

COMFORT

CHILLERS

i-FX-G01

**AIR COOLED CHILLERS  
WITH INVERTER  
SCREW COMPRESSORS,  
FROM 477 TO 1697 kW**



**r** R134a

**INVERTER** TOTAL  
TECHNOLOGY

## i-FX-G01

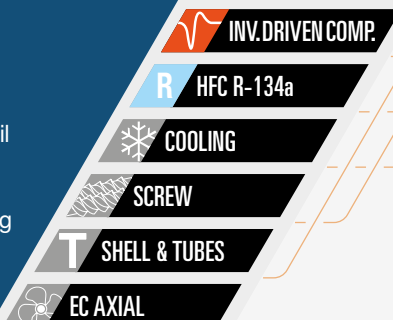
**THE FULL INVERTER  
CHILLER DEVOTED  
TO THE HIGHEST  
EFFICIENCY. ALWAYS.**



**Air cooled chiller with inverter screw compressors  
for outdoor installation from 477 to 1697 kW**

i-FX-G01 is the new high performing chiller which features inverter driven screw compressors and high performing variable speed fans.

Dedicated to comfort applications – from small retail projects to large commercial and district cooling schemes, the air cooled chiller has been perfectly designed for reducing operating costs while keeping an extremely compact design.



## COUNTLESS VERSIONS FOR THE MOST CHALLENGING NEEDS

## EFFICIENCY VALUES

<b>K</b>	<b>Key efficiency</b>	Cost effective units, giving an incredible combination between cooling capacity and footprint with the unmatched benefits of the variable speed technology.	<b>EER: 2,88</b>	<b>SEER: 4,90</b> up to: <b>5,07</b>
<b>K</b> +EC fans	<b>Key efficiency</b>	Very high seasonal efficiency version with reduced footprint, obtained by adding EC fans to the already high performing K version.	<b>EER: 2,90</b>	<b>SEER: 5,12</b> up to: <b>5,33</b>
<b>A</b>	<b>High efficiency</b>	High efficiency version both at full and partial loads, thanks to oversized heat exchangers and EC fans, to cut energy expenses and running costs in any load condition, even at high ambient temperatures.	<b>EER: 3,16</b>	<b>SEER: 5,34</b> up to: <b>5,45</b>

EER conditions: evap 12/7°C, air 35°C  
SEER according to the Regulation (EU) N.2281/2016

## ACOUSTIC VERSIONS

<b>-</b>	<b>Standard</b>	Unit with standard compressor's enclosures.	<b>Baseline</b>
		Unit with noise reducer kit (Opt. 2315).	<b>-3 dB(A)</b>
<b>SL</b>	<b>Super low noise</b>	The highest level of noise reduction which cuts noise emissions down to -9dB(A), without compromising the unit's efficiency.	<b>-9 dB(A)</b>

## HEAT RECOVERY CONFIGURATIONS

<b>-</b>	<b>Standard unit</b>	Unit for the production of chilled water.	<b>-</b>
<b>D</b>	<b>Partial heat recovery</b>	A desuperheater on the compressor discharge line recovers approximately 20% of the unit's capacity.  Suitable for DHW production or other secondary uses, such as the integration of an existing boiler.	<b>60°C</b>
<b>R</b>	<b>Total heat recovery</b>	A devoted refrigerant water heat exchanger recovers all the condensation heat.  Suitable for DHW production or air treatment in applications with AHU.	<b>up to 60°C</b>

**i-FX-G01 synthesizes Climaveneta's 30-year experience in screw compressor chillers into a high performing range featuring unbeatable efficiency levels.**

## LEADING INVERTER TECHNOLOGY



**The new i-FX-G01 showcases the latest variable speed technology applied on:**

- dual screw compressors with integrated refrigerant cooled inverter motor and variable Vi technology
- high efficiency variable speed fans
- integrated variable speed hydronic modules (opt.)

**THIS INCREDIBLE PERFORMING CHILLER ADJUSTS THE ROTATIONAL SPEED AND THE INTERNAL GEOMETRY TO:**

- ✓ perfectly match the cooling load of the plant in every condition
- ✓ offer stepless and accurate capacity control
- ✓ ensure premium efficiency values, thus cutting operating costs

## UNCOMPROMISED EFFICIENCY



**2021 ECODSIGN DIRECTIVE COMPLIANT**

Thanks to the latest variable speed technology applied both on the compressors and on the fans, i-FX-G01 achieves uncompromised part load efficiency values.

The new family exceeds the strictest 2021 Ecodesign Directive tier, placing it on the top level of the market.

## REDUCED FOOTPRINT



**UP TO 15% BETTER SEER**

**18% MORE COMPACT**

The new i-FX-G01 achieves unbeatable values in terms of footprint and seasonal efficiency, making it the best solution for both new installations and renewal of older HVAC plants.

Compared to the previous inverter screw compressor chiller range, the new i-FX-G01 is up to 18% more compact while providing up to 15% better SEER.

## QUICK&EASY INSTALLATION AND MAINTENANCE



A vast array of already mounted options together with a smart unit design for quick and easy installation and maintenance operations.

## HIGH DEGREE OF CONFIGURABILITY



Always the right solution for every project thanks to many specifically developed versions and a bespoke list of options (e.g. the integrated hydronic modules, several water flows controls).

## EXTENDED OPERATING RANGE



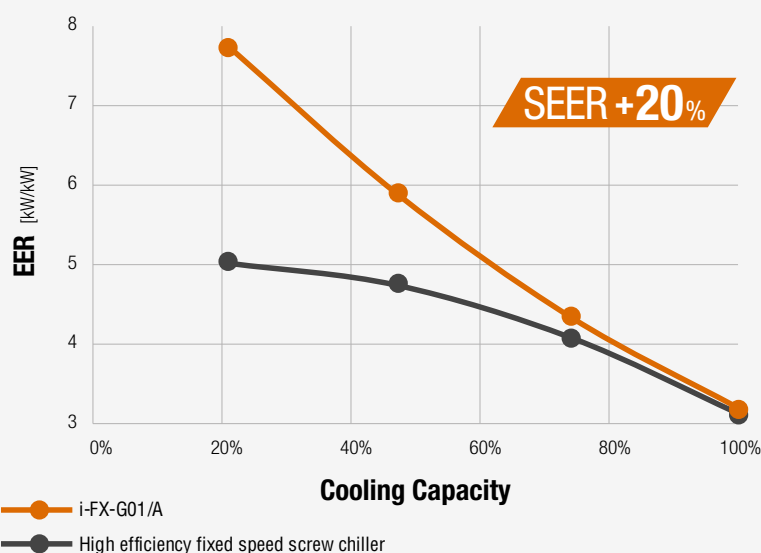
Wide operating range, working with outdoor air temperatures from -20°C up to +55°C thanks to specifically developed options and smart control logics.



# FULL INVERTER TECHNOLOGY



## HIGHER ENERGY EFFICIENCY



The increase in efficiency compared to high efficiency ErP 2018 compliant fixed speed units is expressed by drawing the EER trend to the conditions defined by the ErP directive 2009/125 /EC necessary for the calculation of SEER seasonal parameters.

## ErP 2021 COMPLIANT



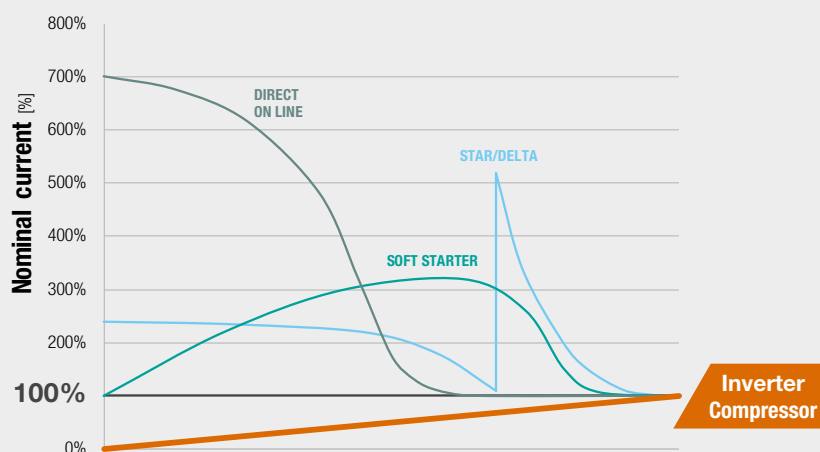
In most of cases, in comfort applications units are working at full load only for a very few hours every year.

This means that for most of the time the units are working partialized. In this condition the inverter and variable Vi technology makes the real difference in terms of efficiency, even compared to the latest generation high efficiency fixed speed units.



