MITSUBISHI ELECTRIC
HYDRONICS & IT COOLING SYSTEMS S.p.A.

COMFORT

CHILLERS

TECS2

CHILLERS, AIR COOLED, FEATURING CENTRIFUGAL COMPRESSORS WITH MAGNETIC LEVITATION, FROM 200 TO 1325 kW

climaveneta.com

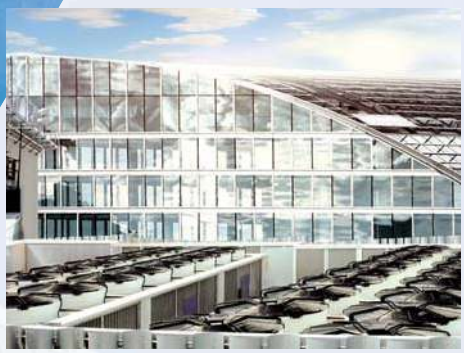
CLIMAVENETA®
SUSTAINABLE COMFORT

WHEN STRIVING FOR HIGHEST EFFICIENCY

Today's office buildings, hotels, large shopping and leisure complexes, all the most prestigious projects require leading edge solutions to meet extremely demanding challenges:

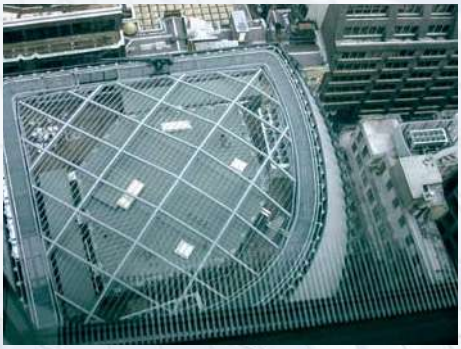
VERY STRICT ENERGY EFFICIENCY AND SUSTAINABILITY REQUIREMENTS

Reduced initial investment and running costs, compliance with increasingly strict energy consumption and environmental impact regulations, are becoming more and more crucial factors not only for real estate valuation, but also in deciding if the project should proceed.



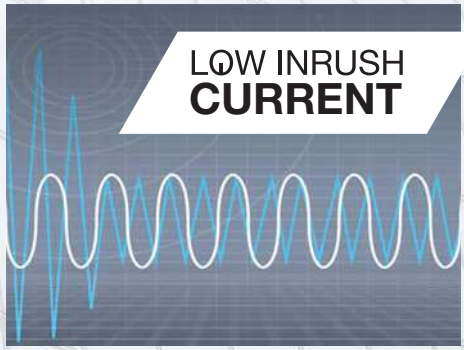
PRECISE ATTENTION TO COMFORT AND NOISE EMISSIONS

To guarantee ideal temperature, humidity and air quality go together with the need to reduce noise emissions and vibrations. This is a decisive aspect in order to ensure adequate comfort, as well as to comply with noise emission regulations.



COMPLEX ARCHITECTURE AND LOGISTICS

The search for prestigious central locations together with regulations and incentives for requalification of urban areas increase the building site logistical complexity and the challenge of moving the system's components.



INFRASTRUCTURE AND TECHNICAL SPACE OPTIMIZATION

The real estate value, especially with expensive, prestigious investment in urban environments may be determined also by the quality of the electrical system installed. Hence, choices that do not overload electrical infrastructure are more and more desirable.

TECS2

IS THE MOST ADVANCED SOLUTION

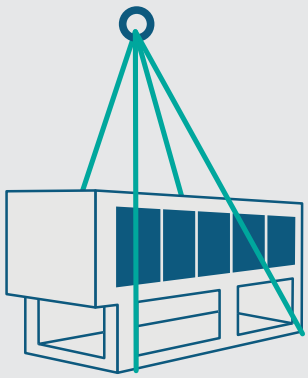
Resulting from the recognised prestige of Climaveneta brand products utilising magnetic levitation technology, TECS2 air and water source chillers are the most efficient and reliable solution available in the market today.

ESEER 5.87 for TECS2 with all the advantages in terms of reliability and technical support, due to Climaveneta's unbeatable know-how of this technology, for a truly ideal answer to the challenge of the most demanding applications:

E.S.E.E.R.
5,87

UNBEATABLE EFFICIENCY AT PART LOAD

At partial load, TECS2 units are far more efficient than traditional scroll/screw units, with ESEER values up to 60% higher.
Running cost savings are evident and consistent, especially when all year round operation is required.



