

i-FX (1+i) 2602 - 5403

High efficiency chiller, air source for outdoor installation
567-1273 kW



Outdoor unit for the production of chilled water with fixed speed and variable speed (Inverter Driven) screw compressors optimized for R134a, axial-flow fans, condensing coil with copper tubes and aluminium fins, shell and tube single pass evaporator designed by Climaveneta and electronic expansion valve.

Eurovent certification for all the sizes.

Base and supporting structure and panels are of galvanized epoxy powder coated steel.

Flexible and reliable unit; it easily adapts itself to different thermal load conditions thanks to the precise temperature control together with the use of inverter technology. The high performance's level, both full and partial load, is achieved thanks to the accurate unit's design and to the use of fixed speed motor together with variable speed (inverter) motor.

Version

CA	Class A of efficiency
SL	Super-low noise version

Configurations

-	Basic function
D	Partial condensing heat recovery function
R	Total condensing heat recovery function

Features

WIDE RANGE

Extended capacity range.

HIGH EFFICIENCY

Unit with high efficiency and reduced energy consumption, thanks to the inverter technology, contributing to lower operating costs and therefore achieving a quick return on investment.

EXTREMELY SILENT OPERATION

Extremely silent operation together with high efficiency, tank to dedicated acoustic devices and a precise design for the choice of the components.

GREEN RELEVANT PRODUCT

These units comply with the minimum efficiency requirements of air cooled chillers defined in ASHRAE 90.1-2013 "Energy Standard for buildings except LowRise Residential Building", included the higher values required from January 2015.

Accessory

- Hydronic group
- VPF (Variable Primary Flow) kit: variable flow pumps with on board regulation
- Noise reducer (only on not silenced versions)
- EC fans with electronic DC brushless motor
- Axial fans with External Static Pressure (ESP) up to 130 Pa.
- Remote control keyboard (distance to 200m and to 500m)
- Set-up for remote connectivity with ModBus/Echelon protocol cards

Controls

W3000TE

The brand new W3000TE controller offers advanced functions and algorithms. The large format keyboard and the wide LCD display favour an easy and safe access to the machine setup and a complete view of unit's status. The assessment and intervention on the unit is managed through a multi-level menu, with selectable user's language. The led icons immediately show the operating status of the circuits, as well as of the fans and of the water pumps (if present). An optional extra is the touch screen interface: 7.0" WVGA colour display with adjustable LED backlight and front USB port. The touch screen technology allows intuitive navigation between the various screens, safe access to the data with a three-level password protection as well as the graphic display of the performance of some monitored measurements.

The diagnostics comprises a complete alarm management system, with "black box" (via PC) and alarm log functions (via display or also PC) for a better analysis of the unit performance.

For the systems made of several units, the adjustment of the resources is performed by optional proprietary devices.

Consumption metering and performance measurement are possible as well. Supervision can be easily developed via proprietary devices or the integration in third party systems by means of the most common protocols as ModBus, Bacnet-over-IP, Echelon LonWorks, Bacnet MS/TP protocols.

Compatibility with the remote keyboard managing up to 8 units.

The presence of the programmable timer allows the creation of an operating profile containing up to 4 typical days and 10 time bands.

The control is characterized by the continuous modulation of the unit capacity, based on PID algorithms and referring to the water delivery temperature.

Optionally (VPF package), capacity modulation can be integrated with hydraulic flow modulation, thanks to inverter-driven pumps and to specific resources for the hydraulic circuit.





