

# FHX FAN COIL

# with germicidal lamp

FHX is Aermec's answer to the problem of air pollution in indoor environments. FHX is fitted with a system of UV-C short-wave lamps with an effective germicidal action against the pathogenous agents in the air.

Downstream of the germicidal lamps, there's an ionic source with negative ions to eliminate the polluting particles left suspended in the air.

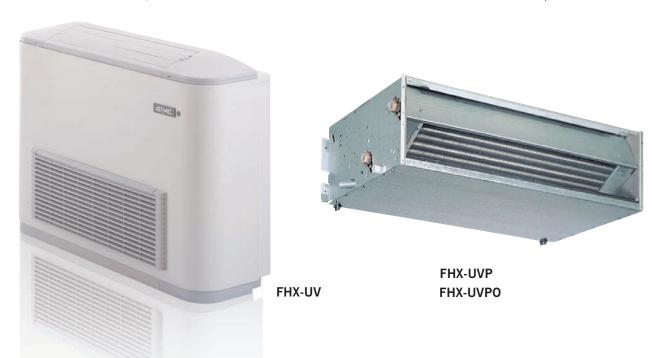
FHX is an innovative fan coil for air conditioning and heating in rooms with special air sterility requirements: hospitals, clinics, veterinary surgeries, analysis labs, pharmaceutical industries, alimentary industries, animal farms, etc.

#### MAIN CHARACTERISTICS

- Available in 6 sizes and 3 versions:
  - FHX-UV: universal freestanding or wall/ceiling mounting
  - FHX-UVP: wall/ceiling mounting without cabinet
  - FHX-UVPO: wall/ceiling mounting without cabinet, with boosted motor at 7 speeds (3 selectable).
- > EUROVENT certified.
- Exclusive device with germicidal lamps to sterilise the air, producing a microbiological reduction of 99.999% thanks to the inactivation of all the Gram - and Gram + micro-organisms.

- > 3-row coil.
- > 3-speed fan unit.
- Full compliance with accident prevention regulations.
- ➤ Soft flowing lines.
- > Quiet operation.
- Reduced pressure drops across heat exchangers.
- ➤ Electric motors with permanently connected condensers.
- Easy installation and maintenance.
- Air filter easily removed and cleaned.
- > Command and control via

- microprocessor thermostat supplied as an accessory:
- FHX-UVP and UVPO: the control panel must be installed on the wall (PXAE)
- FHX-UV: the control panel can be assembled on the unit (PXAI) or externally (PXAE).
- FHX-UV: metal protective cabinet with rustproof polyester paint, colour RAL9002 (FHX-UV).
- > FHX-UV: delivery and suction grilles, colour RAL7044 (FHX-UV).
- Adjustable air distribution grille for UV version (except mod. 62 and 82).





The FHX fan coil is purposely designed to reduce the streptococcus and

staphylococcus found above all in hospital environments:

- viruses that aid the transmission of illnesses such as influenza;
- gram-positive and gramnegative bacteria that cause

various pathologies;

 pathogenous allergens produced by dust mites (Dermatophagoides pteronyssinus and



farinae: DPP and DPF), leading to rhinitis, coughs, asthma, etc.;

 pollens from plants and herbs, causing sneezing, swollen eyes, blocked nose, runny nose, coughs, breathlessness,

hayfever, asthma attacks, etc.;

 mildew spores: causing allergies similar to those produced by pollens;

 other allergens commonly present in the home: cement dust, pet hair, etc.