SIMPLIFIED LOGISTICS

Turbocor compressors feature an extremely advantageous capacity / weight ratio.
The considerable weight reduction allows simplified site operations. Moreover, for water source units this goes together with reduced dimensions, thus enabling also a reduction of plantroom space.

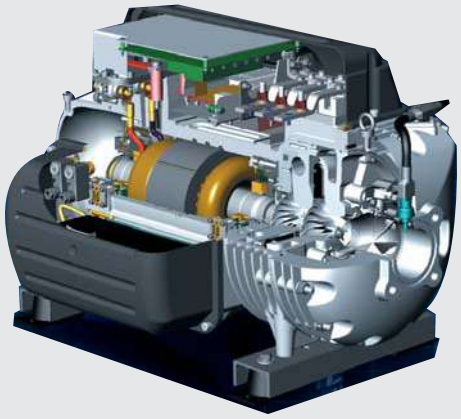
EXTREMELY SILENT OPERATION

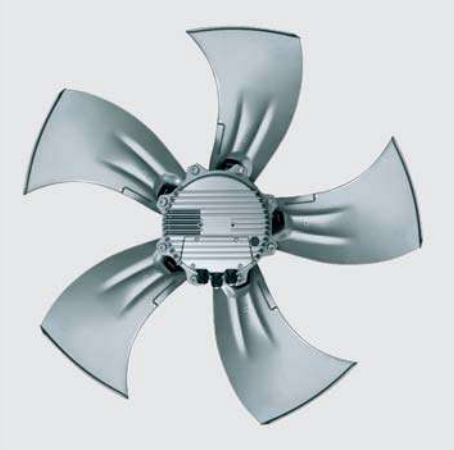
Thanks to the adoption of the centrifugal compressor with magnetic levitation, and, in air source units, of fans with reduced noise emission, TECS2 sound power and pressure are the lowest on the market, without peaks in any of the sound frequency spectrum. Vibrations are dramatically reduced as well, with considerable advantages in terms of transmission to the building.

LOW IN RUSH CURRENT

A further benefit is the very low inrush current, obtained thanks to the characteristics of the compressor and to the "inverter" starting. This is a crucial factor, as it allows a more favourable selection of the protection devices to be placed on the power supply between transformer and unit.

TECNOLOGICAL CHOICES





CENTRIFUGAL COMPRESSOR WITH MAGNETIC LEVITATION

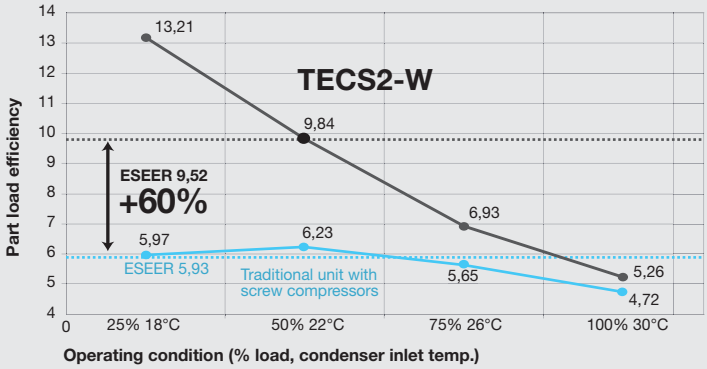
This is a miniaturized, highly innovative compressor, with magnetic levitation device and digital control of the rotor's speed. The efficiencies achieved are far superior to those with traditional volumetric compressors.
Inverter controls with inlet guide vanes extend the compressor's operational limit: building requirements are precisely met, even at very low conditions.
A solution that, besides the reduction of weight and dimensions with respect to traditional compressors, permits the compressor to operate completely without oil allowing an improvement of its performance, through the heat exchange process. Vibrations are virtually eliminated together with possible jolts due to inrush current in the start up phase: the unit's wear is minimized.