i-FX (1+i) /CA			2602	2662	2722	3152	3602
Power supply		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE							
COOLING ONLY (GROSS VALUE)							
Cooling capacity	(1)	kW	567	631	700	785	858
Total power input	(1)	kW	181	201	224	249	273
EER	(1)	kW/kW	3,13	3,14	3,13	3,15	3,14
ESEER	(1)	kW/kW	4,81	4,81	4,78	4,79	4,84
COOLING ONLY (EN14511 VALUE)							
Cooling capacity	(1)(2)	kW	566	629	698	783	855
EER	(1)(2)	kW/kW	3,10	3,10	3,10	3,12	3,10
ESEER	(1)(2)	kW/kW	4,62	4,62	4,62	4,61	4,63
Cooling energy class			A	A	A	A	A
ENERGY EFFICIENCY							
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)							
Ambient refrigeration							
Prated,c	(7)	kW	566	629	698	783	855
SEER	(7)(8)		4,72	4,73	4,77	4,76	4,77
Performance ηs	(7)(9)	%	186	186	188	187	188
EXCHANGERS							
HEAT EXCHANGER USER SIDE IN REFRIGERATION							
Water flow	(1)	l/s	27,14	30,17	33,48	37,55	41,03
Pressure drop	(1)	kPa	36,0	35,4	31,1	34,5	41,2
REFRIGERANT CIRCUIT							
Compressors nr.		N°	2	2	2	2	2
No. Circuits		N°	2	2	2	2	2
Refrigerant charge		kg	115	180	190	200	200
NOISE LEVEL							
Sound Pressure	(3)	dB(A)	67	68	68	68	69
Sound power level in cooling	(4)(5)	dB(A)	100	101	101	101	102
SIZE AND WEIGHT							
A	(6)	mm	7000	7900	7900	7900	9860
B	(6)	mm	2260	2260	2260	2260	2260
H	(6)	mm	2530	2530	2530	2530	2530
Operating weight	(6)	kg	6130	7170	7460	7970	9110

i-FX (1+i) /CA			3902	4212	4513	4953	5403
Power supply		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE							
COOLING ONLY (GROSS VALUE)							
Cooling capacity	(1)	kW	951	1045	1127	1196	1273
Total power input	(1)	kW	302	333	359	380	405
EER	(1)	kW/kW	3,15	3,14	3,14	3,15	3,14
ESEER	(1)	kW/kW	4,79	4,82	4,84	4,79	4,82
COOLING ONLY (EN14511 VALUE)							
Cooling capacity	(1)(2)	kW	949	1042	1123	1192	1269
EER	(1)(2)	kW/kW	3,11	3,10	3,10	3,11	3,10
ESEER	(1)(2)	kW/kW	4,61	4,61	4,60	4,60	4,60
Cooling energy class			A	A	A	A	A
ENERGY EFFICIENCY							
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)							
Ambient refrigeration							
Prated,c	(7)	kW	949	1042	1123	1192	1269
SEER	(7)(8)		4,82	4,77	4,74	4,73	4,75
Performance ηs	(7)(9)	%	190	188	187	186	187
EXCHANGERS							
HEAT EXCHANGER USER SIDE IN REFRIGERATION							
Water flow	(1)	l/s	45,49	49,96	53,90	57,18	60,88
Pressure drop	(1)	kPa	36,7	44,3	51,6	43,6	49,5
REFRIGERANT CIRCUIT							
Compressors nr.		N°	2	2	3	3	3
No. Circuits		N°	2	2	3	3	3
Refrigerant charge		kg	210	220	255	245	255
NOISE LEVEL							
Sound Pressure	(3)	dB(A)	70	71	72	72	72
Sound power level in cooling	(4)(5)	dB(A)	103	104	105	105	105
SIZE AND WEIGHT							
A	(6)	mm	10790	11720	12630	12630	12630
B	(6)	mm	2260	2260	2260	2260	2260
H	(6)	mm	2530	2530	2530	2530	2530
Operating weight	(6)	kg	10080	10140	11640	12570	12950

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 EN14511-3:2013.

3 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.

4 Sound power on the basis of measurements made in compliance with ISO 9614.

5 Sound power level in cooling, outdoors.

6 Unit in standard configuration/execution, without optional accessories.

7 Seasonal energy efficiency of the cooling environment [REGULATION (EU) N. 2016/2281]

8 Seasonal space heating energy index

9 Seasonal energy efficiency of the space cooling

The units highlighted in this publication contain HFC R134a [GWP₁₀₀ 1430] fluorinated greenhouse gases.