### Micro-organism destruction table

١	Ventilation speed Virus (%)		Gram- bacteria (%)	Gram+ bacteria (%)	Total bacteria (%)	
	Minimum	100	100	100	100	
	Average	100	100	100	100	

#### Technical card for air sterilisation system

Supply voltage	230V single phase 50HZ		
Germicidal lamp UV-C	2 low pressure mercury steam tubes		
Wavelength UV-C	253.7 nanometres		
Ultraviolet energy irradiated	35700 microW/cm2		
Microbiological reduction effectiveness	Up to 99.99%		
Effective life of the germicidal lamp	6000 hours (indicator light warning)		
Mechanical filter cleaning	Every 200 hours (indicator light warning)		
Fittings	Ioniser for negative ions Electronic meter		
Ozone emission	None		



#### Technical data

Heating capacity  W (av.) 2700 4085 6415 7530 10940 13350  W (min.) 1915 3380 5115 5420 8330 10770  Heating capacity (inlet water 50°C) W (min.) 1915 3380 5115 5420 8330 10770  Water flow rate	Mod.		FHX 22	FHX 32	FHX 42	FHX 50	FHX 62	FHX 82	
Heating capacity (inlet water 50°C)   W (max.) (E)   2100   3160   4240   4900   6460   7990		W (max.)	3400	4975	7400	8620	12920	15140	
Heating capacity (inlet water 50°C)   W (max.) (E)   2100   3160   4240   4900   6460   7990	Heating capacity	W (av.)	2700	4085	6415	7530	10940	13350	
Water flow rate         I/h         292         427         636         741         1110         1300           Water pressure drops         kPa         6.3         14.2         14.1         14.2         14.8         19.8           W (max.) (E)         1500         2210         3400         4190         4860         7420           Total cooling capacity         W (av.)         1330         2055         2800         3640         4660         5500           W (min.)         1055         1570         2310         2840         3950         4710           W (min.)         1055         1570         2310         2840         3950         4710           W (min.)         1055         1570         2310         2840         3950         4710           W (min.)         1055         1540         2115         2750         3510         4250           W (min.)         755         1100         1635         2040         2825         3450           Water flow rate         I/h         258         380         585         721         836         1276           Water pressure drops         kPa (E)         5.8         16.6         14		W (min.)	1915	3380	5115	5420	8330	10770	
Water pressure drops         kPa         6.3         14.2         14.1         14.2         14.8         19.8           Total cooling capacity         W (max.) (E)         1500         2210         3400         4190         4860         7420           W (av.)         1330         2055         2800         3640         4660         5500           W (min.)         1055         1570         2310         2840         3950         4710           W (max.) (E)         1240         1750         2760         3000         3980         5680           Sensible cooling capacity         W (av.)         1055         1540         2115         2750         3510         4250           W (min.)         755         1100         1635         2040         2825         3450           Water flow rate         l/h         258         380         585         721         836         1276           Water pressure drops         kPa (E)         5.8         16.6         14.3         19.3         11.6         13.5           m³/h (max.)         290         450         600         720         920         1140           air flow rate         m³/h (av.)         220	Heating capacity (inlet water 50°C	) W (max.) ( <b>E</b> )	2100	3160	4240	4900	6460	7990	
Total cooling capacity  W (max.) (E) 1500 2210 3400 4190 4860 7420  W (av.) 1330 2055 2800 3640 4660 5500  W (min.) 1055 1570 2310 2840 3950 4710  W (max.) (E) 1240 1750 2760 3000 3980 5680  Sensible cooling capacity  W (av.) 1055 1540 2115 2750 3510 4250  W (min.) 755 1100 1635 2040 2825 3450  Water flow rate  Where flow rate  Where flow rate  Water pressure drops  kPa (E) 5.8 16.6 14.3 19.3 11.6 13.5  m³/h (max.) 290 450 600 720 920 1140  air flow rate  m³/h (av.) 220 350 460 600 720 920 1140  air flow rate  m³/h (min.) 140 260 330 400 520 700  Number of fans  no. 1 2 2 2 2 3 3 3  dB (A) (max.) 41.5 39.5 42.5 47.5 48.5 53.5  Sound pressure  dB (A) (av.) 34.5 32.5 35.5 42.5 42.5 48.5  dB (A) (max.) (E) 43 41 44 51 51 51 57  dB (A) (min.) (E) 31 34 37 42 42 50  Water contents  I 0.79 1.11 1.48 1.48 2.52 2.52  Table input powers  W (FHX-UV/UVP) 50 69 82 92 182 206	Water flow rate	l/h	292	427	636	741	1110	1300	
