

# i-FX-N-G05

## Reversible Air Sourced Heat Pump with Inverter Screw Compressors

Mitsubishi Electric's **i-FX-N-G05** is our high performance reversible air sourced heat pump, complete with Variable Speed Drive (VSD) screw compressors and EC fans as standard.

Available in 9 sizes from 453kW to 1112kW in heating (nominal) and operating on R513A low GWP refrigerant.

The **i-FX-N-G05** is available as two different versions (/A & /SL-A), with a wide operating range from -8°C to +20°C evaporator leaving water temperatures (ELWT) and a condenser leaving water temperature (CLWT) of up to 60°C. The **i-FX-N-G05** can also be fitted with a range of options including fast restart, energy and thermal meters, BEMS cards and on board hydronic kits.

**R513A** **CLIMAVENETA**

### Key Features & Benefits:

- Very high seasonal efficiency in a compact footprint, offering full inverter technology
- High efficiency inverter screw compressors providing a dual refrigeration circuit resulting in lower running costs and resilient operation
- EC Fans supplied as standard
- Available in two different versions (/A & /SL-A)
- Uses lower GWP refrigerant R513A
- Available options include; inbuilt hydronic pumps (fixed speed or inverter), thermal and energy meters, Smart LAN functions and many more
- Cu/Al Auxiliary Heat Exchangers supplied as standard, other protection coatings are available
- Smart defrost to increase operation time, increase COP and minimise impact on leaving water temperature



i-FX-N-G05 /A			0472	0512	0572	0602	0652	0772	0902	1002	1152
<b>Performance - Heating Only</b> <sup>*2 *3</sup>											
Total Heating Capacity	kW		453.2	506.8	547.9	575.7	664.3	748.1	872.0	1007	1112
COP	kW/kW		3.23	3.29	3.26	3.27	3.26	3.32	3.31	3.39	3.36
<b>Seasonal Efficiency in Heating - Low Temperature</b> <sup>*4</sup>											
Rated Heat Output at Tdesignh	kW		348.0	384.0	-	-	-	-	-	-	-
SCOP			4.00	4.03	-	-	-	-	-	-	-
<b>Performance - Cooling Only</b> <sup>*1 *2</sup>											
Cooling Capacity	kW		464.6	517.4	549.4	590.4	669.4	763.6	898.8	1033	1153
EER	kW/kW		2.78	2.88	2.80	2.78	2.79	2.85	2.84	2.91	2.93
<b>Seasonal Efficiency in Cooling</b> <sup>*5</sup>											
Prated,C	kW		464.6	517.4	549.4	590.4	669.4	763.6	898.8	1033	1153
SEER			4.74	4.78	4.83	4.84	4.76	4.82	4.83	4.79	4.84
Performance ηs	%		187	188	190	190	188	190	190	189	191
<b>Electrical Data</b>											
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
Max F.L.A. <sup>*6</sup>	Total	A	354	384	407	429	482	531	632	749	821
<b>Exchangers</b>											
Minimum Water Flow	l/s		11.67	14.69	14.69	14.25	15.50	18.06	22.22	22.22	27.78
Minimum Water Content	System	l	1630	1800	1920	2070	2340	2670	3150	3620	4040
<b>Refrigerant Circuit</b>											
Compressors	No.		2	2	2	2	2	2	2	2	2
Circuits	No.		2	2	2	2	2	2	2	2	2
Theoretical Refrigerant Charge	kg		233	259	253	276	288	391	495	518	618
<b>Noise Levels</b>											
Total Sound Pressure <sup>*7</sup>	dB(A)		80	81	81	81	81	81	81	82	82
Total Sound Power Level in Cooling <sup>*8 *9</sup>	dB(A)		100	102	102	102	102	103	103	105	105
Total Sound Power Level in Heating <sup>*8 *10</sup>	dB(A)		101	103	103	103	103	104	104	106	106
<b>Size and Weight</b> <sup>*11</sup>											
Width (A)	mm		4900	5800	5800	5800	7000	7900	10000	11800	11800
Depth (B)	mm		2260	2260	2260	2260	2260	2260	2260	2260	2260
Height (H)	mm		2580	2580	2580	2580	2580	2580	2580	2580	2580
Operation Weight	kg		6400	6894	7033	7256	7518	8551	9835	11578	12651

 Eurovent Certified Data

**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. Seasonal space heating energy efficiency class [REGULATION (EU) N. 813/2013] - Average Weather Conditions. Calculation with variable waterflow and variable temperature. 5. Parameter calculated according to [REGULATION (EU) N. 2016/2281] - EN14825. 6. 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. 7. 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. 8. Sound power level on the basis of measurement 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 option accessories.

