



Single circuit indoor unit for the production of chilled/hot 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 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

Configurations

H Function with heat pump, reversible on hydraulic side

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.

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) /H			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	97,87	119,5	129,9	148,3	181,7
EER	(1)	kW/kW	5,437	5,565	5,550	5,525	5,496
ESEER	(1)	kW/kW	8,520	8,570	8,470	8,620	8,630
COOLING ONLY (EN14511 VALUE)							
Cooling capacity	(1)(2)	kW	486,7	608,1	659,4	750,0	914,3
EER	(1)(2)	kW/kW	5,370	5,490	5,480	5,470	5,470
ESEER	(1)(2)	kW/kW	7,460	7,510	7,400	7,530	7,530
Cooling energy class			A	A	A	A	A
HEATING ONLY (GROSS VALUE)							
Total heating capacity	(3)	kW	587,7	725,1	795,0	903,5	1089
Total power input	(3)	kW	123,7	150,9	164,6	188,0	226,9
COP		kW/kW	4,751	4,805	4,830	4,806	4,799
HEATING ONLY (EN14511 VALUE)							
Total heating capacity	(3)(2)	kW	540,1	666,6	730,6	830,5	1000
COP	(3)(2)	kW/kW	4,650	4,730	4,730	4,730	4,740
Cooling energy class			A	A	A	A	A
ENERGY EFFICIENCY							
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)							
Ambient refrigeration							
Prated,c	(10)	kW	-	-	-	-	-
SEER	(10)(11)		-	-	-	-	-
Performance ηs	(10)(12)	%	-	-	-	-	-
SEASONAL EFFICIENCY IN HEATING (Reg. EU 813/2013)							
PDesign	(4)	kW	-	-	-	-	-
SCOP	(4)(13)		-	-	-	-	-
Performance ηs	(4)(14)	%	-	-	-	-	-
Seasonal efficiency class	(4)		-	-	-	-	-
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 USER SIDE IN HEATING							
Water flow	(3)	l/s	34,17	38,89	44,44	50,00	59,72
Pressure drop	(3)	kPa	65,4	61,7	66,8	64,1	68,9
HEAT EXCHANGER SOURCE SIDE IN REFRIGERATION							
Water flow	(1)	l/s	27,44	34,18	37,07	42,16	51,41
Pressure drop	(1)	kPa	37,4	35,4	41,7	41,5	38,7
HEAT EXCHANGER SOURCE SIDE IN HEATING							
Water flow	(3)	l/s	26,00	32,10	35,17	39,97	48,17
Pressure drop	(3)	kPa	33,6	31,2	37,5	37,3	34,0
REFRIGERANT CIRCUIT							
Compressors nr.		N°	2	2	2	2	2
No. Circuits		N°	1	1	1	1	1
Refrigerant charge		kg	118	160	164	177	258
NOISE LEVEL							
Sound Pressure	(5)	dB(A)	82	82	81	83	83
Sound power level in cooling	(6)(7)	dB(A)	100	100	100	102	102
Sound power level in heating	(6)(8)	dB(A)	100	100	100	102	102
SIZE AND WEIGHT							
A	(9)	mm	2950	3310	3310	3310	4475
B	(9)	mm	1320	1425	1445	1480	1410
H	(9)	mm	1805	1935	2000	2150	2250
Operating weight	(9)	kg	3350	4280	4410	4830	6630

Notes

- Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger water (in/out) 30°C/35°C.
- Values in compliance with EN14511
- Plant (side) heating exchanger water (in/out) 40°C/45°C; Source (side) heat exchanger water (in/out) 10°C/6,7°C
- Parameter calculated for LOW-TEMPERATURE application in AVERAGE climate conditions according to [REGULATION (EU) N. 813/2013]
- 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.
- Sound power on the basis of measurements made in compliance with ISO 9614.
- Sound power level in cooling, indoors.
- Sound power level in heating, indoors.
- Unit in standard configuration/execution, without optional accessories.
- Parameter calculated according to [REGULATION (EU) N. 2016/2281]
- Seasonal energy efficiency ratio
- Seasonal space cooling energy efficiency
- Seasonal coefficient of performance
- Seasonal space heating energy efficiency

