

7 GENERAL TECHNICAL DATA

Data Book

DB_CV_i-FX-WQ-G05 0402 - 0852_022024_EN R513A

[SI System]

i-FX-WQ-G05			0402	0452	0532	0592	0632	0702	0792	0852
Power supply		V/ph/Hz 400/3/50 400/3/50 400/3/50 400/3/50 400/3/50 400/3/50 400/3/50 400/3/50								
PERFORMANCE										
COOLING ONLY (GROSS VALUE)										
Cooling capacity	(1)	kW	408,0	462,7	545,0	603,5	648,6	726,3	813,9	872,1
Total power input	(1)	kW	79,70	90,71	102,7	115,0	125,0	141,0	154,1	166,8
EER	(1)	kW/kW	5,119	5,101	5,307	5,248	5,189	5,151	5,282	5,228
COOLING ONLY (EN14511 VALUE)										
Cooling capacity	(1)(2)	kW	407,6	462,3	544,5	602,9	648,0	725,8	813,3	871,5
EER	(1)(2)	kW/kW	5,030	5,010	5,220	5,150	5,100	5,060	5,210	5,140
HEATING ONLY (GROSS VALUE)										
Total heating capacity	(3)	kW	451,4	512,4	596,5	661,4	711,3	799,5	888,1	953,2
Total power input	(3)	kW	103,3	117,5	132,9	149,1	162,0	183,1	198,9	215,1
COP	(3)	kW/kW	4,370	4,361	4,488	4,436	4,391	4,366	4,465	4,431
HEATING ONLY (EN14511 VALUE)										
Total heating capacity	(2)(3)	kW	451,9	512,9	597,0	662,0	712,0	800,2	888,8	953,9
COP	(2)(3)	kW/kW	4,290	4,280	4,420	4,350	4,310	4,290	4,400	4,360
COOLING WITH TOTAL HEAT RECOVERY (GROSS VALUE)										
Cooling capacity	(4)	kW	354,3	401,9	471,6	521,2	559,1	627,4	701,2	751,0
Total power input	(4)	kW	103,3	117,5	132,9	149,1	162,0	183,1	198,9	215,1
Recovery heat exchanger capacity	(4)	kW	451,4	512,4	596,5	661,4	711,3	799,5	888,1	953,2
TER		kW/kW	7,800	7,782	8,036	7,934	7,840	7,794	7,989	7,922
COOLING WITH TOTAL HEAT RECOVERY (EN14511 VALUE)										
Cooling capacity	(5)(2)	kW	353,9	401,5	471,2	520,7	558,6	626,9	700,7	750,4
Total power input	(5)(2)	kW	106,1	120,7	136,1	153,3	166,3	187,8	203,4	220,5
Recovery heat exchanger capacity	(5)(2)	kW	451,9	512,9	597,0	662,0	712,0	800,2	888,8	953,9
TER	(5)(2)	kW/kW	7,595	7,576	7,852	7,716	7,640	7,597	7,815	7,730
EXCHANGERS										
HEAT EXCHANGER USER SIDE IN COOLING										
Water flow	(1)	l/s	19,51	22,13	26,06	28,86	31,02	34,73	38,92	41,71
Pressure drop at the heat exchanger	(1)	kPa	36,4	37,0	32,2	39,5	38,8	38,6	32,4	37,2
HEAT EXCHANGER SOURCE SIDE IN REFRIGERATION										
Water flow	(1)	l/s	7,239	8,214	9,616	10,67	11,48	12,87	14,37	15,42
Pressure drop at the heat exchanger	(1)	kPa	5,01	5,10	4,39	5,40	5,31	5,31	4,42	5,09
HEAT EXCHANGER USER SIDE IN HEATING										
Water flow	(4)	l/s	21,79	24,73	28,79	31,93	34,34	38,59	42,87	46,01
Pressure drop at the heat exchanger	(4)	kPa	45,3	46,2	39,3	48,4	47,5	47,7	39,3	45,3
HEAT EXCHANGER SOURCE SIDE IN HEATING										
Water flow	(3)	l/s	12,11	13,73	16,11	17,81	19,10	21,44	23,96	25,66
Pressure drop at the heat exchanger	(3)	kPa	14,0	14,2	12,3	15,0	14,7	14,7	12,3	14,1
REFRIGERANT CIRCUIT										
Compressors nr.		N°	2	2	2	2	2	2	2	2
Number of capacity steps		N°	0	0	0	0	0	0	0	0
No. Circuits		N°	2	2	2	2	2	2	2	2
Regulation		STEPLESS STEPLESS STEPLESS STEPLESS STEPLESS STEPLESS STEPLESS STEPLESS								
Min. capacity step		%	-	-	-	-	-	-	-	-
Refrigerant			R513A	R513A	R513A	R513A	R513A	R513A	R513A	R513A
Theoretical refrigerant charge		kg	80,0	80,0	102	102	126	152	152	137
Oil charge		kg	30,0	30,0	37,0	44,0	38,0	38,0	49,0	60,0
Rc (ASHRAE)	(6)	kg/kW	0,21	0,18	0,20	0,18	0,21	0,22	0,20	0,17
NOISE LEVEL										
Total sound Pressure	(7)	dB(A)	65	65	66	67	67	67	67	67
Total sound power level in cooling	(8)(9)	dB(A)	97	97	98	99	99	99	99	99
Sound power level in heating	(8)(10)	dB(A)	97	97	98	99	99	99	99	99
SIZE AND WEIGHT										
A	(11)	mm	5000	5000	5000	5000	5000	5550	5550	5550
B	(11)	mm	1400	1400	1400	1400	1400	1400	1400	1400
H	(11)	mm	1950	1950	2050	2050	2050	2050	2050	2050
Operating weight	(11)	kg	4010	4030	5520	5860	5984	6414	6884	7294