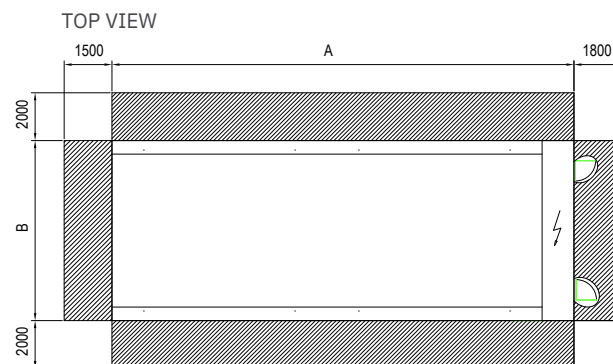
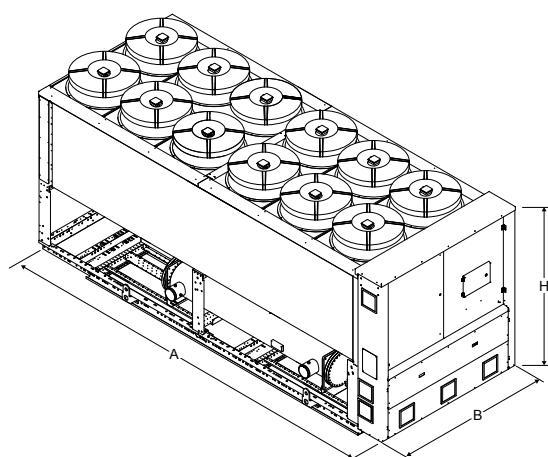
i-FX-N-G05 /SL-A		0472	0512	0572	0602	0652	0772	0902	1002	1152
<b>Performance - Heating Only</b> <sup>*2 *3</sup>										
Total Heating Capacity	kW	448.6	500.4	542.4	568.3	657.9	740.6	863.2	997.3	1101
COP	kW/kW	3.24	3.30	3.28	3.28	3.27	3.34	3.32	3.42	3.38
<b>Seasonal Efficiency in Heating - Low Temperature</b> <sup>*4</sup>										
Rated Heat Output at Tdesignh	kW	347.0	383.0	-	-	-	-	-	-	-
SCOP		4.02	4.03	-	-	-	-	-	-	-
<b>Performance - Cooling Only</b> <sup>*1 *2</sup>										
Cooling Capacity	kW	443.6	497.1	531.4	570.3	648.7	740.2	869.6	997.3	1113
EER	kW/kW	2.62	2.77	2.67	2.61	2.67	2.74	2.73	2.79	2.79
<b>Seasonal Efficiency in Cooling</b> <sup>*5</sup>										
Prated,C	kW	443.6	497.1	531.4	570.3	648.7	740.2	869.6	997.3	1113
SEER		4.71	4.77	4.81	4.80	4.74	4.80	4.82	4.78	4.82
Performance ηs	%	185	188	190	189	187	189	190	188	190
<b>Electrical Data</b>										
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
Max F.L.A. <sup>*6</sup>	Total A	354	384	407	429	482	531	632	749	821
<b>Exchangers</b>										
Minimum Water Flow	l/s	11.67	14.69	14.69	14.25	15.50	18.06	22.22	22.22	27.78
Minimum Water Content	System l	1630	1800	1920	2070	2340	2670	3150	3620	4040
<b>Refrigerant Circuit</b>										
Compressors	No.	2	2	2	2	2	2	2	2	2
Circuits	No.	2	2	2	2	2	2	2	2	2
Theoretical Refrigerant Charge	kg	243	271	285	307	317	391	541	536	598
<b>Noise Levels</b>										
Total Sound Pressure <sup>*7</sup>	dB(A)	72	73	73	73	73	73	73	74	74
Total Sound Power Level in Cooling <sup>*8 *9</sup>	dB(A)	92	94	94	94	94	95	95	97	97
Total Sound Power Level in Heating <sup>*8 *10</sup>	dB(A)	93	95	95	95	95	96	96	98	98
<b>Size and Weight</b> <sup>*11</sup>										
Width (A)	mm	4900	5800	5800	5800	7000	7900	10000	11800	11800
Depth (B)	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260
Height (H)	mm	2580	2580	2580	2580	2580	2580	2580	2580	2580
Operation Weight	kg	6672	7155	7307	7550	7791	8921	10101	11840	15158

 Eurovent Certified Data

**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. Seasonal space heating energy efficiency class [REGULATION (EU) N. 813/2013] - Average Weather Conditions. Calculation with variable waterflow and variable temperature. 5. Parameter calculated according to [REGULATION (EU) N. 2016/2281] - EN14825. 6. 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. 7. 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. 8. Sound power level on the basis of measurement 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 option accessories.