## ABSENCE OF IN-RUSH CURRENTS

The inverter technology involves a start-up phase with very low in-rush current. The frequency converters chosen by Mitsubishi Electric are characterized by values of Displacement Power Factor of between 0,97 and 0,99.



## No electrical and mechanical stress

The unit never exceeds the nominal current, not even when starting up.

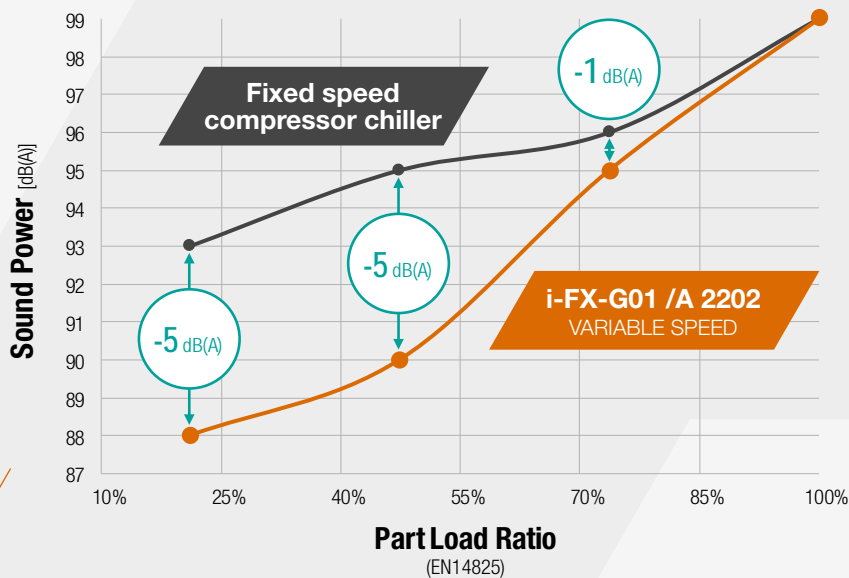
## No additional equipment needed

Such as star/delta commutators or soft starters in order to reduce the in-rush currents.

The new i-FX-G01 chillers apply variable speed technology in all of its main components, achieving top-level performances in any load condition.



## REDUCED SOUND POWER LEVELS



## LOWER SPEED, LOWER NOISE

The unit working in partial loads is far more silent than a fixed speed compressor unit.

In applications with units working at part load for most of the year, i-FX-G01 ensures extremely low noise operations down to -5dB(A).

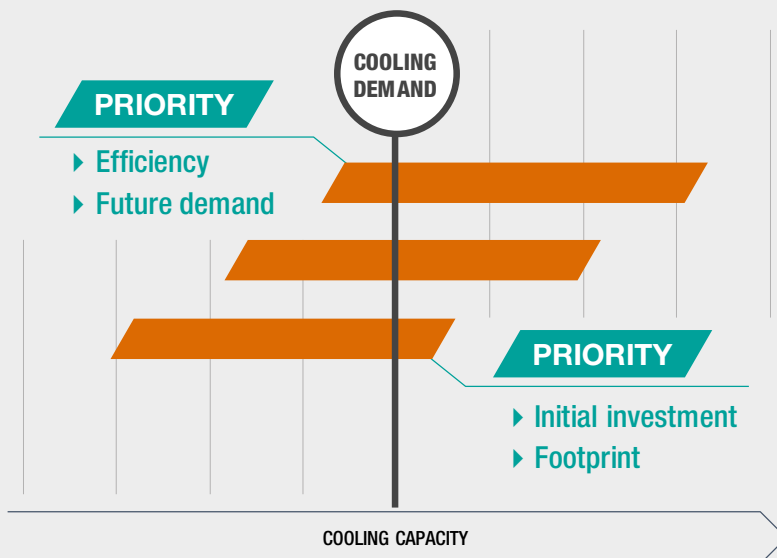
## Ideal for sound sensitive environments

- ✓ Museums and Theatres
- ✓ Hospitals
- ✓ Institutions
- ✓ Hotels



## FLEXIBLE SELECTION

The smart design of the units combined with the ELCAWorld selection software allows you to always choose the right unit for every project, prioritizing efficiency, additional future plant demands or reducing the initial investment and the footprint.



## Choose YOUR target



**EFFICIENCY**



**INITIAL INVESTMENT**



**FOOTPRINT**



**FUTURE PLANT DEMANDS**



# TECHNOLOGICAL CHOICES

## W3000TE CONTROL

Fully in-house developed management software.

- ▶ Efficient and reliable operation in all conditions
- ▶ Connectivity with the most commonly used BMS protocols (Opt.)

## KIPLink USER INTERFACE

Innovative Wi-Fi interface for an easy and enhanced unit management.



## Built-in pump group (Opt.)

Factory-mounted pumps and pre-plumbed hydraulic components, for minimum on-site installation time, work, and cost.

- ▶ Fix speed and variable speed pumps available, with low or high head
- ▶ Electronic primary flow controls for constant pressure or constant temperature

## Casing

Base and frame made of hot-galvanized steel, all parts polyester-painted.

- ▶ Easy access to all inner components
- ▶ Simple transport, lifting, and handling
- ▶ Total weather resistance

## Refrigerant circuits

One independent refrigerant circuit per compressor, to grant reliability and easy maintenance. Compressor enclosures are supplied as standard in all versions.

## Variable speed fans

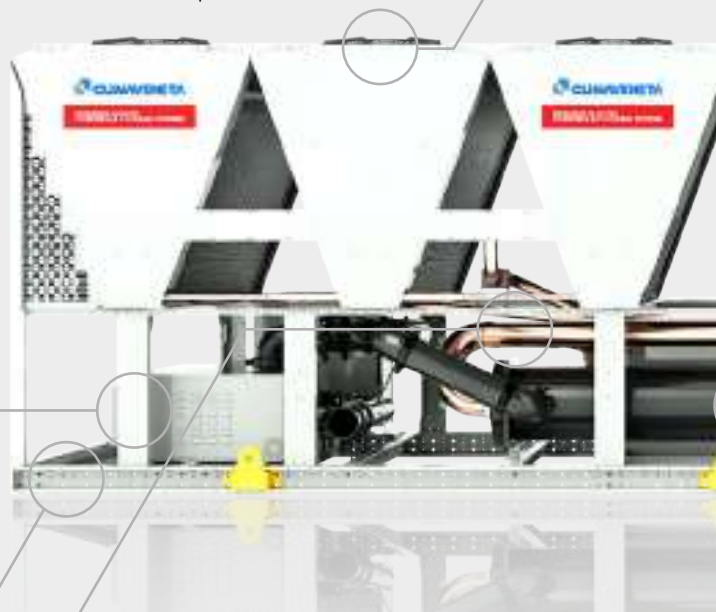
New generation AC and EC fans for precise airflow management and reduced power consumption.

### i-FX-G01 / K versions

High performing axial fans equipped with autotransformer for speed adjustment

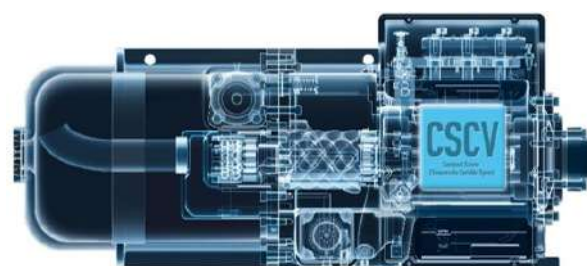
### i-FX-G01 / A versions

High performing EC fans, for higher efficiency and continuous speed modulation



## CSCV Compressors

Inverter, Variable Vi dual rotor screw compressors, designed according to Mitsubishi Electric Hydraulics & IT Cooling Systems specifications and for its' exclusive use.



**Trusted reliability, simplified installation, maximized performance: i-FX-G01 improves the already high performance of the fixed speed chiller range adding new exceptional features.**

### Micro-channel coils

New generation full aluminum micro-channel coils, ideally positioned on a "V" block structure to optimize airflow and heat transfer.

- ▶ Up to 30% of refrigerant charge reduction vs. traditional tube and fin coils.
- ▶ Long Life Alloy (LLA) for higher corrosion resistance and longer life cycle
- ▶ Protective coating available for harsh industrial and marine environments (Opt.)



### Shell and tube evaporator

Dry expansion, single pass shell and tube evaporator, fully developed by Mitsubishi Electric Hydronics & IT Cooling Systems.

- ▶ Internally grooved copper tubes for enhanced heat exchange
- ▶ Low pressure drops
- ▶ Fully protected against ice formation



### Electrical panel

Large electrical panel with power circuit components and control main board.