Notes:

1 Plant (side) cooling exchanger water (in/out) 12,00°C/7,00°C; Source (side) heat exchanger water (in/out) 14,00°C/30,00°C.
 2 Values in compliance with EN14511
 3 Plant (side) heat exchanger water (in/out) 40,00°C/45,00°C; Source (side) heat exchanger water (in/out) 14,00°C/7,00°C.
 4 Plant (side) cooling exchanger water (in/out) 12,00°C/7,00°C; Plant (side) heat exchanger water (in/out) 40,00°C/45,00°C.
 5 Plant (side) cooling exchanger water */7,00°C (same water flow rate found during the cooling mode); Plant (side) heat exchanger water */45,00°C (same water flow rate found during the heating mode)

6 Rated in accordance with AHRI Standard 550/590
 7 Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
 8 Sound power on the basis of measurements taken in compliance with ISO 9614.
 9 Sound power level in cooling, outdoors.
 10 Sound power level in heating, outdoors.
 11 Unit in standard configuration, without optional accessories.
 - Not available
 Data certified in EUROVENT

9 TECHNICAL DATA SEASONAL EFFICIENCY IN COOLING (EN14825 VALUE)

Data Book

DB_CV_i-FX-WQ-G05 0402 - 0852_022024_EN R513A

[SI System]

ENERGY EFFICIENCY

SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)

Ambient refrigeration

i-FX-WQ-G05			0402	0452	0532	0592	0632	0702	0792	0852		
Prated,c	(1)	kW	394,4	447,3	526,2	582,2	624,8	700,1	784,4	840,7		
SEER	(1) (2)	-	6,48	6,49	6,51	6,57	6,53	6,52	6,54	6,54		
Performance η_s	(1) (3)	%	256,0	256,0	257,0	260,0	258,0	258,0	259,0	259,0		

Notes:

(1) Parameter calculated according to [REGULATION (EU) N. 2016/2281]

(2) Seasonal energy efficiency ratio

(3) Seasonal space cooling energy efficiency

The units highlighted in this publication contain R513A [GWP₁₀₀ 572] fluorinated greenhouse gases.