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

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i-FX-W (1+i) /H			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	207,3	233,3	264,5	291,6	329,6
EER	(1)	kW/kW	5,514	5,555	5,565	5,511	5,413
ESEER	(1)	kW/kW	8,550	8,560	8,600	8,440	8,390
COOLING ONLY (EN14511 VALUE)							
Cooling capacity	(1)(2)	kW	1046	1186	1348	1482	1632
EER	(1)(2)	kW/kW	5,520	5,580	5,620	5,520	5,470
ESEER	(1)(2)	kW/kW	7,590	7,650	7,740	7,490	7,440
Cooling energy class			A	A	A	A	A
HEATING ONLY (GROSS VALUE)							
Total heating capacity	(3)	kW	1245	1433	1627	1758	1932
Total power input	(3)	kW	258,9	291,6	330,4	362,2	407,1
COP		kW/kW	4,809	4,914	4,924	4,854	4,746
HEATING ONLY (EN14511 VALUE)							
Total heating capacity	(3)(2)	kW	1142	1313	1490	1624	1769
COP	(3)(2)	kW/kW	4,770	4,860	4,890	4,810	4,760
Cooling energy class			A	A	A	A	A
ENERGY EFFICIENCY							
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)							
Ambient refrigeration							
Prated,c	(10)	kW	-	1186	1348	-	-
SEER	(10)(11)		-	7,55	7,67	-	-
Performance ηs	(10)(12)	%	-	294	299	-	-
SEASONAL EFFICIENCY IN HEATING (Reg. EU 813/2013)							
PDesign	(4)	kW	-	-	-	-	-
SCOP	(4)(13)		-	-	-	-	-
Performance ηs	(4)(14)	%	-	-	-	-	-
Seasonal efficiency class	(4)		-	-	-	-	-
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 USER SIDE IN HEATING							
Water flow	(3)	l/s	68,06	84,97	96,56	97,22	97,22
Pressure drop	(3)	kPa	69,0	71,1	68,9	69,8	69,8
HEAT EXCHANGER SOURCE SIDE IN REFRIGERATION							
Water flow	(1)	l/s	58,76	66,56	75,57	83,27	91,86
Pressure drop	(1)	kPa	30,0	33,3	29,6	35,9	29,5
HEAT EXCHANGER SOURCE SIDE IN HEATING							
Water flow	(3)	l/s	55,03	63,24	71,79	78,19	85,24
Pressure drop	(3)	kPa	26,3	30,1	26,7	31,7	25,4
REFRIGERANT CIRCUIT							
Compressors nr.		N°	2	2	2	2	2
No. Circuits		N°	1	1	1	1	1
Refrigerant charge		kg	295	315	323	338	338
NOISE LEVEL							
Sound Pressure	(5)	dB(A)	83	82	82	84	84
Sound power level in cooling	(6)(7)	dB(A)	102	102	102	104	104
Sound power level in heating	(6)(8)	dB(A)	102	102	102	104	104
SIZE AND WEIGHT							
A	(9)	mm	4475	4570	4650	4650	4850
B	(9)	mm	1405	1435	1495	1495	1495
H	(9)	mm	2250	2380	2500	2500	2500
Operating weight	(9)	kg	7470	8220	8800	8930	9340

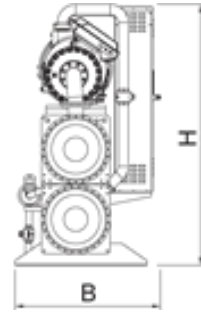
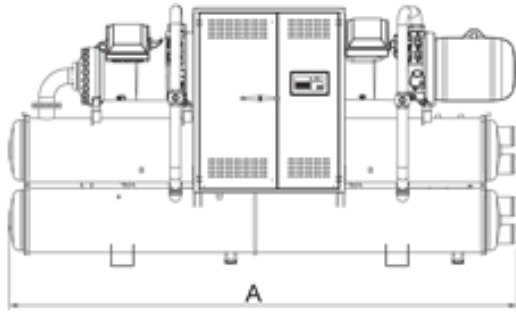
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Dimensional drawing





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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	5,280	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
HEATING ONLY (GROSS VALUE)							
Total heating capacity	(3)	kW	592,6	731,1	801,5	910,9	1098
Total power input	(3)	kW	128,9	157,3	171,5	195,9	236,4
COP		kW/kW	4,597	4,648	4,673	4,650	4,645
HEATING ONLY (EN14511 VALUE)							
Total heating capacity	(3)(2)	kW	544,5	672,0	736,5	837,2	1009
COP	(3)(2)	kW/kW	4,500	4,580	4,590	4,580	4,600
Cooling energy class			A	A	A	A	A
ENERGY EFFICIENCY							
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)							
Ambient refrigeration							
Prated,c	(10)	kW	-	-	-	-	-
SEER	(10)(11)		-	-	-	-	-
Performance ηs	(10)(12)	%	-	-	-	-	-
SEASONAL EFFICIENCY IN HEATING (Reg. EU 813/2013)							
PDesign	(4)	kW	-	-	-	-	-
SCOP	(4)(13)		-	-	-	-	-
Performance ηs	(4)(14)	%	-	-	-	-	-
Seasonal efficiency class	(4)		-	-	-	-	-
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 USER SIDE IN HEATING							
Water flow	(3)	l/s	34,17	38,89	44,44	50,00	59,72
Pressure drop	(3)	kPa	65,4	61,7	66,8	64,1	68,9
HEAT EXCHANGER SOURCE SIDE IN REFRIGERATION							
Water flow	(1)	l/s	27,61	34,38	37,29	42,42	51,72
Pressure drop	(1)	kPa	37,8	35,8	42,2	42,0	39,2
HEAT EXCHANGER SOURCE SIDE IN HEATING							
Water flow	(3)	l/s	26,21	32,35	35,45	40,30	48,55
Pressure drop	(3)	kPa	34,1	31,7	38,1	37,9	34,5
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	(5)	dB(A)	82	82	81	83	83
Sound power level in cooling	(6)(7)	dB(A)	100	100	100	102	102
Sound power level in heating	(6)(8)	dB(A)	100	100	100	102	102
SIZE AND WEIGHT							
A	(9)	mm	2950	3310	3310	3310	4475
B	(9)	mm	1320	1425	1445	1480	1410
H	(9)	mm	1805	1935	2000	2150	2250
Operating weight	(9)	kg	3350	4280	4410	4830	6630

