



**Unit for indoor installation for chilled water production. Semihermetic screw compressors optimized to operate with low compression ratio and R513A; shell and tubes condenser and direct expansion evaporator; electronic expansion valve. Frame in polyester-painted galvanized steel. High efficiency unit: the innovative optimized compressors and the high performing heat exchangers enhance EER values up to 5,1 (CA version) and even up to 5,6 (CA-E version) at Eurovent standards conditions.**

## 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 efficiency version	CA-E	Premium efficiency version: Class A enhanced
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## Configurations

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

## Features

### HIGH EFFICIENCY

The version 'CA-E' is characterized by efficiency beyond the 'Class A' for Eurovent. The technological choices adopted assure the minimization of operating costs and therefore a quick payback time.

### ADAPTABILITY

Adaptability at the building's cooling request thanks to the continuous capacity regulation, assured by sophisticated control's logic.

### SILENT OPERATION

Extremely silent operation thanks to the accurate unit's design. Optional integral acoustic enclosure, reduces more the sound level beyond the best on market

### 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](http://www.ahridirectory.org)

## Accessories

- Integral acoustical enclosure (type base or plus)
- Set-up for remote connectivity with ModBus/Echelon protocol cards
- VPF (Variable Primary Flow) system

FOCS2-W-G05 /CA			1301	1401	3202	3602	4202	4502	4802
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	(1)	kW	306,0	348,3	843,9	957,3	1071	1145	1213
Total power input	(1)	kW	63,01	71,59	173,7	196,7	220,5	235,6	249,9
EER	(1)	kW/kW	4,857	4,865	4,858	4,867	4,857	4,860	4,854
ESEER	(1)	kW/kW	5,820	5,830	5,870	6,140	6,080	6,170	6,170
<b>COOLING ONLY (EN14511 VALUE)</b>									
Cooling capacity	(1)(2)	kW	304,9	347,0	841,1	954,1	1069	1142	1210
EER	(1)(2)	kW/kW	4,670	4,680	4,690	4,700	4,730	4,720	4,710
ESEER	(1)(2)	kW/kW	5,340	5,350	5,400	5,620	5,660	5,720	5,690
Cooling energy class			B	B	B	B	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	305	347	841	954	1069	1142	1210
SEER	(7)(8)		5,44	5,46	5,88	5,88	5,88	5,90	5,88
Performance ηs	(7)(9)	%	210	211	227	227	227	228	227
<b>EXCHANGERS</b>									
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>									
Water flow	(1)	l/s	14,64	16,66	40,35	45,78	51,23	54,74	58,02
Pressure drop	(1)	kPa	41,9	45,0	45,4	46,4	30,6	34,2	38,4
<b>HEAT EXCHANGER SOURCE SIDE IN REFRIGERATION</b>									
Water flow	(1)	l/s	17,57	20,00	48,46	54,95	61,51	65,73	69,67
Pressure drop	(1)	kPa	36,4	35,4	35,3	35,2	34,8	35,8	36,5
<b>REFRIGERANT CIRCUIT</b>									
Compressors nr.		N°	1	1	2	2	2	2	2
No. Circuits		N°	1	1	2	2	2	2	2
Refrigerant charge		kg	45,0	46,0	133	137	137	132	147
<b>NOISE LEVEL</b>									
Sound Pressure	(3)	dB(A)	79	79	80	80	80	80	80
Sound power level in cooling	(4)(5)	dB(A)	97	97	99	99	99	99	99
<b>SIZE AND WEIGHT</b>									
A	(6)	mm	3830	3830	4750	4750	4750	4750	4750
B	(6)	mm	900	900	1150	1150	1150	1150	1150
H	(6)	mm	1700	1700	2050	2050	2200	2200	2200
Operating weight	(6)	kg	2050	2110	5110	5400	6070	6120	6180

#### 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 [GWP<sub>100</sub> 631] fluorinated greenhouse gases.  
 Certified data in EUROVENT