Total cooling capacity  W (av.)  1330  2055  2800  3640  4660  5500  W (min.)  1055  1570  2310  2840  3950  4710  2840  3950  4710  W (max.) (E)  1240  1750  2760  3000  3980  5680  Sensible cooling capacity  W (av.)  1055  1540  2115  2750  3510  4250  W (min.)  755  1100  1635  2040  2825  3450  Water flow rate  I/h  258  380  585  721  836  1276  Water pressure drops  RPa (E)  5.8  16.6  14.3  19.3  11.6  13.5  m³/h (max.)  290  450  600  720  920  1140  air flow rate  m³/h (av.)  220  350  460  600  720  930  m³/h (min.)  140  260  330  400  520  700  Number of fans  no.  1  2  2  2  3  3  dB (A) (max.)  41.5  39.5  42.5  47.5  48.5  53.5  Sound pressure  dB (A) (av.)  34.5  32.5  35.5  42.5  42.5  48.5  53.5  48.5  53.5  48.5  53.5  48.5  53.5  48.5  53.5  48.5  53.5  48.5  55.5  56  57  62  Sound power  dB (A) (av.) (E)  43  41  44  51  51  57  dB (A) (min.) (E)  31  34  37  42  42  50  Water contents  I  0.79  1.11  1.48  1.48  2.52  2.52  2.52  Tabel input powers  W (FHX-UV/UVP)  50  69  82  92  182  206	Water pressure drops	kPa	6.3	14.2	14.1	14.2	14.8	19.8	
W (min.) 1055 1570 2310 2840 3950 4710 W (max.) (E) 1240 1750 2760 3000 3980 5680  Sensible cooling capacity W (av.) 1055 1540 2115 2750 3510 4250 W (min.) 755 1100 1635 2040 2825 3450  Water flow rate I/h 258 380 585 721 836 1276  Water pressure drops kPa (E) 5.8 16.6 14.3 19.3 11.6 13.5  m³/h (max.) 290 450 600 720 920 1140  air flow rate m³/h (av.) 220 350 460 600 720 930  m³/h (min.) 140 260 330 400 520 700  Number of fans no. 1 2 2 2 2 3 3  dB (A) (max.) 41.5 39.5 42.5 47.5 48.5 53.5  Sound pressure dB (A) (av.) 34.5 32.5 35.5 42.5 42.5 48.5  dB (A) (min.) 22.5 25.5 28.5 33.5 33.5 33.5 41.5  dB (A) (max.) (E) 50 48 51 56 57 62  Sound power dB (A) (av.) (E) 43 41 44 51 51 51 57  dB (A) (min.) (E) 31 34 37 42 42 50  Water contents I 0.79 1.11 1.48 1.48 2.52 2.52		W (max.) ( <b>E</b> )	1500	2210	3400	4190	4860	7420	
Sensible cooling capacity         W (max.) (E)         1240         1750         2760         3000         3980         5680           W (av.)         1055         1540         2115         2750         3510         4250           W (min.)         755         1100         1635         2040         2825         3450           Water flow rate         I/h         258         380         585         721         836         1276           Water pressure drops         kPa (E)         5.8         16.6         14.3         19.3         11.6         13.5           m³/h (max.)         290         450         600         720         920         1140           air flow rate         m³/h (av.)         220         350         460         600         720         930           m³/h (min.)         140         260         330         400         520         700           Number of fans         no.         1         2         2         2         3         3           Sound pressure         dB (A) (max.)         41.5         39.5         42.5         47.5         48.5         53.5           dB (A) (min.)         22.5         25.5         28.5 </td <td>Total cooling capacity</td> <td>W (av.)</td> <td>1330</td> <td>2055</td> <td>2800</td> <td>3640</td> <td>4660</td> <td>5500</td> <td></td>	Total cooling capacity	W (av.)	1330	2055	2800	3640	4660	5500	
Sensible cooling capacity         W (av.)         1055         1540         2115         2750         3510         4250           W (min.)         755         1100         1635         2040         2825         3450           Water flow rate         I/h         258         380         585         721         836         1276           Water pressure drops         kPa (E)         5.8         16.6         14.3         19.3         11.6         13.5           m³/h (max.)         290         450         600         720         920         1140           air flow rate         m³/h (av.)         220         350         460         600         720         930           no.         1         2         2         2         3         3         3           Number of fans         no.         1         2         2         2         3         3           Sound pressure         dB (A) (max.)         41.5         39.5         42.5         47.5         48.5         53.5           Sound power         dB (A) (min.)         22.5         25.5         28.5         33.5         33.5         41.5           dB (A) (min.) (E)         31         <		W (min.)	1055	1570	2310	2840	3950	4710	
