

AERMEC

FCX USP

Fan coils

Vertical and horizontal

Concealed installation with low static pressure

Cooling capacity from 2.866 to 29.344 BTU/h

Heating capacity from 3.242 to 58.348 BTU/h



- FULLY SILENT FUNCTIONING
- UNIVERSAL FLOOR OR WALL CEILING MOUNTING
- GRILLE WITH FIXED FINS

FEATURES

The units of the FCX series are fan coils which are suitable for air conditioning. They come with multi-speed motors and are available in various set-ups depending on the installation position, with the possibility of being ducted as well. They have ABS fans with an impeller equipped with inspectionable airfoil and scroll fins. This feature gives the machine a net reduction in the noise emission level, as well as a reduction in the motor's electrical consumption compared to traditional fans with a metal structure. The unit can be equipped with a single/double heat exchange coil (2/4 pipe system), with 3/4 rows depending on the model. The units can also be equipped with multiple accessories and can be integrated into the centralised VMF - Aermec hydronic management system.

Versions:

FCX USP

Wall-mounted model without cabinet.

FCX USPO

Cabinet with 7-speed (3 of which can be selected) boosted motor.

- Versions with 3-row coil (FCX 17, 22, 32, 42, 50, 62, 82, and 102).
- Versions with 4-row coil (FCX 24, 34, 44, 54, 64 and 84).
- 3-speed ventilating unit.

FCX configuration for 2-pipe systems.

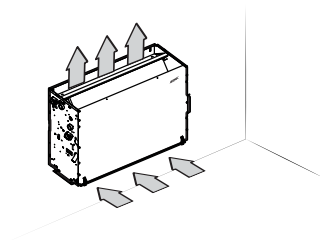
- Standard main coil (reversible).
- Larger main coil (reversible).

FCX configuration for 4-pipe systems.

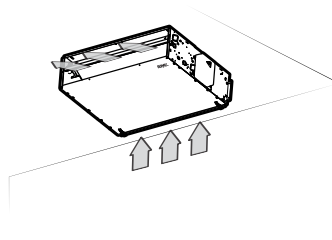
- Standard main coil combined with VCF_X4 valve accessories. (Reversible on site).
- Larger main coil combined with VCF_X4 valve accessories. (Reversible on site).
- Standard main coil coupled with BV coil accessory. (Reversible on site).

CONFIGURATION AVAILABLE

CONCEALED WALL INSTALLATION



CONCEALED CEILING INSTALLATION



TECHNICAL DATA - 2 PIPE SYSTEMS

FCX_USP - 2 PIPE SYSTEMS		22			24			32			34			42			44		
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L
Heating Performance																			
Heating capacity (70°C/158°F)	(1) BTU/h	10.100	8.633	6.517	13.341	10.578	7.165	18.255	13.887	10.816	20.336	16.378	12.727	22.588	18.835	13.853	29.344	23.646	17.743
Water flow rate	(1) gpm	1.14	0.98	0.74	1.51	1.20	0.81	2.07	1.57	1.22	2.30	1.85	1.44	2.56	2.13	1.57	3.32	2.68	2.01
Pressure drops	(1) psi	0.87	0.58	0.44	0.58	0.44	0.15	2.90	1.74	1.16	1.60	1.02	0.73	2.18	1.60	0.87	3.19	2.18	1.31
Heating capacity (45°C/113°F)	(2) BTU/h	5.016	4.299	3.242	6.654	5.255	3.549	9.076	6.893	5.357	10.134	8.155	6.312	11.226	9.383	6.893	14.604	11.772	8.837
Water flow rate	(2) gpm	1.13	0.96	0.73	1.49	1.18	0.80	2.03	1.55	1.20	2.27	1.82	1.42	2.51	2.10	1.55	3.27	2.63	1.98
Pressure drops	(2) psi	0.73	0.58	0.29	0.58	0.44	0.15	2.76	1.74	1.16	1.45	1.02	0.58	2.03	1.45	0.87	3.05	2.03	1.31
Cooling Performance																			
Total cooling capacity	(3) BTU/h	5.118	4.163	2.866	5.903	4.675	3.446	8.189	6.278	5.289	9.554	7.780	6.005	11.601	9.486	7.882	15.184	12.250	9.179
Sensible cooling capacity	(3) BTU/h	4.231	3.412	2.286	4.709	3.719	2.593	6.483	5.357	3.787	7.268	5.869	4.265	9.418	7.200	5.562	11.260	9.008	6.688
Water flow rate	(3) gpm	1.14	0.92	0.63	1.31	1.04	0.77	1.82	1.39	1.18	2.12	1.73	1.33	2.58	2.10	1.75	3.37	2.72	2.04
Pressure drops	(3) psi	0.87	0.73	0.44	0.44	0.29	0.15	4.06	2.47	1.89	2.03	1.45	0.87	2.03	1.45	1.02	5.80	3.92	2.32
Fans																			
Centrifugal fans	n°	1			1			2			2			2			2		
Air flow rate	cfm	171	129	82	171	129	82	265	206	153	265	206	153	353	271	194	353	271	194
Sound level																			
Sound power	dB(A)	50	43	31	50	43	31	48	41	34	48	41	34	51	44	39	51	44	39
Sound pressure	(4) dB(A)	42	35	23	42	35	23	40	33	26	40	33	26	43	36	31	43	36	31
Hydraulic connections																			
Standard coil	Ø	1/2"			-			1/2"			-			3/4"			-		
Increased coil	Ø	-			3/4"			-			3/4"			-			3/4"		
Electrical data 120V~60Hz																			
FLA	A	-			-			-			-			-			-		
Electrical data 220V~60Hz																			
FLA	A	0.45			0.45			0.55			0.55			0.95			0.95		

