

5.1 GENERAL TECHNICAL DATA

i-FX-N-G05/A

[SI System]

i-FX-N-G05/A			0472	0512	0572	0602	0652	0772	0902	1002	1152
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
PERFORMANCE											
COOLING ONLY (GROSS VALUE)											
Cooling capacity	(1)	kW	465,0	517,9	549,9	590,8	669,9	764,1	899,3	1034	1154
Total power input	(1)	kW	166,0	177,9	194,2	211,1	237,8	265,5	314,0	351,4	390,5
EER	(1)	kW/kW	2,801	2,911	2,832	2,799	2,817	2,878	2,864	2,943	2,955
ESEER	(1)	kW/kW	4,560	4,660	4,660	4,610	4,510	4,550	4,580	4,660	4,710
COOLING ONLY (EN14511 VALUE)											
Cooling capacity	(1)(2)	kW	464,6	517,4	549,4	590,4	669,4	763,6	898,8	1033	1153
EER	(1)(2)	kW/kW	2,780	2,880	2,800	2,780	2,790	2,850	2,840	2,910	2,930
ESEER	(1)(2)	kW/kW	4,410	4,490	4,470	4,480	4,360	4,410	4,440	4,500	4,560
HEATING ONLY (GROSS VALUE)											
Total heating capacity	(3)	kW	452,8	506,3	547,4	575,3	663,8	747,6	871,4	1006	1111
Total power input	(3)	kW	139,1	152,6	166,0	174,8	202,2	223,2	261,3	293,8	327,5
COP	(3)	kW/kW	3,255	3,318	3,298	3,291	3,283	3,349	3,335	3,424	3,392
HEATING ONLY (EN14511 VALUE)											
Total heating capacity	(3)(2)	kW	453,2	506,8	547,9	575,7	664,3	748,1	872,0	1007	1112
COP	(3)(2)	kW/kW	3,230	3,290	3,260	3,270	3,260	3,320	3,310	3,390	3,360
COOLING WITH PARTIAL RECOVERY											
Cooling capacity	(4)	kW	482,5	537,3	570,5	613,0	695,0	792,8	933,1	1072	1197
Total power input	(4)	kW	160,8	172,4	188,1	204,5	230,3	257,2	304,2	340,5	378,2
Desuperheater heating capacity	(4)	kW	133,0	140,6	155,2	170,3	191,0	212,8	249,9	277,2	312,1
EXCHANGERS											
HEAT EXCHANGER USER SIDE IN COOLING											
Water flow	(1)	l/s	22,24	24,76	26,29	28,25	32,04	36,54	43,01	49,43	55,17
Pressure drop at the heat exchanger	(1)	kPa	32,0	36,6	41,2	26,9	33,3	34,3	32,4	42,8	37,5
HEAT EXCHANGER USER SIDE IN HEATING											
Water flow	(3)	l/s	21,86	24,44	26,42	27,77	32,04	36,09	42,07	48,56	53,64
Pressure drop at the heat exchanger	(3)	kPa	31,0	35,6	41,6	26,0	33,3	33,4	31,0	41,3	35,4
PARTIAL RECOVERY USER SIDE IN REFRIGERATION											
Water flow	(4)	l/s	6,420	6,786	7,489	8,219	9,221	10,27	12,06	13,38	15,07
Pressure drop at the heat exchanger	(4)	kPa	40,0	44,6	54,4	30,6	38,6	32,9	26,0	32,0	31,5
REFRIGERANT CIRCUIT											
Compressors nr.		N°	2	2	2	2	2	2	2	2	2
Number of capacity steps		N°	0	0	0	0	0	0	0	0	0
No. Circuits		N°	2	2	2	2	2	2	2	2	2
Regulation		STEPLESS STEPLESS STEPLESS STEPLESS STEPLESS STEPLESS STEPLESS STEPLESS STEPLESS									
Min. capacity step		%	-	-	-	-	-	-	-	-	-
Refrigerant			R513A	R513A	R513A	R513A	R513A	R513A	R513A	R513A	R513A
Refrigerant charge		kg	233	259	253	276	288	391	495	518	618
Oil charge		kg	44,0	44,0	44,0	44,0	38,0	60,0	60,0	60,0	60,0
Rc (ASHRAE)	(5)	kg/kW	0,51	0,51	0,46	0,47	0,43	0,52	0,56	0,51	0,54
FANS											
Quantity		N°	10	12	12	12	14	16	20	24	24
Air flow		m³/s	48,50	58,37	58,37	58,37	69,25	79,14	97,00	121,01	116,73
Fans power input		kW	1,70	1,70	1,70	1,70	1,70	1,70	1,70	1,70	1,70
NOISE LEVEL											
Sound Pressure	(6)	dB(A)	80	81	81	81	81	81	81	82	82
Sound power level in cooling	(7)(8)	dB(A)	100	102	102	102	102	103	103	105	105
Sound power level in heating	(7)(9)	dB(A)	101	103	103	103	103	104	104	106	106
SIZE AND WEIGHT											
A	(10)	mm	4900	5800	5800	5800	7000	7900	10000	11800	11800
B	(10)	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260
H	(10)	mm	2580	2580	2580	2580	2580	2580	2580	2580	2580
Operating weight	(10)	kg	6400	6894	7033	7256	7518	8551	9835	11578	12651

Notes:

1 Plant (side) cooling exchanger water (in/out) 12,00°C/7,00°C; Source (side) heat exchanger air (in) 35,0°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 air (in) 7,0°C - 87% R.H.