W (min.)         755         1100         1635         2040         2825         3450           Water flow rate         I/h         258         380         585         721         836         1276           Water pressure drops         kPa (E)         5.8         16.6         14.3         19.3         11.6         13.5           m³/h (max.)         290         450         600         720         920         1140           air flow rate         m³/h (max.)         290         450         600         720         920         1140           air flow rate         m³/h (max.)         290         450         600         720         930           no.         140         260         330         400         520         700           Number of fans         no.         1         2         2         2         3         3           Sound pressure         dB (A) (max.)         41.5         39.5         42.5         47.5         48.5         53.5           Sound power         dB (A) (max.) (E)         50         48         51         56         57         62           Sound power         dB (A) (min.) (E)         31         34		W (max.) ( <b>E</b> )	1240	1750	2760	3000	3980	5680	
Water flow rate         I/h         258         380         585         721         836         1276           Water pressure drops         kPa (E)         5.8         16.6         14.3         19.3         11.6         13.5           m³/h (max.)         290         450         600         720         920         1140           air flow rate         m³/h (av.)         290         450         600         720         930           m³/h (min.)         140         260         330         400         520         700           Number of fans         no.         1         2         2         2         3         3           MB (A) (max.)         41.5         39.5         42.5         47.5         48.5         53.5           Sound pressure         dB (A) (av.)         34.5         32.5         35.5         42.5         42.5         48.5           B (A) (min.)         22.5         25.5         28.5         33.5         33.5         41.5           B (B (A) (max.) (E)         50         48         51         56         57         62           Sound power         dB (A) (av.) (E)         43         41         44         51         <	Sensible cooling capacity	W (av.)	1055	1540	2115	2750	3510	4250	
Water pressure drops         kPa (E)         5.8         16.6         14.3         19.3         11.6         13.5           m³/h (max.)         290         450         600         720         920         1140           air flow rate         m³/h (av.)         220         350         460         600         720         930           m³/h (min.)         140         260         330         400         520         700           Number of fans         no.         1         2         2         2         3         3           dB (A) (max.)         41.5         39.5         42.5         47.5         48.5         53.5           Sound pressure         dB (A) (av.)         34.5         32.5         35.5         42.5         42.5         42.5         48.5           dB (A) (min.)         22.5         25.5         28.5         33.5         33.5         41.5           Sound power         dB (A) (av.) (E)         43         41         44         51         51         57           dB (A) (min.) (E)         31         34         37         42         42         50           Water contents         I         0.79         1.11         1		W (min.)	755	1100	1635	2040	2825	3450	
m³/h (max.) 290 450 600 720 920 1140  air flow rate m³/h (av.) 220 350 460 600 720 930  m³/h (min.) 140 260 330 400 520 700  Number of fans no. 1 2 2 2 2 3 3 3  dB (A) (max.) 41.5 39.5 42.5 47.5 48.5 53.5  Sound pressure dB (A) (av.) 34.5 32.5 35.5 42.5 42.5 42.5 48.5  dB (A) (min.) 22.5 25.5 28.5 33.5 33.5 41.5  dB (A) (max.) (E) 50 48 51 56 57 62  Sound power dB (A) (av.) (E) 43 41 44 51 51 51 57  dB (A) (min.) (E) 31 34 37 42 42 50  Water contents I 0.79 1.11 1.48 1.48 2.52 2.52	Water flow rate	l/h	258	380	585	721	836	1276	-
air flow rate	Water pressure drops	kPa ( <b>E</b> )	5.8	16.6	14.3	19.3	11.6	13.5	
