2	-3	-6	-9	-9	-10
022	-2	-3	-6	-9	-9	-10
032	-2	-4	-7	-10	-11	-12
042	-2	-4	-7	-10	-11	-12
052	-2	-4	-7	-10	-11	-12
062	-2	-4	-7	-10	-11	-12
072	-2	-4	-7	-10	-11	-12
082	-2	-4	-7	-10	-11	-12
092	-2	-4	-7	-10	-11	-12
102	-2	-4	-7	-10	-11	-12
112	-2	-4	-7	-10	-11	-12
122	-2	-4	-7	-10	-11	-12

8. *The room index LpA at the inlet side are including room absorption of 10 dB/Oct and are determined with the following assumptions for ceiling plenum and suspended ceiling absorption:*

Hz	125	250	500	1000	2000	4000
dB	2	5	10	15	15	15

9. *Sound attenuation due to inlet sound attenuator is as follows:*

Model	Frequency (Hz)					
	125	250	500	1000	2000	4000
012	-1	-1	-2	-4	-6	-8
022	-1	-1	-2	-4	-6	-8
032	-1	-1	-2	-4	-6	-8
042	-1	-1	-2	-4	-6	-8
052	-1	-1	-2	-6	-9	-10
062	-1	-1	-2	-6	-9	-10
072	-1	-4	-5	-10	-14	-13
082	-1	-4	-5	-10	-14	-13
092	-1	-4	-5	-10	-14	-13
102	-1	-4	-5	-10	-14	-13
112	-1	-5	-6	-11	-15	-14
122	-1	-5	-9	-11	-15	-14

