



Single circuit indoor unit for the production of chilled water, with fixed speed and variable speed (Inverter Driven) screw compressors optimized for R513A, electronic expansion valve, high performing shell and tube condenser and shell and tube flooded evaporator, both designed and produced by Mitsubishi Electric Hydronics & IT Cooling Systems S.p.A. 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.

Control



W3000TE

W3000TE features a large keyboard and wide LCD display for 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. 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. Complete alarm management system is available, with the "black-box" and the alarm history display functions. 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 and supervision can be developed via proprietary devices or the integration in third party systems by means of the most common protocols ModBus, Bacnet, Bacnet-over-IP, LonWorks.

Compatibility with remote keyboard (up to 8 units). The programmable timer allows the creation of an operating profile up to 4 typical days and 10 time bands. Continuous modulation of the unit capacity, based on PID algorithms and referring to the water delivery temperature.

Refrigerant



Versions

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.

AHRI CERTIFICATION

Certified in accordance with the AHRI Water-Cooled Water-Chilling and Heat Pump Water-Heating Packages Certification Program, which is based on AHRI Standard 550/590 (I-P). Certified units may be found in the AHRI Directory at www.ahridirectory.org

Accessories

- 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)-G05			1402	1752	1902	2152	2602
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	532,3	665,0	721,0	819,3	998,7
Total power input	(1)	kW	102,0	124,6	135,4	154,6	189,4
EER	(1)	kW/kW	5,219	5,337	5,325	5,299	5,273
ESEER	(1)	kW/kW	8,360	8,410	8,310	8,450	8,440
COOLING ONLY (EN14511 VALUE)							
Cooling capacity	(1)(2)	kW	486,7	608,1	659,4	750,0	914,3
EER	(1)(2)	kW/kW	5,160	5,270	5,260	5,260	5,260
ESEER	(1)(2)	kW/kW	7,340	7,380	7,270	7,390	7,400
Cooling energy class			A	A	A	A	A
ENERGY EFFICIENCY							
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)							
Ambient refrigeration							
Prated,c	(7)	kW	487	608	659	750	914
SEER	(7)(8)		7,18	7,11	7,03	7,18	7,31
Performance ηs	(7)(9)	%	279	277	273	279	284
EXCHANGERS							
HEAT EXCHANGER USER SIDE IN REFRIGERATION							
Water flow	(1)	l/s	23,34	29,16	31,62	35,96	43,84
Pressure drop	(1)	kPa	30,5	34,7	33,8	33,2	37,1
HEAT EXCHANGER SOURCE SIDE IN REFRIGERATION							
Water flow	(1)	l/s	27,61	34,39	37,29	42,42	51,72
Pressure drop	(1)	kPa	37,8	35,9	42,2	42,0	39,2
REFRIGERANT CIRCUIT							
Compressors nr.		N°	2	2	2	2	2
No. Circuits		N°	1	1	1	1	1
Refrigerant charge		kg	130	176	181	195	284
NOISE LEVEL							
Sound Pressure	(3)	dB(A)	82	82	81	83	83
Sound power level in cooling	(4)(5)	dB(A)	100	100	100	102	102
SIZE AND WEIGHT							
A	(6)	mm	2950	3310	3310	3310	4475
B	(6)	mm	1320	1425	1445	1480	1410
H	(6)	mm	1805	1935	2000	2150	2250
Operating weight	(6)	kg	3350	4280	4410	4830	6630

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 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 Sound power level in cooling, indoors.
- 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 R513A [GWP₁₀₀ 631] fluorinated greenhouse gases.
 Certified data in EUROVENT

i-FX-W (1+i)-G05

High efficiency water cooled chiller

1402 - 4652 532,3-1784 kW

i-FX-W (1+i)-G05			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
PERFORMANCE							
COOLING ONLY (GROSS VALUE)							
Cooling capacity	(1)	kW	1143	1296	1472	1607	1784
Total power input	(1)	kW	216,0	243,1	275,6	303,9	343,4
EER	(1)	kW/kW	5,292	5,331	5,341	5,288	5,195
ESEER	(1)	kW/kW	8,380	8,400	8,430	8,280	8,230
COOLING ONLY (EN14511 VALUE)							
Cooling capacity	(1)(2)	kW	1046	1186	1348	1482	1632
EER	(1)(2)	kW/kW	5,310	5,360	5,400	5,300	5,260
ESEER	(1)(2)	kW/kW	7,460	7,500	7,600	7,360	7,300
Cooling energy class			A	A	A	A	A
ENERGY EFFICIENCY							
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)							
Ambient refrigeration							
Prated,c	(7)	kW	1046	1186	1348	1482	1632
SEER	(7)(8)		7,44	7,40	7,53	7,23	7,29
Performance ηs	(7)(9)	%	290	288	293	281	284
EXCHANGERS							
HEAT EXCHANGER USER SIDE IN REFRIGERATION							
Water flow	(1)	l/s	50,15	56,88	64,63	71,06	78,30
Pressure drop	(1)	kPa	37,5	31,9	30,9	37,3	45,3
HEAT EXCHANGER SOURCE SIDE IN REFRIGERATION							
Water flow	(1)	l/s	59,11	66,96	76,02	83,76	92,41
Pressure drop	(1)	kPa	30,3	33,7	30,0	36,4	29,9
REFRIGERANT CIRCUIT							
Compressors nr.		N°	2	2	2	2	2
No. Circuits		N°	1	1	1	1	1
Refrigerant charge		kg	325	347	356	372	372
NOISE LEVEL							
Sound Pressure	(3)	dB(A)	83	82	82	84	84
Sound power level in cooling	(4)(5)	dB(A)	102	102	102	104	104
SIZE AND WEIGHT							
A	(6)	mm	4475	4570	4650	4650	4850
B	(6)	mm	1405	1435	1495	1495	1495
H	(6)	mm	2250	2380	2500	2500	2500
Operating weight	(6)	kg	7470	8220	8800	8930	9340

Notes

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Dimensional drawing