m³/h (min.)     140     260     330     400     520     700       Number of fans     no.     1     2     2     2     3     3       dB (A) (max.)     41.5     39.5     42.5     47.5     48.5     53.5       Sound pressure     dB (A) (av.)     34.5     32.5     35.5     42.5     42.5     48.5       dB (A) (min.)     22.5     25.5     28.5     33.5     33.5     41.5       Sound power     dB (A) (av.) (E)     43     41     44     51     51     57       dB (A) (min.) (E)     31     34     37     42     42     50       Water contents     I     0.79     1.11     1.48     1.48     2.52     2.52       Total input agree     W     (FHX-UV/UVP)     50     69     82     92     182     206		m³/h (max.)	290	450	600	720	920	1140	
Number of fans         no.         1         2         2         2         2         3         3           Sound pressure         dB (A) (max.)         41.5         39.5         42.5         47.5         48.5         53.5           Sound pressure         dB (A) (av.)         34.5         32.5         35.5         42.5         42.5         48.5           dB (A) (min.)         22.5         25.5         28.5         33.5         33.5         41.5           dB (A) (max.) (E)         50         48         51         56         57         62           Sound power         dB (A) (av.) (E)         43         41         44         51         51         57           dB (A) (min.) (E)         31         34         37         42         42         50           Water contents         I         0.79         1.11         1.48         1.48         2.52         2.52           Total input source         W         (FHX-UV/UVP)         50         69         82         92         182         206	air flow rate	m <sup>3</sup> / h (av.)	220	350	460	600	720	930	
Sound pressure dB (A) (max.) 41.5 39.5 42.5 47.5 48.5 53.5 dB (A) (av.) 34.5 32.5 35.5 42.5 42.5 42.5 48.5 dB (A) (min.) 22.5 25.5 28.5 33.5 33.5 41.5 dB (A) (max.) (E) 50 48 51 56 57 62 Sound power dB (A) (av.) (E) 43 41 44 51 51 51 57 dB (A) (min.) (E) 31 34 37 42 42 50 Water contents I 0.79 1.11 1.48 1.48 2.52 2.52 Table input power W (FHX-UV/UVP) 50 69 82 92 182 206		m³/h (min.)	140	260	330	400	520	700	
Sound pressure	Number of fans	no.	1	2	2	2	3	3	
dB (A) (min.)     22.5     25.5     28.5     33.5     33.5     41.5       dB (A) (max.) (E)     50     48     51     56     57     62       Sound power     dB (A) (av.) (E)     43     41     44     51     51     57       dB (A) (min.) (E)     31     34     37     42     42     50       Water contents     I     0.79     1.11     1.48     1.48     2.52     2.52       Total input requer     W     (FHX-UV/UVP)     50     69     82     92     182     206		dB (A) (max.)	41.5	39.5	42.5	47.5	48.5	53.5	
dB (A) (max.) (E)     50     48     51     56     57     62       Sound power     dB (A) (av.) (E)     43     41     44     51     51     57       dB (A) (min.) (E)     31     34     37     42     42     50       Water contents     I     0.79     1.11     1.48     1.48     2.52     2.52       Total input power    (FHX-UV/UVP)  50  69  82  92  182  206	Sound pressure		34.5	32.5	35.5	42.5	42.5	48.5	
Sound power     dB (A) (av.) (E)     43     41     44     51     51     57       dB (A) (min.) (E)     31     34     37     42     42     50       Water contents     I     0.79     1.11     1.48     1.48     2.52     2.52       Total input power    (FHX-UV/UVP)  50  69  82  92  182  206		dB (A) (min.)	22.5	25.5	28.5	33.5	33.5	41.5	
dB (A) (min.) ( <i>E</i> ) 31 34 37 42 42 50  Water contents I 0.79 1.11 1.48 1.48 2.52 2.52  Tetal input power W (FHX-UV/UVP) 50 69 82 92 182 206		dB (A) (max.)	( <b>E</b> ) 50	48	51	56	57	62	
Water contents         I         0.79         1.11         1.48         1.48         2.52         2.52           Total input power         W         (FHX-UV/UVP)         50         69         82         92         182         206	Sound power	dB (A) (av.) ( <b>E</b>	) 43	41	44	51	51	57	
Total input payer W (FHX-UV/UVP) 50 69 82 92 182 206		dB (A) (min.) (	( <b>E</b> ) 31	34	37	42	42	50	
Total input never W	Water contents	1	0.79	1.11	1.48	1.48	2.52	2.52	
	Tatal insult manner	(FHX-UV/UVP)	) 50	69	82	92	182	206	
(FHX-UVPO) /9 122 136 10/ 19/ 235	iotai iriput power	(FHX-UVPO)	79	122	136	107	197	235	
Total input power A (FHX-UV/UVP) 0.24 0.33 0.40 0.47 0.84 0.93	Total input power	Δ	0.24	0.33	0.40	0.47	0.84	0.93	
(FHX-UVPO) 0.3/ 0.5/ 0.63 0.48 0.92 1.06	Total Input power	(FHX-UVPO)							
3-row coil connections diam 1/2" 1/2" 3/4" 3/4" 3/4" 3/4"	3-row coil connections	diam	•		3/4"	· · · · · · · · · · · · · · · · · · ·	3/4"	3/4"	
1-row coil connections (BV) diam 1/2" 1/2" 1/2" 1/2" 1/2" 1/2"	1-row coil connections (BV)	diam	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	