EC FANS

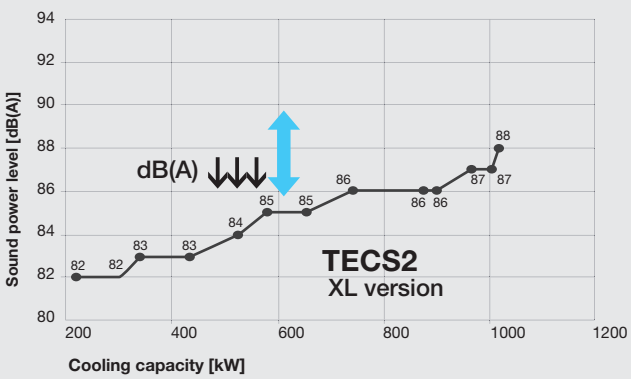
On TECS2 units, the technology of EC electronic switching fans is introduced, as standard on SL-CA-E versions and optional on the other models.

The superior energy efficiency of the DC brushless motor further improves the chiller's performance, that reaches the highest ESEER level in the market. More advantages are low inrush current and the ability to continuously modulate the rotational speed with an immediate gain in both silence and energy consumption.

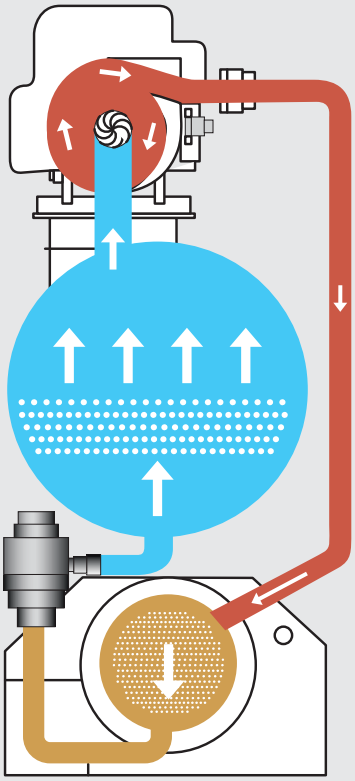
Part load efficiency - TECS2-W vs Traditional unit with screw compressors



Typical Sound Power Level range for screw compressors unit



Efficiency, silent operation and reliability. But also compact dimensions and reduced weight. These are the main features that make TECS units the best result of Climaveneta's know-how. Advantages that result from technological choices, involving each aspect of these units.

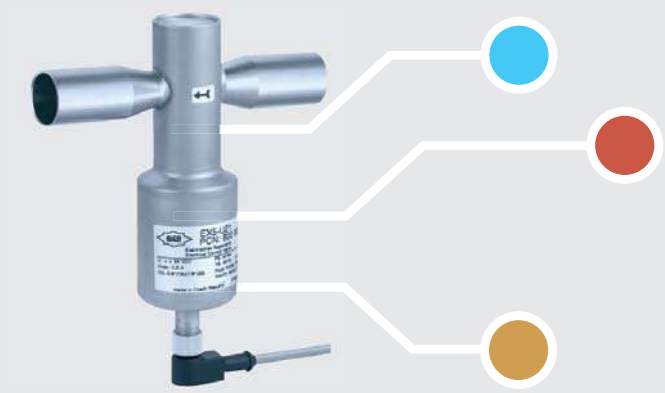


FLOODED EVAPORATOR

The technology of flooded evaporator, further enhanced the absence of oil in the refrigerant circuits, realises a substantial increase of cooling capacity and an optimization in the compressor's operational mode. The unit's overall efficiency further increases thanks to:

- Compression ratio reduction thanks to a smaller approach
- Theoretic absence of refrigerant superheat at the compressor's suction stage
- Minimization of refrigerant pressure drop on the evaporator's shell side
- Optimization of the exchange surfaces, also at part loads, thanks to the complete control of the refrigerant level in all operating conditions.

To comply with the security requirements of the "F-gas Regulation" (CE 842//2006), factory calibrated leak detection systems are available upon request.

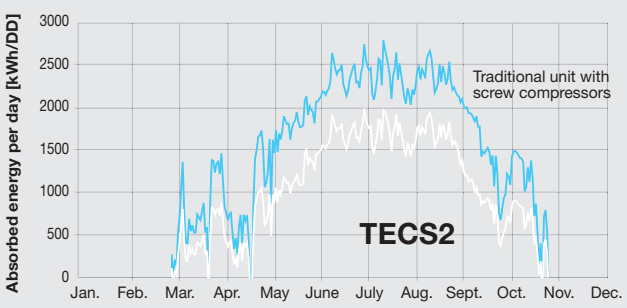


ELECTRONIC VALVE

The electronic valve is adopted to grant the ideal operation of the evaporator in all conditions.
In the air cooled unit the control is made with a precise measurement of the subcooling in the condenser coil.