- ▶ Forced-air cooling system

## SMART VARIABLE Vi LOGIC

### Variable Speed Drive

Integrated and compact frequency converter, refrigerant cooled, for outstanding seasonal efficiency and wide capacity regulation.

### Automatic internal volume ratio adaption

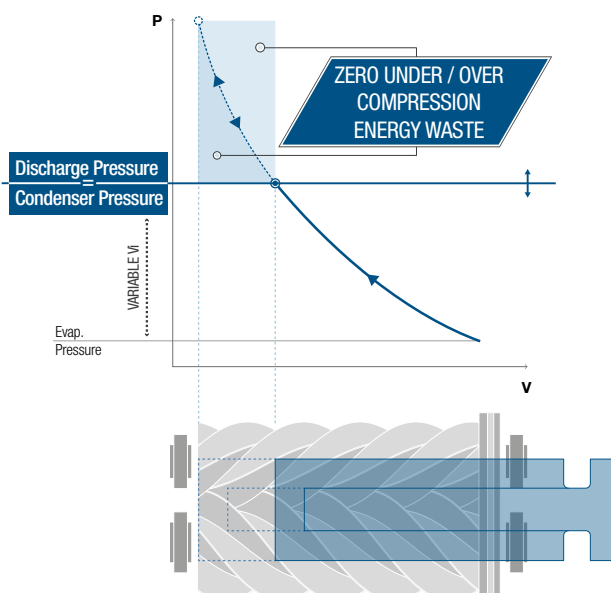
Obtained thanks to an integrated Vi slider which adapts the internal geometry to the current operating condition, thus ensuring the best efficiency.

### Extra durability achieved thanks to dedicated components:

- Envelope control function, 3-stage warning and alarm system, safe-torque-off function.
- Carbon steel bearings granted for a lifetime of over 150.000 hours.

### High efficiency high speed motor

For unprecedented full and part load efficiencies and extremely wide and accurate capacity regulation.



# CORE FEATURES FOR ALL YOUR EQUIPMENT NEEDS

## W3000TE control and KIPLink innovative interface

The logic behind i-FX-G01 is the W3000TE control software. Characterized by advanced functions and algorithms, **W3000TE features proprietary settings** that ensure faster adaptive responses to different dynamics, in all operating modes. Direct control over the unit comes through the innovative KIPLink interface.

Based on Wi-Fi technology, **KIPLink** gets rid of the standard keyboard and **allows one to operate on the unit directly from a mobile device** (smartphone, tablet, notebook).



### Easier on-site operation

Monitor each component while moving around the unit for maintenance operations. View and change all parameters with easy-to-understand screenshots and dedicated tooltips. Get devoted "help" messages for alarm reset and trouble shooting.



### Real-time graphs and trends

Monitor the immediate labor status of the compressors, heat exchangers, cooling circuits, and pumps. View the real-time graphs of the key operating variable trends.



### Data logger function

View history of events and use the filter for a simple search. Enhance diagnostics with data and graphs of 10 minutes before and after each alarm. Download all the data for detailed analysis.

## How to access the unit with KIPLink



Direct access to the W3000TE control is achieved by scanning the QR-code positioned on the front side of the i-FX-G01 unit.

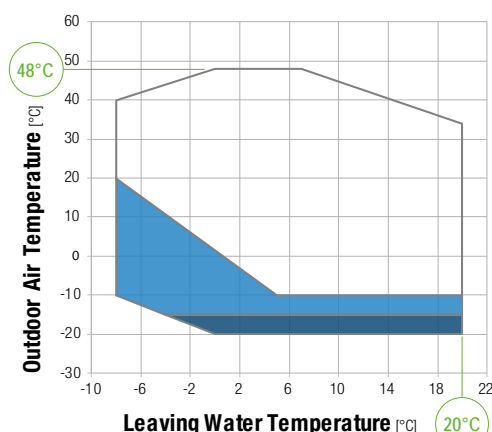


The three-colour LED button positioned on the electrical board allows the user to switch the unit on/off and visualize the general status of the equipment without using any mobile device.

In addition (Opt. 1442, 1444) or in substitution (Opt. 6194, 6195) to the KIPLink, i-FX-G01 can be provided with: a 7" color touch screen interface or with a keyboard with large display and LED icons.

In these cases, the LED switch is not provided. Remote keyboard is possible (Opt. C9261063, C9261064, C926108911, C926108913).

## EXTENSIVE OPERATING LIMITS



## K VERSION (Standard)

### FULL LOAD OPERATION

- Standard unit
- Required: EC fans (Opt. 808)
- Required: EC fans (Opt. 808)
- Low temp. device DBA (Opt. 813)

Air temp. < -10°C  
Double insulation on heat exchangers (Opt. 2631)

LWT < 0°C  
Compressor liquid injection (Opt. 871)

EC fans (Opt. 808)  
Maximum outside air temperature: 46°C

### PARTIAL LOAD OPERATION

In case of higher outdoor air temperature, i-FX-G01 automatically partializes its resources to ensure uninterrupted operation (HPTC function).

Operating limits when working partialized (water +7°C):  
**up to 53°C**



Climaveneta brand products have always been synonymous for best in class performance and high versatility. This is particularly true for i-FX-G01, the innovative chiller where all the features have been designed for complete customer peace of mind.

## Hydronic modules and flow controls

i-FX-G01 units come equipped as standard with terminal and modulating signal (0-10V) to control the activation and speed of one external variable speed pump, with the internally developed VPF.E control logic, which adjusts the pump speed on the basis of the plant's thermal load, in order to maintain the defined plant-side  $\Delta T$  (primary circuit).

## Factory-mounted pump group

2 pumps (duty/standby) provide low or high head (available head approx. 100 or 200 kPa)

### Fixed speed pumps

1 pump, 2-pole motor: Opt. 4706 (LH) / 4707 (HH)  
2 pump, 2-pole motor: Opt. 4711 (LH) / 4712 (HH)  
2 pump, 4-pole motor: Opt. 4708 (LH) / 4709 (HH)

### Variable speed pumps

1 pump, 2-pole motor: Opt. 4717 (LH) / 4718 (HH)  
2 pump, 2-pole motor: Opt. 4722 (LH) / 4723 (HH)  
2 pump, 4-pole motor: Opt. 4719 (LH) / 4721 (HH)



Close-coupled pumps by Grundfos

## Terminals for external pump control

The unit controls the activation and speed of 1 or 2 external pumps.

### Terminals + Modulating signal

1 pump: Standard  
2 pumps: Opt. 4714

These arrangements allow to control the activation / deactivation of fixed speed pumps too!

## Other possible variable primary flow control logics:



### VPF control logic

The VPF control series (Variable Primary Flow) doesn't only **adjust the pump speed on the basis of the plant's thermal load**, but also **dynamically optimizes the unit's thermoregulation** for variable flow operation, thus ensuring both the highest pump energy savings and chiller stable operation.

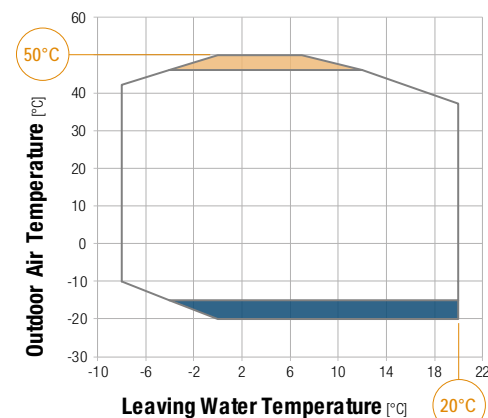
### VPF: constant $\Delta P$ on the plant side

For systems with only the primary circuit.  
Opt. 4864 or 4865 for single unit system  
Opt. 4866 for multi-unit system

### VPF.D: constant $\Delta T$ on the plant side

For systems with primary and secondary circuits separated by a hydraulic decoupler.  
Opt. 4867 for single unit system  
Opt. 4868 for multi-unit system

## EXTENSIVE OPERATING LIMITS



## A VERSION (High Efficiency)

### FULL LOAD OPERATION

- Standard unit
- Required: HT kit (Opt. 1955)
- Required: Low temp. device DBA (Opt. 813)

Air temp. < -10°C  
Double insulation on heat exchangers (Opt. 2631)

LWT < 0°C  
Compressor liquid injection (Opt. 871)

### PARTIAL LOAD OPERATION

In case of higher outdoor air temperature, i-FX-G01 automatically partializes its resources to ensure uninterrupted operation (HPTC function).

