

TECHNICAL SELECTION

Engine version: 5.0.12.0
User: Jonny Betts
Database version: 1.9.13.1
Print data: 09/10/2025 10:23
ApplyME Version: 2.53.0



TECHNICAL SELECTION

i-FX-N-G05 /A /0572

Reversible unit, air source, VSD screw compressors and EC fans, for outdoor installation.



Code	i-FX-N-G05 /A /0572	
Version	A	
Size	0572	
Power supply	V/ph/Hz	400/3/50

1	TECHNICAL SELECTION	pg.3
1.1	Summary	pg.3
1.2	Performance	pg.3
1.3	Part load data	pg.4
1.4	Efficiencies	pg.5
1.5	Seer	pg.5
1.6	Main components	pg.6
1.7	Other data	pg.7

1 TECHNICAL SELECTION

Engine version: 5.0.12.0
Database version: 1.9.13.1
User: Jonny Betts
Print date: 09/10/2025 10:23
ApplyME Version: 2.53.0
Calculation type: EUROPEAN GROSS
DR code: 100.0



EC FAN

R

R513A

SCREW

i-FX-N-G05 /A /0572



COOLING



HEATING

1.1 SUMMARY

SUMMARY

UNIT DESCRIPTION

Code	i-FX-N-G05 /A /0572	
Version	A	
Size	0572	
UNIT DESCRIPTION [General descriptions and images of the range, not specific to the choice of model]	Reversible unit, air source, VSD screw compressors and EC fans, for outdoor installation.	
Power supply	V/ph/Hz	400/3/50
Production Plant	EUROPE	

1.2 PERFORMANCE

COOLING

HEAT EXCHANGER USER SIDE

Fluid type	WATER	
Glycol	%	0
Fouling factor	m ² K/kW	0.0000
Fluid inlet temperature (cooling mode)	°C	12.00
Fluid outlet temperature (cooling mode)	°C	7.00
Water flow user side heat ex (cooling mode)	l/s	26.29
Pressure drop at the user side heat ex (cooling mode)	kPa	41.2
Available unit head	kPa	0.00

OUTDOOR CONDITION

Air temperature (cooling mode)	°C	35.0
--------------------------------	----	------

COOLING (Gross value)

Cooling capacity	kW	549.9
Compressor power input	kW	173.8
Fans power input (cooling mode)	kW	20.40
Total power input (cooling mode)	kW	194.2
EER	kW/kW	2.832
ESEER CALCULATED	kW/kW	4.660

HEATING

HEAT EXCHANGER USER SIDE

Fluid type	WATER	
Glycol	%	0
Fouling factor	m ² K/kW	0.0000
Fluid inlet temperature (heating mode)	°C	40.00
Fluid outlet temperature (heating mode)	°C	45.00
Water flow user side heat ex (heating mode)	l/s	20.25
Pressure drop at the heat ex 1 (heating mode)	kPa	24.4
Available unit head	kPa	0.00

The performance shown are obtained from theoretical calculations and tolerances will apply. Rpt.version: 2.0.0.0

TECHNICAL SELECTION

Engine version: 5.0.12.0
Database version: 1.9.13.1
User: Jonny Betts
Print data: 09/10/2025 10:23
ApplyME Version: 2.53.0
Calculation type: EUROPEAN GROSS
DR code: 100.0



EC FAN

R R513A

SCREW

i-FX-N-G05 /A /0572

COOLING

HEATING

OUTDOOR CONDITION

Air temperature (heating mode)	°C	-4.0
Wet bulb temperature	°C	-5.0

HEATING

Total heating capacity	kW	419.4
Compressors power input (heating mode)	kW	137.3
Fan power input (heating mode)	kW	10.20
Total power input (heating mode)	kW	147.5
COP	kW/kW	2.843