Notes

- Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger water (in/out) 30°C/35°C.
- Values in compliance with EN14511
- Plant (side) heating exchanger water (in/out) 40°C/45°C; Source (side) heat exchanger water (in/out) 10°C/6,7°C
- Parameter calculated for LOW-TEMPERATURE application in AVERAGE climate conditions according to [REGULATION (EU) N. 813/2013]
- 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.
- Sound power on the basis of measurements made in compliance with ISO 9614.
- Sound power level in cooling, indoors.
- Sound power level in heating, indoors.
- Unit in standard configuration/execution, without optional accessories.
- Parameter calculated according to [REGULATION (EU) N. 2016/2281]
- Seasonal energy efficiency ratio
- Seasonal space cooling energy efficiency
- Seasonal coefficient of performance
- Seasonal space heating energy efficiency

The units highlighted in this publication contain R513A [GWP₁₀₀ 631] fluorinated greenhouse gases.

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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
HEATING ONLY (GROSS VALUE)							
Total heating capacity	(3)	kW	1255	1445	1640	1772	1948
Total power input	(3)	kW	269,8	303,8	344,3	377,4	424,2
COP		kW/kW	4,652	4,756	4,763	4,695	4,592
HEATING ONLY (EN14511 VALUE)							
Total heating capacity	(3)(2)	kW	1151	1323	1502	1637	1783
COP	(3)(2)	kW/kW	4,620	4,710	4,740	4,660	4,610
Cooling energy class			A	A	A	A	A
ENERGY EFFICIENCY							
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)							
Ambient refrigeration							
Prated,c	(10)	kW	-	1186	1348	-	-
SEER	(10)(11)		-	7,40	7,53	-	-
Performance ηs	(10)(12)	%	-	288	293	-	-
SEASONAL EFFICIENCY IN HEATING (Reg. EU 813/2013)							
PDesign	(4)	kW	-	-	-	-	-
SCOP	(4)(13)		-	-	-	-	-
Performance ηs	(4)(14)	%	-	-	-	-	-
Seasonal efficiency class	(4)		-	-	-	-	-
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 USER SIDE IN HEATING							
Water flow	(3)	l/s	68,06	84,97	96,56	97,22	97,22
Pressure drop	(3)	kPa	69,0	71,1	68,9	69,8	69,8
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
HEAT EXCHANGER SOURCE SIDE IN HEATING							
Water flow	(3)	l/s	55,47	63,73	72,34	78,81	85,93
Pressure drop	(3)	kPa	26,7	30,5	27,1	32,2	25,8
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	(5)	dB(A)	83	82	82	84	84
Sound power level in cooling	(6)(7)	dB(A)	102	102	102	104	104
Sound power level in heating	(6)(8)	dB(A)	102	102	102	104	104
SIZE AND WEIGHT							
A	(9)	mm	4475	4570	4650	4650	4850
B	(9)	mm	1405	1435	1495	1495	1495
H	(9)	mm	2250	2380	2500	2500	2500
Operating weight	(9)	kg	7470	8220	8800	8930	9340

Notes

- Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger water (in/out) 30°C/35°C.
- Values in compliance with EN14511
- Plant (side) heating exchanger water (in/out) 40°C/45°C; Source (side) heat exchanger water (in/out) 10°C/6,7°C
- Parameter calculated for LOW-TEMPERATURE application in AVERAGE climate conditions according to [REGULATION (EU) N. 813/2013]
- 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.
- Sound power on the basis of measurements made in compliance with ISO 9614.
- Sound power level in cooling, indoors.
- Sound power level in heating, indoors.
- Unit in standard configuration/execution, without optional accessories.
- Parameter calculated according to [REGULATION (EU) N. 2016/2281]
- Seasonal energy efficiency ratio
- Seasonal space cooling energy efficiency
- Seasonal coefficient of performance
- Seasonal space heating energy efficiency

The units highlighted in this publication contain R513A [GWP₁₀₀ 631] fluorinated greenhouse gases.

Certified data in EUROVENT

Dimensional drawing

