

i-FX2-G04-E

High Efficiency Inverter Screw Air Cooled Chiller

The new generation of customisable screw compressor chillers has arrived with Climaveneta's range of **i-FX2** air cooled chillers. The second generation of this chiller family marks considerable developments in seasonal efficiency, footprint, noise, operating envelope and configuration and customisation.

The **i-FX2-G04-E** is an efficiency focused design, with enlarged heat exchanger surfaces and EC fans fitted as standard. Utilising the ultra-low GWP refrigerant R1234ze for reduced embodied carbon and advance controls strategy it brings market leading seasonal efficiencies for the lowest environmental impacts.

The **i-FX2** is the ultimate configurable screw chiller; available with 4 different levels of noise performance, options for integrated fixed speed or variable speed hydronic pumps, multiple heat exchanger coating options, several refrigerant leak detection options, energy and thermal meters and multiple methods for group controls configuration. With a wide operating envelope, an **i-FX2** air cooled chiller can be made just the way you need it.



R1234ze

Key Features & Benefits:

- Next generation of efficiency with full inverter screw compressors using exceptionally low GWP refrigerant ($GWP_{100} = 1$)*
- Wide operating envelope for comfort and process applications
- Variety of low noise versions to match your project requirements
- Exceptionally compact design
- Wide variety of customisations available including factory fitted hydronic pump(s) for fixed or variable waterflow
- EC Fans as standard, available with High ESP as an option
- Refrigerant leak detection logic that can detect leaks without additional sensors provided as standard
- V-Shaped microchannel heat exchangers with patented Reduced Exergy Depletion (R.E.D.) Cooler

*IPCC AR5



i-FX2-G04-E Specifications

i-FX2-G04-E			0392	0432	0502	0552	0662	0742	0872	0932	1022	1072	1183	1323	1433	1533
PERFORMANCE - COOLING ONLY																
GROSS VALUE¹																
TOTAL COOLING CAPACITY	kW		392.5	426.2	499.3	550.7	658.3	744.3	861.4	929.7	1023	1072	1184	1327	1425	1532
TOTAL POWER INPUT	kW		116.4	128.6	145.1	161.4	207.6	234.7	269.2	285.7	303.4	325.3	360.6	408.8	433.9	473.0
EER	kW/kW		3.37	3.31	3.44	3.41	3.17	3.17	3.20	3.25	3.37	3.30	3.28	3.25	3.28	3.24
EN14511 VALUES^{1,2}																
TOTAL COOLING CAPACITY	kW		392.0	425.7	498.8	550.2	657.7	743.7	860.8	929.1	1023	1072	1183	1327	1424	1531
EER	kW/kW		3.33	3.27	3.41	3.37	3.13	3.14	3.17	3.22	3.32	3.25	3.25	3.21	3.24	3.21
SEASONAL PERFORMANCE³																
P _{Rated,C}	kW		392.0	426.0	499.0	550.0	658.0	744.0	861.0	929.0	1023	1072	1183	1327	1424	1531
SEER			5.56	5.59	5.59	5.65	5.64	5.42	5.40	5.45	5.62	5.60	5.37	5.43	5.50	5.57
PERFORMANCE η_s	%		219	221	220	223	223	214	213	215	222	221	212	214	217	220
HEAT EXCHANGER IN COOLING¹																
WATER FLOW	User Side	l/s	18.8	20.4	23.9	26.3	31.5	35.6	41.2	44.5	48.9	51.3	56.6	63.5	68.1	73.2
PRESSURE DROP ²	User Side	kPa	39.1	46.2	33.3	40.6	51	40	33.7	39.3	58	55.4	45	46.2	53.2	35.7
ELECTRICAL DATA																
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	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
F.L.A. ⁴	Total	A	273	301	334	360	461	532	594	642	687	719	818	892	960	1017
EXCHANGERS																
MINIMUM WATER FLOW	Evaporator	l/s	9.2	9.2	13.9	13.9	14.4	20.0	24.7	24.7	22.5	23.6	28.3	38.9	38.9	41.7
MINIMUM WATER CONTENT	Plant	l	1400	1500	1700	1900	2300	2600	3000	3300	3600	3800	4100	4600	5000	5400
FANS																
QUANTITY	No.		6	7	8	8	10	12	12	14	16	16	18	18	20	20
AIRFLOW	m ³ /s		30.9	36.1	41.2	41.2	51.5	61.8	61.8	72.1	82.4	82.4	92.7	92.7	103	103
REFRIGERANT CIRCUIT																
COMPRESSORS	No.		2	2	2	2	2	2	2	2	2	2	3	3	3	3
CIRCUITS	No.		2	2	2	2	2	2	2	2	2	2	3	3	3	3
REFRIGERANT			R1234ze	R1234ze	R1234ze	R1234ze	R1234ze	R1234ze	R1234ze	R1234ze	R1234ze	R1234ze	R1234ze	R1234ze	R1234ze	R1234ze
REFRIGERANT CHARGE ⁵	kg		72	82	92	94	125	149	154	168	182	187	261	276	290	300
NOISE LEVELS																
TOTAL SOUND PRESSURE ⁶	dB(A)		68	69	69	70	69	71	73	73	73	73	73	73	74	74
TOTAL SOUND POWER LEVEL IN COOLING ⁷	dB(A)		100	101	101	102	102	104	106	106	106	106	106	106	107	107
SIZE AND WEIGHT⁸																
WIDTH (A)	mm		4150	5400	5400	5400	6650	7900	7900	9150	10400	10400	11650	11650	12900	12900
DEPTH (B)	mm		2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT (H)	mm		2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640
OPERATING WEIGHT	kg		4428	4942	5105	5105	5693	6579	7342	8053	8634	8805	11067	11655	12243	12314

Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.

2. Values in compliance with EN14511.

3. Parameter calculated according to [Regulation (EU) N. 2016/2281].

4. Data valid for standard units without any additional options and only indicative. Safety values to be considered when cabling the unit for power supply and line-protection. Refer to databook.

5. Theoretical - refer to serial plate for actual charge volumes.

6. 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.

7. Sound power on the basis of measurement taken in compliance with ISO 9614. Sound power level in cooling, outdoors.

8. Unit in standard configuration, without option accessories.

ELCA_Engine ver.4.8.2.0

■ Eurovent Certified Data

i-FX2-G04-SL-E Specifications

i-FX2-G04-SL-E Low Noise Version		0392	0432	0502	0552	0662	0742	0872	0932	1022	1072	1183	1323	1433	1533
PERFORMANCE - COOLING ONLY															
GROSS VALUE¹															
TOTAL COOLING CAPACITY	kW	379.7	424.2	483.9	520.8	637.4	723.0	847.6	901.4	992.3	1040	1147	1300	1379	1480
TOTAL POWER INPUT	kW	115.4	124.0	143.5	153.9	203.6	231.7	270.5	283.1	299.2	320.8	357.4	408.9	434.9	470.5
EER	kW/kW	3.29	3.42	3.37	3.38	3.13	3.12	3.13	3.18	3.32	3.24	3.21	3.18	3.17	3.15
EN14511 VALUES^{1,2}															
TOTAL COOLING CAPACITY	kW	379.4	423.7	483.5	520.3	636.8	722.4	847.1	900.8	991.6	1039	1146	1299	1378	1480
EER	kW/kW	3.25	3.37	3.34	3.35	3.09	3.09	3.11	3.15	3.27	3.20	3.18	3.15	3.14	3.12
SEASONAL PERFORMANCE³															
P _{rated,c}	kW	379.4	423.7	483.5	520.3	636.8	722.4	847.1	900.8	991.6	1039	1146	1299	1378	1480
SEER		5.59	5.59	5.56	5.64	5.57	5.34	5.30	5.33	5.53	5.48	5.27	5.33	5.33	5.43
PERFORMANCE η_s	%	221	221	220	223	220	211	209	210	218	216	208	210	210	214
HEAT EXCHANGER IN COOLING¹															
WATER FLOW	User Side l/s	18.2	20.3	23.1	24.9	30.5	34.6	40.5	43.1	47.5	49.7	54.8	62.2	66.0	70.8
PRESSURE DROP ²	User Side kPa	26.6	45.7	31.3	36.3	47.8	37.8	32.7	36.9	54.5	52.1	42.2	44.3	49.8	33.4
ELECTRICAL DATA															