Operating limits when working partialized (water \*77°C):  
**up to 55°C**

# i-FX-G01

## Energy Analysis

Seville Mixed-use building: Retail + Offices

### COMFORT COOLING

#### Project

This multi-use building, located in Seville, is characterized by the presence of shops and offices, for a cooling power requirement of 900 kW.

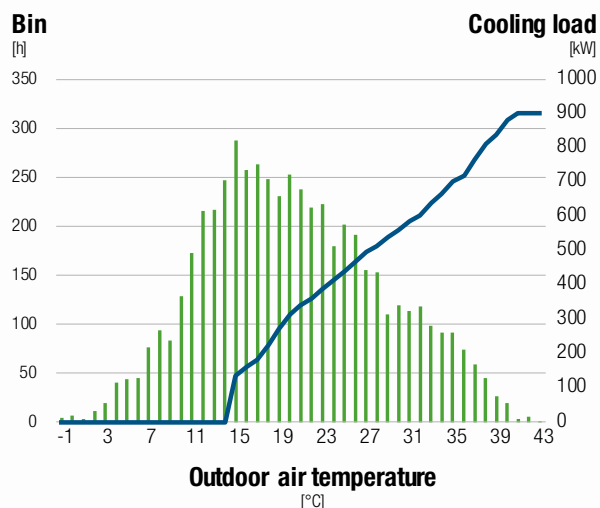
This project has provided data to evaluate the significant increase in seasonal efficiency of the new i-FX-G01 inverter screw chillers compared to an already excellent high efficiency fixed speed chiller.

This comfort application emphasizes the benefits of Inverter technology, ensuring exceptional results.



#### Temperature profile

#### Cooling load



The building is located in Seville (Spain).

The cooling load is 900 kW at 43°C of external air temperature.

However, as visible from the graph, for most of the hours the unit is working at partial load: the perfect conditions to make the most of i-FX-G01 units.

#### Energy analysis parameters:

Operating schedule: 7 days/week, from 6 am to 8 pm

Cold water set point: 7°C

Interest rate: 6%

Electric energy cost: 0,16 €/kWh

Inflation rate: 3%

## i-FX-G01/A vs High efficiency chiller with screw compressors

This analysis compares the efficiency of the new Inverter i-FX-G01 versus a latest generation high efficiency, fixed speed screw compressor chiller.

The chillers have the same footprint.



### High efficiency unit with screw compr.

Cooling capacity: 1162 kW (12/7°C, 35°C)  
EER: 3,12 (12/7°C, 35°C)  
SEER: 4,48      Length: 10400 mm



### i-FX-G01/A

Cooling capacity: 1177 kW (12/7°C, 35°C)  
EER: 3,14 (12/7°C, 35°C)  
SEER: 4,48      Length: 10400 mm

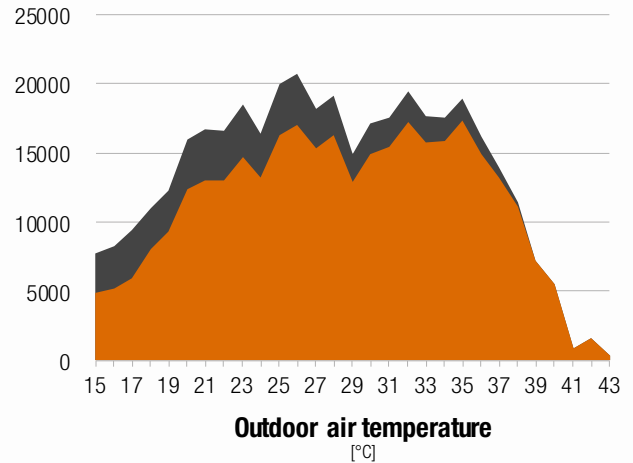
### Electrical energy

[kWh/year]

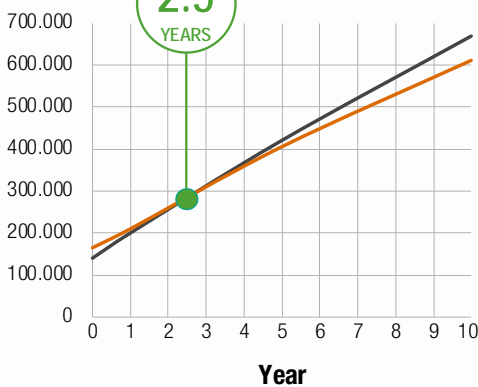
Traditional Unit: 100%

i-FX-G01/A 4822: 84%

**-16%** Energy Consumption



€



### Payback Time

### Results

The results obtained comparing a top-level fixed speed screw compressor chiller to the new i-FX-G01 are astounding:

Even if the two units have the same footprint, the new unit achieves **20% higher annual energy efficiency** than the latest generation fixed speed unit, resulting in an annual energy consumption reduced by 16%.

This leads to a payback time of only **2.5 years**.

## AT A GLANCE



### Power input saving

62.466 kWh per year

### CO<sub>2</sub> saved per year

28.035 kg, equivalent to CO<sub>2</sub> emissions produced by a petrol car driving 164.900 km

### Payback period

**2.5 years**

### Annual energy efficiency

**+20 %**

# ACCESSORIES AND SERVICES

## MICROCHANNEL COILS

Al - Regular (std)

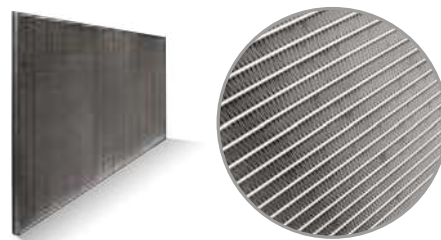
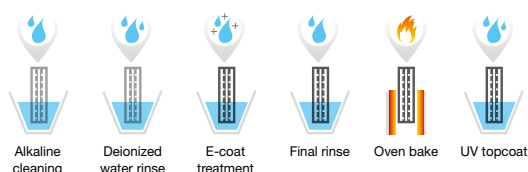
Al - E-coating (Opt. 876)



**3120 h**  
SWAAT test  
(ASTM G85-02 A3)

✓ UV rays  
excellent

### E-coating process



## TUBE & FIN COILS

Cu/Al - Regular (Opt. 879)

Cu/Al - Pre-painted fins (Opt. 894)

Cu/Al - High pressure spray coating (Opt. 895 / RFQ)

**Fin Guard Silver SB \***  
Opt. 895

Polyurethane resin with  
aluminum fillers

✓ **3000 h** ASTM B117

✓ **UV** rays - excellent

\* Thermoguard

**PoluAl XT \***  
RFQ

Polyurethane resin with  
aluminum fillers

✓ **4000 h** ASTM B117

✓ **UV** rays - excellent

\* Blygold

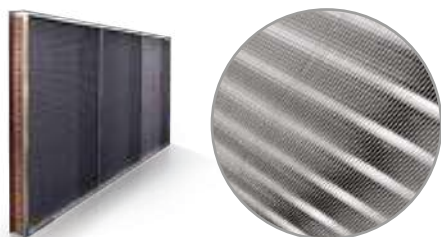
**Heresite P-413C \***  
RFQ

Phenolic resin

✓ **6000 h** ASTM B117

✓ **UV** rays - good

\* Heresite Protective Coating, LLC



Cu/Cu - Tube & fin coil (Opt. 881)

## WITNESS TESTING

Test your chiller before installation and make sure its' performance is totally reliable.

### Performance WITNESS TEST

Performance Witness testing is available as additional service in order to allow the final user to see the unit being tested under specific conditions. Carried out within modern and sophisticated facilities, this service gives the customer the possibility to choose among different witness test options in order to:

- ▶ Verify unit operation under severe conditions
- ▶ Detect sound emissions
- ▶ Check performance, both at full and partial loads
- ▶ Test the unit with low outdoor air temperature operation
- ▶ Time the fast restart



## All the flexibility you need to fit the most diverse application requirements

### FURTHER OPTIONS

#### Auxiliary input

**4-20 mA (Opt. 6161):** Enables remote set-point adjustments (analog input).

**Double set-point (Opt. 6162):** Enables the remote switch between 2 set-points (digital input).

**Demand limit (Opt. 6171):** Limits the unit's power absorption for safety reasons or in temporary situations (digital input).

#### Electrical

**Automatic circuit breakers for all major electrical loads (compressors excluded) (Opt. 3414):**

Protect all the major electrical loads (compressors excluded) from possible current peaks, over-current switches are provided in place of the standard fuses. The compressors are already protected by extra-fast selectional fuses.