1.3 PART LOAD DATA

COOLING PARTIAL LOADS

INPUT

Load	%	100.0	90.0	80.0	70.0	60.0	50.0	40.0	30.0	20.0	10.0
Outdoor air temperature	°C	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0
Temp. evaporator outlet	°C	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Evaporator water flow	l/s	26.29	26.29	26.29	26.29	26.29	26.29	26.29	26.29	26.29	26.29

OUTPUT

Cooling load	kW	549.9	494.9	439.9	384.9	329.9	274.9	219.9	165.0	110.0	<i>55.00</i>
Fans power input (cooling mode)	kW	20.40	20.40	13.73	12.09	10.94	9.18	6.37	3.94	2.07	<i>1.29</i>
Total power input	kW	194.2	167.8	141.7	121.0	100.6	82.40	68.10	50.70	38.40	<i>17.10</i>
Outdoor air temperature	°C	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	<i>35.0</i>
Temp. evaporator inlet	°C	12.00	11.50	11.00	10.50	10.00	9.50	9.00	8.50	8.00	<i>7.73</i>
Temp. evaporator outlet	°C	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	<i>7.00</i>
Evaporator water flow	l/s	26.29	26.29	26.30	26.30	26.29	26.29	26.29	26.30	26.29	<i>26.29</i>
Pressure drop	kPa	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	<i>41.2</i>
EER	kW/kW	2.832	2.950	3.105	3.181	3.280	3.337	3.229	3.256	2.864	<i>3.209</i>

Note

Note: italics texts mean integrated values under minimum step

HEATING PART LOAD

INPUT

Load	%	100.0	90.0	80.0	70.0	60.0	50.0	40.0	30.0	20.0	10.0
Outdoor air temp.	°C	-4.0	-4.0	-4.0	-4.0	-4.0	-4.0	-4.0	-4.0	-4.0	-4.0
Condenser output temperature	°C	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Condenser fluid flow	l/s	20.25	20.25	20.25	20.25	20.25	20.25	20.25	20.25	20.25	20.25

The performance shown are obtained from theoretical calculations and tolerances will apply. Rpt.version: 2.0.0.0

TECHNICAL SELECTION

Engine version: 5.0.12.0
Database version: 1.9.13.1
User: Jonny Betts
Print data: 09/10/2025 10:23
ApplyME Version: 2.53.0
Calculation type: EUROPEAN GROSS
DR code: 100.0



EC FAN

R

R513A

SCREW

i-FX-N-G05 /A /0572

COOLING

HEATING

OUTPUT

Heating load	kW	419	378	336	294	252	210	168	126	84	42
Total power input	kW	147.5	133.2	118.2	105.6	93.30	80.10	64.70	48.80	32.90	17.60
Outdoor air temp.	°C	-4.0	-4.0	-4.0	-4.0	-4.0	-4.0	-4.0	-4.0	-4.0	-4.0
Condenser input temperature	°C	40.00	40.50	41.00	41.50	42.00	42.50	43.00	43.50	44.00	44.18
Condenser output temperature	°C	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Condenser fluid flow	l/s	20.25	20.25	20.25	20.25	20.25	20.25	20.25	20.25	20.25	20.25
Pressure drop	kPa	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4
COP	kW/kW	2.843	2.835	2.838	2.780	2.695	2.617	2.593	2.580	2.554	2.383
Note	Note: italics texts mean integrated values under minimum step										

1.4 EFFICIENCIES

ESEER (GROSS VALUE)

ESEER (GROSS VALUE)					
Load	%	100	75	50	25
Outdoor air temperature	°C	35.0	30.0	25.0	20.0
Temp. evaporator inlet	°C	12.00	10.75	9.50	8.25
Temp. evaporator outlet	°C	7.00	7.00	7.00	7.00
Evaporator water flow	l/s	26.29	26.29	26.29	26.29
Cooling capacity	kW	549.9	412.4	274.9	137.5
Total power input	kW	194.2	111.0	55.90	23.80
EER	kW/kW	2.832	3.715	4.919	5.771
ESEER	kW/kW			4.660	
ESEER CALCULATED	kW/kW			4.660	