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	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
F.L.A. ⁴	Total A	273	304	333	351	461	532	614	642	687	719	818	913	960	1034
EXCHANGERS															
MINIMUM WATER FLOW	Evaporator l/s	9.2	9.2	13.9	13.9	14.4	20.0	24.7	24.7	22.5	23.6	28.3	38.9	38.9	41.7
MINIMUM WATER CONTENT	Plant l	1300	1500	1700	1800	2200	2500	3000	3200	3500	3600	4000	4500	4800	5200
FANS															
QUANTITY	No.	6	8	8	8	10	12	14	14	16	16	18	20	20	20
AIRFLOW	m ³ /s	27.8	37.0	37.0	37.0	46.3	55.6	55.6	64.8	74.1	74.1	83.3	83.3	92.6	92.6
REFRIGERANT CIRCUIT															
COMPRESSORS	No.	2	2	2	2	2	2	2	2	2	2	3	3	3	3
CIRCUITS	No.	2	2	2	2	2	2	2	2	2	2	3	3	3	3
REFRIGERANT		R1234ze	R1234ze	R1234ze	R1234ze	R1234ze	R1234ze	R1234ze	R1234ze	R1234ze	R1234ze	R1234ze	R1234zee	R1234ze	R1234ze
REFRIGERANT CHARGE ⁵	kg	72	87	92	94	125	149	164	168	182	187	261	286	290	300
NOISE LEVELS															
TOTAL SOUND PRESSURE ⁶	dB(A)	59	60	60	61	60	62	63	63	63	63	63	63	64	64
TOTAL SOUND POWER LEVEL IN COOLING ⁷	dB(A)	91	92	92	93	93	95	96	96	96	96	96	96	97	97
SIZE AND WEIGHT⁸															
WIDTH (A)	mm	4150	5400	5400	5400	6650	7900	9150	9150	10400	10400	11650	12900	12900	12900
DEPTH (B)	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT (H)	mm	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640
OPERATING WEIGHT	kg	4949	5611	5686	5686	6283	7168	8647	8651	9233	9404	11951	13107	13137	13208

Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.

2. Values in compliance with EN14511.

3. Parameter calculated according to [Regulation (EU) N. 2016/2281].

4. Data valid for standard units without any additional options and only indicative. Safety values to be considered when cabling the unit for power supply and line-protection. Refer to databook.

5. Theoretical - refer to serial plate for actual charge volumes.

6. 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.

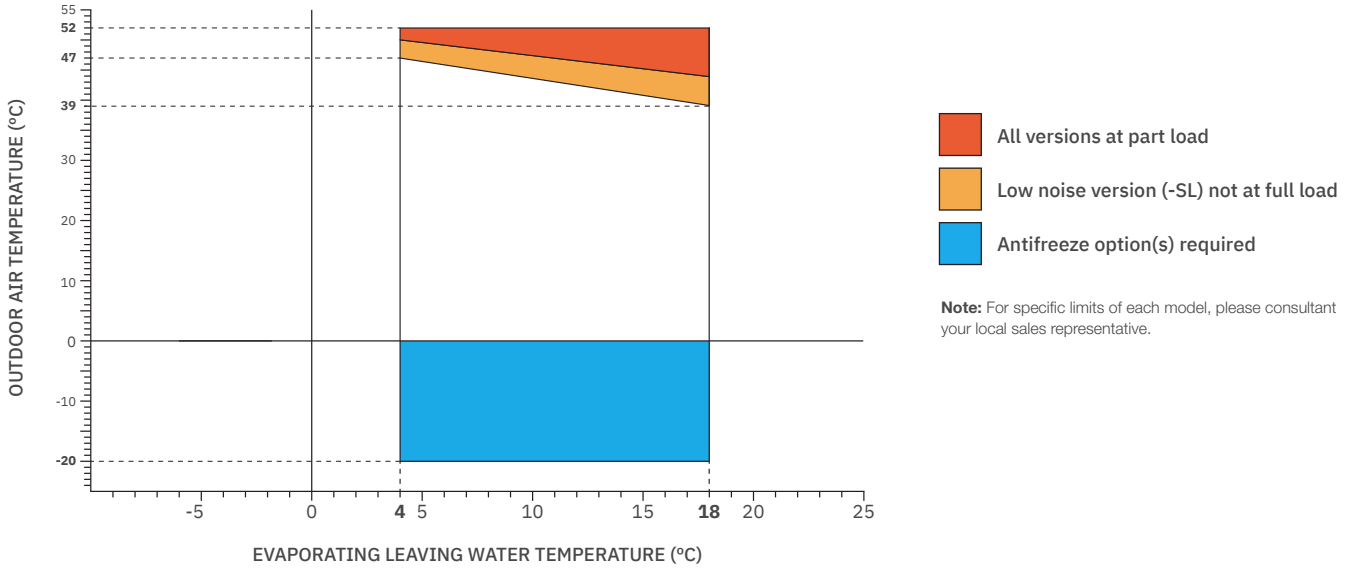
7. Sound power on the basis of measurement taken in compliance with ISO 9614. Sound power level in cooling, outdoors.