4 Plant (side) cooling exchanger water (in/out) 12,00°C/7,00°C; Source (side) heat exchanger air (in) 35,0°C; Plant (side) heat exchanger recovery water (in/out) 40,00°C/45,00°C.

5 Rated in accordance with AHRI Standard 550/590

6 Average sound pressure level at 1m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.

7 Sound power on the basis of measurements taken in compliance with ISO 9614.

8 Sound power level in cooling, outdoors.

9 Sound power level in heating, outdoors.

10 Unit in standard configuration, without optional accessories.

- Not available

Data certified in EUROVENT

GENERAL TECHNICAL DATA

i-FX-N-G05/SL-A

[SI System]

i-FX-N-G05/SL-A			0472	0512	0572	0602	0652	0772	0902	1002	1152
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	443,9	497,6	531,9	570,7	649,1	740,7	870,1	998,0	1114
Total power input	(1)	kW	168,0	177,8	197,7	217,0	241,6	268,5	317,0	354,5	395,7
EER	(1)	kW/kW	2,642	2,799	2,690	2,630	2,687	2,759	2,745	2,815	2,815
ESEER	(1)	kW/kW	4,530	4,650	4,640	4,580	4,490	4,540	4,570	4,660	4,700
COOLING ONLY (EN14511 VALUE)											
Cooling capacity	(1)(2)	kW	443,6	497,1	531,4	570,3	648,7	740,2	869,6	997,3	1113
EER	(1)(2)	kW/kW	2,620	2,770	2,670	2,610	2,670	2,740	2,730	2,790	2,790
ESEER	(1)(2)	kW/kW	4,400	4,490	4,460	4,460	4,350	4,400	4,450	4,500	4,550
HEATING ONLY (GROSS VALUE)											
Total heating capacity	(3)	kW	448,3	500,0	541,9	567,9	657,4	740,1	862,6	996,6	1100
Total power input	(3)	kW	137,2	150,3	163,6	172,2	199,4	220,1	257,6	289,0	322,8
COP	(3)	kW/kW	3,267	3,327	3,312	3,298	3,297	3,363	3,349	3,448	3,408
HEATING ONLY (EN14511 VALUE)											
Total heating capacity	(3)(2)	kW	448,6	500,4	542,4	568,3	657,9	740,6	863,2	997,3	1101
COP	(3)(2)	kW/kW	3,240	3,300	3,280	3,280	3,270	3,340	3,320	3,420	3,380
COOLING WITH PARTIAL RECOVERY											
Cooling capacity	(4)	kW	460,6	516,2	551,9	592,1	673,5	768,5	902,7	1035	1155
Total power input	(4)	kW	162,4	171,9	191,0	209,7	233,5	259,5	306,4	342,7	382,4
Desuperheater heating capacity	(4)	kW	143,7	151,2	168,9	186,2	206,9	229,7	270,4	301,5	338,2
EXCHANGERS											
HEAT EXCHANGER USER SIDE IN COOLING											
Water flow	(1)	l/s	21,23	23,79	25,44	27,29	31,04	35,42	41,61	47,72	53,26
Pressure drop at the heat exchanger	(1)	kPa	29,2	33,8	38,6	25,1	31,2	32,2	30,3	39,8	34,9
HEAT EXCHANGER USER SIDE IN HEATING											
Water flow	(3)	l/s	21,64	24,14	26,16	27,41	31,74	35,73	41,64	48,11	53,12
Pressure drop at the heat exchanger	(3)	kPa	30,3	34,7	40,8	25,3	32,6	32,8	30,3	40,5	34,7
PARTIAL RECOVERY USER SIDE IN REFRIGERATION											
Water flow	(4)	l/s	6,939	7,299	8,155	8,987	9,987	11,09	13,05	14,55	16,33
Pressure drop at the heat exchanger	(4)	kPa	46,7	51,6	64,5	36,6	45,2	38,4	30,5	37,9	37,0
REFRIGERANT CIRCUIT											
Compressors nr.		N°	2	2	2	2	2	2	2	2	2
Number of capacity steps		N°	0	0	0	0	0	0	0	0	0
No. Circuits		N°	2	2	2	2	2	2	2	2	2
Regulation		STEPLESS STEPLESS STEPLESS STEPLESS STEPLESS STEPLESS STEPLESS STEPLESS STEPLESS									
Min. capacity step		%	-	-	-	-	-	-	-	-	-
Refrigerant			R513A	R513A	R513A	R513A	R513A	R513A	R513A	R513A	R513A
Refrigerant charge		kg	243	271	285	307	317	391	541	536	598
Oil charge		kg	44,0	44,0	44,0	44,0	38,0	60,0	60,0	60,0	60,0
Rc (ASHRAE)	(5)	kg/kW	0,55	0,55	0,54	0,54	0,49	0,53	0,63	0,54	0,54
FANS											
Quantity		N°	10	12	12	12	14	16	20	24	24
Air flow		m³/s	33,79	40,55	40,55	40,55	48,43	55,35	67,58	84,96	81,09
Fans power input		kW	0,70	0,70	0,70	0,70	0,70	0,70	0,70	0,70	0,70
NOISE LEVEL											
Sound Pressure	(6)	dB(A)	72	73	73	73	73	73	73	74	74
Sound power level in cooling	(7)(8)	dB(A)	92	94	94	94	94	95	95	97	97
Sound power level in heating	(7)(9)	dB(A)	93	95	95	95	95	96	96	98	98
SIZE AND WEIGHT											
A	(10)	mm	4900	5800	5800	5800	7000	7900	10000	11800	11800
B	(10)	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260
H	(10)	mm	2580	2580	2580	2580	2580	2580	2580	2580	2580
Operating weight	(10)	kg	6672	7155	7307	7550	7791	8921	10101	11840	15158