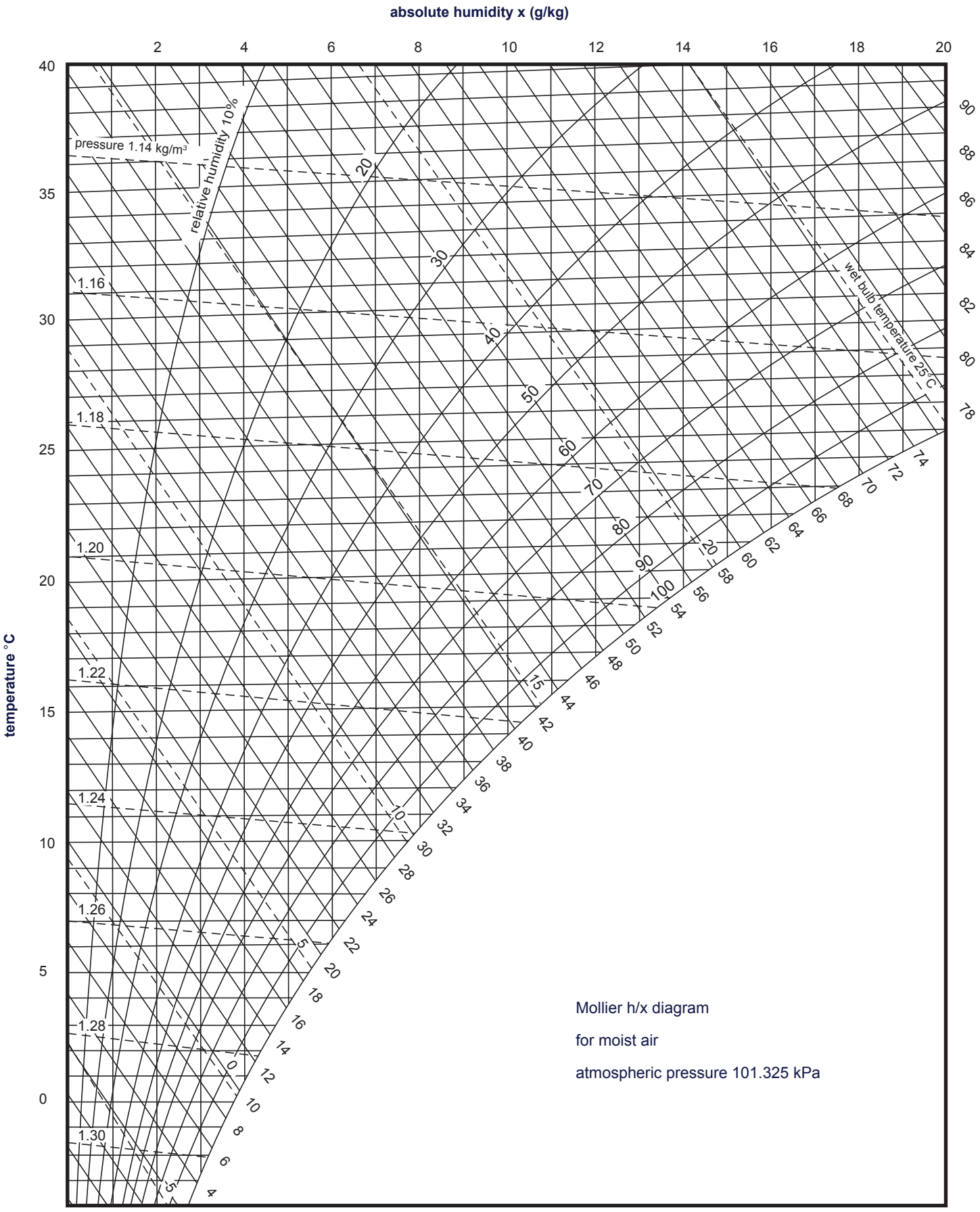
Selection data airflow

Model	Elec. supply 230V, 50Hz			Air volume m^3/h				Air volume l/s				Air volume CFM			
	Speed	W	A	@ 10 Pa	@ 20 Pa	@ 30 Pa	@ 40 Pa	@ 10 Pa	@ 20 Pa	@ 30 Pa	@ 40 Pa	@ 10 Pa	@ 20 Pa	@ 30 Pa	@ 40 Pa
012	min.	58	0,25	175	144	-	-	49	40	-	-	103	85	-	-
	med.	58	0,25	274	248	182	-	76	69	51	-	161	146	107	-
	max.	58	0,25	339	317	269	220	94	88	75	61	199	186	158	129
022	min.	58	0,25	180	148	-	-	50	41	-	-	106	87	-	-
	med.	58	0,25	281	255	188	-	78	71	52	-	165	150	111	-
	max.	58	0,25	348	326	276	226	97	91	77	63	205	192	162	133
032	min.	83	0,36	217	179	-	-	60	50	-	-	128	105	-	-
	med.	83	0,36	340	308	227	-	94	86	63	-	200	181	134	-
	max.	83	0,36	420	393	333	273	117	109	93	76	247	231	196	161
042	min.	83	0,36	221	182	-	-	61	51	-	-	130	107	-	-
	med.	83	0,36	346	314	231	-	96	87	64	-	204	185	136	-
	max.	83	0,36	428	400	339	278	119	111	94	77	252	235	199	164
052	min.	108	0,49	373	346	273	200	104	96	76	56	219	204	161	118
	med.	108	0,49	539	512	452	392	150	142	126	109	317	301	266	231
	max.	108	0,49	639	612	566	519	178	170	157	144	376	360	333	305
062	min.	108	0,49	381	354	279	204	106	98	78	57	224	208	164	120
	med.	108	0,49	551	524	463	401	153	146	129	111	324	308	272	236
	max.	108	0,49	653	626	578	530	181	174	161	147	384	368	340	312
072	min.	147	0,65	562	522	412	301	156	145	114	84	331	307	242	177
	med.	147	0,65	813	772	682	592	226	214	189	164	478	454	401	348
	max.	147	0,65	963	923	853	782	268	256	237	217	566	543	502	460
082	min.	147	0,65	569	528	417	305	158	147	116	85	335	311	245	179
	med.	147	0,65	823	782	691	599	229	217	192	166	484	460	406	352
	max.	147	0,65	975	934	863	792	271	259	240	220	574	549	508	466
092	min.	159	0,71	928	898	839	780	258	249	233	217	546	528	494	459
	med.	159	0,71	1244	1207	1148	1089	346	335	319	303	732	710	675	641
	max.	159	0,71	1435	1398	1340	1281	399	388	372	356	844	822	788	754
102	min.	159	0,71	933	903	844	784	259	251	234	218	549	531	496	461
	med.	159	0,71	1251	1214	1155	1095	348	337	321	304	736	714	679	644
	max.	159	0,71	1443	1406	1347	1288	401	391	374	358	849	827	792	758
112	min.	270	1,20	1236	1197	1119	1040	343	333	311	289	727	704	658	612
	med.	270	1,20	1658	1609	1531	1452	461	447	425	403	975	946	901	854
	max.	270	1,20	1913	1864	1786	1707	531	518	496	474	1125	1096	1051	1004
122	min.	270	1,20	1245	1205	1126	1047	346	335	313	291	732	709	662	616
	med.	270	1,20	1669	1620	1541	1462	464	450	428	406	982	953	906	860
	max.	270	1,20	1926	1876	1797	1718	535	521	499	477	1133	1104	1057	1011

Remarks:

1. *Air volume and energy consumption tested at 230 Volt / 1ph / 50 Hz elect. supply power*
2. *Energy and current (Ampere) tested by Wattmeter type Jokogawa WT 110*

Psychrometric chart



Type designation

F - C - K - Z - K - S - O

Position 1: **Product group**

F = fan coil units

Position 2: **Function**

C = horizontal application w/o cabinet
D = vertical application w/o cabinet
E = vertical application with cabinet
F = horizontal application with cabinet
1 = non standard, specify separately