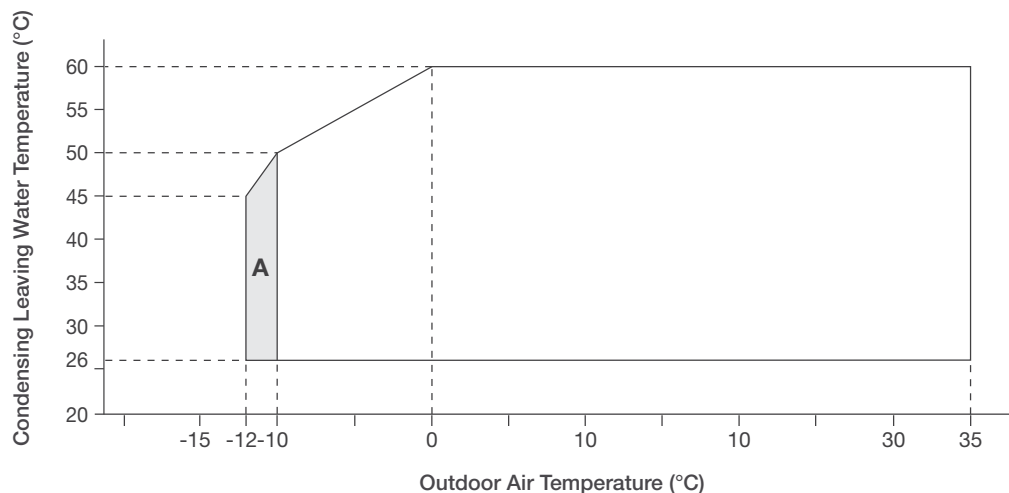
## i-FX-N-G05 DIMENSIONS AND CLEARANCES

All dimensions are in millimetres.

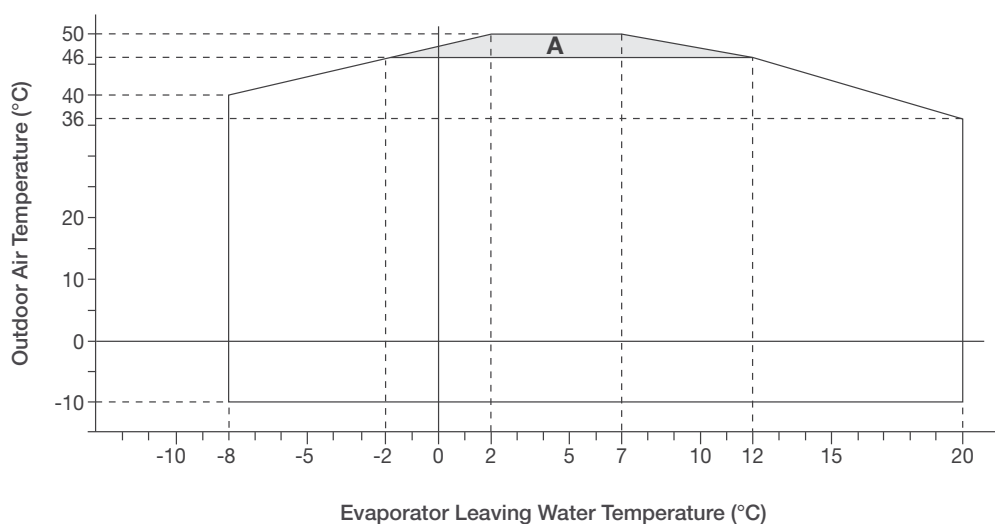


## i-FX-N-G05 OPERATING ENVELOPES

## Heating



## Cooling



**A** Oversized EC fans required

**Note:** Operating envelopes shown are indicative and should not be used for design. Equipment to be used in low or negative ambient temperatures must be fitted with the low ambient options available. Equipment operating with low or negative evaporating leaving water temperature should use suitable type and concentration of glycol or similar. Additional installation considerations may be required at the limits of the operating envelope. For specific recommendations and limits of each model, please contact your local sales representative.



Telephone: 01707 282880  
email: [air.conditioning@meuk.mee.com](mailto:air.conditioning@meuk.mee.com)  
[les.mitsubishielectric.co.uk](http://les.mitsubishielectric.co.uk)



Mitsubishi Electric Living  
Environmental Systems UK



Mitsubishi Electric  
Cooling and Heating UK



[mitsubishielectricuk\\_les](https://www.instagram.com/mitsubishielectricuk_les)



Mitsubishi Electric Living  
Environmental Systems UK



[thehub.mitsubishielectric.co.uk](http://thehub.mitsubishielectric.co.uk)

UNITED KINGDOM Mitsubishi Electric Europe Living Environment Systems Division, Travellers Lane, Hatfield, Hertfordshire, AL10 8XB, England. Telephone: 01707 282880

IRELAND Mitsubishi Electric Europe, Plunkett House, Grange Castle Business Park, Nangor Road, Dublin 22, Ireland. Telephone: (00353) 1 4198800 Email: [sales.info@meir.mee.com](mailto:sales.info@meir.mee.com) Web: [les.mitsubishielectric.ie](http://les.mitsubishielectric.ie)

Country of origin: United Kingdom - Italy - Turkey - Japan - Thailand - Malaysia. ©Mitsubishi Electric Europe 2025. Mitsubishi and Mitsubishi Electric are trademarks of Mitsubishi Electric Europe B.V. The company reserves the right to make any variation in technical specification to the equipment described, or to withdraw or replace products without prior notification or public announcement. Mitsubishi Electric is constantly developing and improving its products. All descriptions, illustrations, drawings and specifications in this publication present only general particulars and shall not form part of any contract. All goods are supplied subject to the Company's General Conditions of Sale, a copy of which is available on request. Third-party product and brand names may be trademarks or registered trademarks of their respective owners.

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 February 2025