The fast processing of the acquired data allow a quick, fluctuation-free regulation, and therefore a highly accurate adjustment to the swings of load and ambient conditions.

Total absorbed energy - TECS2 vs Traditional unit with screw compressors



TECS2

AIR COOLED UNITS

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

AIR COOLED

Units for outdoor installation characterized by an extremely compact lay-out.
Thanks to our extensive research and product development, TECS2 has been conceived.
The capacity range is now extended up to 1325 kW, with 26 sizes featuring unbeatable efficiencies and noise levels.

TECS2 units are available in 2 functions:
base and with desuperheater, for applications in which thermal energy is used for auxiliary uses,

and in 2 acoustic versions:
SL-CA, Super Low Noise, Class A and
XL-CA, eXtra Low Noise, Class A to satisfy even the most demanding noise level targets.
High efficiency versions SL-CA-E are available, for an even higher efficiency thanks to the adoption of EC fans and to generous heat exchanger surfaces.

Oasis cooling kit. The perfect solution for air-conditioning beyond the units' operating limits.

Especially in harsh climates, with requirements of prolonged operation at high ambient air temperatures, units can benefit from devices offering additional cooling whenever outdoor conditions become critical.

The ideal solution in these situations is to lower the condenser coil entering air temperature when it becomes too high, causing the condensing temperature to go over the compressors operating limits.
This is obtained by Climaveneta with the Oasis kit option.

How the Oasis kit works

When the condensing conditions reach a pre-defined set point, the controller open a solenoid valve and water is sprayed over a plastic net. The contact between the airflow forced through the wet plastic net, reduces the condenser coil inlet air temperature. This allows:

1. A further extension of the operating limits by 5-6°C, depending on the relative humidity.
2. A benefit for the silenced version (because the high condensing control can be postponed to higher temperature).
3. Increased efficiency of the unit when the system is active.

TECS2 / SL-CA			0211	0251	0351	0452	0512	0552	0652	0712	0853	0913	1013	1054	1154
Power supply		V/ph/Hz							400/3/50						
PERFORMANCE									400/3/50						
COOLING ONLY (GROSS VALUE)															
Cooling capacity	(1)	kW	233	258	346	442	509	574	650	742	848	903	977	1065	1183
Total power input	(1)	kW	70,5	81,1	110	138	161	174	208	225	269	286	310	336	374
EER	(1)	kW/kW	3,30	3,18	3,13	3,20	3,16	3,30	3,13	3,30	3,15	3,15	3,15	3,17	3,17
ESEER	(1)	kW/kW	4,77	4,87	4,72	5,07	5,17	5,09	5,04	5,16	5,12	5,13	5,09	5,06	5,14
COOLING ONLY (EN14511 VALUE)															
Cooling capacity	(1)(2)	kW	232	257	345	441	507	572	648	740	846	901	975	1062	1180
EER	(1)(2)	kW/kW	3,25	3,14	3,10	3,16	3,13	3,26	3,11	3,26	3,12	3,12	3,12	3,13	3,13
ESEER	(1)(2)	kW/kW	4,61	4,73	4,57	4,88	4,97	4,87	4,89	4,97	4,92	4,90	4,90	4,85	4,92
Cooling energy class			A	A	A	A	A	A	A	A	A	A	A	A	A
ENERGY EFFICIENCY															
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)															
Ambient refrigeration															
Prated,c	(7)	kW	232	257	345	441	507	572	648	740	846	901	975	1062	1180
SEER	(7)(8)		4,82	4,93	4,88	5,08	5,21	5,07	5,14	5,21	5,11	5,11	5,15	5,10	5,14
Performance ηs	(7)(9)	%	190	194	192	200	205	200	203	205	202	201	203	201	203
EXCHANGERS															
HEAT EXCHANGER USER SIDE IN REFRIGERATION															
Water flow	(1)	l/s	11,13	12,33	16,53	21,15	24,32	27,43	31,07	35,49	40,56	43,20	46,74	50,93	56,59
Pressure drop	(1)	kPa5	36,4	27,4	28,5	27,6	27,7	35,2	21,1	27,6	31,8	36,0	29,7	35,3	37,3
REFRIGERANT CIRCUIT															
Compressors nr.		N°	1	1	1	2	2	2	2	2	3	3	3	4	4
No. Circuits		N°	1	1	1	1	1	1	1	1	2	2	2	2	2
Refrigerant charge		kg	100	100	120	210	180	210	240	280	340	430	490	480	520
NOISE LEVEL															
Sound Pressure	(3)	dB(A)	56	56	58	58	58	59	59	59	60	60	60	61	61
Sound power level in cooling	(4)(5)	dB(A)	88	88	90	90	90	91	92	92	93	93	93	94	94
SIZE AND WEIGHT															
Length	(6)	mm	3100	3100	4000	4900	4900	5800	7000	7000	8500	9700	10600	11200	11500
Width	(6)	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
Height	(6)	mm	2430	2430	2430	2430	2430	2430	2430	2430	2430	2430	2430	2430	2430
Operating weight	(6)	kg	2320	2370	3050	4000	4240	4530	5800	6150	6940	7370	8150	8700	9020