Power supply = 230V  $\sim$  50Hz ( $\boldsymbol{E}$ )

Performance values refer to the following conditions: Sound pressure measured in semi-reverberating chamber of 85 m $^3$  and with reverberation time Tr = 0.5s. ( $\mathbf{E}$ ) = EUROVENT certified performances



## COOLING:

- Room air temperature 27°C D.B., 19°C W.B.;
- maximum speed:
- Water inlet temperature 7°C; Δt water 5°C.
- average and minimum speed:
- Water inlet temperature  $7^{\circ}C$ ;
- Water flow rate as at maximum speed.

#### HEATING.

- Room air temperature 20°C D.B.;
- maximum speed:
- Water inlet temperature  $70^{\circ}\text{C}$ ;  $\Delta t$  water  $10^{\circ}\text{C}$ .
- average and minimum speed:
- Water inlet temperature 70°C;
- Water flow rate as at maximum speed.
- maximum speed (water inlet 50°C):
- Water inlet temperature 50°C;
- Water flow rate as in cool mode.

#### Size data

		22UV	32UV	42UV	50UV	62UV	82UV
Height (mm)	D	520	520	520	520	590	590
Width (mm)	Е	750	980	1200	1200	1320	1320
Gross weight (kg)	kg	16	26	25	25	35	35

		22UVP/UVPO	32UVP/UVPO	42UVP/UVPO	50UVP/UVPO	62UVP/UVPO	82UVP/UVPO
	Α	572	823	1043	1043	1205	1205
	В	522	753	973	973	1122	1122
	С	440	671	891	891	1102	1102
Weight	kg	16	26	25	25	35	35



**Aermec S.p.A.** Via Roma, 996 - 37040 Bevilacqua (Verona) Tel. +39 0442 633111 - Fax +39 0442 93577 www . aermec . com - info @ aermec . com