Notes:

- 1 Plant (side) cooling exchanger water (in/out) 12,00°C/7,00°C; Source (side) heat exchanger air (in) 35,0°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 air (in) 7,0°C - 87% R.H.
- 4 Plant (side) cooling exchanger water (in/out) 12,00°C/7,00°C; Source (side) heat exchanger air (in) 35,0°C; Plant (side) heat exchanger recovery water (in/out) 40,00°C/45,00°C.
- 5 Rated in accordance with AHRI Standard 550/590
- 6 Average sound pressure level at 1m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- 7 Sound power on the basis of measurements taken in compliance with ISO 9614.
- 8 Sound power level in cooling, outdoors.
- 9 Sound power level in heating, outdoors.
- 10 Unit in standard configuration, without optional accessories.
- Not available
- Data certified in EUROVENT

**6.1 TECHNICAL DATA SEASONAL
EFFICIENCY IN HEATING (EN14825
VALUE)**

i-FX-N-G05/A

[SI System]

i-FX-N-G05/A - LOW TEMPERATURE application			0472	0512
Power supply	(V/ph/Hz)		400/3/50	400/3/50
WEATHER CONDITIONS - AVERAGE				
Rated heat output at Tdesignh	(1)(2)	kW	348	384
Bivalent temperature	(1)(2)	°C	-7	-7
SCOP	(1)(2)		4,00	4,03
Seasonal space heating energy efficiency	(1)(2)	%	157	158
Seasonal space heating energy efficiency class	(1)(2)		-	-

1 Seasonal space heating energy efficiency class LOW TEMPERATURE [REGULATION (EU) N. 813/2013]

2 Tipo di calcolo con portata variabile e temperatura variabile.

**TECHNICAL DATA SEASONAL
EFFICIENCY IN HEATING (EN14825
VALUE)**

i-FX-N-G05/SL-A

[SI System]

i-FX-N-G05/SL-A - LOW TEMPERATURE application			0472	0512
Power supply		(V/ph/Hz)	400/3/50	400/3/50
WEATHER CONDITIONS - AVERAGE				
Rated heat output at T _{designh}	(1)(2)	kW	347	383
Bivalent temperature	(1)(2)	°C	-7	-7
SCOP	(1)(2)		4,02	4,03
Seasonal space heating energy efficiency	(1)(2)	%	158	158
Seasonal space heating energy efficiency class	(1)(2)		-	-

1 Seasonal space heating energy efficiency class LOW TEMPERATURE [REGULATION (EU) N. 813/2013]

2 Tipo di calcolo con portata variabile e temperatura variabile.

7.1 TECHNICAL DATA SEASONAL EFFICIENCY IN COOLING (EN14825 VALUE)

[SI System]

ENERGY EFFICIENCY

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

Ambient refrigeration

i-FX-N-G05/A			0472	0512	0572	0602	0652	0772	0902	1002	1152	
Prated,c	(1)	kW	464,6	517,4	549,4	590,4	669,4	763,6	898,8	1033,0	1153,0	
SEER	(1) (2)	-	4,74	4,78	4,83	4,84	4,76	4,82	4,83	4,79	4,84	
Performance η_s	(1) (3)	%	187,0	188,0	190,0	190,0	188,0	190,0	190,0	189,0	191,0	

i-FX-N-G05/SL-A			0472	0512	0572	0602	0652	0772	0902	1002	1152	
Prated,c	(1)	kW	443,6	497,1	531,4	570,3	648,7	740,2	869,6	997,3	1113,0	
SEER	(1) (2)	-	4,71	4,77	4,81	4,80	4,74	4,80	4,82	4,78	4,82	
Performance η_s	(1) (3)	%	185,0	188,0	190,0	189,0	187,0	189,0	190,0	188,0	190,0	

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 631] fluorinated greenhouse gases.

Data certified in EUROVENT