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 Seasonal energy efficiency of the cooling environment in AVERAGE climatic conditions [REGULATION (EU) N. 2016/2281]
8 Seasonal space heating energy index
9 Seasonal energy efficiency of the space cooling
The units highlighted in this publication contain HFC R134a [GWP$_{100}$ 1430] fluorinated greenhouse gases.

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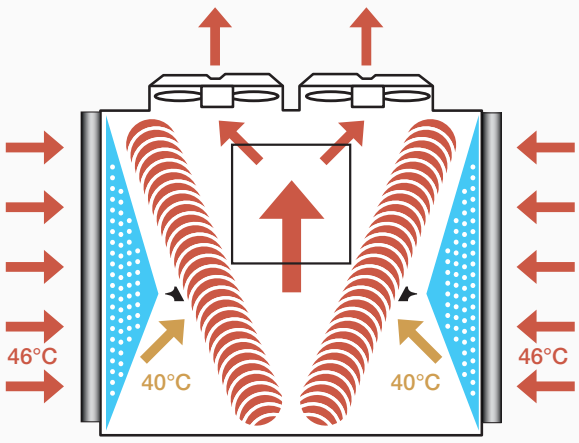
Climaveneta's system advantages vs traditional solutions

The Climaveneta Oasis solution offers many advantages even if compared to systems with pressurized atomizers which spray water directly to the coil:

- No dedicated pumps: the water is taken direktly from tap water.
- No limescale on the coil: the water is sprayed toward the plastic net, and not toward the coil.
- Easy application - it's possible to use common supply water, no need for special water treatment.
- Minimized risk of bacterial population increase: recirculated water loop does not exist; water immediately evaporates when sprayed on the net.
- Optimal control of water consumption: thanks to effective spray regulation.



TECS2

Air cooled unit with magnetic levitation centrifugal compressors. From 220 to 1.325 kW

TECS2 / XL-CA			0211	0251	0351	0452	0512	0552	0652	0712	0853	0913	1013	1054	1154
Power supply		V/ph/Hz							400/3/50						
PERFORMANCE									400/3/50						
COOLING ONLY (GROSS VALUE)															
Cooling capacity	(1)	kW	220	254	341	435	525	579	640	739	874	900	972	1049	1174
Total power input	(1)	kW	68,5	79,8	109	137	166	171	206	226	279	290	312	331	377
EER	(1)	kW/kW	3,21	3,19	3,12	3,19	3,17	3,38	3,11	3,27	3,13	3,11	3,12	3,17	3,11
ESEER	(1)	kW/kW	4,75	4,99	4,84	5,19	5,23	5,17	5,19	5,24	5,24	5,30	5,24	5,19	5,23
COOLING ONLY (EN14511 VALUE)															
Cooling capacity	(1)(2)	kW	219	254	340	434	524	578	639	737	872	897	970	1046	1171
EER	(1)(2)	kW/kW	3,17	3,15	3,08	3,16	3,14	3,34	3,08	3,24	3,10	3,07	3,09	3,13	3,08
ESEER	(1)(2)	kW/kW	4,61	4,84	4,69	5,02	5,03	4,94	5,03	5,05	5,03	5,06	5,04	4,96	5,01
Cooling energy class			A	A	B	A	A	A	B	A	A	B	B	A	B
ENERGY EFFICIENCY															
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)															
Ambient refrigeration															
Prated,c	(7)	kW	219	254	340	434	524	578	639	737	872	897	970	1046	1171
SEER	(7)(8)		4,82	5,00	4,98	5,19	5,20	5,11	5,27	5,24	5,20	5,23	5,27	5,20	5,22
Performance ηs	(7)(9)	%	190	197	196	205	205	201	208	207	205	206	208	205	206
EXCHANGERS															
HEAT EXCHANGER USER SIDE IN REFRIGERATION															
Water flow	(1)	l/s	10,53	12,16	16,31	20,82	25,13	27,71	30,62	35,33	41,78	43,03	46,47	50,15	56,14
Pressure drop	(1)	kPa5	32,6	26,7	27,7	26,7	29,5	35,9	20,5	27,3	33,7	35,7	29,4	34,2	36,8
REFRIGERANT CIRCUIT															
Compressors nr.		N°	1	1	1	2	2	2	2	2	3	3	3	4	4
No. Circuits		N°	1	1	1	1	1	1	1	1	2	2	2	2	2
Refrigerant charge		kg	100	100	130	220	220	240	270	310	410	450	520	500	580
NOISE LEVEL															
Sound Pressure	(3)	dB(A)	50	50	51	51	52	52	52	53	53	53	54	54	55
Sound power level in cooling	(4)(5)	dB(A)	82	82	83	83	84	85	85	86	86	86	87	87	88
SIZE AND WEIGHT															
Length	(6)	mm	3100	3100	4000	4900	5800	7000	7000	7900	9400	9700	10600	11200	12400
Width	(6)	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
Height	(6)	mm	2430	2430	2430	2430	2430	2430	2430	2430	2430	2430	2430	2430	2430
Operating weight	(6)	kg	2370	2420	3200	4240	4690	5350	6150	6650	7520	7770	8650	9150	9960