1.5 SEER

SEER Official (Reg. EU 2016/2281)

Fan coil (12/7)

Type climate	Average	
Temp. Plant side	Fan coil (12/7)	
Type flow	variable	
Type Temperature	variable	
Prated,c	kW	549
T Design	°C	35.00
Qce	kWh	68185.74
SEER		4.83
Performance ηs	%	190

SEER Editable (EN 14825)

Code		i-FX-N-G05 /A /0572
Fan coil (12/7)		
SEER on		0.00
SEER		0.00
Performance ηs	%	0

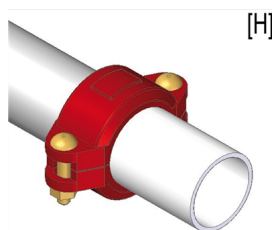
The performance shown are obtained from theoretical calculations and tolerances will apply. Rpt.version:2.0.0.0

1.6 MAIN COMPONENTS

EXCHANGERS

HEAT EXCHANGER USER SIDE

Typology	SHELL&TUBE	
Quantity	N°	1
Type of connections	[H] - Grooved coupling with weld end counter-pipe user side	
Diameter of connections	6"	
Min flow	l/s	14.69
Max flow	l/s	54.42
Heat exchanger water content	l	194
Minimum water content admitted in the plant	l	1920



FANS

GENERAL DATA

Fans type	AXIAL EC	
Quantity	N°	12
Total fans power input	kW	20.40
F.L.I.	kW	12x1.95
F.L.A.	A	12x3.3

COOLING

Total fans power input	kW	20.40
Air flow rate	m³/s	58.37
Available static pressure	Pa	0

HEATING

Total fans power input	kW	10.20
Air flow rate	m³/s	43.21
Fan available static pressure	Pa	0

TECHNICAL SELECTION

Engine version: 5.0.12.0
Database version: 1.9.13.1
User: Jonny Betts
Print data: 09/10/2025 10:23
ApplyME Version: 2.53.0
Calculation type: EUROPEAN GROSS
DR code: 100.0



EC FAN

R R513A

SCREW

i-FX-N-G05 /A /0572

COOLING

HEATING

COMPRESSORS

COMPRESSORS

Compressor type		SCREW
Compressors nr.	N°	2
No. Circuits	N°	2
Number of capacity steps	N°	0
Min. capacity step	%	14
Regulation		STEPLESS
Oil charge	kg	44.0
F.L.I. - Max absorbed power	kW	2x113.2
F.L.A. - Max absorbed current	A	2x183.7
L.R.A. - Locked rotor amperes for single compressor	A	2x20

REFRIGERANT

REFRIGERANT

Refrigerant		R513A
Theoretical refrigerant charge	kg	253
GWP100 value (from IPCC AR5)		572
CO2 equivalent	t	145
ASHRAE Safety Classification		A1

1.7 OTHER DATA

NOISE DATA

SOUND DATA COLD

Frequencies	Hz	63	125	250	500	1000	2000	4000	8000
Sound power (spectrum)	dB	93	100	101	100	98	92	85	75
Total sound power level in cooling	dB(A)					102			
Sound pressure level (spectrum)	dB	72	79	80	79	77	71	64	54
Total sound Pressure	dB(A)					81			

The performance shown are obtained from theoretical calculations and tolerances will apply. Rpt.version:2.0.0.0

TECHNICAL SELECTION

Engine version: 5.0.12.0
Database version: 1.9.13.1
User: Jonny Betts
Print data: 09/10/2025 10:23
ApplyME Version: 2.53.0
Calculation type: EUROPEAN GROSS
DR code: 100.0