FCX_USP - 2 PIPE SYSTEMS		50			54			62			64			82			84		
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L
Heating Performance																			
Heating capacity (70°C/158°F)	(1) BTU/h	27.945	25.693	17.129	34.463	29.890	21.292	44.085	37.329	28.423	48.794	39.240	29.003	51.660	45.552	36.749	58.348	49.203	38.216
Water flow rate	(1) gpm	3.17	2.91	1.94	3.90	3.38	2.41	4.99	4.23	3.21	5.52	4.44	3.28	5.85	5.16	4.16	6.60	5.57	4.32
Pressure drops	(1) psi	2.18	1.89	0.87	3.34	2.61	1.45	2.18	1.60	1.02	3.34	2.18	1.31	3.05	2.32	1.60	4.50	3.34	2.18
Heating capacity (45°C/113°F)	(2) BTU/h	13.922	12.796	8.530	17.129	14.877	10.578	21.940	18.562	14.126	24.260	19.517	14.433	25.693	22.657	18.289	29.037	24.465	19.006
Water flow rate	(2) gpm	3.11	2.86	1.91	3.84	3.33	2.37	4.91	4.16	3.17	5.43	4.37	3.23	5.75	5.07	4.09	6.50	5.48	4.26
Pressure drops	(2) psi	2.03	1.74	0.87	3.19	2.47	1.31	2.18	1.60	1.02	3.19	2.18	1.31	2.90	2.32	1.60	4.35	3.19	2.03
Cooling Performance																			
Total cooling capacity	(3) BTU/h	14.297	11.977	11.977	16.958	14.740	10.578	16.583	14.911	10.987	21.667	17.777	13.376	23.578	17.061	14.638	29.344	24.977	19.688
Sensible cooling capacity	(3) BTU/h	10.236	8.667	6.108	12.079	10.441	7.404	13.580	11.260	8.326	17.163	13.990	10.441	19.381	12.898	10.134	19.722	16.617	9.554
Water flow rate	(3) gpm	3.17	2.66	1.90	3.76	3.27	2.35	3.68	3.31	2.44	4.81	3.94	2.97	5.24	3.79	3.25	6.51	5.54	4.37
Pressure drops	(3) psi	2.76	2.03	1.16	3.77	3.05	1.74	2.47	2.03	1.16	1.89	1.31	0.87	3.19	1.74	1.31	4.35	3.19	2.18
Fans																			
Centrifugal fans	n°	2			2			3			3			3			3		
Air flow rate	cfm	424	353	235	424	353	235	541	424	306	541	424	306	671	547	412	671	547	412
Sound level																			
Sound power	dB(A)	56	51	42	56	51	42	57	51	42	57	51	42	62	57	51	62	57	51
Sound pressure	(4) dB(A)	48	43	34	48	43	34	49	43	34	49	43	34	54	49	43	54	49	43
Hydraulic connections																			
Standard coil	Ø	3/4"			-			3/4"			-			3/4"			-		
Increased coil	Ø	-			3/4"			-			3/4"			-			3/4"		
Electrical data 120V~60Hz																			
FLA	A	-			-			-			-			-			-		
Electrical data 220V~60Hz																			
FLA	A	1.00			1.00			1.05			1.05			1.00			1.00		

Performance of versions with upgraded motor refers to the following conditions:

- (1) Room air 68°F b.s.; Water (in/out) 158°F/140°F.
- (2) Room air 68°F b.s.; Water (in/out) 113°F/104°F.
- (3) Room air 80.6°F b.s./66.2°F b.u.; Water (in/out) 44.6°F/53.6°F.
- (4) Sound pressure level (weighted A) measured with open port in a 3 and reverberation time of 0.5 seconds room with 3002 ft.