FOCS2-W-G05 /CA			5402	6002	8103	9003	9004	9604
Power supply		V/ph/Hz	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	(1)	kW	1348	1490	2024	2236	2278	2416
Total power input	(1)	kW	278,1	307,4	417,3	460,6	469,7	498,3
EER	(1)	kW/kW	4,847	4,847	4,850	4,855	4,850	4,848
ESEER	(1)	kW/kW	6,010	6,090	5,970	6,010	6,110	6,050
<b>COOLING ONLY (EN14511 VALUE)</b>								
Cooling capacity	(1)(2)	kW	1344	1485	2018	2228	2273	2410
EER	(1)(2)	kW/kW	4,690	4,680	4,710	4,700	4,730	4,720
ESEER	(1)(2)	kW/kW	5,540	5,560	5,500	5,500	5,680	5,600
Cooling energy class			B	B	B	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	1344	1485	-	-	-	-
SEER	(7)(8)		5,88	5,88	-	-	-	-
Performance ηs	(7)(9)	%	227	227	-	-	-	-
<b>EXCHANGERS</b>								
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>								
Water flow	(1)	l/s	64,47	71,27	96,81	106,9	108,9	115,5
Pressure drop	(1)	kPa	47,4	54,6	43,7	53,3	32,3	36,3
<b>HEAT EXCHANGER SOURCE SIDE IN REFRIGERATION</b>								
Water flow	(1)	l/s	77,44	85,60	116,3	128,4	130,8	138,8
Pressure drop	(1)	kPa	35,0	37,0	35,0	36,3	35,5	37,4
<b>REFRIGERANT CIRCUIT</b>								
Compressors nr.		N°	2	2	3	3	4	4
No. Circuits		N°	2	2	3	3	4	4
Refrigerant charge		kg	173	189	283	275	281	273
<b>NOISE LEVEL</b>								
Sound Pressure	(3)	dB(A)	82	82	82	82	82	82
Sound power level in cooling	(4)(5)	dB(A)	101	101	102	102	102	102
<b>SIZE AND WEIGHT</b>								
A	(6)	mm	4850	4850	4950	4950	4650	4650
B	(6)	mm	1150	1150	1700	1700	2250	2250
H	(6)	mm	2200	2200	2150	2150	2230	2230
Operating weight	(6)	kg	6950	7090	10170	10350	14330	14390

**Notes**

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FOCS2-W-G05 /CA-E			1301	1401	1601	1801	2101	2401	2802	3202	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	400/3/50	400/3/50
<b>PERFORMANCE</b>											
<b>COOLING ONLY (GROSS VALUE)</b>											
Cooling capacity	(1)	kW	320,7	364,7	441,9	506,3	573,7	649,4	729,4	884,2	1012
Total power input	(1)	kW	59,70	67,84	82,38	94,07	106,9	121,0	135,8	164,8	187,9
EER	(1)	kW/kW	5,372	5,379	5,363	5,380	5,367	5,367	5,371	5,365	5,386
ESEER	(1)	kW/kW	6,370	6,370	6,300	6,390	6,380	6,400	6,520	6,440	6,600
<b>COOLING ONLY (EN14511 VALUE)</b>											
Cooling capacity	(1)(2)	kW	319,5	363,3	440,0	504,2	571,4	646,5	726,6	880,5	1009
EER	(1)(2)	kW/kW	5,110	5,120	5,090	5,110	5,100	5,090	5,130	5,110	5,170
ESEER	(1)(2)	kW/kW	5,710	5,720	5,630	5,720	5,710	5,700	5,850	5,720	5,940
Cooling energy class			A	A	A	A	A	A	A	A	A
<b>ENERGY EFFICIENCY</b>											
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>											
<b>Ambient refrigeration</b>											
Prated,c	(7)	kW	320	363	440	504	571	646	727	880	1009
SEER	(7)(8)		5,75	5,78	5,88	5,88	5,88	5,88	6,04	5,96	6,17
Performance ηs	(7)(9)	%	222	223	227	227	227	227	233	230	239
<b>EXCHANGERS</b>											
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>											
Water flow	(1)	l/s	15,33	17,44	21,13	24,21	27,44	31,06	34,88	42,28	48,41
Pressure drop	(1)	kPa	45,7	47,7	53,5	53,4	52,8	60,2	51,9	58,6	41,3
<b>HEAT EXCHANGER SOURCE SIDE IN REFRIGERATION</b>											
Water flow	(1)	l/s	18,13	20,62	24,99	28,62	32,44	36,72	41,24	49,99	57,20
Pressure drop	(1)	kPa	49,0	47,2	52,2	53,3	55,0	57,0	47,2	52,1	53,4
<b>REFRIGERANT CIRCUIT</b>											
Compressors nr.		N°	1	1	1	1	1	1	2	2	2
No. Circuits		N°	1	1	1	1	1	1	2	2	2
Refrigerant charge		kg	53,0	63,0	79,0	76,0	84,0	105	131	147	168
<b>NOISE LEVEL</b>											
Sound Pressure	(3)	dB(A)	79	78	78	78	78	78	80	80	80
Sound power level in cooling	(4)(5)	dB(A)	97	97	97	97	97	97	99	99	99
<b>SIZE AND WEIGHT</b>											
A	(6)	mm	4250	4250	4150	4150	4130	4350	4550	4950	5170
B	(6)	mm	900	900	900	900	900	900	1150	1150	1150
H	(6)	mm	1815	1910	1990	1990	1990	2090	2050	2200	2200
Operating weight	(6)	kg	2470	2770	3570	3750	3790	4230	5390	6460	6920