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.
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8 Seasonal space heating energy index
9 Seasonal energy efficiency of the space cooling

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

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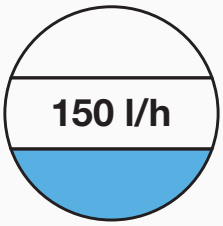
Oasis kit performance

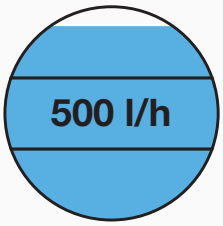
The table on the right shows the effects of Oasis kit in relation to outside air temperature and relative humidity.
It is clear that, the higher the air temperature and lower the air humidity, the higher the system's effectiveness: in these conditions infact, as higher waterflow is sprayed to the net, and most of it evaporates thanks to the energy given by the airflow through the net, water evaporates and air is cooled.

Water consumption comparison.

Another point to highlight is the water consumption, which is less than 30% of that requested by a cooling tower coupled to a water cooled unit of the same cooling capacity.



Adiabatic cooling kit coupled with an air cooled chiller (260 kW @ 12/7°C, 35°C, 50% RH)



Cooling tower coupled with a water cooled chiller (260 kW @ 12/7°C, 30/35°C, 50% RH)

TECS2 / SL-CA-E			0211	0251	0351	0452	0512	0552	0652	0712	0853	0913	1013	1054	1154
Power supply		V/ph/Hz							400/3/50						
PERFORMANCE									400/3/50						
COOLING ONLY (GROSS VALUE)															
Cooling capacity	(1)	kW	229	285	385	455	527	590	703	796	902	969	1086	1177	1324
Total power input	(1)	kW	67,1	81,3	113	134	154	168	204	233	263	279	317	336	383
EER	(1)	kW/kW	3,41	3,50	3,40	3,41	3,41	3,50	3,45	3,41	3,43	3,48	3,42	3,50	3,46
ESEER	(1)	kW/kW	5,29	5,52	5,43	5,79	5,71	5,64	5,77	5,77	5,62	5,79	5,71	5,87	5,75
COOLING ONLY (EN14511 VALUE)															
Cooling capacity	(1)(2)	kW	228	284	383	454	526	588	701	794	900	966	1083	1173	1320
EER	(1)(2)	kW/kW	3,36	3,45	3,35	3,37	3,38	3,46	3,42	3,37	3,39	3,43	3,38	3,45	3,41
ESEER	(1)(2)	kW/kW	5,09	5,31	5,19	5,55	5,46	5,34	5,57	5,51	5,37	5,48	5,44	5,55	5,42
Cooling energy class			A	A	A	A	A	A	A	A	A	A	A	A	A
ENERGY EFFICIENCY															
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)															
Ambient refrigeration															
Prated,c	(7)	kW	228	284	383	454	526	588	701	794	900	966	1083	1173	1320
SEER	(7)(8)		5,39	5,50	5,52	5,82	5,76	5,60	5,84	5,76	5,66	5,73	5,75	5,79	5,70
Performance ns	(7)(9)	%	213	217	218	230	227	221	231	227	223	226	227	229	225
EXCHANGERS															
HEAT EXCHANGER USER SIDE IN REFRIGERATION															
Water flow	(1)	l/s	10,93	13,62	18,39	21,76	25,19	28,21	33,61	38,05	43,14	46,35	51,91	56,30	63,34
Pressure drop	(1)	kPa	35,2	33,5	35,2	29,2	29,7	37,2	24,7	31,7	35,9	41,5	36,7	43,1	46,8
REFRIGERANT CIRCUIT															
Compressors nr.		N°	1	1	1	2	2	2	2	2	3	3	3	4	4
No. Circuits		N°	1	1	1	1	1	1	1	1	2	2	2	2	2
Refrigerant charge		kg	100	100	130	220	220	240	270	310	410	450	520	500	580
NOISE LEVEL															
Sound Pressure	(3)	dB(A)	56	56	58	58	58	59	59	59	60	60	60	61	62