#### Connectivity

Serial card interface module to allow integration with BMS protocols:

**Modbus (Opt. 4181) / LonWorks (Opt. 4182) / BACnet MS/TP (Opt. 4184) / BACnet over IP (Opt. 4185)**

**M-Net interface kit (Opt. 4187):** Interface module to allow the integration of the unit with Mitsubishi Electric proprietary communication protocol M-Net.

#### Energy Meter

**Energy meter for BMS (Opt. 5924):** Acquires electrical data and the power absorbed by the unit and send them the BMS for energy metering (Modbus RS485).

#### Refrigerant circuit

**Dual pressure relief valves with switch (Opt. 1961):** One valve is isolated from the refrigerant circuit while the other is in service. The user can work on the isolated valve for periodic maintenance or replacement, without removing the refrigerant from the circuit.

**Compressor suction valve (Opt. 1901):** Installed on each compressor suction line, it simplifies maintenance activity (discharge valves are present as per standard).

#### Refrigerant leak detector

**Leak detector (Opt. 3431):** Factory installed device. In case of a gas leak detection it raises an alarm.

**Leak detector + compressor off (Opt. 3433):** Factory installed device. In case of a gas leak detection it raises an alarm and stops the units.

#### Hydraulic

**Water flow switch (Opt. 1801):** Designed to protect the unit where the water flow across the evaporator is not sufficient and falls outside of the operating parameters.

**Delta T > 8°C (Opt. 2881):** Evaporator designed to operate with low primary circuit water flow.

**Flanged hydraulic connections (Opt. 2911):** Grooved coupling with flanged counter-pipe.

#### Structure

**Anti-intrusion grilles (Opt. 2021):** Perimeter metal grilles to protect against the intrusion of solid bodies into the unit structure.

**Rubber type (Opt. 2101) or spring type (Opt. 2102) anti-vibration mountings:** Reduce vibrations, keeping noise transmission to a minimum.

#### Packing

**Reinforcing bars (Opt. 1971):** Steel brackets used to strengthen the unit structure. Suggested in case of long truck transport.

**Nylon packing (Opt. 9966):** FX is covered with a protective nylon layer and provided with the lifting eye-plates, to load the unit into a truck.

**Container packing (Opt. 9979):** FX is covered with a protective nylon layer, provided with structural reinforcing bars and equipped with both lifting eye-plates and handling devices to load it on a container (metal slides, front handling bar).



## i-FX-G01

**2202 - 7223**Air cooled chillers with  
inverter screw compressors  
(from 477 to 1697 kW)

## i-FX-G01/K

Model			2202	2602	2652	2702	2722	3152	3602
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
<b>PERFORMANCE</b>									
<b>COOLING ONLY (GROSS VALUE)</b>									
Cooling capacity	kW		478,6	531,1	561,2	598,1	656,7	720,7	801,4
Total power input	kW		165,1	181,6	190,6	200,8	227,7	252,4	278,6
EER	kW/kW		2,899	2,925	2,944	2,979	2,884	2,855	2,877
<b>COOLING ONLY (EN14511 VALUE)</b>									
Cooling capacity	(1)(2) kW		477,3	529,4	559,6	596,2	654,7	718,2	798,9
EER	(1)(2) kW/kW		2,870	2,890	2,910	2,940	2,850	2,820	2,840
Cooling energy class			C	C	B	B	C	C	C
<b>ENERGY EFFICIENCY</b>									
<b>SEASONAL EFFICIENCY IN COOLING (REG. EU 2016/2281)</b>									
<b>AMBIENT REFRIGERATION</b>									
Prated, C	(7) kW		477	529	560	596	655	718	799
SEER	(7)(8)		4,84	4,84	4,78	4,82	4,80	4,88	4,90
Performance $\eta_s$	(7)(9) %		190	191	188	190	189	192	193
<b>EXCHANGERS</b>									
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>									
Water flow	l/s		22,89	25,40	26,84	28,60	31,40	34,47	38,33
Pressure drop	kPa		32,0	39,5	35,2	40,0	38,3	46,2	40,7
<b>REFRIGERANT CIRCUIT</b>									
Compressors nr.	N°		2	2	2	2	2	2	2
No. Circuits	N°		2	2	2	2	2	2	2
Refrigerant charge	kg		69,0	76,0	80,0	88,0	94,0	104	117
<b>NOISE LEVEL</b>									
Sound Pressure	(3) dB(A)		67	68	68	68	69	68	68
Sound power level in cooling	(4)(5) dB(A)		99	100	100	100	101	101	101
<b>SIZE AND WEIGHT</b>									
A	(6) mm		4150	5400	5400	5400	5400	6650	6650
B	(6) mm		2260	2260	2260	2260	2260	2260	2260
H	(6) mm		2500	2500	2500	2500	2500	2500	2500
Operating weight	(6) kg		4790	5270	5280	5330	5720	6210	6270

Model			3902	4202	4502	4802	4812	4822	5412
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
<b>PERFORMANCE</b>									
<b>COOLING ONLY (GROSS VALUE)</b>									
Cooling capacity	kW		874,1	932,0	990,3	1029	1054	1128	1169
Total power input	kW		299,6	317,8	343,7	368,3	352,1	389,0	413,1
EER	kW/kW		2,918	2,933	2,881	2,794	2,993	2,900	2,830
<b>COOLING ONLY (EN14511 VALUE)</b>									
Cooling capacity	(1)(2) kW		871,3	928,7	987,3	1026	1050	1124	1166
EER	(1)(2) kW/kW		2,880	2,890	2,850	2,760	2,950	2,860	2,800
Cooling energy class			C	C	C	C	B	C	C
<b>ENERGY EFFICIENCY</b>									
<b>SEASONAL EFFICIENCY IN COOLING (REG. EU 2016/2281)</b>									
<b>AMBIENT REFRIGERATION</b>									
Prated, c	(7) kW		871	929	987	1026	1050	1124	1166
SEER	(7)(8)		4,82	4,83	4,84	4,87	4,84	4,86	4,96
Performance $\eta_s$	(7)(9) %		190	190	190	192	191	192	195
<b>EXCHANGERS</b>									
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>									
Water flow	l/s		41,80	44,57	47,36	49,20	50,41	53,94	55,90
Pressure drop	kPa		42,8	48,7	42,4	45,8	48,1	51,7	41,7
<b>REFRIGERANT CIRCUIT</b>									
Compressors nr.	N°		2	2	2	2	2	2	2
No. Circuits	N°		2	2	2	2	2	2	2
Refrigerant charge	kg		127	135	140	146	151	164	168
<b>NOISE LEVEL</b>									
Sound Pressure	(3) dB(A)		69	70	70	71	71	72	72
Sound power level in cooling	(4)(5) dB(A)		102	103	103	104	104	105	105
<b>SIZE AND WEIGHT</b>									
A	(6) mm		7900	7900	7900	7900	9150	9150	9150
B	(6) mm		2260	2260	2260	2260	2260	2260	2260
H	(6) mm		2500	2500	2500	2500	2500	2500	2500
Operating weight	(6) kg		6700	6740	7350	7750	8220	8340	8500

**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 ▶ Parameter calculated according to [REGULATION (EU) N. 2016/2281]

- 8 ▶ Seasonal energy efficiency ratio
- 9 ▶ Seasonal space cooling energy efficiency

The units highlighted in this publication contain HFC R134a [GWP<sub>100</sub> 1430] fluorinated greenhouse gases.

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Model		6002	6022	6303	6903	7203	7213	7223
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
<b>PERFORMANCE</b>								
<b>COOLING ONLY (GROSS VALUE)</b>								
Cooling capacity	kW	1242	1302	1409	1493	1559	1649	1697
Total power input	kW	421,2	457,9	478,8	522,8	555,4	572,1	593,5
EER	kW/kW	2,949	2,843	2,943	2,856	2,807	2,882	2,859
<b>COOLING ONLY (EN14511 VALUE)</b>								
Cooling capacity	(1)(2) kW	1238	1297	1405	1488	1555	1644	1691
EER	(1)(2) kW/kW	2,910	2,810	2,910	2,820	2,780	2,850	2,820
Cooling energy class		B	C	B	C	C	C	C
<b>ENERGY EFFICIENCY</b>								
<b>SEASONAL EFFICIENCY IN COOLING (REG. EU 2016/2281)</b>								
<b>AMBIENT REFRIGERATION</b>								
Prated,c	(7) kW	1238	1297	1405	1488	1555	1644	1691
SEER	(7)(8)	4,97	4,97	4,79	4,84	4,83	4,83	4,84
Performance $\eta_s$	(7)(9) %	196	196	189	191	190	190	191
<b>EXCHANGERS</b>								
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>								
Water flow	l/s	59,42	62,28	67,38	71,40	74,58	78,86	81,17
Pressure drop	kPa	47,1	51,8	45,9	51,5	39,6	44,3	50,4
<b>REFRIGERANT CIRCUIT</b>								
Compressors nr.	N°	2	2	3	2	3	2	3
No. Circuits	N°	2	2	3	3	3	3	3
Refrigerant charge	kg	181	186	205	212	221	237	250
<b>NOISE LEVEL</b>								
Sound Pressure	(3) dB(A)	72	72	72	72	72	73	73
Sound power level in cooling	(4)(5) dB(A)	105	105	105	105	105	106	106
<b>SIZE AND WEIGHT</b>								
A	(6) mm	10400	10400	11650	11650	11650	12900	12900
B	(6) mm	2260	2260	2260	2260	2260	2260	2260
H	(6) mm	2500	2500	2500	2500	2500	2500	2500
Operating weight	(6) kg	8890	9000	10650	11460	11840	12350	12430