EC FAN

R

R513A

SCREW

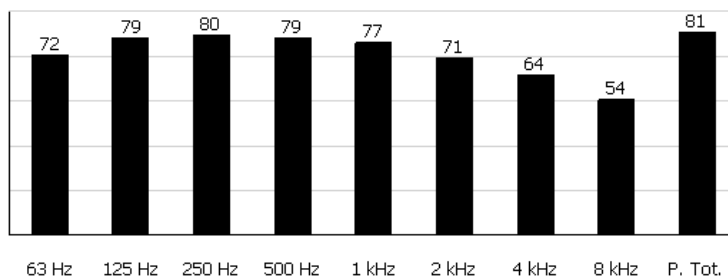
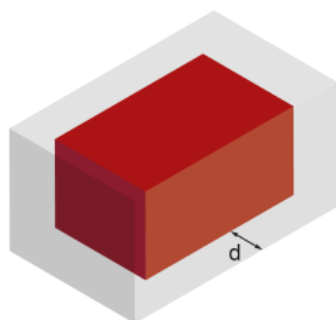
i-FX-N-G05 / A / 0572



COOLING



HEATING



SOUND DATA OUTDOOR HOT

Total sound power level in heating dB(A) 103

Note

Distance m 1

Note

Average sound pressure level at 1 m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
Sound power on the basis of measurements taken in compliance with ISO 9614.

ELECTRICAL DATA

ELECTRICAL DATA

Power supply	V/ph/Hz	400/3/50
F.L.I. - Max absorbed power	kW	250.0
F.L.A. - Max absorbed current	A	407
S.A. - Inrush current	A	-

The performance shown are obtained from theoretical calculations and tolerances will apply. Rpt.version:2.0.0.0

TECHNICAL SELECTION

Engine version: 5.0.12.0
Database version: 1.9.13.1
User: Jonny Betts
Print data: 09/10/2025 10:23
ApplyME Version: 2.53.0
Calculation type: EUROPEAN GROSS
DR code: 100.0



EC FAN

R R513A

SCREW

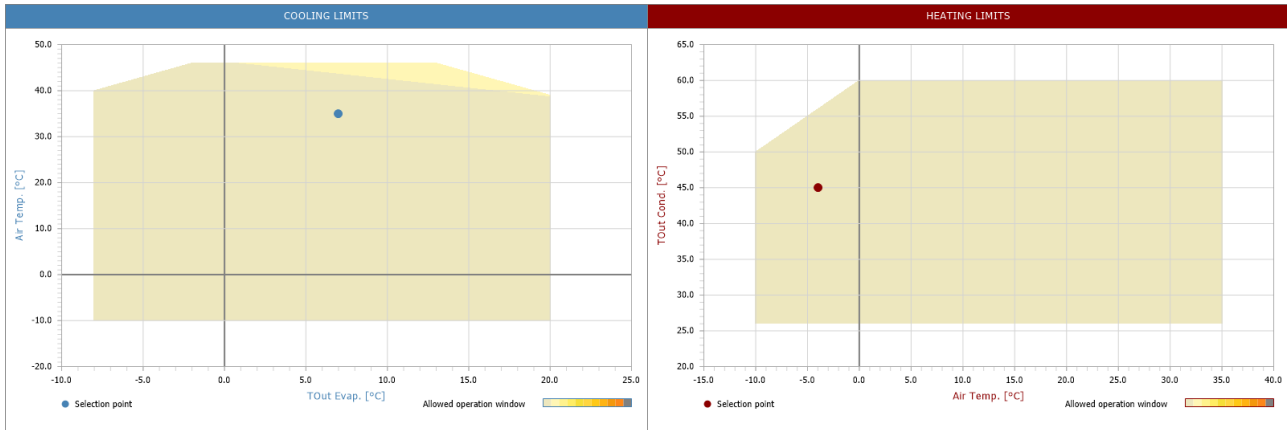
COOLING

HEATING

i-FX-N-G05 /A /0572

OPERATING LIMITS

OPERATING LIMITS



The performance shown are obtained from theoretical calculations and tolerances will apply. Rpt.version: 2.0.0.0

TECHNICAL SELECTION

Engine version: 5.0.12.0
Database version: 1.9.13.1
User: Jonny Betts
Print data: 09/10/2025 10:23
ApplyME Version: 2.53.0
Calculation type: EUROPEAN GROSS
DR code: 100.0