8. Unit in standard configuration, without option accessories.

ELCA_Engine ver.4.8.2.0

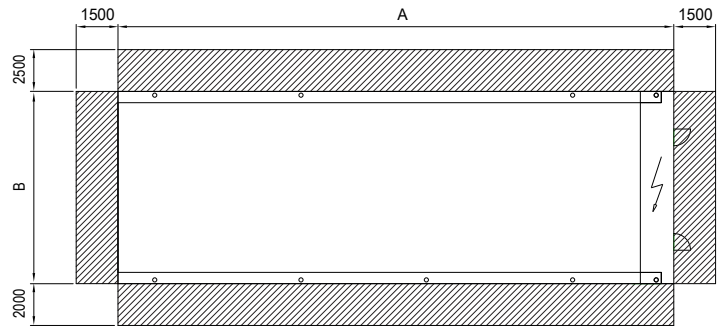
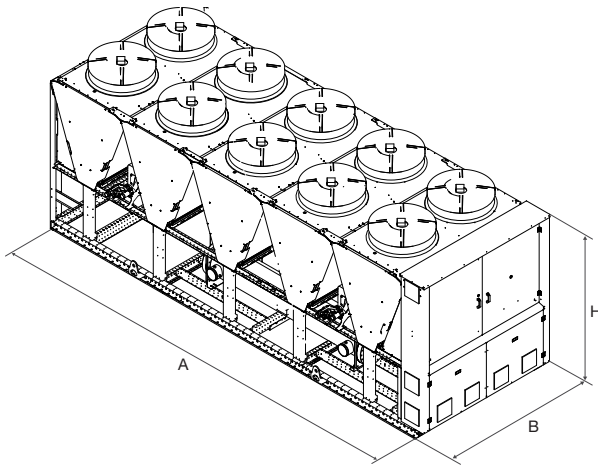
■ Eurovent Certified Data

i-FX2-G04-E OPERATING ENVELOPES

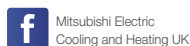


i-FX2-G04-E DIMENSIONS

All dimensions are in millimetres.



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Note: The fuse rating is for guidance only and please refer to the relevant databook for detailed specification. It is the responsibility of a qualified electrician/electrical engineer to select the correct cable size and fuse rating based on current regulation and site specific conditions. Mitsubishi Electric's air conditioning equipment and heat pump systems contain a fluorinated greenhouse gas, R410A (GWP:2088), R290 (GWP:3), R32 (GWP:675), R407C (GWP:1774), R134a (GWP:1430), R513A (GWP:631), R454B (GWP:466), R454C (GWP:148), R1234ze (GWP:7) or R1234yf (GWP:4). *These GWP values are based on Regulation (EU) No 517/2014 from IPCC 4th edition. In case of Regulation (EU) No.626/2011 from IPCC 3rd edition, these are as follows. R410A (GWP:1975), R32 (GWP:550), R407C (GWP:1650) or R134a (GWP:1300).

Effective as of April 2024