**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.

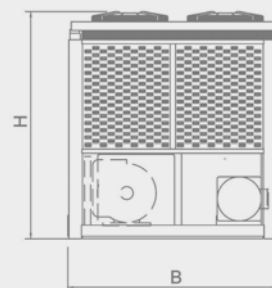
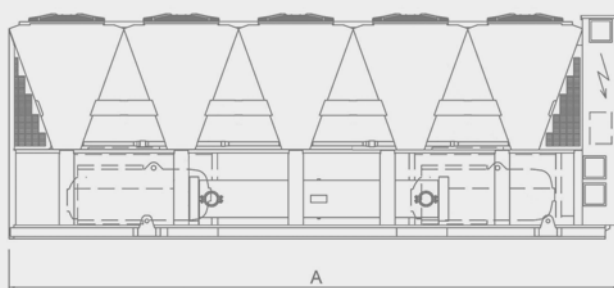
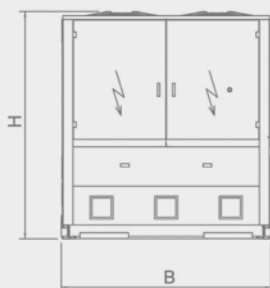
- 7 ▶ Parameter calculated according to [REGULATION (EU) N. 2016/2281]

- 8 ▶ Seasonal energy efficiency ratio

- 9 ▶ Seasonal space cooling energy efficiency

The units highlighted in this publication contain HFC R134a [GWP<sub>100</sub> 1430] fluorinated greenhouse gases.

Certified data in EUROVENT



## i-FX-G01

**2202 - 7223**Air cooled chillers with  
inverter screw compressors  
(from 477 to 1697 kW)

## i-FX-G01/SL-K

Model			2202	2602	2652	2702	2722	3152	3602
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
<b>PERFORMANCE</b>									
<b>COOLING ONLY (GROSS VALUE)</b>									
Cooling capacity	kW		477,0	516,7	554,6	578,0	662,9	711,3	774,2
Total power input	kW		161,3	169,9	187,5	203,5	219,1	249,6	283,5
EER	kW/kW		2,957	3,041	2,958	2,840	3,026	2,850	2,731
<b>COOLING ONLY (EN14511 VALUE)</b>									
Cooling capacity	(1)(2) kW		475,7	515,1	553,0	576,3	660,9	708,9	772,0
EER	(1)(2) kW/kW		2,930	3,000	2,930	2,810	2,990	2,810	2,700
Cooling energy class			B	B	B	C	B	C	C
<b>ENERGY EFFICIENCY</b>									
<b>SEASONAL EFFICIENCY IN COOLING (REG. EU 2016/2281)</b>									
<b>AMBIENT REFRIGERATION</b>									
Prated,c	(7) kW		476	515	553	576	661	709	772
SEER	(7)(8)		4,99	4,95	4,90	4,81	4,96	4,97	4,94
Performance $\eta_s$	(7)(9) %		197	195	193	190	196	196	195
<b>EXCHANGERS</b>									
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>									
Water flow	l/s		22,81	24,71	26,52	27,64	31,70	34,02	37,02
Pressure drop	kPa		31,8	37,4	34,4	37,3	39,1	45,0	38,0
<b>REFRIGERANT CIRCUIT</b>									
Compressors nr.	N°		2	2	2	2	2	2	2
No. Circuits	N°		2	2	2	2	2	2	2
Refrigerant charge	kg		72,0	79,0	84,0	88,0	101	109	117
<b>NOISE LEVEL</b>									
Sound Pressure	(3) dB(A)		60	61	61	61	61	61	61
Sound power level in cooling	(4)(5) dB(A)		92	93	93	93	94	94	94
<b>SIZE AND WEIGHT</b>									
A	(6) mm		5400	5400	5400	5400	6650	6650	6650
B	(6) mm		2260	2260	2260	2260	2260	2260	2260
H	(6) mm		2500	2500	2500	2500	2500	2500	2500
Operating weight	(6) kg		5450	5600	5620	5650	6560	6580	6590

Model			3902	4202	4502	4802	4812	4822	5412
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
<b>PERFORMANCE</b>									
<b>COOLING ONLY (GROSS VALUE)</b>									
Cooling capacity	kW		845,6	903,1	972,7	1028	1046	1120	1162
Total power input	kW		304,7	323,1	342,2	358,3	344,9	381,1	404,9
EER	kW/kW		2,775	2,795	2,842	2,869	3,033	2,939	2,870
<b>COOLING ONLY (EN14511 VALUE)</b>									
Cooling capacity	(1)(2) kW		843,1	900,1	969,8	1025	1042	1116	1159
EER	(1)(2) kW/kW		2,740	2,760	2,810	2,830	2,990	2,900	2,840
Cooling energy class			C	C	C	C	B	B	C
<b>ENERGY EFFICIENCY</b>									
<b>SEASONAL EFFICIENCY IN COOLING (REG. EU 2016/2281)</b>									
<b>AMBIENT REFRIGERATION</b>									
Prated,c	(7) kW		843	900	970	1025	1042	1116	1159
SEER	(7)(8)		4,83	4,82	4,93	5,03	4,95	5,00	5,07
Performance $\eta_s$	(7)(9) %		190	190	194	198	195	197	200
<b>EXCHANGERS</b>									
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>									
Water flow	l/s		40,44	43,19	46,52	49,15	50,01	53,58	55,57
Pressure drop	kPa		40,1	45,7	40,9	45,7	47,3	51,0	41,2
<b>REFRIGERANT CIRCUIT</b>									
Compressors nr.	N°		2	2	2	2	2	2	2
No. Circuits	N°		2	2	2	2	2	2	2
Refrigerant charge	kg		127	135	146	155	159	172	177
<b>NOISE LEVEL</b>									
Sound Pressure	(3) dB(A)		62	63	63	63	63	63	63
Sound power level in cooling	(4)(5) dB(A)		95	96	96	96	96	96	96
<b>SIZE AND WEIGHT</b>									
A	(6) mm		7900	7900	9150	9150	10400	10400	10400
B	(6) mm		2260	2260	2260	2260	2260	2260	2260
H	(6) mm		2500	2500	2500	2500	2500	2500	2500
Operating weight	(6) kg		7050	7100	8110	8550	9010	9130	9310

**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 ▶ Parameter calculated according to [REGULATION (EU) N. 2016/2281]

- 8 ▶ Seasonal energy efficiency ratio
- 9 ▶ Seasonal space cooling energy efficiency

The units highlighted in this publication contain HFC R134a [GWP<sub>100</sub> 1430] fluorinated greenhouse gases.