TECHNICAL DATA - 4 PIPE SYSTEMS

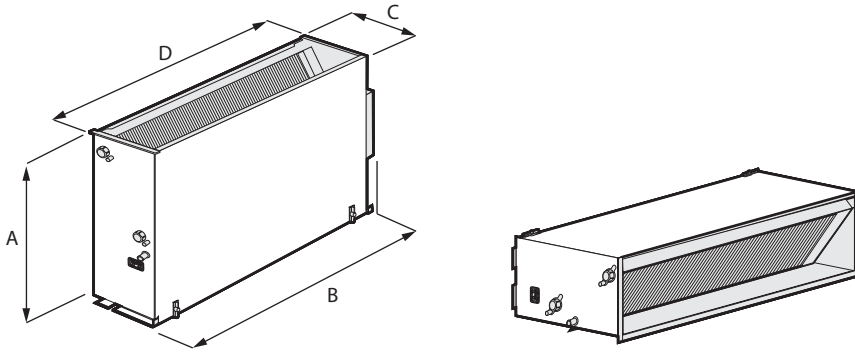
FCX_USP - 4 PIPE SYSTEMS		22			32			42			
Fan speed		H	M	L	H	M	L	H	M	L	
Heating Performance											
Heating capacity (70°C/158°F)	(1)	BTU/h	6.039	5.152	3.856	9.725	8.360	6.927	11.806	11.635	9.076
Water flow rate	(1)	gpm	0.68	0.58	0.44	1.10	0.95	0.78	1.33	1.32	1.03
Pressure drops	(1)	psi	0.87	0.73	0.44	2.32	1.74	1.16	3.05	2.90	2.03
Cooling Performance											
Total cooling capacity	(3)	BTU/h	5.118	4.163	2.866	8.189	6.278	5.289	11.601	9.486	7.882
Sensible cooling capacity	(3)	BTU/h	4.231	3.412	2.286	6.483	5.357	3.787	9.418	7.200	5.562
Water flow rate	(3)	gpm	1.14	0.92	0.63	1.82	1.39	1.18	2.58	2.10	1.75
Pressure drops	(3)	psi	0.87	0.73	0.44	4.06	2.47	1.89	2.03	1.45	1.02
Fans											
Centrifugal fans	n°		1			2			2		
Air flow rate	cfm		171	129	82	265	206	153	353	271	194
Sound level											
Sound power		dB(A)	50	43	31	48	41	34	51	44	39
Sound pressure	(4)	dB(A)	42	35	23	40	33	26	43	36	31
Hydraulic connections											
Standard coil		Ø	1/2"			1/2"			3/4"		
Additional heat exchanger		Ø	1/2"			1/2"			1/2"		
Electrical data 120V~60Hz											
FLA		A	n.a.			n.a.			n.a.		
Electrical data 220V~60Hz											
FLA		A	0.45			0.55			0.95		

FCX_USP - 4 PIPE SYSTEMS		50			62			82			
Fan speed		H	M	L	H	M	L	H	M	L	
Heating Performance											
Heating capacity (70°C/158°F)	(1)	BTU/h	14.945	13.444	10.987	18.733	16.037	13.205	21.872	21.496	18.084
Water flow rate	(1)	gpm	1.69	1.52	1.24	2.12	1.81	1.49	2.47	2.43	2.05
Pressure drops	(1)	psi	5.08	4.35	3.05	2.32	1.74	1.45	2.18	2.03	1.60
Cooling Performance											
Total cooling capacity	(3)	BTU/h	14.297	11.977	11.977	16.583	14.911	10.987	23.578	17.061	14.638
Sensible cooling capacity	(3)	BTU/h	10.236	8.667	6.108	13.580	11.260	8.326	19.381	12.898	10.134
Water flow rate	(3)	gpm	3.17	2.66	1.90	3.68	3.31	2.44	5.24	3.79	3.25
Pressure drops	(3)	psi	2.76	2.03	1.16	2.47	2.03	1.16	3.19	1.74	1.31
Fans											
Centrifugal fans	n°		2			3			3		
Air flow rate	cfm		424	353	235	541	424	306	671	547	412
Sound level											
Sound power		dB(A)	56	51	42	57	51	42	62	57	51
Sound pressure	(4)	dB(A)	48	43	34	49	43	34	54	49	43
Hydraulic connections											
Standard coil		Ø	3/4"			3/4"			3/4"		
Additional heat exchanger		Ø	1/2"			1/2"			1/2"		
Electrical data 120V~60Hz											
FLA		A	n.a.			n.a.			n.a.		
Electrical data 220V~60Hz											
FLA		A	1.00			1.05			1.00		