Sound power level in cooling	(4)(5)	dB(A)	88	88	90	90	90	91	92	92	93	93	93	94	95
SIZE AND WEIGHT															
Length	(6)	mm	3100	3100	4000	4900	4900	5800	7000	7900	8500	9700	10600	11200	12400
Width	(6)	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
Height	(6)	mm	2430	2430	2430	2430	2430	2430	2430	2430	2430	2430	2430	2430	2430
Operating weight	(6)	kg	2270	2350	3130	4070	4230	4570	6040	6450	7020	7610	8510	8660	9720

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 Seasonal energy efficiency of the cooling environment in AVERAGE climatic conditions [REGULATION (EU) N. 2016/2281]
8 Seasonal space heating energy index
9 Seasonal energy efficiency of the space cooling
The units highlighted in this publication contain HFC R134a [GWP100 1430] fluorinated greenhouse gases.

Certified data in EUROVENT

Impact of Oasis on the condensation and operational limits

Relative Humidity outdoor air [%]	Ambient air temperature, dry bulb [°C]	Delta T inlet condenser coil temperature [°C]	Water consumption for 1000m³/h air flow [l/h]
30	35	6	5,1
	40	6,5	5,6
	45	7,5	6,1
40	35	5	4,0
	40	5,5	4,6
	45	6	5,2
50	35	4,5	3,3
	40	5	3,7
	45	5	4,1
60	35	3,5	2,3
	40	4	2,6
	45	4,5	2,8
70	35	3	1,4
	40	4	1,6
	45	4	1,7

Main accessories

- Several serial card for protocols ModBus, Bacnet, Echelon lonTalk for supervisory systems both in BMS resources and Climaveneta devices (FWS3000, Manager3000)
- Remote keyboard; it offers access up to 10 units from a singlepoint, with the possibility to set the main plant variables
- DEMETRA system to have an hourly complete report of the main variables: temperatures, energy given and absorbed
- Integrated hydronic group, with the possibility to select different pumps. Available also as VPF (Variable Primary Flow)
- EC fans (already standard in TECS2/SL-CA-E versions) (only for TECS2)
- Acoustical enclosure 'base' and 'plus' for a sound power level reduction of 14 and 18 dB(A) respectively (only for TECS2-W)
- Leak detector; devices to detect refrigerant leakage in close ambient

"BY FAR THE BEST PROOF IS EXPERIENCE"

Sir Francis Bacon
British philosopher (1561 - 1626)

REGENT'S PLACE

2008 - London
Great Britain

Designer:
Watkins Payne Partnership

PROJECT

Regent's Place is a 13 acre fully managed commercial mixed use estate in London's West End. It's the result of a complete transformation that took place in the last 7 years and that turned the estate from a disconnected commercial enclave into a high quality place to live and work.
A key part of this project is played by British Land, that completed the project in 2013 delivering the North East Quarter, (NEQ), a further 47.000 m^2 of new space for offices and residences.

CHALLENGE

Regent's Place is an example of British Land's approach to develop buildings efficiently, reducing costs and carbon emissions, managing environmental risks and conserving natural resources through energy efficiency and water efficiency and initiatives to reduce and recycle waste.