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Model		6002	6022	6303	6903	7203	7213	7223
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
<b>PERFORMANCE</b>								
<b>COOLING ONLY (GROSS VALUE)</b>								
Cooling capacity	kW	1199	1290	1365	1474	1541	1590	1635
Total power input	kW	428,2	451,3	486,9	519,0	548,8	584,9	607,6
EER	kW/kW	2,800	2,858	2,803	2,840	2,808	2,718	2,691
<b>COOLING ONLY (EN14511 VALUE)</b>								
Cooling capacity	(1)(2) kW	1195	1286	1361	1469	1537	1586	1630
EER	(1)(2) kW/kW	2,770	2,820	2,770	2,800	2,780	2,690	2,660
Cooling energy class		C	C	C	C	C	D	D
<b>ENERGY EFFICIENCY</b>								
<b>SEASONAL EFFICIENCY IN COOLING (REG. EU 2016/2281)</b>								
<b>AMBIENT REFRIGERATION</b>								
Prated,c	(7) kW	1195	1286	1361	1469	1537	1586	1630
SEER	(7)(8)	5,03	5,06	4,84	5,01	4,91	4,91	4,92
Performance $\eta_s$	(7)(9) %	198	199	191	197	193	193	194
<b>EXCHANGERS</b>								
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>								
Water flow	l/s	57,32	61,67	65,28	70,50	73,70	76,02	78,18
Pressure drop	kPa	43,9	50,8	43,1	50,2	38,7	41,2	46,7
<b>REFRIGERANT CIRCUIT</b>								
Compressors nr.	N°	2	2	3	2	3	2	3
No. Circuits	N°	2	2	3	3	3	3	3
Refrigerant charge	kg	181	195	205	222	232	242	250
<b>NOISE LEVEL</b>								
Sound Pressure	(3) dB(A)	63	63	63	63	63	64	64
Sound power level in cooling	(4)(5) dB(A)	96	96	96	96	96	97	97
<b>SIZE AND WEIGHT</b>								
A	(6) mm	10400	11650	11650	12900	12900	12900	12900
B	(6) mm	2260	2260	2260	2260	2260	2260	2260
H	(6) mm	2500	2500	2500	2500	2500	2500	2500
Operating weight	(6) kg	9270	9790	11140	12390	12770	12850	12930

**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.

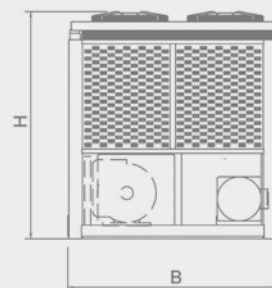
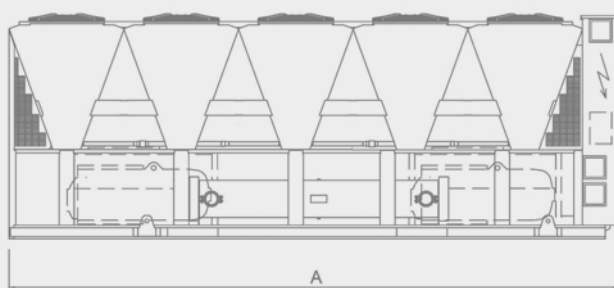
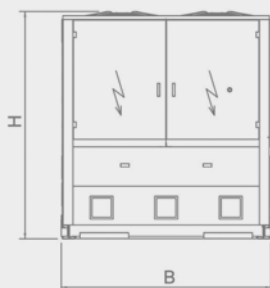
- 7 ▶ Parameter calculated according to [REGULATION (EU) N. 2016/2281]

- 8 ▶ Seasonal energy efficiency ratio

- 9 ▶ Seasonal space cooling energy efficiency

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## i-FX-G01

**2202 - 6603**Air cooled chillers with  
inverter screw compressors  
(from 477 to 1520 kW)

## i-FX-G01/A

Model			2202	2602	2652	2702	2722	3152	3602	3902
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
<b>PERFORMANCE</b>										
<b>COOLING ONLY (GROSS VALUE)</b>										
Cooling capacity	kW		510,2	551,9	590,0	626,9	684,3	767,2	839,9	899,4
Total power input	kW		157,1	170,7	181,9	195,0	213,4	246,9	274,6	291,3
EER	kW/kW		3,248	3,233	3,244	3,215	3,207	3,107	3,059	3,088
<b>COOLING ONLY (EN14511 VALUE)</b>										
Cooling capacity	(1)(2) kW		508,7	550,4	588,2	624,8	682,1	765,0	837,1	896,4
EER	(1)(2) kW/kW		3,210	3,200	3,200	3,170	3,160	3,070	3,020	3,050
Cooling energy class			A	A	A	A	A	B	B	B
<b>ENERGY EFFICIENCY</b>										
<b>SEASONAL EFFICIENCY IN COOLING (REG. EU 2016/2281)</b>										
<b>AMBIENT REFRIGERATION</b>										
Prated,c	(7) kW		509	550	588	625	682	765	837	896
SEER	(7)(8)		5,37	5,39	5,37	5,31	5,32	5,33	5,34	5,29
Performance $\eta_s$	(7)(9) %		212	212	212	209	210	210	211	209
<b>EXCHANGERS</b>										
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>										
Water flow	l/s		24,40	26,39	28,22	29,98	32,73	36,69	40,16	43,01
Pressure drop	kPa		36,4	34,0	38,9	43,9	41,6	37,3	44,7	45,3
<b>REFRIGERANT CIRCUIT</b>										
Compressors nr.	N°		2	2	2	2	2	2	2	2
No. Circuits	N°		2	2	2	2	2	2	2	2
Refrigerant charge	kg		79,0	81,0	87,0	92,0	100	113	123	133
<b>NOISE LEVEL</b>										
Sound Pressure	(3) dB(A)		67	68	67	67	68	68	68	69
Sound power level in cooling	(4)(5) dB(A)		99	100	100	100	101	101	101	102
<b>SIZE AND WEIGHT</b>										
A	(6) mm		5400	5400	6650	6650	6650	7900	7900	9150
B	(6) mm		2260	2260	2260	2260	2260	2260	2260	2260
H	(6) mm		2500	2500	2500	2500	2500	2500	2500	2500
Operating weight	(6) kg		5180	5240	5720	5800	6210	6620	6670	7080

Model			4202	4502	4802	4822	5412	5703	6303	6603
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
<b>PERFORMANCE</b>										
<b>COOLING ONLY (GROSS VALUE)</b>										
Cooling capacity	kW		959,4	1028	1099	1162	1230	1334	1467	1520
Total power input	kW		307,8	326,5	343,9	373,0	385,1	434,5	473,6	498,0
EER	kW/kW		3,117	3,149	3,196	3,115	3,194	3,070	3,098	3,052
<b>COOLING ONLY (EN14511 VALUE)</b>										
Cooling capacity	(1)(2) kW		955,9	1025	1095	1159	1226	1330	1463	1516
EER	(1)(2) kW/kW		3,070	3,110	3,150	3,080	3,150	3,030	3,070	3,020
Cooling energy class			B	A	A	B	A	B	B	B
<b>ENERGY EFFICIENCY</b>										
<b>SEASONAL EFFICIENCY IN COOLING (REG. EU 2016/2281)</b>										
<b>AMBIENT REFRIGERATION</b>										
Prated,c	(7) kW		956	1025	1095	1159	1226	1330	1463	1516
SEER	(7)(8)		5,23	5,38	5,33	5,28	5,34	5,26	5,17	5,24
Performance $\eta_s$	(7)(9) %		206	212	210	208	211	207	204	207
<b>EXCHANGERS</b>										
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>										
Water flow	l/s		45,88	49,16	52,54	55,59	58,81	63,78	70,16	72,70
Pressure drop	kPa		51,6	45,7	50,1	41,2	46,2	41,1	35,1	37,7
<b>REFRIGERANT CIRCUIT</b>										
Compressors nr.	N°		2	2	2	2	2	3	3	3
No. Circuits	N°		2	2	2	2	2	3	3	3
Refrigerant charge	kg		141	151	161	173	182	197	226	224
<b>NOISE LEVEL</b>										
Sound Pressure	(3) dB(A)		70	70	71	72	72	72	72	72
Sound power level in cooling	(4)(5) dB(A)		103	103	104	105	105	105	105	105
<b>SIZE AND WEIGHT</b>										
A	(6) mm		9150	10400	10400	10400	11650	12900	12900	12900
B	(6) mm		2260	2260	2260	2260	2260	2260	2260	2260
H	(6) mm		2500	2500	2500	2500	2500	2500	2500	2500
Operating weight	(6) kg		7120	8110	8550	8810	9280	10880	10920	11610

**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 ▶ Parameter calculated according to [REGULATION (EU) N. 2016/2281]

- 8 ▶ Seasonal energy efficiency ratio
- 9 ▶ Seasonal space cooling energy efficiency

The units highlighted in this publication contain HFC R134a [GWP<sub>100</sub> 1430] fluorinated greenhouse gases.