Position 3: **Controls**

K = terminal strip (standard)
L = terminal strip, junction box IP 55
T = speed switch (0,1,2,3) junction box IP 55
O = non standard, specify separately

Position 4: **Construction**

A = rectangular in- and outlet (standard)
C = multiple circular outlets
D = rectangular outlet and sound attenuator
F = multiple circular outlets and sound attenuator
V = rectangular outlet and fresh air connection
W = multiple circular outlets and fresh air connection
Y = rectangular outlet, sound attenuator and fresh air connection
Z = multiple circular outlets, sound attenuator and fresh air connection
O = cabinet vertical/horizontal
1 = non standard, specify separately

Position 7: **Drip tray**

O = insulated drip tray (steel), 105 mm (standard)
S = plastic, extended drip tray (for vertical units)

Position 6: **Sound attenuator**

S = inlet sound attenuator, length 350 mm
O = without sound attenuator
1 = non standard, specify separately

Position 5: **Coil configuration**

E = 3-row cooling, electric heating
K = 3-row cooling and/or heating (change-over, 2-pipe system)
L = 3-row cooling, 1-row heating (4-pipe system)

Additional

PA= 'feet' for units with cabinet

Ordering example:

F	C	K	Z	L	S	O

see above

0	0	5	2

model
0 012 t/m 122

R	L	R	O

O = standard outlet (rectangular or 4 x circular)
H = 4 circular outlets with balancing dampers
L or R = fresh air connection
L or R = water-side connection *
L or R = electrical connection *

* Please specify the water-side connection when ordering; the electrical connection will be placed on the other side (standard).

Specification

Specify as:

Fan coil unit
Manufacturer: HC Barcol-Air
Type: FCKZLOO
Chilled water C 6/12
Cooling capacity (W):
Hot water:
Heating capacity (W):
Control details

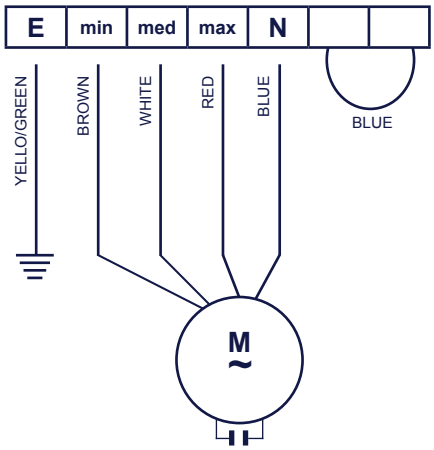
Supply and install Barcol-Air fan coil units for horizontal application complete with sound attenuator, distribution plenum with 4 circular outlets, removable air fi lter, drip tray and inspection panel. The heat exchanger shall have copper tubes with aluminum fins, venting nipple and drain plug and must be factory tested to 15 bar.

The fan shall be dual inlet and direct driven with forward curved blades and shall be static and dynamically balanced. The electric motor shall have at least 6 speeds with an effi ciency at all speeds not less than 92 %. Besides it shall have a thermal fuse (auto-reset) and maintenance free sealed bearings.
The fan coil unit shall be factory fi tted with:

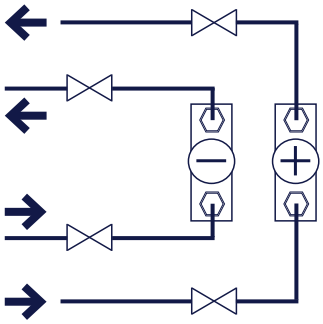
- Heat exchanger with 3-rows for cooling and 1-row for heating
- Sound attenuator with primary air connection
- I/A Series® DDC LonMark® controler type MNL-13RF2.
- Transformer type Trafo 20RA.
- Extended and insulated drip-tray

HC Barcol-Air type: FCKZLOT.

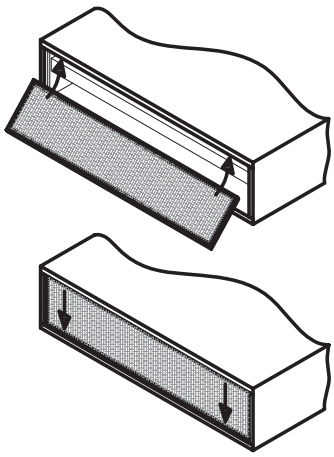
Fan wiring diagram:



Rown & circuits in water coil:



Filter replacement:



Standard capacities electric heating coil (kW)

Model	012/022	032/042	052/062	072 t/m 122
Capacity (kW)	1	1.5	2	3
Supply (A)	4.35	6.53	8.70	13.05

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