**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

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FOCS2-W-G05 /CA-E			4202	4802	2701	3001	5402	7204	7804	8404
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	(1)	kW	1147	1299	706,7	781,3	1411	2025	2157	2294
Total power input	(1)	kW	213,8	242,0	133,2	146,9	266,3	375,9	401,7	427,5
EER	(1)	kW/kW	5,365	5,368	5,306	5,319	5,299	5,387	5,370	5,366
ESEER	(1)	kW/kW	6,520	6,530	6,380	6,400	6,540	6,620	6,510	6,520
<b>COOLING ONLY (EN14511 VALUE)</b>										
Cooling capacity	(1)(2)	kW	1143	1293	704,0	778,6	1407	2019	2149	2286
EER	(1)(2)	kW/kW	5,120	5,110	5,060	5,090	5,090	5,190	5,140	5,140
ESEER	(1)(2)	kW/kW	5,800	5,750	5,750	5,810	5,890	6,020	5,830	5,860
Cooling energy class			A	A	A	A	A	A	A	A
<b>ENERGY EFFICIENCY</b>										
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>										
<b>Ambient refrigeration</b>										
Prated,c	(7)	kW	1143	1293	704	779	1407	-	-	-
SEER	(7)(8)		6,04	6,03	5,88	5,88	6,09	-	-	-
Performance ηs	(7)(9)	%	234	233	227	227	236	-	-	-
<b>EXCHANGERS</b>										
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>										
Water flow	(1)	l/s	54,85	62,10	33,80	37,36	67,48	96,82	103,2	109,7
Pressure drop	(1)	kPa	55,0	65,0	51,5	47,2	46,0	41,3	59,3	54,6
<b>HEAT EXCHANGER SOURCE SIDE IN REFRIGERATION</b>										
Water flow	(1)	l/s	64,85	73,42	40,02	44,23	79,94	114,4	121,9	129,7
Pressure drop	(1)	kPa	55,0	57,3	52,3	49,9	52,2	52,6	54,0	54,5
<b>REFRIGERANT CIRCUIT</b>										
Compressors nr.		N°	2	2	1	1	2	4	4	4
No. Circuits		N°	2	2	1	1	2	4	4	4
Refrigerant charge		kg	183	221	121	111	231	336	366	366
<b>NOISE LEVEL</b>										
Sound Pressure	(3)	dB(A)	79	79	80	80	81	82	82	82
Sound power level in cooling	(4)(5)	dB(A)	99	99	99	99	101	102	102	102
<b>SIZE AND WEIGHT</b>										
A	(6)	mm	4920	4920	4350	4350	5200	5220	4900	4900
B	(6)	mm	1150	1285	900	900	1285	2250	2250	2250
H	(6)	mm	2350	2430	2180	2180	2440	2305	2455	2455
Operating weight	(6)	kg	7900	8560	4760	4870	8850	13720	15850	16100

- 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
  - 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.
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  - Sound power level in cooling, indoors.
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  - Parameter calculated according to [REGULATION (EU) N. 2016/2281]
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**Dimensional drawing**