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## i-FX-G01/SL-A

Model		2202	2602	2652	2702	2722	3152	3602	3902
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
<b>PERFORMANCE</b>									
<b>COOLING ONLY (GROSS VALUE)</b>									
Cooling capacity	kW	498,8	559,5	581,8	615,1	682,8	751,6	811,9	891,5
Total power input	kW	155,7	175,2	178,0	194,0	208,0	240,9	264,1	283,2
EER	kW/kW	3,204	3,193	3,269	3,171	3,283	3,120	3,074	3,148
<b>COOLING ONLY (EN14511 VALUE)</b>									
Cooling capacity	(1)(2) kW	497,4	557,9	580,0	613,4	680,6	749,5	809,4	888,6
EER	(1)(2) kW/kW	3,170	3,160	3,230	3,140	3,240	3,080	3,040	3,110
Cooling energy class		A	A	A	A	A	B	B	A
<b>ENERGY EFFICIENCY</b>									
<b>SEASONAL EFFICIENCY IN COOLING (REG. EU 2016/2281)</b>									
<b>AMBIENT REFRIGERATION</b>									
Prated,c	(7) kW	497	558	580	613	681	750	809	889
SEER	(7)(8)	5,39	5,39	5,41	5,35	5,38	5,39	5,40	5,35
Performance $\eta_s$	(7)(9) %	213	213	214	211	212	213	213	211
<b>EXCHANGERS</b>									
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>									
Water flow	l/s	23,85	26,76	27,82	29,42	32,65	35,94	38,83	42,63
Pressure drop	kPa	34,8	35,0	37,8	33,6	41,5	35,8	41,8	44,5
<b>REFRIGERANT CIRCUIT</b>									
Compressors nr.	N°	2	2	2	2	2	2	2	2
No. Circuits	N°	2	2	2	2	2	2	2	2
Refrigerant charge	kg	79,0	88,0	92,0	97,0	107	118	129	141
<b>NOISE LEVEL</b>									
Sound Pressure	(3) dB(A)	60	60	60	60	61	61	61	62
Sound power level in cooling	(4)(5) dB(A)	92	93	93	93	94	94	94	95
<b>SIZE AND WEIGHT</b>									
A	(6) mm	5400	6650	6650	6650	7900	7900	9150	10400
B	(6) mm	2260	2260	2260	2260	2260	2260	2260	2260
H	(6) mm	2500	2500	2500	2500	2500	2500	2500	2500
Operating weight	(6) kg	5490	6030	6080	6400	6990	6990	7460	7860

Model		4202	4502	4802	4822	5412	5703	6303
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
<b>PERFORMANCE</b>								
<b>COOLING ONLY (GROSS VALUE)</b>								
Cooling capacity	kW	942,8	1016	1086	1149	1213	1332	1462
Total power input	kW	299,7	318,3	335,7	364,6	377,2	438,1	473,2
EER	kW/kW	3,146	3,192	3,235	3,151	3,216	3,040	3,090
<b>COOLING ONLY (EN14511 VALUE)</b>								
Cooling capacity	(1)(2) kW	939,4	1013	1082	1146	1209	1328	1458
EER	(1)(2) kW/kW	3,100	3,150	3,190	3,110	3,170	3,010	3,060
Cooling energy class		A	A	A	A	A	B	B
<b>ENERGY EFFICIENCY</b>								
<b>SEASONAL EFFICIENCY IN COOLING (REG. EU 2016/2281)</b>								
<b>AMBIENT REFRIGERATION</b>								
Prated,c	(7) kW	939	1013	1082	1146	1209	1328	1458
SEER	(7)(8)	5,28	5,42	5,41	5,37	5,45	5,29	5,14
Performance $\eta_s$	(7)(9) %	208	214	213	212	215	209	203
<b>EXCHANGERS</b>								
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>								
Water flow	l/s	45,09	48,60	51,92	54,96	58,00	63,72	69,92
Pressure drop	kPa	49,8	44,7	48,9	40,3	44,9	41,0	34,8
<b>REFRIGERANT CIRCUIT</b>								
Compressors nr.	N°	2	2	2	2	2	4	3
No. Circuits	N°	2	2	2	2	2	3	3
Refrigerant charge	kg	149	160	171	183	191	206	226
<b>NOISE LEVEL</b>								
Sound Pressure	(3) dB(A)	63	63	63	63	63	63	63
Sound power level in cooling	(4)(5) dB(A)	96	96	96	96	96	96	96
<b>SIZE AND WEIGHT</b>								
A	(6) mm	10400	11650	11650	11650	12900	12900	12900
B	(6) mm	2260	2260	2260	2260	2260	2260	2260
H	(6) mm	2500	2500	2500	2500	2500	2500	2500
Operating weight	(6) kg	8080	8860	9310	9640	10080	11410	11420

### 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.
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# A SELECTION OF CLIMAVENETA INSTALLATIONS

## BOTSWANA INNOVATION HUB

2015 GABORONE (BOTSWANA)

Application:  
**Office building**

Plant type:  
**Hydronic System**

Cooling capacity: **2803 kW**

Heating capacity: **2133 kW**

Installed machines: **1x i-FX (1+i) CA high efficiency chiller with fixed and inverter speed compressors, 3x ERACS2-Q XL-CA high efficiency 4-pipe heat pumps**



### PROJECT

The Botswana Innovation Hub is located strategically on a 57 hectares site, near the Sir Seretse Khama International Airport in Gaborone, the capital city of Botswana and the centre of the country's business activity. The facility will provide an attractive location for technology driven and knowledge intensive business to develop and compete in the global market.

### CHALLENGE

The building has been designed to save energy and be as many efficient as possible. The roof design of the Botswana Innovation Hub incorporates large overhangs to passively shade the building's interior volumes, mechanisms to collect and re-use water, and both passive and active photovoltaic systems to harness solar energy.

### SOLUTION

The air conditioning system is based on 3 INTEGRA multipurpose ERACS2-Q XL-CA and one high efficiency air cooled chiller i-FX (1+i) CA, all supplied by Climaveneta.

# HOSPITAL DE VIC

2017 BARCELONA (SPAIN)

Application:  
Healthcare / Hospitals

Plant type:  
Hydronic System

Cooling capacity: 2510 kW

Installed machines:  
2x i-FX (1+i)/SL low noise screw compressor  
chiller, 1x TECS2/SL-CA-E high efficiency and  
low noise chiller with oil-free compressor,  
1x ClimaPRO optimization and management  
system



## PROJECT

Santa Creu de Vic, founded in 1348, is a geriatric hospital and is a reference point throughout Spain. The organization, part of the Hospital Consortium of Catalonia, has 178 beds and employs about 155 people. The aging population and the increase in chronic diseases have created new requirements related to the health care of the elderly people.

## CHALLENGE

To improve the quality of services, while complying with current and future patients' needs, the hospital is undertaking an important refurbishment of the building which includes: the creation of a new clinic on the ground floor, the construction of a new area dedicated to rehabilitation and the creation of a large underground car park, which will be covered by an extensive green area.

## SOLUTION

The restructuring also includes the modernization of the mechanical systems, including the HVAC one. The new HVAC system is based on Climaveneta branded air cooled, high efficiency, chillers: two i-FX (1+i)/SL and one TECS2/SL-CA-E, all supplied with the silent version to grant the maximum acoustic comfort to all patients. The HVAC system, with a total cooling capacity of almost 2,000 kW, is controlled by the management and optimization system ClimaPRO.



# MORE THAN 1000 PROJECTS ALL OVER THE WORLD

2015 Hannover - Germany

## Hannover Messe

**Application:** Fair

**Plant type:** Hydronic System

**Cooling Capacity:** 785 kW

**Installed machines:** 1x i-FX (1+i)/CA high efficiency chiller with fixed speed and inverter speed compressors



2017 Imola (Bologna) - Italy

## Montecatone Hospital

**Application:** Healthcare / Hospitals

**Plant type:** Hydronic System

**Cooling Capacity:** 1468 kW

**Installed machines:** 2x i-FX (1+i)/SL low noise chiller with fixed and inverter speed compressors



Climaveneta's chiller units, with their unbeatable advantages in terms of efficiency, quality, and precision are already the preferred choice of the major brands in the most prestigious projects all over the world.

### 2013 Mumbai - India National Sports Club of India

**Application:** Sport structures  
**Plant type:** Hydronic System  
**Cooling Capacity:** 2476 kW  
**Installed machines:** 1x FOCS2/CA high efficiency chillers with screw compressors, 1x i-FX/CA high efficiency chiller with inverter screw compressors

### 2018 Montevideo - Uruguay Antel Arena

**Application:** Mixed-Use Development  
**Plant type:** Air to Air System  
 Hydronic System - HPAC System  
**Cooling Capacity:** 5000 kW  
**Heating Capacity:** 3000 kW  
**Airflow:** 865700 m<sup>3</sup>/h  
**Installed machines:** 26x WIZARD air handling units, 2x NECS/B scroll compressor chillers, 2x FOCS2/SL-K, 5x ERACS2-Q, 102x a-CHD, 55x a-LIFE2, 5x a-HWD2, 8x ACO/ACU, ClimaPRO





for a greener tomorrow

Eco Changes is the Mitsubishi Electric Group's environmental statement, and expresses the Group's stance on environmental management. Through a wide range of businesses, we are helping contribute to the realization of a sustainable society.



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