

Commercial and industrial chillers

i-FX-W (1+i) 1402 - 4652



High efficiency water cooled chiller 488-1637 kW

Indoor unit for the production of chilled water, with fixed speed and variable speed (Inverter Driven) screw compressors optimized for R134a, electronic expansion valve, high performing shell and tube condenser and shell and tube flooded evaporator, both designed and produced by Climaveneta. These technological solutions enhance the EER values over 5,7 at Eurovent standard conditions.

The resulting unit is extremely compact, thanks to the strategic layout, designed without base, frame and panels.

Controls

W3000 TE

The brand new W3000TE controller offers advanced functions and algorithms. The large format keyboard provides a complete view of the statuses of the unit. The controls and the complete LCD display favour an easy and safe access to the machine setup. These resources allow the assessment and intervention on the unit, by means of 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.



Version

CA High energy efficiency units

Features

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.

FLEXIBILITY

Unit featured by remarkable application flexibility thanks to the inverter technology which allows to obtain, taking in consideration the cooling capacity needed, the best result about costs/performances and maximum efficiency.

TOTAL VERSATILITY

Unit designed gathering in a single circuit a compressor with step regulation and one working with inverter, in order to guarantee the best answer to plant necessities both at full and at part loads.

MAXIMUM COMPACTNESS

Maximum compactness to achieve a very high flexibility in the design process and installation operations, offering a premium solution in case of reduced clearances or when retrofitting existing installations.

Accessory

- Touch Screen visual display
- VPF (Variable Primary Flow) system
- Set-up for remote connectivity with ModBus/Echelon protocol cards
- Several devices for condensation's control



i-FX-W (1+i)			1402	1752	1902	2152	2602	3002	3402	3852	4252	4652
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
PERFORMANCE												
COOLING ONLY (GROSS VALUE)												
Cooling capacity	(1)	kW	488	610	661	752	917	1049	1189	1351	1486	1637
Total power input	(1)	kW	87,6	107	116	132	161	184	206	233	260	289
EER	(1)		5,57	5,70	5,69	5,68	5,68	5,71	5,76	5,79	5,71	5,66
ESEER	(1)		8,52	8,57	8,47	8,62	8,63	8,55	8,56	8,60	8,44	8,39
COOLING ONLY (EN14511 VALUE)												
Cooling capacity	(1)(2)	kW	487	608	659	750	914	1046	1186	1348	1482	1632
EER	(1)(2)		5,37	5,49	5,48	5,47	5,48	5,52	5,58	5,62	5,52	5,47
ESEER	(1)(2)		7,46	7,51	7,40	7,53	7,53	7,59	7,65	7,74	7,49	7,44
Cooling energy class												
EXCHANGERS												
HEAT EXCHANGER USER SIDE IN REFRIGERATION												
Water flow	(1)	m ³ /h	84,0	105	114	129	158	181	205	233	256	282
Pressure drop	(1)	kPa	30,5	34,7	33,8	33,2	37,1	37,5	31,9	30,9	37,3	45,3
Water flow	(1)	m ³ /h	98,8	123	133	152	185	212	240	272	300	331
Pressure drop	(1)	kPa	37,4	35,4	41,7	41,5	38,7	30,0	33,3	29,6	35,9	29,5
COMPRESSORS												
Compressors nr.		N°	2	2	2	2	2	2	2	2	2	2
No. Circuits		N°	1	1	1	1	1	1	1	1	1	1
NOISE LEVEL												
Noise Pressure	(3)	dB(A)	80	79	79	81	81	81	80	80	82	82
Noise Power	(4)	dB(A)	98	98	98	100	100	100	100	100	102	102
SIZE AND WEIGHT												
A	(5)	mm	2950	3350	3350	3350	4500	4500	4600	4650	4650	4650
B	(5)	mm	1380	1450	1450	1480	1420	1420	1450	1510	1510	1510
H	(5)	mm	2000	2270	2270	2270	2270	2270	2350	2500	2500	2500
Operating weight	(5)	kg	3340	4190	4280	4680	6420	7260	7960	8490	8580	8970

Notes:

1 Plant (side) cooling exchanger water (in/out) = 12°C/7°C; Source (side) heat exchanger water (in/out) = 30°C/35°C

2 Values in compliance with EN14511-3:2011

3 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.

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

5 Unit in standard configuration/execution, without optional accessories