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i-FX (1+i) /SL			2602	2662	2722	3152	3903
Power supply		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE							
COOLING ONLY (GROSS VALUE)							
Cooling capacity	(1)	kW	544	611	679	752	805
Total power input	(1)	kW	181	201	222	249	268
EER	(1)	kW/kW	3,01	3,04	3,06	3,03	3,01
ESEER	(1)	kW/kW	4,91	4,90	4,87	4,92	4,87
COOLING ONLY (EN14511 VALUE)							
Cooling capacity	(1)(2)	kW	542	610	677	750	802
EER	(1)(2)	kW/kW	2,98	3,01	3,03	3,00	2,97
ESEER	(1)(2)	kW/kW	4,72	4,72	4,71	4,74	4,68
Cooling energy class			B	B	B	B	B
ENERGY EFFICIENCY							
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)							
Ambient refrigeration							
Prated,c	(7)	kW	542	610	677	750	802
SEER	(7)(8)		4,84	4,85	4,86	4,88	4,81
Performance ηs	(7)(9)	%	190	191	192	192	189
EXCHANGERS							
HEAT EXCHANGER USER SIDE IN REFRIGERATION							
Water flow	(1)	l/s	26,00	29,22	32,46	35,97	38,48
Pressure drop	(1)	kPa	33,0	33,2	29,2	31,7	36,3
REFRIGERANT CIRCUIT							
Compressors nr.		N°	2	2	2	2	3
No. Circuits		N°	2	2	2	2	3
Refrigerant charge		kg	115	180	190	200	200
NOISE LEVEL							
Sound Pressure	(3)	dB(A)	58	59	60	60	60
Sound power level in cooling	(4)(5)	dB(A)	91	92	93	93	93
SIZE AND WEIGHT							
A	(6)	mm	7000	7900	7900	7900	9900
B	(6)	mm	2260	2260	2260	2260	2260
H	(6)	mm	2530	2530	2530	2530	2530
Operating weight	(6)	kg	6410	7400	7690	8370	9570

i-FX (1+i) /SL			3953	4013	4063	4953	5403
Power supply		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE							
COOLING ONLY (GROSS VALUE)							
Cooling capacity	(1)	kW	880	946	1018	1143	1209
Total power input	(1)	kW	295	311	335	380	411
EER	(1)	kW/kW	2,98	3,04	3,04	3,01	2,94
ESEER	(1)	kW/kW	4,86	4,89	4,91	4,90	4,91
COOLING ONLY (EN14511 VALUE)							
Cooling capacity	(1)(2)	kW	878	944	1015	1140	1205
EER	(1)(2)	kW/kW	2,95	3,01	3,00	2,97	2,90
ESEER	(1)(2)	kW/kW	4,69	4,70	4,70	4,71	4,69
Cooling energy class			B	B	B	B	B
ENERGY EFFICIENCY							
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)							
Ambient refrigeration							
Prated,c	(7)	kW	878	944	1015	1140	1205
SEER	(7)(8)		4,83	4,84	4,80	4,81	4,78
Performance ηs	(7)(9)	%	190	191	189	190	188
EXCHANGERS							
HEAT EXCHANGER USER SIDE IN REFRIGERATION							
Water flow	(1)	l/s	42,09	45,25	48,67	54,66	57,83
Pressure drop	(1)	kPa	31,5	36,4	42,1	39,9	44,6
REFRIGERANT CIRCUIT							
Compressors nr.		N°	3	3	3	3	3
No. Circuits		N°	3	3	3	3	3
Refrigerant charge		kg	200	210	220	255	255
NOISE LEVEL							
Sound Pressure	(3)	dB(A)	60	60	61	61	64
Sound power level in cooling	(4)(5)	dB(A)	93	93	94	94	97
SIZE AND WEIGHT							
A	(6)	mm	10800	10800	11700	11700	12630
B	(6)	mm	2260	2260	2260	2260	2260
H	(6)	mm	2530	2530	2530	2530	2530
Operating weight	(6)	kg	10080	10650	11090	12600	13530

Notes:

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