SOLUTION

For the air conditioning system Climaveneta TECS chillers were specified by the consultants of Watkins Payne Partnership. These units are characterized by oil-free centrifugal compressors that allow very high full and partial load efficiency levels.
The choice of the Extra Low Noise version gives the best compromise between silence and efficiency on the market.

The investor's opinion

Mrs. Sarah Cary, Sustainable Developments Executive at British Land
"Making sure that our developments are equipped with leading edge technologies, optimally integrated within the building and operated according to the most advanced methods in order to ensure the highest possible energy reduction plays a key role in our commitment to improve energy performance of each of our building of our portfolio. Installing Climaveneta high efficiency chillers in most buildings of Regent's Place contributes to this effort and strongly contributes to the high BREEAM ratings and energy performances of the buildings."

British Land

MORE THAN 1000 PROJECTS ALL OVER THE WORLD

Singapore Sports Hub
2012-2014 Singapore

Application:
Sport Structures

Plant type:
Hydronic System

Cooling capacity:
35000 kW

Installed machines:
8x TECS2-W/LC 1453,
8x FOCS2-W/D/CA-E 3602,
7x FOCS2-W/CA-E 3602,
2x ACU 41, 2x ACU 90,
2x AXU 39, 2x AXU 80

SIEEB University
2006 - Beijin (China)

Application:
School/University

Plant type:
Hydronic System

Cooling capacity:
1200 kW

Installed machines:
2x FOCS-W,
1x TECS

University of Stellenbosch
2007 Stellenbosch (Sud Africa)

Application:
School/University

Plant type:
Hydronic System

Cooling capacity:
4000 kW

Installed machines:
1x TECS,
1x FOCS

Cajamar Almeria
2014 Almeria (Spain)

Application:
Office Buildings

Plant type:
Hydronic System

Cooling capacity:
1805 kW

Heating capacity:
856 kW

Installed machines:
2x TECS2/SL-CA-E/S 0512,
1x i-FX-Q/SL-CA/S 0802,
1x ClimaPRO

Brunei Gallery
2011 London (Great Britain)

Application:
Museum - School/University

Plant type:
Hydronic System

Cooling capacity:
455 kW

Installed machines:
1x TECS2/SL-CA E 0452

Rathbone Square
2015-2016
London (Great Britain)

Application:
Residential buildings-Offices

Plant type:
Hydronic System

Heating capacity:
5436 kW

Installed machines:
4x TECS2-W/LC 1353

Each one featured by different usage, location and system requirements. All of them sharing the highest efficiency, lowest noise emissions and complete reliability of Climaveneta's unique experience and know-how.

University of Exeter
2003-2011
Exeter (Great Britain)

Application:
School/University

Plant type:
Hydronic System

Cooling capacity:
298 kW

Heating capacity:
59 kW

Installed machines:
1x TECS,
1x NECS-WQ 0302

Project managed by:
POWERMASTER

Aqualux Bardolino
2011 Bardolino (Italy)

Application:
Hotel and resorts

Plant type:
Hydronic System

Cooling capacity:
1469 kW

Heating capacity:
1027 kW

Installed machines:
2x ERACS2-WQ 1902,
1x TECS2-W LC 0511

Unilever Headquarters
2009 Hamburg (Germany)

Application:
Food & Drink
Chemical & pharmaceutical

Plant type:
Hydronic System

Cooling capacity:
1800 kW

Installed machines:
2x TECS/HF-S 3AS

Migros Langendorf
2004 Langendorf (Switzerland)

Application:
Supermarket

Plant type:
Hydronic System

Cooling capacity:
700 kW

Installed machines:
2x TECS water cooled chillers

European Parliament
2003 Strasbourg (France)

Application:
Residential buildings-Offices

Plant type:
Hydronic System

Cooling capacity:
3300 kW

Installed machines:
3x chillers con condensazione ad acqua e compressore centrifugo

River Ouest
2010 Bezons (France)

Application:
Offices

Plant type:
Hydronic System

Cooling capacity:
6000 kW

Installed machines:
3x TECS-F/SL 0803,
2x TECS-F/SL 0703,
3x FOCS-CA/SL 1922,
2x FOCS-CA/SL 2022,
controlled by 5 group device MANAGER 3000

TECS2_ENG_12-2017

CLIMAVENETA®

eco Changes 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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