EC FAN

R R513A

SCREW

i-FX-N-G05 / A / 0572

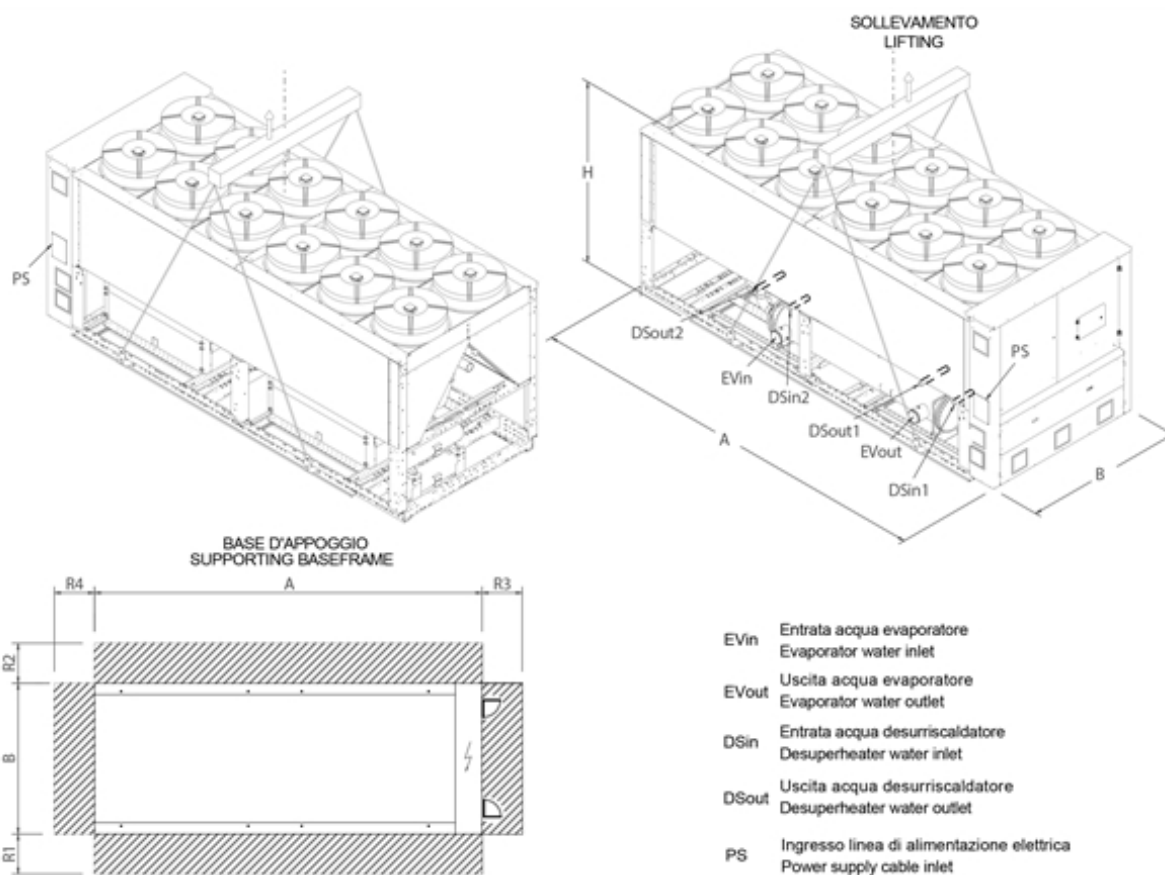
COOLING

HEATING

WEIGHT & DIMENSIONS

WEIGHT & DIMENSIONS

A	mm	5800
B	mm	2260
H	mm	2580
Operating weight	kg	7033
R1	mm	2000
R2	mm	2000
R3	mm	1500
R4	mm	1500



The performance shown are obtained from theoretical calculations and tolerances will apply. Rpt.version: 2.0.0.0