Performance of versions with upgraded motor refers to the following conditions:

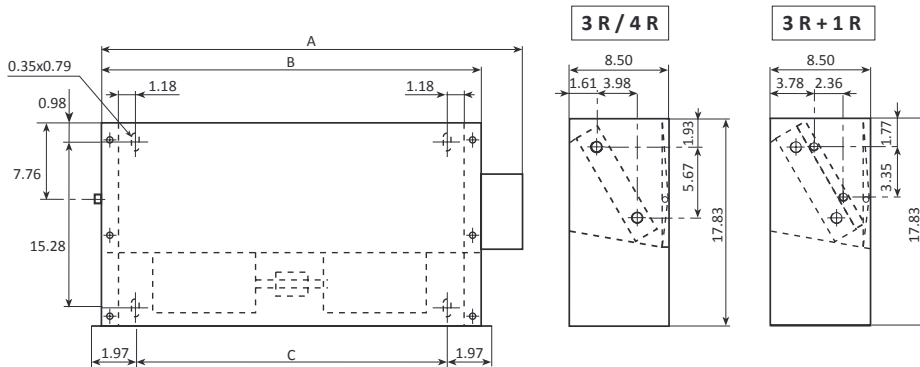
- (1) Room air 68°F b.s.; Water (in/out) 158°F/140°F.
- (3) Room air 80.6°F b.s./66.2°F b.u.; Water (in/out) 44.6°F/53.6°F.
- (4) Sound pressure level (weighted A) measured with open port in a 3 and reverberation time of 0.5 seconds room with 3002 ft.

DIMENSIONS AND WEIGHT

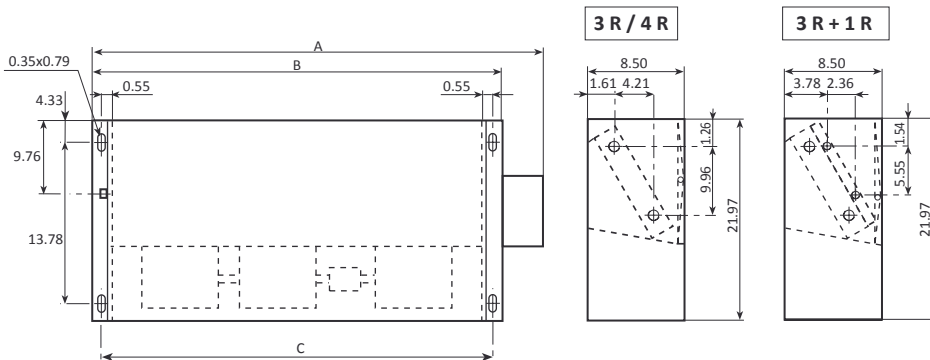


FCX_USP		22	24	32	34	42	44	50	54	62	64	82	84
Height	A	in	17.8	17.8	17.8	17.8	17.8	17.8	17.8	22.0	22.0	22.0	22.0
Max. Width	B	in	22.1	22.1	31.2	31.2	39.9	39.9	39.9	45.2	45.2	45.2	45.2
Width	D	in	20.6	20.6	29.7	29.7	38.3	38.3	38.3	44.2	44.2	44.2	44.2
Depth	C	in	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
Weight	-	lbs	28.7	28.7	39.7	39.7	48.5	48.5	48.5	72.8	72.8	72.8	72.8

FCX_USP / USPO: 22 - 32 - 42 - 50
 FCX_USP / USPO: 24 - 34 - 44 - 54



FCX_USP / USPO: 62 - 82
 FCX_USP: 102
 FCX_USP / USPO: 64 - 84



All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

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